Evidence Action

Deworm the World Initiative

Chhattisgarh

National Deworming Day

February 2017

Photo Credit: Evidence Action

CONTENTS

ACRONYMS

ANM:	Auxiliary Nurse Midwife
AWC:	*Anganwadi* Centre
AWW:	*Anganwadi* Worker
CS:	Civil Surgeon
DEO:	Department of Education
GoI:	Government of India
ICDS:	Integrated Child Development Services
IEC:	Information, Education and Communication.
LF-MDA:	Lymphatic Filariasis- Mass Drug Administration.
MD:	Mission Director
NHM:	National Health Mission
NDD:	National Deworming Day
PIP:	Program Implementation Plan
RBSK:	Rashtriya Bal Swasthya Karyakarm
WHO:	World Health Organization
WCD:	Women and Child Development

Executive Summary

Contributing to the Government of India's National Deworming Day (NDD) efforts, the state of Chhattisgarh implemented round four of NDD on February 10, 2017 followed by mop-up day on February 15, 2017[1] . In this round, the state dewormed 75,35,352 children in the age group of 1-19 years across all 27 districts and 146 blocks. This achievement is an outcome of exemplary leadership from the Department of Health and Family Welfare, in coordination with Departments of Education (DoE) including the Department of Technical Education, and Women and Child Development (WCD). Evidence Action provided technical assistance for program planning, implementation, and monitoring.

Table 1: Key Achievements of National Deworming Day February 2017

Indicators		Census target	Program target	Targets as Per coverage report*	Coverage
Total number of districts implemented NDD		27	27	27	27
Total number of blocks implemented NDD		146	146	146	146
Number of schools reporting coverage		53,782	55,374	55,374	53,127
Number of *anganwadis* reporting coverage		43,580	49,094	49,094	47,561
Number of enrolled children (classes 1-12) who were administered albendazole on NDD and mop up day	Government Schools	32,81,270	44,08,245	44,08,245	39,97,520
	Private Schools	11,75,877	13,12,737	13,12,737	10,08,232
Number of registered children dewormed (1 to 5 years) at *anganwadis* on NDD and mop up day		23,39,242	23,39,350	22,23,625	18,60,366
Number of unregistered children dewormed (1 to 5 years) at *anganwadis* on NDD and mop up day		2,66,063	3,83,440	1,47,014	1,20,083
Number of out of school children (6-19 years) dewormed on NDD and mop up day including children in other category (Industrial Training Institutes, poly techniques, Vocational/colleges, informal educations and others)		38,18615	37,09,950	6,25,249	5,49,151
Total number of children dewormed (1-19 years)		1,08,81,067[2]	1,12,72,030[3]	87,16,870	75,35,352

*Source: NDD February 2017 coverage report submitted by National Health Mission Chhattisgarh to Government of India (Annexure A)

[1] In district Gariyaband NDD was conducted on February 9, 2017 instead of February 10, 2017 due to local holiday of Razim Mahakumbh

[2] Figures finalised during SCM. Source: UDISE data of (2015-16) ii) MPR (Sept. 2015) Department of WCD. Out of school children and unregistered children calculated based on Census 2011 extrapolated for 2016 excluding total children enrolled under DISE and registered children at AWC.

[3] The state government revised the target based on the calculation send by districts and the new target was used during drug procurement and drug bundling .

Evidence Action provided comprehensive technical assistance for effective NDD implementation in February 2017, at both state and national level. At the national level, 34 states conducted NDD, targeting 340 million children. At the state level, learnings from the previous round were incorporated across 27 districts, including all Lymphatic Filariasis endemic districts. In line with the national guidelines, the state government committed to deworming all children aged 1-19 years, referring to census data with reinforced strategies for inclusion of private school children and technical institutes (Annexure A.1 and A.2). A total of 37,348 children enrolled in technical institutes were covered in this round (Annexure B). Taking the learning from the last NDD round in August 2016 where five districts couldn't implement NDD due to drug unavailability, the Department of Health ensured procurement of required quantity of drugs and its availability at all districts well ahead of the round for onward distribution to all schools, *anganwadis* and technical institutes, through robust program planning.

1. Program Background

1.1 Benefits of Deworming

A large body of rigorous scientific evidence from around the world provides a strong rationale behind mass deworming[4] in places where prevalence of soil-transmitted helminths (STH) is 20% or higher[5]. Using existing platforms of schools and preschools for mass deworming is a cost effective way to reach high coverage in children. Worm infections pose a serious threat to children's health, education, and productivity. Some of the benefits of deworming are shown below in Figure1.

Figure 1: Benefits of deworming

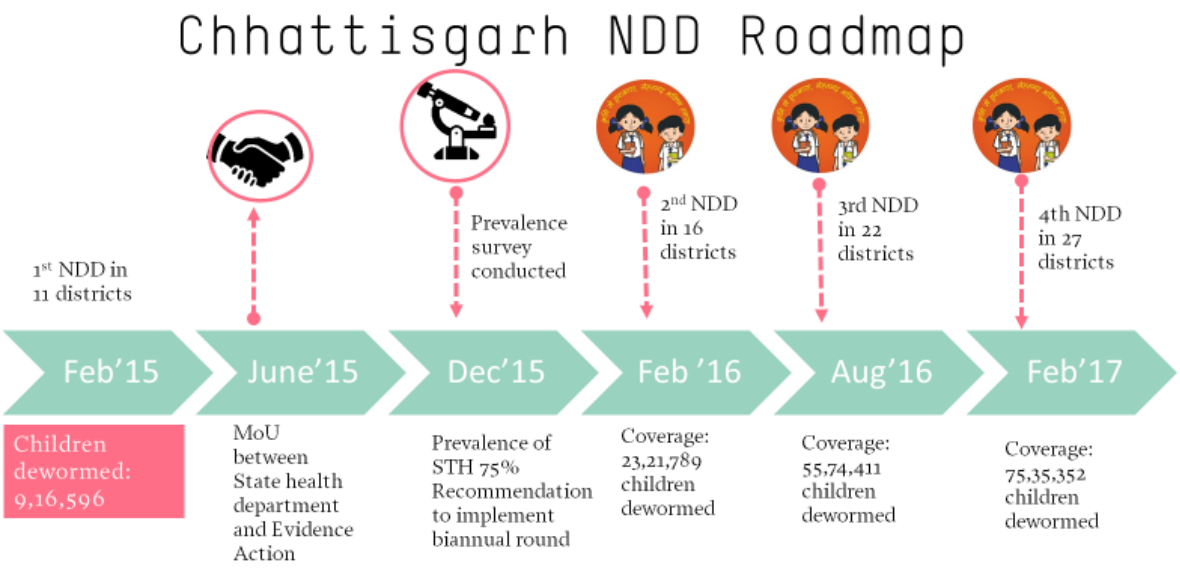
1.2 State Program Background-Chhattisgarh

The *anganwadi* and school-based NDD program in Chhattisgarh is being implemented in the state since February 2015, with the state following the Government of India's (GoI) NDD operational guidelines. Key milestones are shown in figure 2 below.

[4] http://www.povertyactionlab.org/publication/deworming-best-buy-development

[5] "Helminth control in school-age children- A guide for managers of control programmes": WHO, 2011

Figure 2: Chhattisgarh NDD Roadmap



2. About National Deworming Day

Figure 3: NDD Program Highlights

The Government of India implemented its first NDD in February 2015 and the program has achieved high coverage at scale since its inception. Based on national level STH mapping[6], and WHO treatment guidelines, the GoI issued a notification to states recommending the

6 Prevalence mapping was led by the National for Disease Control (NCDC) and partners

appropriate treatment frequency based on prevalence data. Chhattisgarh is required to conduct biannual deworming due to high prevalence of more than 70%.

3. State Program Implementation

3.1 Policy and Advocacy

Effective implementation of NDD program requires intensive stakeholder collaboration at each administrative and implementation level. The Department of Health led coordination with the Departments of Education and Women and Child Development to achieve program goals through timely planning and implementation. The main points of inter-departmental collaboration are displayed in Figure 4 below.

Figure 4: Efforts Towards Stakeholder Collaboration

December 5 2016, State Steering Commitee Meeting	Dec 23, 2016, National review meeting, New Delhi	January 6,2017 State Joint directives	January 7,2017 Program review (Director's)meeting	Jan 5 and Feb 13,2017: State Video Conference
• Conducted for the first time at state for NDD, under chairmanship of Principal Secretary Health,Women and Child Department ,Education • Review of NDD preparations	• Review of NDD preparations • Assessment of state's preparedness for February round	• Signed by Principal Secretary -Health, Education and Women and Child Department, directives were issued to all implementing districts	• Coordination between all stakeholders at the state level	• Video Conference (VC) with District Nodal Officer to orient them on NDD • Post NDD conducted VC to mitigate NDD gaps

The principal Secretaries from Departments of Health, WCD and Education chaired the State Steering Committee meeting on December 5, 2016, with participation from key stakeholders. Key decisions on alignment with Lymphatic Filariasis elimination program, aligning the program target with census population, enhanced engagement of private schools, technical institutes and timely drug procurements were taken up at the meeting (Annexure C).

A State Level Joint Directive was signed on January 6, 2017 and disseminated to all districts to facilitate strengthening the convergence at district level (Annexure D). Subsequently, the Director, Directorate of Health Services chaired a program review meeting on January 7, 2017 with all stakeholder departments[7]. Two video conferences with districts were conducted: 1) on January 5 for program preparedness review and 2) on February 13 to ensure program gaps are filled before mop-up day.

All 27 districts conducted District Coordination Committee Meetings under the chairmanship of the District Collector or the Chief Medical Health Officer or Chief Executive Officer-*Jilla Panchayat*. The State Nodal Officer for NDD participated in the

[7] WCD, Department of Education, Public Health Engineering department, and Urban Administration and Development. Department of Technical Education couldn't participate in the meeting.

National Review Meeting on December 23, 2017 and the National Video Conference Review meeting on February 2, 2017.

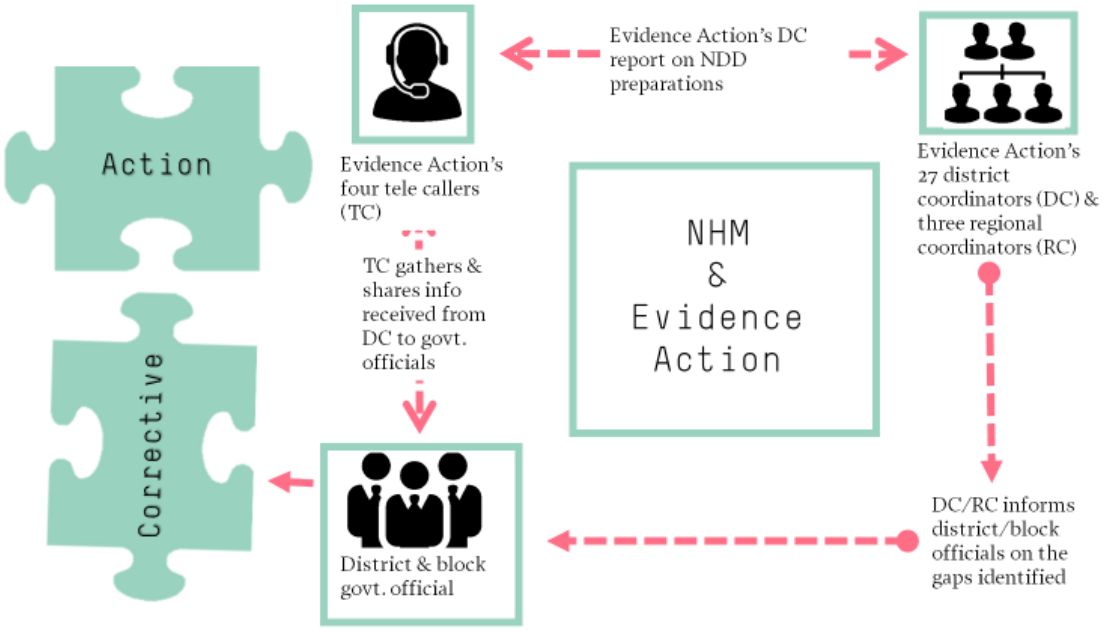
3.2 Program Management

Evidence Action's technical assistance was extended through a four-member state team to track program implementation progress on a daily basis. In addition to this, the following resources also supported the efforts:

- Three regional coordinators,
- Four tele-callers hired for three months
- 27 district coordinators hired for four months

The state team assisted with program planning and coordinated with stakeholder departments to share real time updates on program implementation and facilitate corrective actions from the respective government departments. The state government prepared and disseminated NDD program and financial guidelines to respective stakeholders across all districts (Annexure E). Figure 5 gives an overview of the information flow between the Evidence Action team and district or block officials.

Figure 5: Evidence Action Facilitates Corrective Action



3.3 Drug Procurement, Storage, and Transportation

a) **Drug Procurement:**

The drug procurement process was streamlined based on the lessons learnt from the previous round where the state faced challenges in procuring sufficient number of drugs. Only 64,06,685 albendazole tablets against the requirement of 77,28,332 was procured, as a result of which, NDD was implemented in 22 out of 27 districts. Drugs for five districts couldn't be made available to districts on time. The Department of Health procured 1,12,72,030 albendazole tablets for the February 2017 round in sufficient quantity and were

made available to the districts by early January 2017. These were tested at state-approved laboratories, prior to distributing to respective districts and blocks for distribution at trainings.

b) Drug Logistics and Distribution: Evidence Action developed district and block wise drug bundling and distribution plans (Annexure F) to streamline integrated distribution NDD kit [8]to schools and *anganwadis*. The kits were distributed at the district to health functionaries, who further distributed it to Education and WCD functionaries during block training. Evidence Action supported the state department in tracking drug availability at district and block, and provided timely updates to allow officials to undertake corrective actions.

c) Adverse Event Management: The state adapted adverse event management protocol from NDD Operational Guidelines and engaged with *Rashtriya Bal Swasthya Karyakram*[9] teams to effectively respond to any adverse events in the field. Additionally, emergency helpline numbers, 104 (Medical Health service), 108 and 102 (ambulance service) were put on alert to facilitate appropriate emergency response action in coordination with the nearest primary health centre. To provide guidance on functionaries' roles and responsibilities to handle and report adverse events, the training cascade provided focused and customized information at all administrative levels. A total of 23 severe adverse events were reported during NDD February 2017 round, as per NDD coverage report submitted by state NHM to GOI. Out of these, one child was hospitalised at CHC Mastauri block of Bilaspur district. Rest 22 cases didn't require hospitalisation and were managed at the schools/*anganwadi*. Correct reporting on adverse events need to be improved in the future rounds through focusing more on the correct understanding of the mild or severe adverse events at the school/*anganwadi*.

d) Drug recall: As per the drug bundling plan, tablets were dispensed as 10*10 strips to respective districts. The health department directed all 27 districts to recall the left-over drugs from schools and *anganwadis* to the nearest block health centre. Evidence Action supported in tracking leftover albendazole tablets following completion of NDD (Annexure G). The analysis shows that: 61,970 strips were recalled which means 61,97,000 tablets in packed strips are available at the districts. Additionally, 12,715 loose tablets were recalled. The department of health will be directing districts to use the packed strips in the upcoming August 2017 round as per drug safety recommendation.

3.4 Public Awareness and Community Sensitization

The state adapted and printed the NDD resource kit developed by Evidence Action at the national level and approved by the Government of India and uploaded on the NHM website Based on the operational guidelines, the IEC materials were designed to increase community awareness on the benefits of deworming, and were disseminated to the target audiences, such as at schools and *anganwadis*. The printing of IEC materials was delayed and the districts started lifting print materials from the state NHM from February 3, 2017, as opposed to the planned date of second week of January 2017.

Mass and mid-media communication activities were included in the IEC campaign, including broadcasting TV spot, radio jingle, radio spot and newspaper advertisement[10].

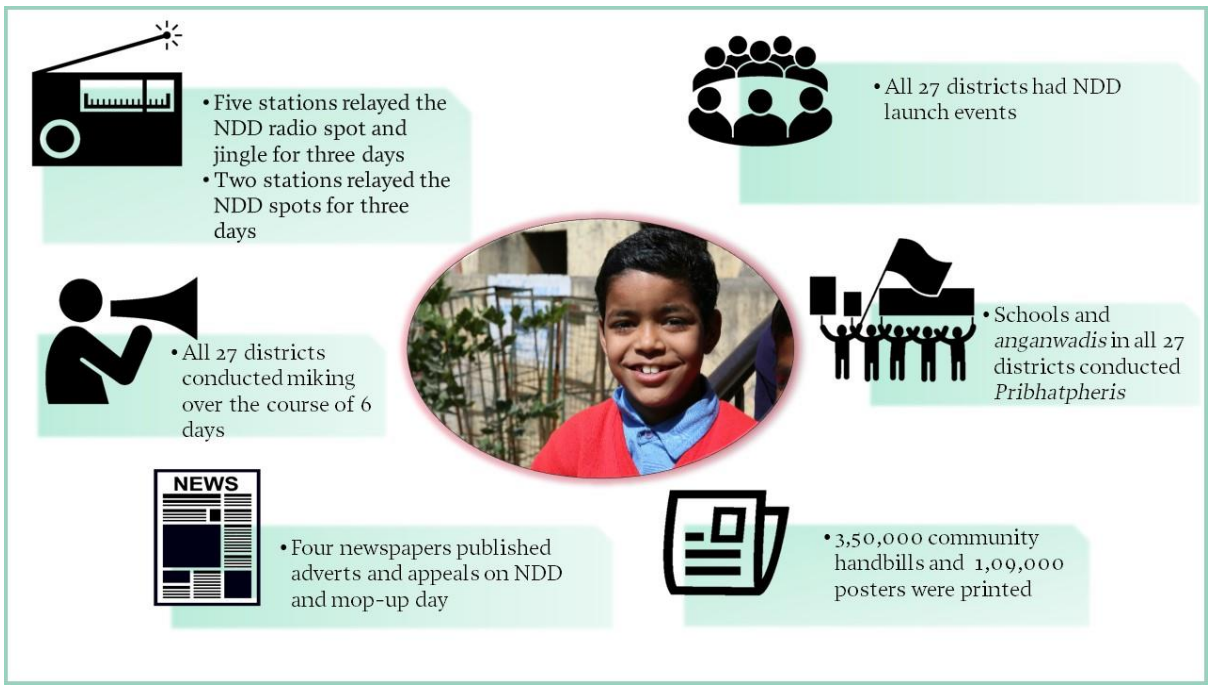
[8] NDD kits includes drugs, IEC materials such as posters and handbills and reporting formats.

[9] Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early identification and early intervention for children from birth to 18 years to cover 4 'D's viz. Defects at birth, Deficiencies, Diseases, Development delays including disability.

[10] TV Spots, Radio spots and jingles were played from Feb 8-10; newspaper advertisement was published on FeB 10 and Feb 14 (supported by Evidence Action); miking and wall writing, TV scroll was conducted from Feb 8-14.

Though Evidence Action developed a social media plan for the NDD February 2017 round, however, due to lack of extensive use of social media platforms by the NHM, the department decided not to upload social media on the NHM Facebook page. The state health department uploaded NDD information on the NHM website[11]. At the national level, there was extensive engagement on the mass media campaign, with MoHFW expenditures showing over INR 5,65,56,800[12] being spent on NDD campaign. This was in addition to MoHFW's active social media engagement on Twitter. It is crucial that all stakeholders leverage the platforms at their end for enhanced community awareness and greater program impact. (Annexure H)

Figure 6: NDD 2017 IEC Campaign Activities



IEC Assessment

In order to continue to improve awareness and community mobilization activities with each NDD round, Evidence Action carried out a NDD communications campaign assessment from May to August 2016 in Bihar, Telangana and Maharashtra. The assessment was designed to understand how target groups perceived the various components of the campaign. The findings and recommendations that emerged is helpful to guide all NDD participating states and were presented at the National Review Meeting in December 2016. Going forward, all NDD participating states can refer to these findings to gain insights on how their campaign can be more robust in future rounds to meet high program coverage goals. More details on specific findings and recommendations from the assessment can be found in Annexure H.

[11] http://cghealth.nic.in/ehealth/new_instruction/NewInstruction.html

[12] DD national relayed the NDD 30 second spot eight times a day from February 6, 2017 to February 13, 2017. The 30 second TV spot was aired on DD Raipur, six times a day from February 6, 2017 to February 13, 2017. The 30 sec radio spot was aired on My FM 94.3, a private radio channel, 15 times a day for 10 days. Prasar Bharti also relayed the 30 sec radio spot, 3 times a day, for 8 days from February 6, 2017 to February 13, 2017.

3.5 Training Cascade

As per NDD operational guidelines, a training cascade was implemented reaching from the state to all 146 blocks across 27 districts from January 5 to February 9, 2017. The state Health department revised the pattern of state TOT by conducting a long-distant videoconferencing training of district NDD nodal officers on January 05, 2017, as compared to calling all districts at the state NHM, held during last NDD round. 25[13] out of 27 districts participated in the state videoconferencing. District trainings of block officials were held from 11 to 23 January 2017. Evidence Action supported the NHM with quality assurance of state, district and block trainings by administering training monitoring checklists (details highlighted below)

Training Cascade: As per the state operational plan, block level trainings were planned to be completed by end of January 2017 or latest by February 3, 2017. However, due to lack of availability of print materials at the state, the trainings were postponed and were initiated from January 31, 2017 and geared up from February 3, 2017, when the print materials were made available to the districts. As per the state coverage report, 44,976 teachers from government, government-aided schools, 5,044 from private schools, 45,715 *anganwadi* workers and 60,675 *mitanin* were trained. This is 91% of total government schools, 77% of private schools' teachers and 93% of *anganwadi* centres. Broadly, there is definite scope of improvement in terms of training all teachers and *anganwadi* workers as well as ensuring robust planning for integrated distribution of drugs, print materials for a cost-effective program in a timely manner.

Training Resources: Department of Health printed training material resources including 53,781 teacher handouts, 43,580 *anganwadi* worker handouts, and 69,951 leaflets for *mitanin*. Due to delayed printing of flipcharts by the printing vendor, its procurement order was cancelled by NHM during the first week of February 2017. As flipcharts are the only NDD trainers tool other than the training videos which has its limitations in use across all settings, Evidence Action supported the state in assuring quality of block level trainings through closely tracking, use of training videos, availability of flipcharts from previous rounds and other participants materials like training handouts at the block level trainings. Working towards integrated distribution of these resources during trainings, Evidence Action supported in drafting the bundling plan and quantifying block requirements, enabling materials to be efficiently transported to all districts before trainings commenced.

Training Reinforcement:

Evidence Action supported the information of training dates and reinforcement of key messages from the training sessions by delivering bulk SMS to the program functionaries, as shown in table 3. The SMS plan was adapted as per national guidelines and approved by state health department. Though there were discussions with the NIC division under Department of Health to send the SMS on NDD from the available platform, the same couldn't be sent in this NDD round. It is important that government stakeholders leverage their existing platforms for sending SMS as it assures greater program impact.

Department	Number of SMS sent by Evidence Action
Health	6,17,617
Education	16,27,545
WCD	10,09,190
Total text messages	32,54,352

Table3 Details of next messages sent

[13] Jashpur and Mungali districts couldn't participated due to technical problem in the training

Training Monitoring:

This critical activity helps in understanding the quality of NDD trainings conducted and provides an opportunity to share real-time feedback with Department of Health, to take any mid-course program corrections and to ensure effective NDD training delivery across training cascades with all levels of functionaries. Evidence Action District Coordinators participated in 27 district level trainings and 91 sampled block trainings from each department (Annexure I). Real time recommendations based on the assessments were shared with stakeholders to improve next level of training. Some key recommendations suggested are as below:

- Emphasis should be given on participation of officials from all the departments at the block level training with special focus on districts of Koriya, Bastar, Balrampur and Mahasamund districts.
- Emphasis on reporting dates and NDD app usage must be reinforced during block level trainings.
- Efforts should be given to facilitate integrated distribution of NDD kits in block level training .Only 59 % of the trainers informed the trainee on filling out block level/ school/ *anganwadi* reporting form as per the NDD guideline. To mitigate this, all training sessions should have a dedicated session on coverage reporting and also training reinforcements through SMSs must be done,

4. Monitoring and Evaluation

Monitoring, learning, and evaluation is a key component of Evidence Action's technical assistance to the government and enables an understanding of the extent to which schools, *anganwadis* and the health system are prepared to implement the NDD effectively. This includes assessing the extent to which deworming processes are being followed, the extent to which coverage has occurred as planned and to make mid-course correction to improve program performance.

4.1 Process Monitoring

Evidence Action conducts process monitoring through telephone monitoring and cross verification, including physical verification through field visits by its staff and trained independent monitors (Annexure J).

Tele-calling and follow up actions: Evidence Action assessed program preparedness prior to NDD through tele-callers who track the status of training, delivery and availability of drugs and IEC materials at the district, block, school and *anganwadi* levels. The tele-callers used pre-designed and standardized electronic tracking sheets to capture the gaps in field implementation, as gathered from the telephonic follow ups. These tracking sheets were shared with the state government on a daily basis to enable them to take rapid corrective actions as necessary, such as issuing departmental directives, holding a video conference to coordinate with officials, or sending reinforcement messages through SMS. Evidence Action's district and regional coordinators made field visits to facilitate some of these corrective actions at the district and block level.

Of 20,454 phone calls including follow up calls, 13,399 calls (65.5%) were successful from December 2016 to March 31, 2017. The existing database of mobile numbers was a drawback while following up on NDD implementation, particularly with field level functionaries such as teachers and *anganwadi* workers, which resulted in unsuccessful calls.

Monitoring by independent agency: Evidence Action supported the government in assessing the processes and performance of the NDD program by hiring an independent survey agency whose trained monitors observed implementation on NDD and mop-up day. The findings were shared in real-time with state government officials on the day of visits to enable immediate corrective actions.

4.2 Assessing treatment coverage

Coverage Validation: Coverage validation is an ex-post check of the accuracy of the reporting data and coverage estimates. In this exercise conducted during NDD February 2017 round, a total of 495 randomly selected schools and 495 *anganwadis* were visited. Coverage validation data was gathered through interviews with *anganwadi* workers, headmasters/teachers, and a sample of three students from three randomly selected classes in each school visited. Additional data was gathered by checking registers and reporting forms in the schools and *anganwadis*. These activities provided a framework to validate coverage reported by schools and *anganwadis* and to estimate the level of accuracy in the data by comparing the recounted numbers (based on the documentation available in schools and *anganwadis*) with numbers in reporting forms.

Snapshot of M&E activities
I. Telephone Monitoring and Cross Verification
• Telecalling conducted to 146 blocks in 27 districts of the state • 13,399 successful calls made during December,2016-March, 2017 • 8,569 calls to health functionaries incluidng district and block level officals and ANMs • 1564 calls to WCD department (district, block level offcials and AWW) • 3,260 calls to education department (district, block level officials, government and private schools)
II. . Training Quality Assesment
• Pre-post test was administred during master trainer's tarining at state level • A total of 27 districts and 91 block level training quality assesment were done using standard format
III. Field Monitoring Visits
• Total 540 monitoring visits by Evidence Action staff were made in selected schools and *anganwadis* • NDD national field monitoring checklist was administered (Anneuxure L) • Real time findings on key indicators were shared with the stakeholders on NDD and mop-up day
IV. Process Monitoring by Independent Monitors
• Process monitoring was conducted in all 27 districts on NDD and mop-up day • 100 trained independent monitors visited 193 schools and 191 *anganwadis* • Data was collected electronically using Tablet PC (CAPI) as per the tools developed by Evidence Action • Real time findings on key indicators were shared with the stakeholders on NDD and mop-up day
V. Coverage Validation by Independent Monitors
• Coverage Validation was conducted in all 27 districts post mop-up day during February 21-28, 2017 • 100 trained independent monitors visited 495 schools and 625 *anganwadis*

Coverage Reporting: Program insights gathered from Evidence Action tele-calling showed that out of 27 districts, 24 districts deviated from the reporting cascade at lower levels. As per the program guidelines, schools and *anganwadis* were to submit the paper-based report to ANMs who were to further send the report to block health department. As per the tele-

calling follow up with block government officials, only 40 out of 146 blocks received the paper- report from ANM while other received these from the Education and WCD officials. The deviations in reporting cascade though didn't delay the overall reporting timelines but some schools/*anganwadi* reports might have got missed to reach at the block level due to uncertainty/confusion around this.

From block level onwards, coverage reporting for NDD was done using the NDD mobile/ web application. Government of India provided the state with 146 user IDs and passwords for NDD mobile/ web application to all blocks and districts for the purpose of coverage reporting. The NDD app allows data entry only at the block level while data approvals happen at district level. While reporting coverage, it was found that districts reduced the targets from a total of **1,12,72,030 children to** 87**,16,870** children. Though the districts were engaged in finalisation of the targets before the NDD round, the data on NDD app showed that the districts have approved the block data with undermined/ reduced targets, probably to show the coverage percentage increased. In line with the national guidelines of reporting against the total number of children aged 1-19 years, the state reported a coverage against the program target set before the round and not against the undermined target. This context was also shared in the final coverage report submitted by state to GOI (Annexure A.1).

4.3 Key Findings

Process Monitoring findings highlight that 76% schools and 71% *anganwadis* received training for the recent round of NDD and around 94% of schools and 93% of *anganwadis* conducted deworming either on NDD or mop-up day. Findings from coverage validation also reflected that 94% of schools and 97% of *anganwadis* dewormed children during NDD or mop-up day. Around 70% of schools and 66% of *anganwadis* received NDD posters and banners. However, integrated distribution of NDD kits[14] was comparatively lower for both schools (57%) and *anganwadis* (50%). This shows that only half of the schools and *anganwadis*, received all materials (albendazole, banner/poster and handout/reporting forms) in the trainings which clearly indicates the lack of integrated distribution in all the trainings. The materials were distributed individually to remaining schools and *anganwadis*, thus increasing the costs incurred on logistics and also posing a risk on the availability of the materials prior to the round. Around 67% of schools and 46% of *anganwadis* received training reinforcement messages through SMS. Awareness on the causes of worm infection **(**Annexure J-Table 1), possible adverse events, and adverse event management practices (Annexure J-Table 5) were high among teachers and *anganwadi* workers. Nevertheless, only 22% of teachers and 17% of *anganwadi* workers reported the possibility of any adverse event among children after administration of albendazole tablets. More than half of the total teachers and *anganwadi workers* were aware about protocols for management of adverse events like laying down the child in open/shaded place or giving ORS/water.

Around 24% of sampled private schools (N=27[15]) reported being trained for NDD. Among private schools 98% had sufficient drugs for deworming, 25% received a banner/poster, and 60% received handouts/reporting forms. SMSs related to NDD were received by 36% of private school teachers/principals. This shows that while drugs were made available to the schools, majority of schools didn't attend training, which is a crucial aspect of program for receiving necessary knowledge and materials through integrated distribution. Program

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

[15] 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

insights shows that this was partly because of limited reach of information about trainings to the private schools as well as unwillingness of the schools to participate in the new program. Thus efforts need to be made to enhance private schools engagement through greater engagement of District Magistrates. A directive from state to all District Magistrates seeking their active support in the program couldn't be released in this NDD round due to delay in finalisation of the dates. This must be sent to all districts prior to start of district level trainings. (Annexure J- Table 6)

Table 4: Key Findings from Process Monitoring and Coverage Validation

Indicator	School (%)	*N*	*Anganwadi* (%)	*N*
Received SMS for current NDD round	67	193	46	191
Attended training for NDD	76	495	71	495
Integrated Distribution of albendazole tablets and IEC materials	57	193	50	91
Schools/*anganwadis* conducting deworming	94	495	97	495
Children consumed tablet	100	1390	NA	NA
Followed correct recording protocol	65	463	50	463
Copy of reporting form was available for verification	41	463	34	481
State level verification factor[16]*	0.47	18,601	0.73	11,416
State level inflation rate[17]#	114	8684	36	8380
Estimated NDD coverage based on government coverage data	41	-	61	-
Estimated NDD coverage based on school attendance	74	-	NA	NA

*Total number of children reported in school and anganwadi reporting form respectively.
Total number of children verified through available documents in school and anganwadi reporting form respectively.

Coverage Validation data revealed that 65% of schools and 50% of *anganwadis* followed correct protocols for recording the number of children dewormed. However, around 24% of schools and 33% of *anganwadis* did not adhere to any recording protocol. Around 22% *anganwadi* workers did not have list of unregistered preschool-age children and 33% didn't have list of out-of-school children. Out of total schools and *anganwadis* that conducted NDD, copy of reporting form was available in only 41% of schools and 34% of *anganwadis* post submission, though they were instructed to retain a copy as per NDD guidelines. In addition, the findings indicate high inflation (114%; verification factor of 0.47) for enrolled children against the verified treatment figures. Similarly, the state level inflation rate was 43% (VF=0.70) for *anganwadi* registered children and 44% (verification factor=0.69) for out-of-school children. Moreover, an inflation of 10% (verification factor =0.91) was observed for unregistered children at *anganwadi* centres. The high inflation rate indicates lack of proper documentation at schools and *anganwadi* centres of children dewormed.

The state government reported 87% coverage in school and 84% in *anganwadis*. Through coverage validation, attempts were made to understand the maximum number of children that could have been dewormed in the schools and *anganwadis*. Coverage validation findings suggest that on an average, we could verify 47% of treatment figures reported by schools and 73% for anganwadis. Applying these verification factors to respective

16 Ratio of recounted value of the dewormed children to the reported value
17 Proportion of over reported dewormed children against total verified children in schools and anganwadis

government reported coverage, it is estimated that 41% (0.47 of 0.87) children could have been dewormed in the schools and 61% (0.73*0.84) in *anganwadis*.

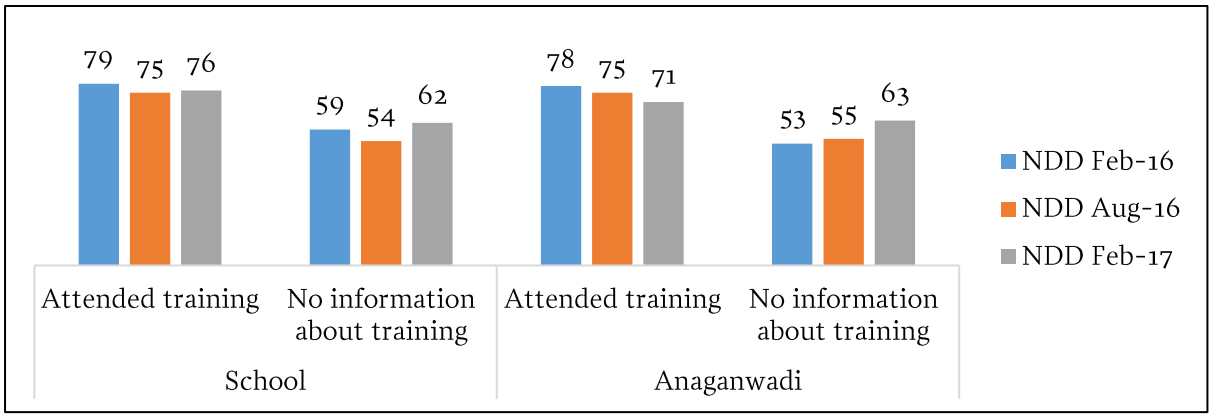
Further, we also estimated NDD treatment coverage in schools considering maximum attendance of children on NDD dates. Coverage validation data showed that 94% of schools conducted deworming on either NDD or mop-up day, maximum of 84% of children were in attendance, 97% of children received albendazole tablet and 97% of them reported to consume albendazole tablet under supervision. Taking these factors into account, 74% (0.94*0.84*0.97*0.97) of enrolled children could have been dewormed in the schools.

The detailed tables with process monitoring results and coverage validations are attached herewith (Annexure K).

5.3 Trend of Key Indicators Over the Round

To understand the changes in selected indicators over the NDD rounds; trend across the NDD rounds are presented in graphical form.

Fig 8: Comparison of Training Indicators for School/*Anganwadi* February 2016, August 2016 and February 2017 Rounds.



Data in Figure 8 shows that there is no improvement in training attendance of headmaster/teachers from NDD August 2016 to February 2017 round. This has instead declined slightly by 4 percentage points for *anganwadi* during August 2016 to February 2017 round. Lack of information about NDD training schedules continues to be the main reason for teachers/*anganwadi* workers not attending NDD trainings (Figure: 8). Block level trainings, including both sector level trainings and sub-centre level trainings where teachers and *anganwadi* workers are trained respectively were delayed during this round due to delayed printing and distribution of IEC, training materials from state to district for onward distribution to teachers and *anganwadi* workers at the block level trainings. Though directives were released at block level for these trainings, due to paucity of time (trainings completing a day before NDD), not all teachers/*anganwadis* could be trained, as also reflecting in the state coverage report. It is crucial that all block level trainings are completed as per the pre-determined schedules and complete at a minimum of a week in advance to the NDD date (if delayed from training schedule) leaving sufficient time for the teachers to train other teachers in the schools and also for teachers and *anganwadi* workers to mobilise community and spread awareness on the program in the community. Though training reinforcement SMS were sent for alerting training dates for district and block level, however, contact database continues to be challenge impacting the overall delivery of the

SMS to the teachers, *anganwadis*. This is also evident from declining trend of SMS received (Figure 9 and 10), which indicates that efforts to update contact databases has not resulted in the improvement.

Fig 9: Comparison of Key Indicators in Schools during February 2016, August 2016 and February 2017 Rounds

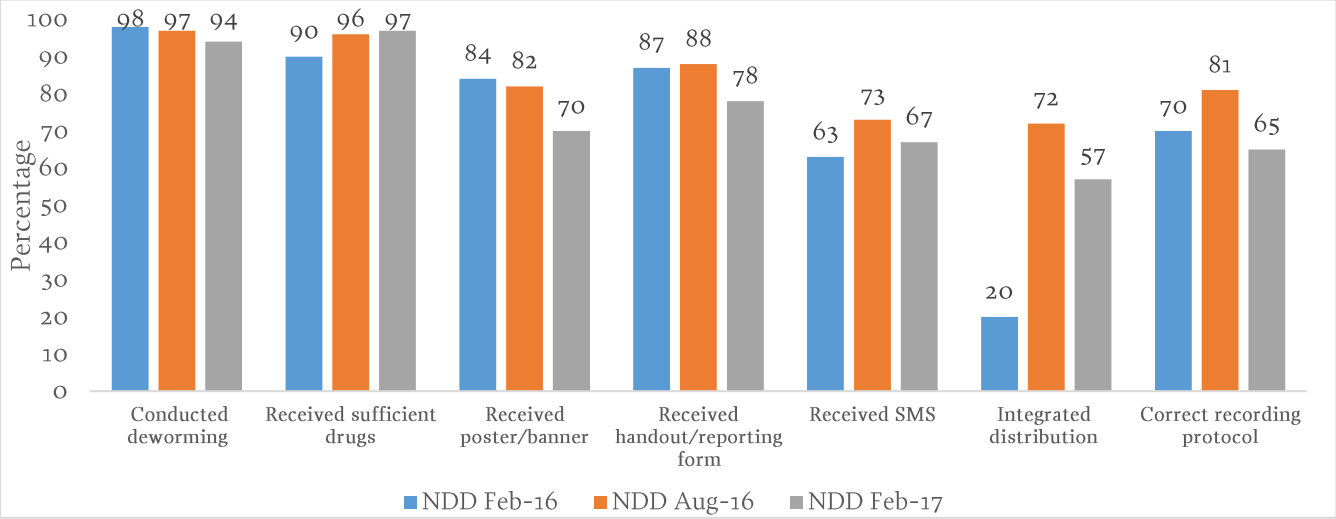
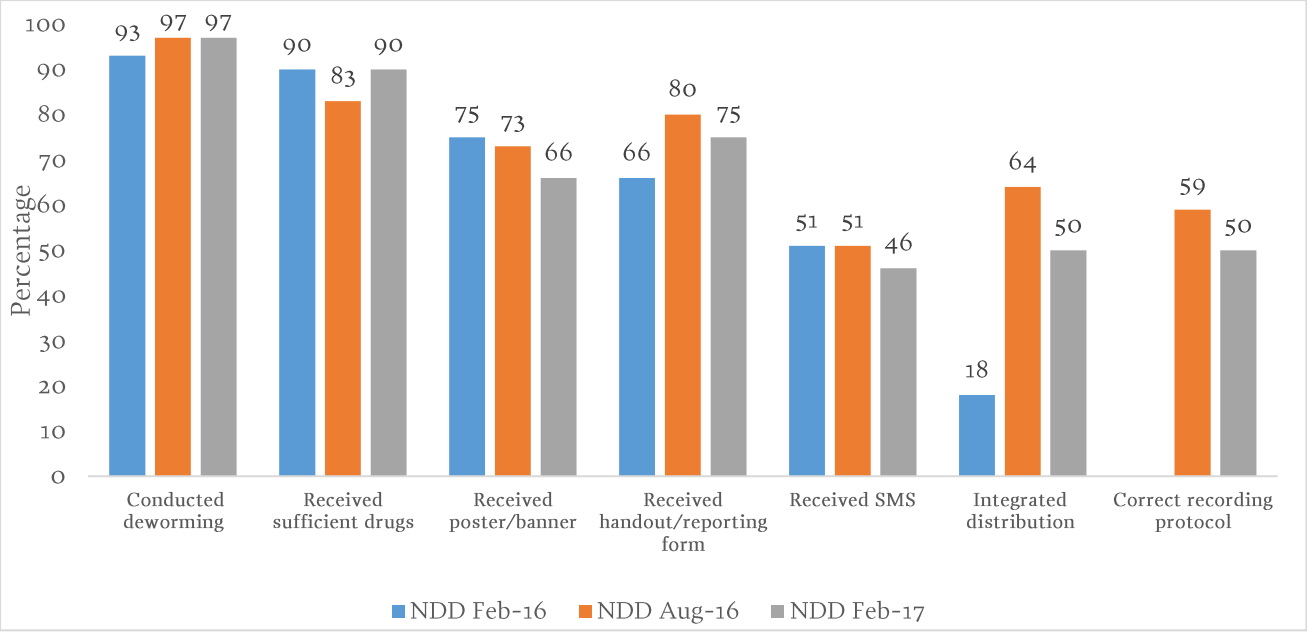


Fig 10: Trend of Key Indicators in *Anganwadis* during February 2016, August 2016 and February 2017 round



Trends in Figure 9 and 10 show that while percentage of *anganwadis* that received, sufficient drugs increased from last NDD round, however, schools, *anganwadis* that received poster/banner and handout/reporting forms has decreased. This decline could be attributed to the delayed printing and distribution of IEC, training materials and

consequent impact on the integrated distribution during NDD February 2017 and thereby adversely affecting the availability of these materials at the schools and *anganwadis* . This possibly will impact the cost effectiveness of the program and management of the same. This delay could also be resulted into decline in integrated distribution of all materials for schools (15-percentage point) and *anganwadis* (14 percentage point). The drop-in percentage of schools and *anganwadis* following correct recording protocol, could be partly attributed to delayed and rushed block level trainings thereby impacting the quality of sessions being conducted.

6. Recommendations:

It is critical to conduct consistent high coverage program every six months in all 27 districts of the state to bring down worm prevalence and to slow the reinfection rates. Therefore continued efforts need to be made towards high quality program twice a year. Reaching out to the last child will be crucial to bring impact.

1. For a high-quality program, setting targets as per census and reporting coverage against the targets set prior to the NDD round is important. Undermining (or reducing the targets) shows a false picture of the coverage, as the program coverage reflects higher percentage with the reduced targets. This need to be focused for all future NDD rounds through engagement with stakeholder departments across all levels.
2. For a fixed day program, meticulous planning is crucial. During NDD Feb 2017 round, it was observed that print materials were distributed to districts in the first week of February 2017 as opposed to planned timeline of mid- January. The challenges in timely printing of IEC/ training material affected the block level training schedules and providing limited time for teachers and *anganwadi* to engage with community prior to NDD round. The operational plans finalized prior to NDD round should be constantly referred for specific program timelines for better program quality.
3. Low attendance at schools' impact program coverage. It will be critical that the school attendance is maximized in the upcoming rounds as it has been observed through the Independent Monitoring findings that the attendance around NDD has been 84% in schools. Efforts are required for increasing school attendance to improve coverage with engagement of education department, through schools engaging parents earlier on through platforms of School Management Committee Meetings; conducting thematic discussions on NDD during school morning assemblies and others. Schools should also be proactively engaging with the *mitanins* and *anganwadi* workers who are in the community talking to parents, children.
4. Efforts are required to improve training attendance of teachers and *anganwadi* workers in future rounds through clear and timely communication on training dates and venues to frontline functionaries. As the block level trainings were rescheduled from last week of January to the first week of February moving very close to the NDD round, it left little time at the block level trainings to disseminate timely information about trainings to all teachers and *anganwadi* workers. It is imperative that block level trainings are conducted as per the finalized operational plan thereby assuring quality of trainings, also allowing for buffer time for teachers to train other teachers at their respective schools and also for blocks to organize re-trainings in case attendance is low in the first place.

5. It has been observed in NDD Feb round that there lies an impending need to strengthen NDD recording and reporting protocol in order to improve the performance and quality of NDD program. Training and reinforcement messages shared through SMS need to increase focus on the importance of correct reporting protocols and maintaining correct and complete documentation. Additionally, trainers should ensure that teachers/headmasters and AWWs understand the directive to maintain a copy of reporting forms in schools and anganwadis so that the data available for coverage validation is more robust and thereby enhanced program verification and validation.
6. The analysis of revised targets also shows that districts have revised targets for the unregistered children in *anganwadis* and the out-of-school children category. As *mitanins* play a crucial role in mobilising children especially out-of-school children, it is imperative to have greater engagement of *mitanin* in mobilization of these children and spreading awareness on deworming benefits. This should be facilitated through engagement of *mitanin* coordination cell at state level and also releasing a directive on engagement and roles as well as incentive to all districts and blocks at least two months in advance. Strengthening trainings of *mitanins* through participation in block level trainings and utilizing other channels is also essential.
7. As the NDD program continues to be strengthened and systems of financing, procurement, trainings, community mobilization are streamlined, it is important to focus on prevention strategies for all future NDD rounds. Active collaboration with other key stakeholder's departments like *Swach Bharat Abhiyan* should be pursued through one-to-one meetings with these departments, release of directives on NDD and linkages/ synergies between two programs be released from NHM to the departments, including seeking for their participation at the state steering committee meeting.

8. Promote strengthening of private school engagement through participation of their representatives in Steering Committee Meeting at state and district level coordination committee meetings, and special meetings called by district and block education officers. The State must reach out to the District Magistrates in advance intimating them about the program and the key support areas required from their end for the program to have better reach to all children. Engagement of Education department to write and engage with private schools and their associations at district and state level in a timely manner will be essential.

9. Participation of technical institutes/colleges/universities was evident in February 2017 NDD round, but it was limited. The program needs to upscale the participation of technical institutes/colleges/universities in all the districts and blocks in the upcoming Aug 2017 NDD round.

6. List of Annexures

Annexure A	NDD coverage report 2017 letter, NDD coverage report submitted by NHM Chhattisgarh to Government of India
Annexure B	Compiled coverage report submitted by blocks for the coverage of technical institutes
Annexure C	Letter of Minutes for State Steering Committee for NDD February 2017
Annexure D	State Joint Directive letter on NDD signed by Department of Health, Education, and Women and Child Development on 6 Jan 2017
Annexure E	Letter of NDD Feb 2017 Program Guidelines
Annexure F	District wise Drug bundling plan as per requirement of albendazole
Annexure G	District wise drug recall status
Annexure H	Community Mobilisation/ IEC plan on NDD for Chhattisgarh and Government of India's IEC expenditures note; IEC assessment findings
Annexure I	Training monitoring analysis report
Annexure J	Process monitoring table
Annexure K	Coverage validation table
Annexure L	Summary Note on Monitoring of National Deworming Day.