Madhya Pradesh

National Deworming Day
February 2017

Photo Credit: Evidence Action

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ACRONYMS

ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	*Anganwadi* centre
AWW	*Anganwadi* worker
BMO	Block Medical Officer
BPM	Block Programme Manager
CV	Coverage Validation
DCCM	District Coordination Committee Meeting
DEC	Diethylcarbamazine citrate
DHS	District Health Society
DIO	District Immunization Officer
DPM	District Program Manager
DQA	Data Quality Assessment
FIFO	First In and First Out
GoI	Government of India
ICDS	Integrated Child Development Services
IEC	Information Education Communication
LF-MDA	Lymphatic Filaria – Mass Drug Administration
M&E	Monitoring and Evaluation
MoHFW	Ministry of Health & Family Welfare
MoU	Memorandum of Understanding
NDD	National Deworming Day
NHM	National Health Mission
NIPI	National Iron Plus Initiative
ORS	Oral Rehydration Salts
PIP	Program Implementation Plan
PVPI	Pharmacovigilance Program of India
RBSK	*Rashtriya Bal Swasthaya Karyakram*
SMS	Short Message Service
STH	Soil Transmitted Helminths
ToT	Training of Trainers
VHNSC	Village Health Nutrition and Sanitation Committee
WCD	Women and Child Development
WHO	World Health Organization

Executive Summary

Contributing to the Government of India's (GoI) National Deworming Day (NDD) efforts, the state of Madhya Pradesh implemented round three of NDD in all 51 districts on February 9, 2017[1], **(Annexure A)** followed by mop-up day on February 15, 2017. In this round, the state dewormed 1,81,19,119 children in the age group of 1-19 years. This achievement is an outcome of exemplary leadership from Department of Health in coordination with Department of Education, Department of Women and Child Development, Department of Tribal Welfare. 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	Target as per coverage report	Coverage
Number of schools reporting coverage		Not applicable	1,47,832	1,47,832	1,40,056
Number of *anganwadis* reporting coverage		Not applicable	92,230	92,230	88,731
Number of enrolled children (classes 1-12) who were administered albendazole on NDD and mop-up day	Govt. Schools[2]	81,11,037	76,55,443	76,86,542	72,28,428
	Private Schools	46,89,424	46,89,424	46,65,011	40,34,038
Number of registered children dewormed (1-5 years) at AWCs on NDD and mop-up day		71,88,716	59,72,511	60,83,999	56,10,305
Number of unregistered children dewormed (1-5 years) at AWCs on NDD and mop-up day		4,66,255	2,75,789	2,32,084	1,89,028
Number of out-of-school children dewormed on NDD and mop-up day		1,16,23,068[3]	12,07,112	12,06,204	10,57,320
Total number of children dewormed (1-19 years)		**3,20,78,500**	**1,98,00,279**	**1,98,73,840**	**1,81,19,119**

Source: Report submitted by National Health Mission, Madhya Pradesh to GoI dated March 23, 2017 **(Annexure B).**

Evidence Action provided comprehensive technical assistance for the successful implementation of NDD in February 2017, at both the state and national level. At the national level, 34 states conducted NDD in February 2017 targeting 340 million children. At the state

[1] February 10, 2017 was declared as a state government holiday on account of Sant Ravidas Jayanti due to which National Deworming Day was rescheduled on February 9, 2017

[2] Category of schools under DISE 2015-16, government, government aided, madarsas, madarsas aided and local body

[3] 1,04,14,672 children are enrolled in other institutes including skill development, ITIs, Polytechnics, Degree colleges (Technical/ non-technical), Vocational training centres etc. as per update from SAMAGRA NIC Madhya Pradesh.

level in Madhya Pradesh, learnings from the previous round were incorporated to guide program planning and implementation including strategies for comprehensive program coverage such as enhanced inclusion and engagement of private schools.

1. Program Background

1.1 Benefits of deworming

A large body of rigorous scientific evidence from around the world provides a strong rationale for mass deworming[4] for STH control programs. Using existing platforms of schools and pre-schools 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 Figure 1.

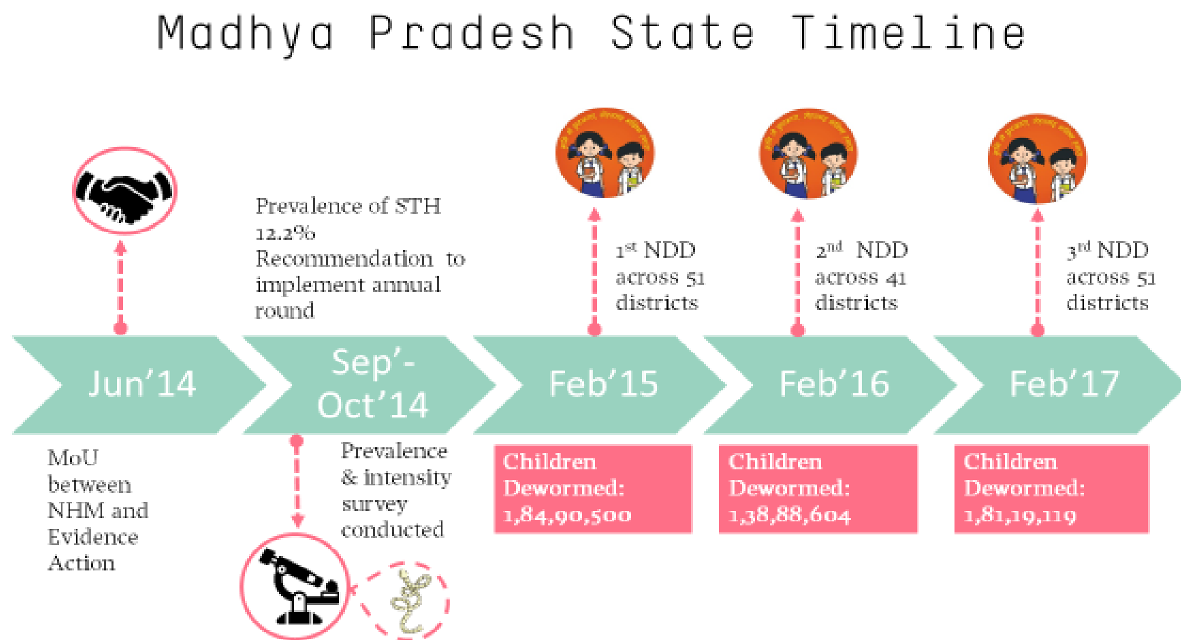
Figure 1: Benefits of deworming

1.2 State Program Background

School and *anganwadi* based NDD program in Madhya Pradesh is being implemented in the State since February 2015, with the state following GoI's NDD operational guidelines for planning, implementation and monitoring. The key milestones achieved under the program is presented in Figure 2.

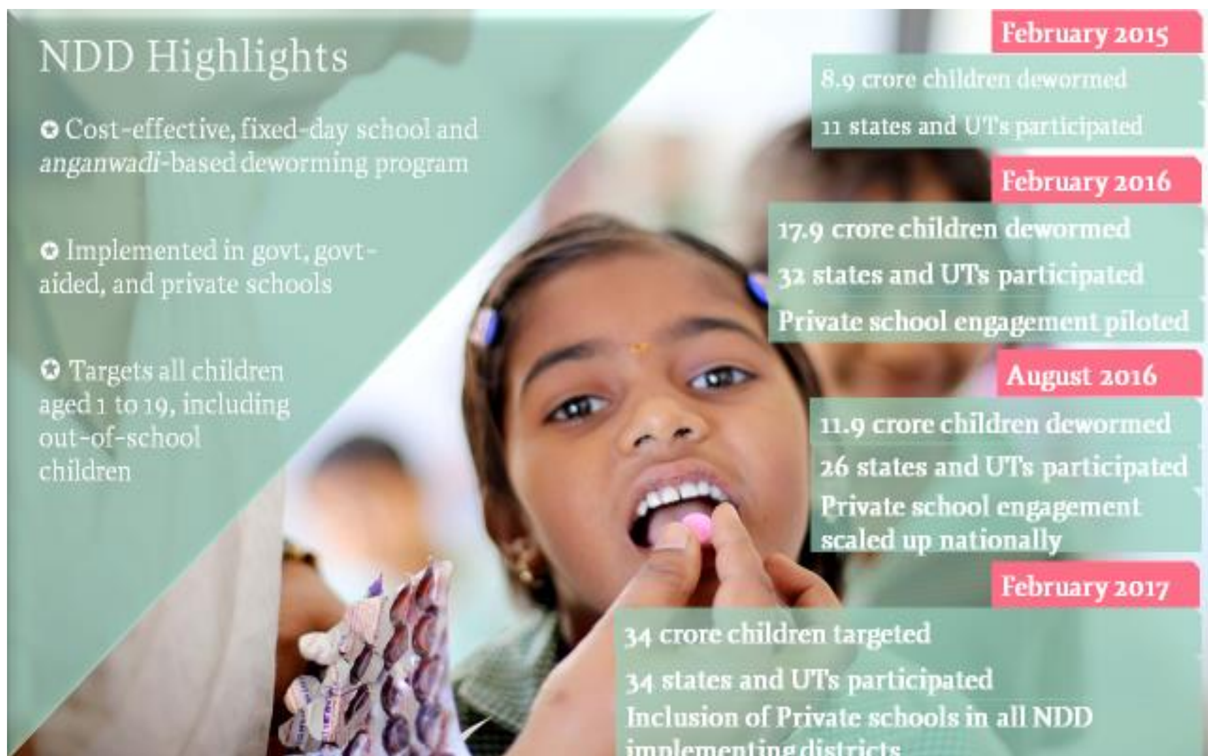
[4] http://www.povertyactionlab.org/publication/deworming-best-buy-development

Figure 2: Madhya Pradesh NDD milestones



2. About National Deworming Day

Figure 3: NDD program highlights



3. State Program Implementation

3.1 Policy and Advocacy

A program of such scale requires stakeholder convergence and collaborative efforts at each administrative and implementation level, which is imperative for effective implementation. Some of the key highlights of inter-departmental convergence is presented in Figure 4.

Figure 4: Efforts towards Stakeholder collaboration

1 Jun and 5 Dec, State Advisory Committee Meeting	9 December, Pre-NDD guidelines	23 December, National Review Meeting, Delhi	2 January, State Level Joint Directives	6 February, State Video Conference
-Policy decision to implement NDD 2017 in 51 districts including all private schools - Review preparation of NDD February 2017 round	-Pre NDD guidelines was issued by state for the first time	- Review of NDD preparations - Assessment of NDD preparedness - Participation by State NDD nodal officer, Department of Health	- Joint Directives signed by MD NHM (Health), Commissioner Education (RSK, LSK) Commissioner Tribal Welfare and Commissioner (WCD) issued to all districts	- Assess NDD preparations for including drug availability status and adverse event management - Discussion held on mitigating program gaps

Keeping in view the learnings from NDD 2016, the State advisory committee meeting was held on June 1 and December 5, 2017, under the chairmanship of Principal Secretary, Health with participation from key stakeholders to plan and review NDD preparedness and address gaps and concern areas if any. In the State advisory committee meeting in June, key decisions were taken on inclusion of private schools in all 51 districts, decentralised drug procurement and finalization of targets as per UDISE and ICDS data. Further in the meeting in December, key decisions taken was on coordination with LF-MDA program.

State level Joint Directives were signed by MD, NHM, Commissioner-WCD, Education and Tribal welfare department on January 2, 2017 and was issued to all districts. Key points included role of stakeholder departments in NDD, orientation on adverse event management, reporting to Pharmacovigilance Program of India (PVPI), inclusion of all private and centrally affiliated school in convergence with education department in 51 districts, reporting through NDD App, implementation of NDD in seven LF MDA[5] districts and role of ASHA in community mobilisation of out-of-school children. The Ministry of Health & Family Welfare organized a national level video conference under the chairmanship of Joint Secretary on February 2, 2017 with participation from all states and union territories. At the meeting the state briefed the national government on its plan to conduct NDD in all 51 districts including the seven LF-MDA districts due to delayed supply of diethylcarbamazine citrate (DEC) for implementing LF-MDA round in these districts. A state level video conference was held on February 6, 2017 which was attended by district officials. Key discussions were held on the preparedness for NDD, drug availability status, district and block level training, engagement of private schools, role of RBSK

[5] 7 LF-MDA districts in Madhya Pradesh scheduled for February 2017 Panna, Tikamgarh, Chhatarpur, Damoh, Datia, Umaria Rewa.

teams, monitoring of program by district and block level officials and orientation on reporting in NDD App/webpage.

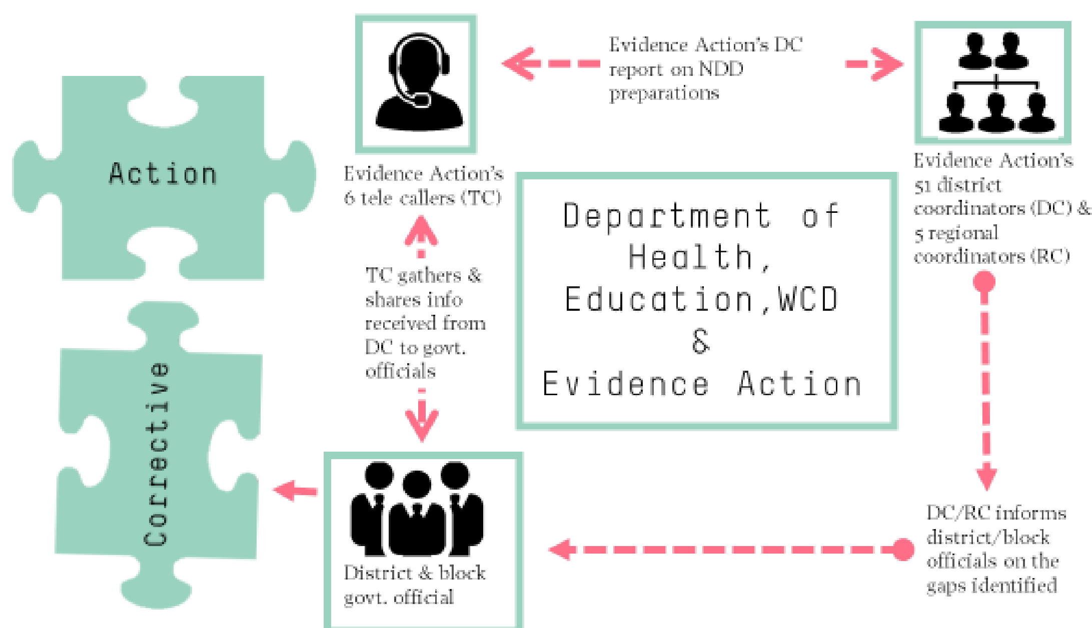
Prior to the NDD round, all 51 districts conducted District Coordination Committee Meeting under the chairmanship of District Collectors. Key decisions for program implementation were disseminated and meeting minutes recorded in all districts. The nodal officials (Department of Health and Education) at district and block level were directed by the District Collectors to closely coordinate with the private school unions/bodies for maximizing their support in reaching out to private school children. Schools were guided to share timely information to parents using platforms of Parent Teacher Meetings, share information regarding deworming and its benefits as 'thought of the day' in schools assembly, conduct drawing competitions on deworming and other such related activities. Supplementing the efforts to reach to maximum number of private school children, Evidence Action supported in drafting a diary note for parents of private school children informing about the benefits of deworming and the schedule program date. The information was shared through Education department to parents whose children are enrolled in private schools. As per the gaps identified in private schools implementation on NDD day, regional and district coordinators of Evidence Action facilitated with Health department for coordinated efforts with District Collectors to engage discussion with non-participating private schools in 28[6] districts through DHS/ Team Lead meetings. Also letter was issued by CMHO as per instruction of Additional Collector to all private schools of Indore district to participate in special training organized for teachers/ headmaster to cover the children on mop-up day.

3.2 Program Management

Evidence Action's technical assistance was extended through a four-membered state team, field-based five regional coordinators and short-term hires such as 51 district coordinators and six tele-callers for a period of three months each, to track the daily progress of program implementation. The regional and district coordinators supported district and block level preparations in coordination with district and block officials to plan for trainings, other logistics for program implementation and timely reporting of coverage report. The state team assisted with program planning and coordinated with stakeholder departments to share real time updates on program preparedness, implementation of different components and facilitate corrective actions. The tele-callers gathered real time information from the field to assess the preparedness for NDD implementation through calls made to officials at district, blocks, schools and frontline functionaries to understand the processes and completion of program activities like-integrated distribution at training and others. These updates was shared on a daily basis with the NHM to allow necessary corrective actions across all program activities. Figure 5 gives an overview of the information flow between the Evidence Action team and district and block-level officials.

[6] Damoh, Tikamgrah, Chattarpur, Rewa, Sagar, Balaghat, Katni, Dindori, Dewas, Indore, Ujjain, Jhabua, Dhar Mandla, Raisen, Alirajpur, Guna, Ashoknagar, Betul, Barwani, Chindwara, Shahdol, Umaria, Jabalpur, Khandwa, Shivpuri, Burhanpur, Shajapur.

Figure 5: Evidence Action facilitates corrective action



3.3 Drug Procurement, Storage and Transportation

a) Drug Procurement: The State required 2,09,21,165 albendazole tablets with 10% excess as wastage for February 2017 round based on the targets determined by the state for NDD 2017. This was the first time that decentralized procurement of drugs for school-age and pre-school age children were done at districts. As per drug recall status of February 2016 round, 6,40,400 tablets of WHO donated drug was available at districts.

Apart from this, a stock of 9,62,758 albendazole tablets were available at all district drug warehouse which were near to expiry and were utilised for NDD as per the state guidelines of FIFO[7]. After analysis of all available stock at districts procurement of 1,93,18,007 tablets were placed by all 51 districts. The drugs were supplied by Biochem Private Health Care Limited empanelled with Madhya Pradesh Medical Services Corporation Limited directly to district drug warehouses. The Department of Health conducted laboratory testing of samples picked from districts through state empanelled laboratories prior to drug distribution at the block level to ensure the quality of drugs **(Annexure C)**.

b) Drug Logistics and Distribution: The Department of Health managed the entire drug logistics and distribution till block-level. At block-level, these were distributed to the department of education and ICDS during block-level trainings. Evidence Action developed the district and block wise drug bundling and distribution plan for the state to streamline distribution of tablets to schools and *anganwadis.* **(Annexure D).** To align drug distribution with block-level training in accordance with NDD operational guidelines, Evidence Action supported the department by tracking drug availability at districts, blocks and at schools and *anganwadis* through tele-calling and provided timely updates to concerned officials for undertaking corrective actions, if required. Prior to the drug distribution at block level, Department of Health ensured bundling of NDD kits that include drugs, IEC materials, training

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[7] A method of inventory management in which the first products received are the first products issued. This methods generally minimizes the chance of drug expiration.

handouts and reporting forms and distributed to health functionaries at the block level for onward distribution to Education and WCD functionaries.

c) Adverse Event Management: In order to effectively manage any incidence of adverse events, the State engaged *Rashtriya Bal Swasthya Karyakram*[8] teams at block level. In addition, the state adapted the adverse event management protocols from NDD operational guidelines 2017 to the local context. The 108 helpline number (Medical Health Centre) and 104 helpline number (*Janani Express*) officials from districts and block level were trained in district trainings organised in all 51 districts by Department of Health which were guided to stay on alert to facilitate the emergency response. One case of severe adverse event was reported on NDD and was managed at the nearest health facility as per the adverse event management protocols.

d) Drug Recall: Evidence action supported Department of Health in tracking the data of leftover albendazole tablets after the NDD round in all 51 districts **(Annexure E).** Drug procurement for the subsequent round will be placed post subtracting the drugs already available at district/ block level. The block wise drug bundling plan will also be made accordingly for future round The Drug recall status is presented in Table 2 below.

Table 2: Drug recall status in the state for NDD February 2017

Total Sealed boxes of 10X10 strips	27,393
Albendazole tablet inside the sealed box of 10X10 strips (27393 X 100)	27,39,300
Loose Albendazole tablets	41,384
Total Albendazole tablet available sealed pack and lose	27,80,684

3.4 Public Awareness and Community Sensitization

The state adapted the NDD resource kit[9] developed by Evidence Action for the Government of India. The Department of Health and stakeholder departments uploaded the resource kit on their respective websites[10]. IEC materials included in the kit were designed to increase community awareness on the benefits of deworming, and were disseminated based on the plan and target audiences specified by the NDD operational guidelines. The Department of Health printed IEC and training materials which were essential for training of teachers, *anganwadi* workers, ASHAs and sensitization of families to increase the attendance and turnout of children in schools and *anganwadis* on NDD leading to greater program coverage. IEC materials such as, poster, banner and training material ASHA leaflets with reporting form were printed at all 51 districts whereas flipcharts were printed at 23[11] districts only.

[8] 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

[9] The NDD Resource Kit contains all training and IEC prototypes along with the open, editable files in Corel Draw format and PDF, which are easy to adapt as per state requirements

[10] NHM http://www.nhmmp.gov.in/NDD_2016.aspx, Education (RSK & LSK) (http://educationportal.mp.gov.in/) and WCD (http://esanchayika.in/new/upcoming_events_se.aspx)

[11] Barwani, Dhar, Khargone, Ratlam, Dewas, Betul, Raisen,Vidisha, Rajgarh, Burhanpur, Shahdol, Anuppur, Dindori, Seoni, Mandla, Tikamgarh, Narsinghpur, Katni, Mandsaur, Neemuch, Morena, Bhind, Shivpuri

Training handouts with reporting form were printed at state level due to lack of logistics to support printing specification at districts. These were further distributed to the respective divisions as per IEC bundling plan which effected (delayed) the integration distribution of state. 252065 posters and banners were printed for display at schools, *anganwadis* and block health centres. The state government rolled out varied communications campaign for NDD 2017. The details of the campaign are given in Figure 6. Further breakdown of awareness generation activities is annexed **(Annexure F.1)**

Figure 6: NDD 2017 IEC campaign activities

*TV Spots- February 7-9, TV Scrolls- February 7-14, Radio jingles- February 6-15 **Miking- February 4-14

To complement the state level efforts, the Ministry of Health and Family Welfare spent over Rs. 5,65,56,800 from the national level on a mass media campaign, while also engaging with an intensive social media campaign **(Annexure F.2)**. It is crucial that all stakeholders leverage the platforms at their end for enhanced community awareness and greater program impact, which can lead to improved coverage.

To diversify the channels of awareness generation, the state government engaged in social media activities for the first time for NDD. Evidence Action developed a repository of social media content for the state to use including photos, infographics, videos, and testimonials. The ICDS Facebook page and Education Department Facebook each posted 3 times between January 31 and February 14.

A press sensitization meeting was conducted at state level on the day of program launch, led by Chairman Municipal Corporation with state Nodal officer in which 50 media personnel participated. Evidence Action provided participants with a media kit including fact sheets, NDD brief, and a press release. Prior to NDD launch, press sensitisation meetings were conducted in all 51 district led by CMHOs and DIOs. Such media interactions encourage factual and accurate reporting that focus on benefits of the program rather than on myths and misconceptions with regards to adverse events. In addition, the NHM led the state-level inauguration with wide coverage in the media. Simultaneously, district launch events were planned at schools and *anganwadis* across 51 districts. These varied public awareness efforts are essential for

sensitization of community members, helps build certitude with deworming, alleviates worries related to adverse events, and leads to greater program coverage.

In addition, Department of Health issued letters to the Department of Panchayati Raj for inclusion of deworming agenda in special Gram Sabha's, community awareness through January 26 (Republic Day) rallies and sensitization of VHSNCs on deworming. This comes as a key achievement in efforts towards institutionalization and sustainability of the NDD program in the state. Further 15,82,005 SMS were sent by private telecom companies (AIRTEL and IDEA) to the general public in their subscriber base to raise awareness on deworming benefits **(Annexure G).**

In order to continue to improve awareness and community mobilization activities in each round, Evidence Action carried out a NDD communications campaign assessment in Bihar, Telangana and Maharashtra during May to August 2016 with approvals from the Government of India. The assessment was designed to understand how target groups perceived the various components of the campaign.

The findings and recommendations were presented at the NDD National Review Meeting in December 2016 and are useful for all NDD implementing states in designing their awareness campaign to be robust in future rounds. More details on specific findings and recommendations from the assessment can be found in **Annexure H**.

3.5 Trainings and Distribution Cascade:

As per NDD operational guidelines, a training cascade was implemented in 51 districts and 313 blocks between January 6 and February 6, 2017. The Department of Health took lead in organizing the trainings with support from Evidence Action.

Training Cascade: The state level orientation was not conducted since the NDD program component is included in NIPI training module for trainers, training booklet for teachers and on job training module of trainers for *anganwadi* worker on macro and micro nutrient management. However, moving forward the state must follow the training cascade as per the NDD guidelines and conduct state level training of trainers two month prior to NDD in future rounds. Through the cascade, the state trained 1,05,848 teachers from government and government aided schools, 18,986 private school teachers, 80,179 *anganwadi* workers, 59,556 ASHAs and 10,619 ANMs along with officials from stakeholder departments at district and block level. It was observed that the block level trainings conducted by department of Health for Education and ICDS departments was merged with ongoing trainings of other programs which led to low participation of lower cascade functionaries due to revisions to training dates that were not communicated timely. Integrated distribution of drugs, reporting formats, training handouts, and IEC material was facilitated during teachers and *anganwadi* workers trainings organized at block level. Although there was a delay observed in distribution of IEC and training material till lower cascade, due to delay in supply of IEC and training material to blocks led to re-scheduling of some block trainings so that integrated distribution does not get hampered.

Considering the findings from process monitoring, the training cascade as per the NDD guidelines must be followed with no deviations so that the quality of trainings does not get affected. Further, it is also crucial to ensure that integrated distribution of NDD kits (including sufficient drugs, IEC, training material along with reporting forms) are provided to school teachers/headmasters and *anganwadi* workers for effective implementation of the program.

Training Resources: Evidence Action in coordination with Health and stakeholder departments contextualized NDD training material as per state-specific needs. It was observed during the NDD February2017 round that due to non-allocation of budget for printing of flipcharts in state annual plans, only 306 flipcharts were printed at district level utilizing miscellaneous budgets of IEC by 23 districts. The remaining 28 districts utilized flipcharts from the previous round with handmade revisions. Training handouts with reporting forms were printed at state level and were distributed to the respective seven divisions which further moved to districts as per IEC bundling plan. This distribution cascade led to delay in the supply of handouts and reporting forms at districts and blocks which further affected integrated distribution. Hence, it is important that state does meticulous planning in advance such that the program activities are not delayed and are completed as per NDD guidelines. Taking forward the learnings from this round, it is crucial for the state to plan well on printing of training and IEC materials as per NDD resource kit approved by GoI, with special focus on timely completion of NDD trainings with integrated distribution of NDD kits at block trainings as per timelines.

Training Reinforcement: Evidence Action and stakeholder departments supported the reinforcement of key messages by SMS, to government officials and frontline functionaries of concerned stakeholder departments as per the table below. Voice messages (IVR calls) to ASHA and *anganwadi* workers by Evidence action were sent one day prior to NDD for reminders on key program messages as per table below. The Department of Education, however, did not support sending SMS due to unavailability of any existing platforms.

Table 3: Details on SMS sent by Evidence Action and Stakeholder Departments, NDD February 2017

SMS Sent by	Total SMS sent	IVR Calls (Frontline Functionaries)
Evidence Action	51,71,948	1,50,400
Stakeholder Departments (Health and WCD)	12,41,276	Not applicable

Training Support: Evidence Action supported the State in training monitoring of 51 district training and 225 batches of (teachers, *anganwadi* worker, ASHA and ANM) block level training sessions using standardized checklists to ensure quality and efficacy. Based on the assessment, real-time recommendations and observations highlighting key messages which needed to be reinforced at district trainings were shared **(Annexure I)**. Following were the key findings:

District Level Trainings

- No participation was observed from ICDS and Education Department in two district trainings i.e. Rewa, Panna. Follow-up letters from district NHM was issued to district officials of these departments for active participation at block level trainings
- NDD app usage and approval process was not explained during district level training in Bhopal and Ashok Nagar. This was covered through reinforcements by the District coordinators at the district trainings to strengthen use of NDD App at district and block.

Block Level Trainings

- The block trainings continued till first week of February due to simultaneous ongoing programs of other stakeholder department
- In block trainings, recording protocols of single tick and double tick in *anganwadi*/schools were emphasized

- Less engagement of private schools was observed in trainings. As a result, separate orientation trainings were organized in presence of District Collector or representative for effective round implementation in 5[12] districts.

- Challenges were faced in integrated distribution at block training because printing of IEC and training material were distributed between districts and state which lead to delays resulting in re-scheduling of some block trainings.

4. Monitoring and Evaluation

Evidence Action places great emphasis on understanding the extent to which the schools, *anganwadis* as well as the health system is prepared to implement mass scale deworming through a fixed NDD approach. This includes assessing the extent to which processes are being followed, and the extent of accuracy to which coverage data is reported. As part of technical assistance to a state, we design, monitor and evaluate NDD round through robust monitoring systems to measure success of intended program objectives.

4.1 Process Monitoring

Evidence Action conducts process monitoring through telephone monitoring and cross verification, as well as physical verification through field visits by its Staff and trained independent monitors.

Tele-calling and follow up actions: Evidence Action assessed program preparedness prior to NDD through six tele-callers who tracked the status of training, delivery and availability of drugs and IEC materials at the district, block, school and *anganwadi* levels through tele- calls. The tele-callers used pre-designed and standardized electronic tracking sheets to outline program gaps. The compiled 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 these corrective actions at the district and block level.

Post NDD, the tele-callers and district coordinators were engaged in collecting information regarding progress with coverage reporting and reiterating timelines and cascade to the officials.

Monitoring by Independent Agency: Evidence Action with approvals from the Government of Madhya Pradesh assessed the performance of the program through hiring of independent survey agency "Karvy Insights Pvt Ltd" whose trained monitors observed implementation on NDD and mop-up day. Process monitoring assessed the preparedness of schools, *anganwadis*, and health systems to implement NDD and the extent to which they have followed recommended protocols to ensure a high-quality NDD program. Real time findings were shared with state government on the day of visits to enable immediate corrective actions.

Monitoring Visits by Evidence Action: In total, 885 visits were made in Madhya Pradesh by Evidence Action team to government, private schools and *anganwadi*s on NDD and mop-up day. The detail analysis and summary note is placed in **Annexure J.**

[12] Sagar, Ashoknagar, Sidhi, Vidisha, Seoni

Snapshot of M&E activities
I. Telephone Monitoring and Cross Verification
• Tele-calling conducted across 313 blocks in 51 districts of the state • 25,683 successful calls made during December,2016-March, 2017 • 12,161 calls to health functionaries including district and block level officials and ANMs • 4,865 calls to WCD department (district, block level officials, Lady Supervisor, and AWW) • 8,657 calls to education department (district, block level officials, government and private schools)
II. Training Quality Assessment
• A total of 51 district and 225 block level training quality assessment was done using standard format
III. Field Monitoring Visits
• Total 885 monitoring visits by Evidence Action staff were made in selected schools and *anganwadis* • NDD monitoring checklist given in NDD implementation guideline was administered • 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 51 districts on NDD and mop-up day • 125 trained independent monitors from independent agency visited 249 schools and 251 *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 51 districts during February 21-28, 2017 • 125 trained independent monitors from independent agency visited 625 schools and 625 *anganwadis*

4.2 Assessing treatment coverage

The Monitoring and Evaluation activities carried out during February 2017 round of NDD in Madhya Pradesh, included coverage validation in each NDD district to gauge the accuracy of reported treatment coverage.

Coverage Validation: Coverage validation is an ex-post check of the accuracy of the reporting data and coverage estimates. Coverage validation data was gathered through interviews with *anganwadi* workers, headmasters/teachers, and a sample of three students from three randomly selected classes in each of the 625 sampled schools 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.

Coverage Reporting: The coverage reporting for NDD was done using the NDD mobile/web application. Government of India provided the state with 365 user IDs and passwords to all 313 blocks and 51 districts for entering data and approval respectively in the NDD app/ webpage and one for the state to view the state aggregation report on App. The reporting cascade of the state was followed while reporting NDD coverage.

As per the state coverage report 1,81,19,119 children were dewormed against a target of 1,98,73,840 children. This target was revised at the time of reporting NDD coverage. The program target set prior to the NDD round was 1,98,00,279 based on the data received from the districts. The reason reported for change in targets is due to inclusion of children in NDD from pre-school and nurseries of private sector which were not included under DISE data of state due to which major deviation has been observed in the coverage category of registered children in the *anganwadi* centres. In future these deviations must be avoided through greater coordination with the Department of Education and Department of WCD for providing data/listing of children enrolled at schools and registered children in *anganwadis* to NHM to

plan mobilization for greater outreach to these children on NDD and mop-up day. Moving forward, it is imperative for the state to set targets equal to the census population that will allow clarity in understanding the actual coverage in the target population.

4.3 Key Findings

Process Monitoring findings highlight that 65% of schools and 79% of *anganwadis* visited, received training for the recent round of NDD and around 88% of schools and 92% of *anganwadis* conducted deworming either on NDD or mop-up day. Findings from coverage validation also reflected that 87% of schools and 91% of *anganwadis* administered albendazole to children during NDD or mop-up day.

Of the total schools and *anganwadis* visited, around 70% of schools and 78% of *anganwadis* received NDD posters/banners. However, integrated distribution of NDD kits[13] was comparatively lower for both schools (52%) and *anganwadis* (54%). This shows that only around half of the schools and *anganwadis* who participated in the trainings, received all materials (albendazole, banner/poster and handout/reporting forms) at the trainings which clearly indicates lack of integrated distribution. This indicates that NDD materials were distributed individually to certain schools and *anganwadis*, thus likelihood of increasing costs incurred on logistic and posing a risk on the availability of the materials prior to the round.

Around 68% of schools and *anganwadis* received training reinforcement messages through SMS. Awareness on the causes of worm infection **(Annexure K-Table 1)**, possible adverse events, and adverse event management practices **(Annexure K-Table 5)** were high among teachers and *anganwadi* workers. Nevertheless, only 26% of teachers and 27% of *anganwadi* workers reported the possibility of any adverse event among children after administration of albendazole tablets. More than two third of the teachers and *anganwadi workers* were aware about processes for management of adverse events like laying down the child in open/shaded place or giving ORS/water.

Around 33% of sampled private schools (N=29) visited reported being trained for NDD. Among these private schools, 75% had sufficient drugs for NDD, 41% received a banner/poster, and 31% received handouts/reporting forms. SMS related to NDD were received by only 37% of private school teachers/ headmaster. This shows that while drugs were made available to three-fourth of the private schools covered, majority of schools did not attend training, which is a crucial aspect of program for receiving necessary knowledge and materials through integrated distribution. Program 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 must be made to enhance private schools engagement through greater engagement of District Collector. A Demi Official letter (DO) were issued by MD NHM to all 51 District Collectors seeking their active support in the NDD program through conducting DCCM in all districts with participation from private school association for extending benefits to all children.**(Annexure J- Table 6).**

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

Table 4: Key Findings from Process Monitoring and Coverage Validation

Indicator	School (%)	N	*Anganwadi* (%)	N
Received SMS for current NDD round	68	249	68	251
Attended training for NDD	65	249	79	251
Integrated distribution of albendazole tablets and IEC materials[1]	52	249	54	251
Schools/*anganwadis* conducting deworming	87	625	91	625
Children consumed tablet	99	1533	Not Applicable	Not Applicable
Followed correct recording protocol[14]	41	543	43	568
Copy of reporting form was available for verification	36	543	23	568
State level verification factor[15]	0.45	17804	0.80	11723
State level inflation rate[16]	121	8061	25	9390
Estimated NDD coverage based on verification factor	41	-	73	-
Estimated NDD coverage based on school attendance	68	-	Not Applicable	Not Applicable

Coverage validation data revealed that 41% of schools and 43% of *anganwadis* followed correct protocols for recording the number of children dewormed. However, around 43% of schools and 32% of *anganwadis* did not adhere to any recording protocol. Despite given information during training, a substantial proportion of *anganwadi* workers did not have the list of unregistered preschool-age children (83%) and out-of-school children (81%). Only 36% of schools and 23% of *anganwadis* had a copy of their reporting form post submission, though they were instructed to retain a copy as per NDD guidelines. In addition, the findings indicate high inflation rate (121%; verification factor of 0.45) for enrolled children against the treatment figures. Similarly, the state level inflation rate was 17% (VF=0.85) for *anganwadi* registered children, 9% (VF=0.91) for *anganwadi* unregistered children and 80% (VF=0.56) for out-of-school children. The high inflation rate in reporting of dewormed children indicates lack of proper documentation and aggregation errors at schools and *anganwadi* centres.

The state government reported 91% coverage in both school and *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 45% of treatment figures reported by schools and 80% for *anganwadis*. Applying these verification factors to respective government reported coverage, it is estimated that 41% (45% of 91% coverage reported) children could have been dewormed in the schools and 73% (80% of 91% coverage reported) in *anganwadis*.

Further, NDD treatment coverage in schools considering maximum attendance of children on NDD dates was estimated. Coverage validation data showed that 87% of schools conducted deworming on either NDD or mop-up day, maximum of 86% of children were in attendance, 94% of children received albendazole tablet and 96% of them reported to consume albendazole

[14] Correct 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.
[15] Ratio of recounted value of the dewormed children to the reported value. This calculation is based on only those schools (n=286) and *anganwadis* (n=267) where deworming was conducted and copy of reporting form was available for verification.
[16] Proportion of over reported dewormed children against total verified children in schools and *anganwadis*.

tablet under supervision of any teacher. Taking these factors into account, 68% (0.87*0.86*0.94*0.96) 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 & Annexure L).**

4.4 Trend of key indicators over NDD rounds

To understand the changes in selected indicators from NDD 2016 to NDD 2017 round, indicators are presented in graphical form below.

Data shows that there is no improvement in training participation of *anganwadi worker* from NDD 2016 to NDD 2017 round, while this has declined by 14 percentage points for headmaster/teachers in between these rounds **(Figure 7).** Lack of information about NDD training continues to be the main reason for teachers/*anganwadi* workers not attending NDD trainings **(Figure 7).** This decline could be attributed due to non-issuance, of separate training related instructions from districts and block -level Education department as a result, this may have led to less participation of teachers or headmasters in trainings. In some cases, scheduled NDD training dates were not followed due to delay in distribution of IEC and training material through integrated distribution and the revision of training dates was not timely communicated to participants. It is crucial that all trainings should be completed as per the pre-determined schedules. If delayed, it should be planned to be completed a minimum of a week in advance to the NDD date which will provide 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.

Figure 7: Comparison of training indicators for school/*anganwadi* from NDD 2016 to NDD 2017

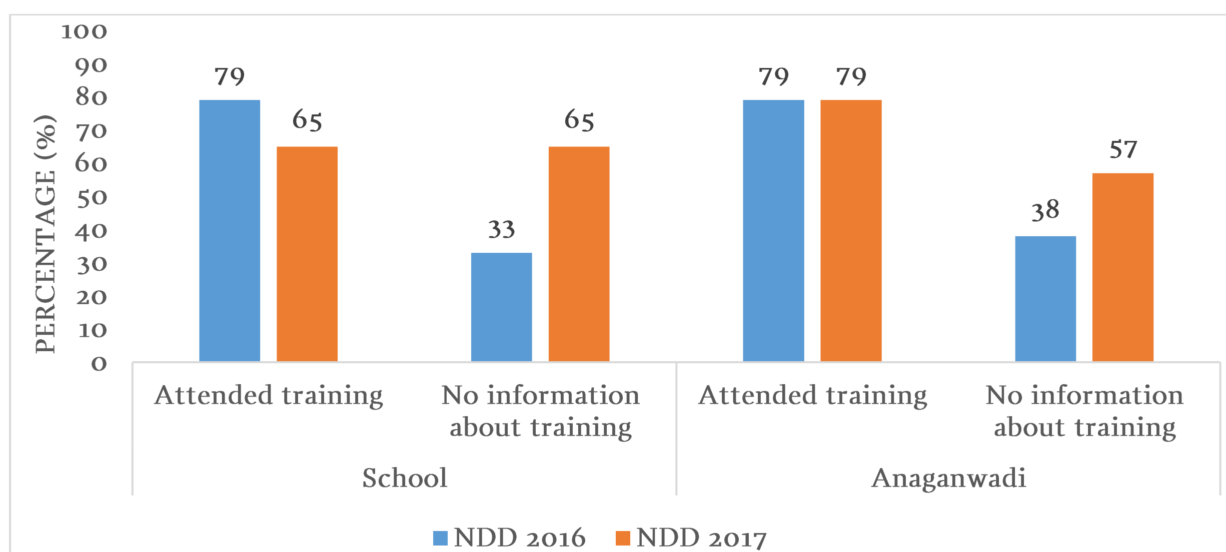

Figure 8: Comparison of key indicators in schools from NDD 2016 to NDD 2017

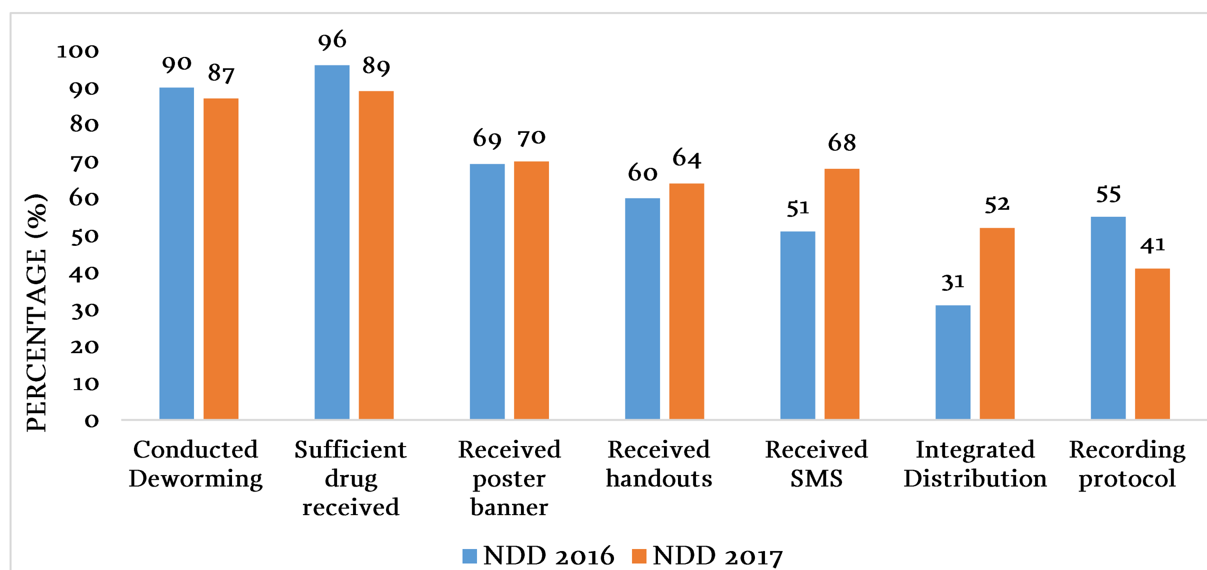

Figure 9: Trend of key indicators in *anganwadis* from NDD 2016 to NDD 2017

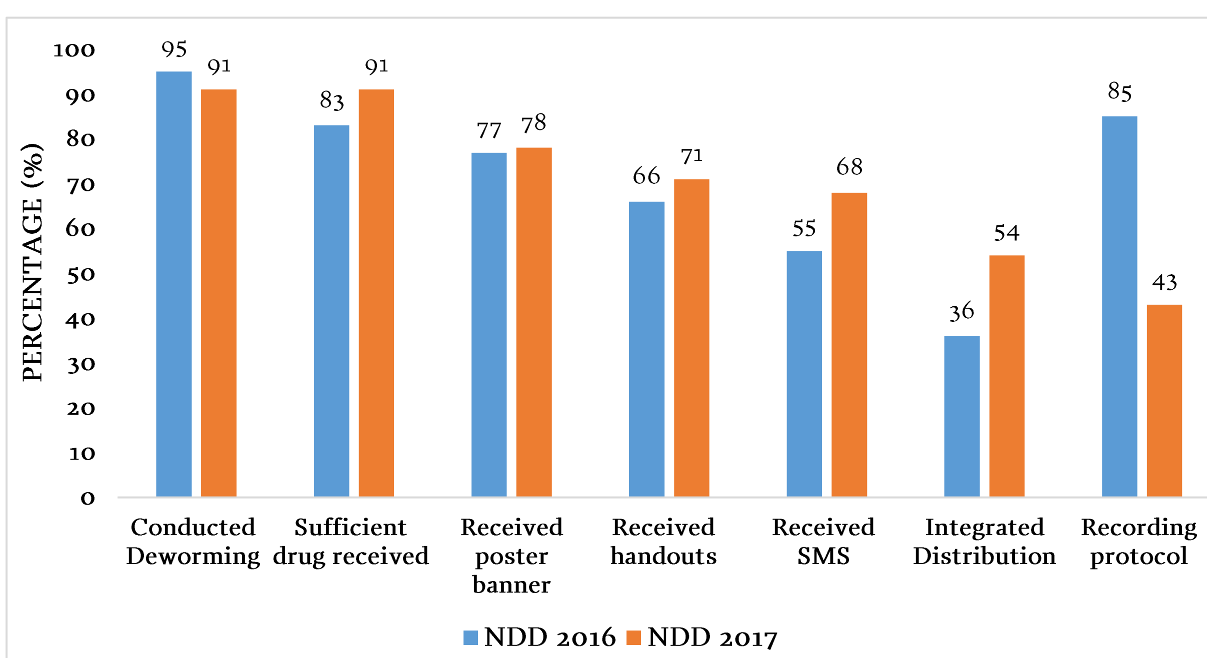

Figure 8 and 9 represents change in selected indicators from NDD 2016 to NDD 2017 for schools and *anganwadis* respectively. This depicts that though the NDD implementation declined marginally in the state, for both schools and *anganwadis*, its level remains as high as around 90% and more during both NDD rounds in the state. The percentage of schools that received sufficient drug for NDD has declined slightly but remains high at 90%, at the same time it has increased for *anganwadis*. The percentage of schools and *anganwadis* received

poster/banner was stagnant over NDD rounds. The percentage of schools and *anganwadis* received handout/reporting form increased slightly by four and five percentage points respectively, however, remains around two-third only. This low percentage might be attributed to delayed distribution of handout/reporting forms and not reaching timely at block level. The integrated distribution increased by almost 20 percentage points for both schools and *anganwadis* from NDD 2016 to NDD 2017. This improvement in the indicator could be due to strengthened efforts by NHM to ensure integrated distribution with all materials in trainings of teachers and *anganwadi* workers.

The percentage of schools and *anganwadis* that received SMS increased by 17 percentage, and 13 percentage points respectively. Despite an overall moderate increase in the SMS received both in schools and *anganwadis*, the state should make further efforts in strengthening the contact database thus increasing the delivery of SMS to maximum number of teachers and *anganwadi* workers who didn't received SMS as CV data suggest that only 68% of teachers & anganwadi workers received SMS in NDD-2017 round. The revised contact database by all stakeholder departments should be shared to the Department of Health two months prior to the NDD round. Further coordination with department of ICDS and Education department is crucial in strengthening the contact database. The percentage of schools and *anganwadis* that followed correct recording protocol declined from the previous NDD round. The drop-in percentage of schools and *anganwadis* followed correct recording protocol, could be partly attributed to low training attendance of schools, and merged NDD trainings with other ongoing departmental trainings, thereby impacting the quality of sessions being conducted.

4.5 Data Quality Assessment

Evidence Action with approvals from state government implemented the WHO Data Quality Assessment (DQA) Tool to verify reported data, assess data management and reporting system for NDD program in the state during October 2015 to January 2016.

The DQA exercise had revealed the importance of following recording protocols and retaining a copy of reporting form for verification purpose at school and *anganwadi* level by paying emphasis on the reporting process during training sessions; improve the quality of data by fixing responsibilities for data reporting, compilation/aggregation of reported data. It also highlighted the importance of back-up documentation across all levels of reporting cascade.

On the basis of the DQA recommendations shared with state, initiatives were taken in further NDD rounds of 2016 and 2017 for program improvement. Still there are following areas require improvement i.e. reinforcement in NDD trainings to strengthen recording/reporting protocols, and retaining copy of reporting forms at lowest cascade. Coverage validation data of NDD 2017 suggest that only 41% schools and 43% of anganwadis followed correct recording protocol and the copy of reporting forms were available in 36% schools and 23% of anganwadis for verification.

5. Recommendation

It is critical to conduct consistent high coverage program in all 51 districts through continued efforts.

- For a high-quality and high coverage of program, setting program targets as per census, and reporting coverage against the set targets prior to the ND round is important. For future rounds, it is essential that the department of Health in coordination with Education and ICDS department should arrive at a consensus in setting NDD program targets as per the census population. Further, joint exercise with districts and blocks is essential in determining the targets and further orienting them on importance of adhering to pre-decided NDD program targets while reporting coverage from block level.
- Training is a critical component of the program and greater emphasis should be given on following areas:
    - Improving attendance at trainings is likely to benefit the integrated distribution, since drugs and materials are planned for distribution at that level of training. Findings from training attendance suggest that quality and coverage can be improved in future rounds by ensuring that there is no deviation in the training cascade, sessions are planned timely and greater emphasis is placed on communicating training dates to participants.
    - It was observed that during NDD 2017, no State level Training was organized. The state should organize the state ToT as per the NDD guidelines and cascade which should be completed by two months prior to NDD.
    - State should consider use of Flipcharts as an essential training aid during block level trainings. This increases the message recall and retention by the participants. The state should plan wisely while projecting funds for IEC material printing in next PIP.
    - Findings also suggest that reinforcement SMS should be sent to inform participants about the training dates to maximize participation. Finally, better attendance at trainings may also be used to capture contact details, improving the ability of the program to reach to the ultimate program implementers.
    - Training and reinforcement messages shared through SMS need to increase focus on the importance of correct reporting protocols and retaining copy of reporting form at schools and *anganwadi* for 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* which may control high inflation rate.
    - Though the trend analysis findings suggest an improvement in SMS delivery to schools and *anganwadis*, however; it is important that all stakeholder departments should continue to strengthen their respective contact database in order to maximize timely delivery of training dates and schedules. This will further help in maximizing attendance in trainings.

- Promote strengthening of private school engagement through participation of their representatives in Steering Committee Meeting at state and district level coordination committee meetings, any other special meetings called by district and block education officers. The State should must reach out to the District Collectors atleast two months in advance 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 two month prior to the NDD round will be essential.

- To encourage intensive engagement of ASHAs in community mobilisation for reaching out to out-of-school children, it is essential to ensure greater engagement of ASHA cells at state/district and block health supervisors level for providing support in the trainings of ASHAs on NDD in their regular meeting. Ensure letters are issued on their engagement and roles as well as incentive is sent out atleast two months in advance. Their orientation on the NDD program and its benefits should be initiated atleast two months in advance so that there is message recall and time to include appropriate messaging at home visits, mother's meetings and other health education efforts. Further, reinforcement during trainings is essential on role clarity of ASHAs.
- As the program continues to be strengthened and systems of financing, procurement, trainings, community mobilization are streamlined, it is important to increase focus on prevention strategies for future NDD rounds. Active collaboration with other key stakeholder's departments like *Swachh Bharat Abhiyan*, and efforts on sanitation and hygiene practices must be pursued. In addition, letter/directives may be issued from the NHM about NDD, benefits of deworming, importance of integration/synergies between deworming with sanitation. This can result in wider impact collaboration with other key stakeholders.

Annexures

Annexure A	Letter issued to Districts regarding change in date of NDD-2017
Annexure B	State coverage report submitted by National Health Mission (NHM) Madhya Pradesh to Government of India
Annexure C	Letter to districts for decentralized drug procurement
Annexure D	Drug bundling plan
Annexure E	Letter issued for Drug recall
Annexure F.1	State-level Communications Campaign for National Deworming Day February 2017
Annexure F.2	National-level Communications Campaign for National Deworming Day February 2017
Annexure G	Letter released by Health department to private telecom providers
Annexure H	Findings and recommendation of NDD communications campaign assessment
Annexure I	Training monitoring analysis note
Annexure J	Note on monitoring visits on NDD and mop-up day
Annexure K	Process monitoring tables
Annexure L	Coverage validation tables