

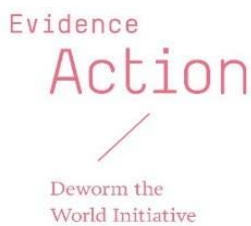


Tripura National Deworming Day



Photo Credit: Evidence Action

February 2017



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List of Acronyms

ASHA:	Accredited Social Health Activist
AWC:	<i>Anganwadi</i> Centre
AWW:	<i>Anganwadi</i> Worker
BNO:	Block Nodal Officer
CDPO:	Child Development Project Officer
CMO	Chief Medical Officer
CIFF:	Children's Investment Fund Foundation
DNO:	District Nodal Officer
DEO:	District Education Officer
DPM:	District Program Manager
DM:	District Magistrate
DAPM:	District ASHA Program Manager
DFWPM:	Directorate of Family Welfare & Preventive Medicine
DPO:	District Program Officer (Social Welfare & Social Education)
DISE:	District Inspector of Social Education
GoI:	Government of India
ICDS:	Integrated Child Development Services
IEC:	Information, Education and Communication
MD:	Mission Director
MO I/c:	Medical Officer in charge
MPW:	Multipurpose Worker
MPS:	Multipurpose Supervisor
NHM:	National Health Mission
NDD:	National Deworming Day
NIPI:	National Iron Plus Initiative
PIP:	Program Implementation Plan
PMCV:	Process Monitoring & Coverage Validation
PHC:	Primary Health Centre
RBSK:	<i>Rashtriya Bal Swasthya Karyakarm</i>
SW&SE:	Social Welfare & Social Education
SAPM:	State ASHA Program Manager
SNO:	State Nodal Officer
STH:	Soil Transmitted Helminths
TTAADC:	Tripura Tribal Area Autonomous District Council
WHO:	World Health Organization
WIFS:	Weekly Iron Folic Supplementation
VC:	Video Conference

Executive Summary

Contributing to the Government of India's National Deworming Day (NDD) efforts, the Government of Tripura conducted the fourth round of National Deworming Day (NDD) in all eight districts on February 10, 2017, followed by mop up day on February 15, 2017, targeting all children in the age group of 1-19 years. In this round, the state dewormed 10,48,719 children in the target age group. This achievement is an outcome of exemplary leadership from the Department of Health in coordination with the Departments of Education and Social Welfare and Social Education. Evidence Action provided technical assistance to the program through funding support received from Children's Investment Fund Foundation (CIFF) and Dubai Cares.

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	08	08	08	08
Total number of blocks implemented NDD	58	59*	59*	59*
Number of schools reporting coverage	4845	4845	4847	4816
Number of <i>anganwadis</i> reporting coverage	9911	9911	9874	9864
Number of enrolled children (classes 1-12) who were administered albendazole on NDD and mop up day	Government Schools	6,87,487	6,86,125	6,86,139
	Private Schools	1,01,659	81,331	81,385
Number of registered children dewormed (1 to 5 years) at <i>anganwadis</i> on NDD and mop up day	3,07,435	3,29,533	3,29,533	3,08,740
Number of unregistered children dewormed (1 to 5 years) at <i>anganwadis</i> on NDD and mop up day	36,490	27,461	17,660	13,409
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)	1,57,111	41,472	57,471	47,501
Total number of children dewormed (1-19 years)	12,90,182	11,65,922	11,72,188	10,48,719

* Source: Report submitted by NHM Tripura to Government of India on April 3, 2017 (**Annexure A**)

Evidence Action provided technical assistance to the Government of Tripura for the successful implementation of NDD in February 2017, incorporating learnings from the previous rounds to guide program planning. State's commitment towards the program was reflected in efforts to leverage existing platforms utilized by NDD and converging with Weekly Iron and Folic Supplement (WIFS) and National Iron Plus Initiative (NIPI). In an effort to include migrant population, all eight districts arranged temporary NDD booth in brick kilns areas to reach out of school children (**Annexure B**). Of 6065 targeted migrant

children, 5152 were dewormed while data from District Dhalai and West Tripura could not be retrieved.

1. Program Background

1.1 Benefits of Deworming

A large body of rigorous scientific evidences from around the world provides a strong rationale for mass deworming¹ in places where prevalence of Soil-Transmitted Helminths (STH) is 20% or higher² using existing platforms of schools and pre-schools. 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.

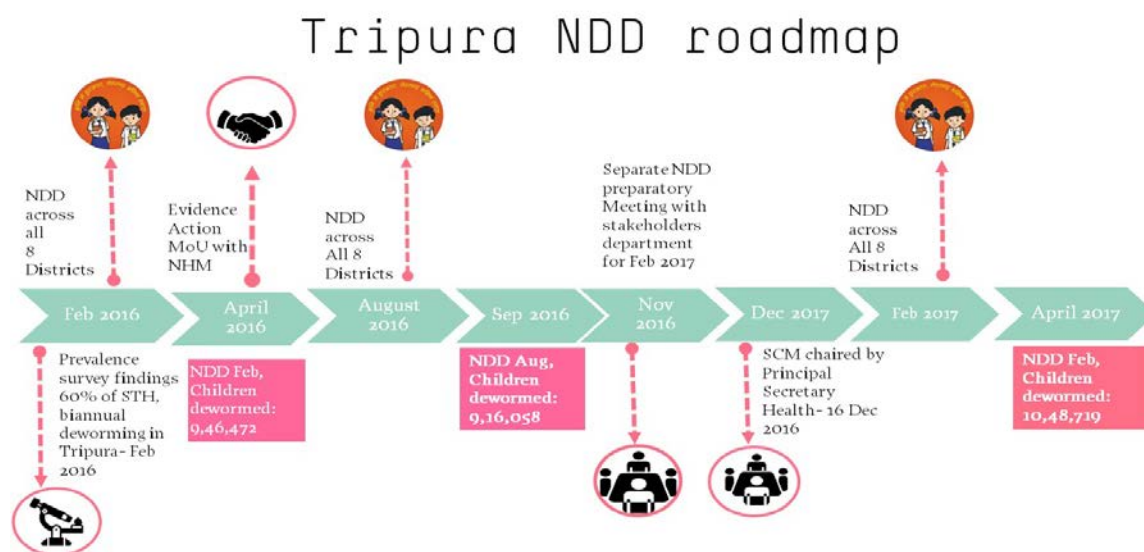
Figure 1: Benefits of Deworming



1.2 State Program Background: Tripura

The State implemented the NDD program in Tripura as per the GoI NDD operational guidelines. Key milestones are shown in Figure 2 below, and more information on NDD is provided in Section 2.

Figure 2: Tripura NDD Roadmap



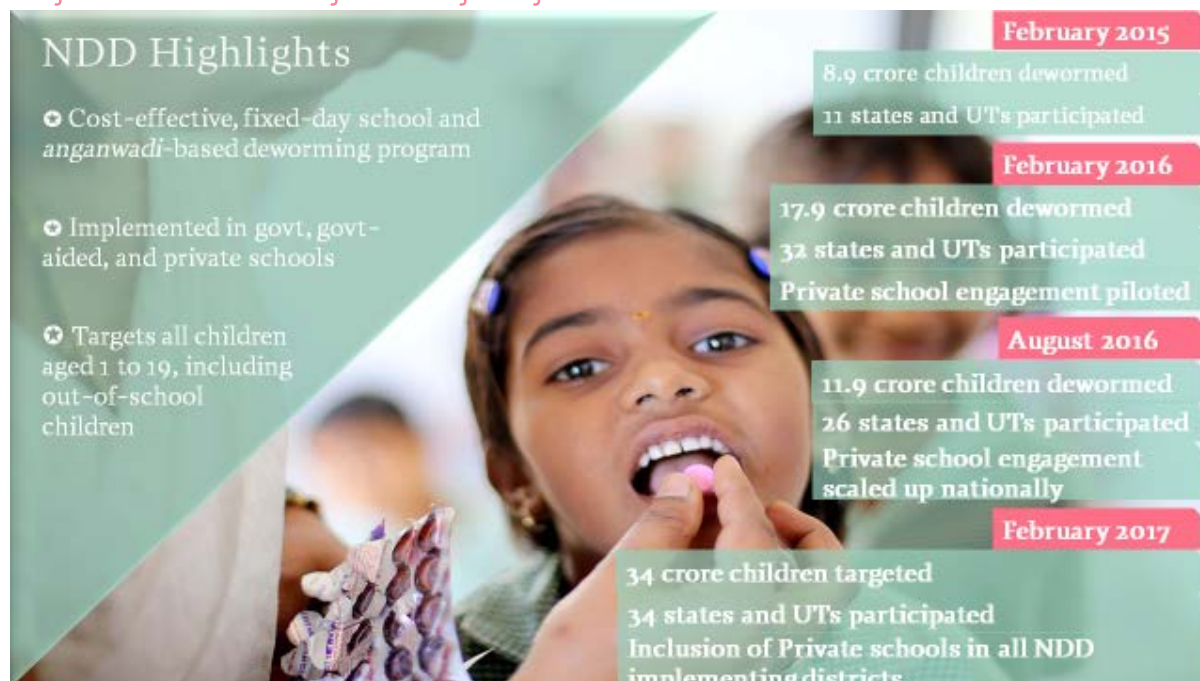
¹ <http://www.povertyactionlab.org/publication/deworming-best-buy-development>

² “Helminth control in school-age children- A guide for managers of control programmes”: WHO, 2011

In early 2016, STH prevalence survey conducted by Evidence Action showed that prevalence of any kind of STH among school-aged children in Tripura state is approximately 60%. In accordance with the World Health Organization’s guidelines and GoI notification the state is implementing the biannual round of NDD.

2. About National Deworming Day

Figure 3: NDD Program Highlights



3. State Program Implementation

3.1 Policy and Advocacy

Effective implementation of a program of such scale requires intensive stakeholder collaboration at each administrative and implementation level. The Key highlights of interdepartmental collaboration are shown in figure 4 below.

NHM, Tripura led three preparatory meetings with stakeholder departments – Social Welfare and Social Education, Education and Health on November 14, 15 and 16, 2016 respectively. The first two meetings were chaired by Member Secretary and the latter by Mission Director, NHM. Key findings, challenges and gaps from the previous round were discussed with each stakeholder and based on the data presented during the meeting emphasis was placed on enhancing planning for August 2017 NDD round.

The State Coordination Committee meeting was held on December 16, 2016 under the chairmanship of Principal Secretary, Department of Health and Family Welfare, with participation from stakeholder departments to take critical decisions for NDD planning and implementation. As deworming also contributes in controlling anemia so the state decided

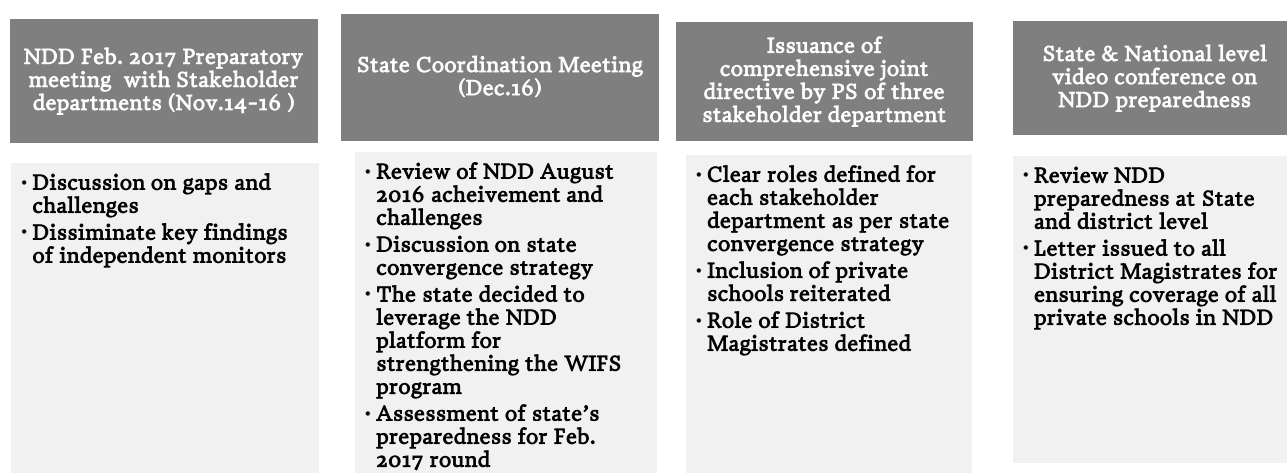
to leverage the NDD platform and subsequently a convergence strategy was developed to strengthen WIFS program to combat anemia, which has high prevalence at 48.3% among children of 6-59 months as per NFHS-4³. The implied strategy was intended to raise awareness among stakeholders on need of deworming and to tap robust supply systems for distribution in WIFS program. Further, as improved sanitation and hygiene practices among children are a long term behavior change required to break the worm infestation cycle, therefore, as part of its convergence strategy state decided to run a dedicated campaign to promote sanitation and hygiene practices among children during the NDD round. Items such as nail cutter and liquid soap were distributed to each government and private schools and *anganwadis* across the state by Department of Education and Social Welfare & Social Education respectively to spread awareness on hygiene practices with greater visibility and practice during NDD. **(Annexure C)**

Principal Secretaries of Health, Education and Special Secretary, Social Welfare & Social Education signed and issued a comprehensive joint directive for all concerned officials of stakeholder departments on January 10, 2017. The directives led emphasis on private school participation in the implementation of NDD Feb 2017 to facilitate benefits of deworming to reach all children **(Annexure D)**.

At the district level, District Magistrate from each district issued a letter to all private schools for participating in NDD. A separate meeting for all private schools chaired by District Magistrates was held in all districts. Further, to engage migrant children who are out of school, a letter from department of health on arranging temporary booth was circulated to all Medical Officers on February 8, 2017.

The state nodal officer participated in the National Review Meeting on December 23, 2016 organized by the Ministry of Health and Family Welfare, GoI with support from Evidence Action.

Figure 4: Efforts towards Stakeholder Collaboration and Convergence



³ http://rchiips.org/NFHS/pdf/NFHS4/TR_FactSheet.pdf

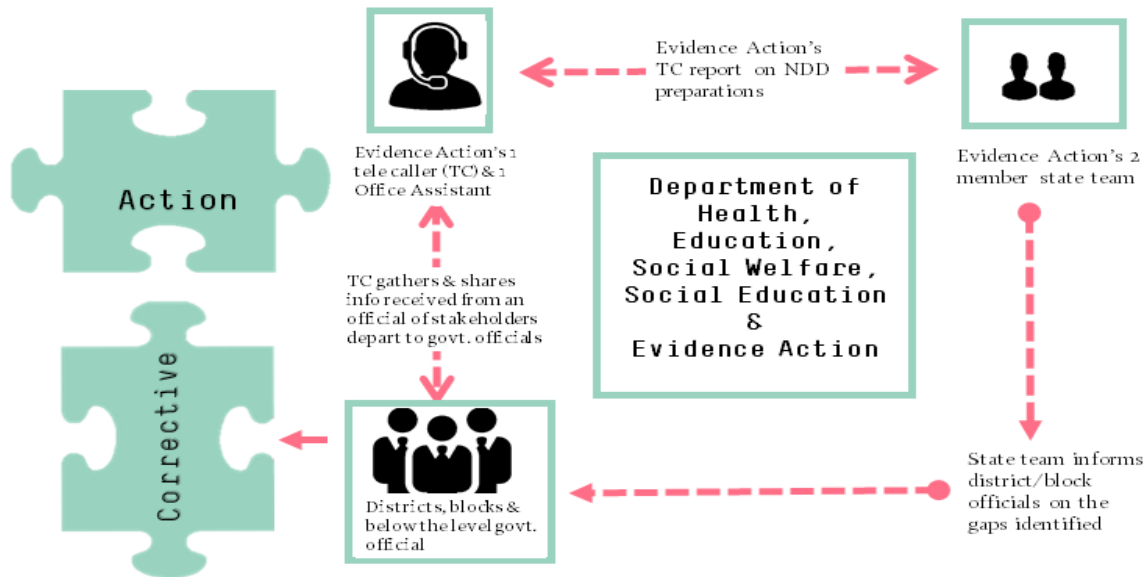
First State-level video conference on NDD preparedness was conducted on January 2, 2017. Subsequently, NDD was included as one of the agenda item for state’s routine weekly video conferencing with the Districts. MD, NHM, state nodal officer, participated in the National Level Video Conference (VC) held on February 2, 2017 to share status update on NDD preparations.

Taking note of a national level initiative MD, NHM requested the Panchayati Raj Department to extend their support to strengthen community mobilization efforts for NDD implementation in the state. As an outcome a directive was issued to all administrative units under the department to convene special *gram sabha* between 1- 9 February 2017 and discuss NDD, deworming and its benefits, importance of hygiene practices such as hand washing and regular nail cutting. **(Annexure E).**

3.2 Program Management

Evidence Action provided technical assistance through state based team, one office assistant and one tele-caller (at state-level). The state team assisted in program planning and also coordinated with stakeholder departments to share real time updates on program implementation and facilitate corrective actions from the respective government departments. Figure 5 gives an overview of the information flow between the Evidence Action team and district and block government officials. Evidence Action drafted an operational plan for NDD February 2017, which was finalized by the State nodal officer and shared with the stakeholder departments after approvals from NHM.

Figure 5: Evidence Action Facilitates Corrective Actions



3.3 Drug Procurement, Distribution, and Management of Adverse Events

a) Drugs Procurement: Taking the learning from the last round, drug procurement plan was streamlined in advance in which the state actively reached out to GOI for support in the supply of drugs in this round. The state requested for 14,50,000 and received 14,16,200

albendazole tablets (400 mg) under WHO drug donation program from the Ministry of Health and Family Welfare to cover children of 1-19 years in all eight districts based on the determined targets. Evidence Action supported state in coordination with the Kolkata based Government Medical Store Depot (GMSD) for timely supply of drugs to the state so that further testing and supply to the districts could be ensured on time. The drugs were tested at state drugs testing laboratory prior to its distribution to Districts.

b) Drug Logistics and Distribution: The Department of Health ensured bundling of these NDD kits⁴ at district level, which included drugs and all program materials, such as training handouts, IEC materials, and reporting forms. Replenishment of IFA tablets and syrups for four weeks were also part of the NDD kit to government schools and *anganwadis* with an aim to strengthen ongoing WIFS program.

Evidence Action developed district and block wise drug bundling and distribution plans (**Annexure F**) to streamline integrated distribution NDD kit to schools and *anganwadis*. Evidence Action supported the state department in tracking drug availability at district and block through tele-calling and provided timely updates to enable officials to undertake corrective actions.

WHO donated drugs consist of 200 tablets in each sealed jar. As state has substantial number of schools and *anganwadis* with enrollment of children less than 50. Therefore, to avoid wastage and spoilage of drugs, the state adopted a strategy to repack 50 tablets in plastic pouches. MD, NHM issued a directive to enable districts for local procurement of plastic zip pouches and ensure adequate hygiene during repackaging of drugs before including them in NDD kit. **Annexure G**

c) Adverse Event Management: To address any incidence of adverse events, the state adapted adverse event management protocol from NDD operational guidelines. One serious adverse event was reported during NDD February 2017 round and was hospitalized in block Gournagar of Unakoti District.

d) Drug recall status: Evidence Action supported the state government in tracking leftover and unused sealed jars of albendazole tablets at the districts. The leftover drug status for all eight districts is presented in the table below.

Table 2: Status of Drug Recall

Total Sealed Albendazole Tablets Jar left at Districts post NDD	105
Albendazole tablet inside the sealed jar (105 *200)	21,000
Loose albendazole tablets	1,46,952
Total albendazole tablet available sealed jar and loose	1,67,952

The department of health will be directing districts to use the packed jars in the upcoming August 2017 round as per drug safety recommendation **Annexure H**.

⁴ NDD kits includes drugs, IEC materials such as posters and handbills and reporting formats.

3.4 Public Awareness and Community Sensitization

The state adapted the NDD IEC resource kit as uploaded on NHM website of GoI developed by Evidence Action. Besides printing of NDD IEC materials, such as, posters, banners and community handbills, the state printed three types of posters that covered importance of hand washing, nail cutting, reducing anemia, improving sanitation and hygiene, which were disseminated further to districts and blocks for further dissemination. The state undertook mass and mid-media activities like flash advertisement on local TV channels, broadcasting radio jingles, and newspaper advertisements to generate awareness on NDD and its convergence with WIFS. The state also used social media platforms like Facebook and WhatsApp groups for creating awareness on NDD. During February 3 to 14 the Health Department posted 11 infographics, photos, and countdown videos via the NHM Facebook page. Evidence Action developed and shared the content for social media, which was customized and used by NHM. This is the first time that Tripura has engaged in any social media activity vis-a-vis NDD.

On February 7, state organized a press sensitization meeting to educate media personnel on the importance of NDD, deworming benefits to children and the reasons for adverse events, which was chaired by MD, NHM. The meeting was attended by 45 participants including media personnel (print and electronic) and government officials, who were oriented on the importance of the program, benefits of deworming, reasons for adverse events and other key points. Evidence Action provided media kits that included presentation, fact sheets, NDD briefs, and state specific program information. There was detailed media coverage in leading newspapers that surely contributed in generating larger awareness for the program.

Evidence action with the state reached out to telecom service providers i.e. Aircel & Vodafone to use their platform to widely disseminate community awareness messages on NDD. Evidence Action facilitated and participated in meetings, and drafted specific SMS to send to subscribers through these mobile service providers. A total of 10,44,498 NDD awareness messages were sent by these private telecom providers.

At the national level, there was extensive engagement on the media campaign wherein GOI spent INR 5,65,56,800⁵. Additionally, GOI also actively uploaded content on the social media (Facebook, Twitter). For a campaign based program, it is crucial that all stakeholders leverage the platforms at their end for enhanced community awareness and greater program impact. (Annexure – both GOI IEC budgets file, state specific plan in **Annexure I**) The state uploaded deworming related material developed by Evidence Action on the website of [department of health](#) for creating awareness among the web users.

⁵ DD national relayed the NDD 30 second spot eight times a day from February 6 to 13, 2017. DD Agartala broadcasted the 30 second spot six times a day for eight days during the same time period as DD National. News Live, DY 365, Rang, Ramdhenu, Assam Talks 24X7 are private news channels that cover the entire north east area. The 30 sec TV spot was broadcasted for a total of 63 times for 10 days on these channels. Prasar Bharti regional channels for Tripura also relayed the 30 sec radio spot, three times a day, for eight days from February 6 to 13, 2017.

Figure 6: NDD Feb.2017 IEC Campaign Activities



IEC Assessment

In order to continue to improve awareness and community mobilization activities in each 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 were presented at the National Review Meeting in December 2016 and must be included by NDD participating states for robust campaigns in in future rounds. More details on specific findings and recommendations from the assessment can be found in **Annexure J**.

3.5 Training Cascade

a) Training and Distribution Cascade: As per the NDD operational guidelines, a training cascade was implemented from December 30, 2016 to February 4, 2017 across all eight districts and 59 blocks. A total of 4,790 government, private school's teachers and headmasters, 7,206 ASHAs, were trained prior to the round. The accurate number of *anganwadi* workers trained is not available in state coverage report because of discrepancy in reported figure. The state health department printed and facilitated, bundling of NDD kits for distribution to teachers and *anganwadi* workers during block level trainings. As part of integrated distribution, albendazole tablets were not distributed in the NDD kit in around 40% of the block trainings due to absence of proper storage facilities at schools and *anganwadis* to store tablets in pouches. Therefore, the department of health facilitated separate distribution of drug in schools and *anganwadis* at some blocks⁶.

⁶ Information on number of blocks level drug distribution is not available at the State office.

b) Training Resources: Department of Health printed training resources including 430 flipcharts, 5,500 handouts for schools, 10,750 handouts for *anganwadis* and 8,000 leaflets for ASHAs. Evidence Action assisted in drafting the Training and IEC material bundling plan as per the Block’s requirements, enabling materials to be efficiently transported to all districts before commencement of training.

c) Training Reinforcement: Evidence Action supported the reinforcement of key trainings messages among program functionaries through sending bulk SMS. Customized messages prior to mop-up day based on the gaps observed on NDD were also sent to all frontline workers of three stakeholder departments by using NIC & Evidence Action managed SMS portal. Details are captured in table below:

Table 3: Details of SMS Training Reinforcement Messages Sent

SMS sent by	Total SMS sent
Evidence Action	6,65,622
NIC	50,000(approx.)

To this effect, Evidence Action sent 6,65,622 out of which 6,65,432 SMS (99%) were delivered. The reason for high delivery rate of SMS sent by Evidence Action is use of filtered contact database of functionaries. It is important that government stakeholders leverage their existing platforms for sending SMS for greater program impact and sustainability.

d) Training Support: Evidence Action developed a PowerPoint presentation to be used during the state-level training, provided kits to participants consisting of the NDD and coordinated for logistical arrangements.

Evidence Action facilitated District level training by developing a power point presentation to be used during trainings and made regular follow up calls to facilitate scheduled trainings to be conducted as per the timelines. For training quality assurance, Evidence Action conducted training monitoring of 24 block level trainings. The Department of Health was briefed on the observations highlighting key messages, which needed to be reinforced at the remaining Block level trainings. Real time recommendations based on these assessments were shared with the Department of health to improve remaining block level trainings. (**Annexure k**). Some of the key findings are below:

- It was observed that participants joined the training late at the Blocks.
- Out of 19 Master Trainers, 18 used NDD flipchart in trainings to orient the participants.
- In Bishalghar, Jirania and Bamutia block level trainings, there were limited discussions regarding convergence of NDD, NIPI and WIFS program.
- Importance and benefits of NIPI and WIFS program were not discussed in more than 50% of training.
- Participants in Kumarghat and Silachari block level training were not informed that a child of 1 to 2 years should be given half of a crushed albendazole tablet with water.

- Participants in Bamutia, Silachari, Dasda, Poangbari and Hrishyamukh block level training were not informed that a child who is sick or under other medication should not be given deworming tablet/IFA tablets/syrups.

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 for implementing 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.

Tele-calling and Follow up Actions: Evidence Action assessed program preparedness prior to NDD through tele-calling that tracked the status of training, delivery and availability of drugs and IEC materials at the district, block, school and *anganwadi* levels. Tele-calling 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.

Of 9,406 phone calls made during December 2016 to March 2017 including follow up calls, 7992 calls (90%) were successful.

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, Market Xcel Data Matrix Private Limited, 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

Activities carried out during February 2017 round of NDD in Tripura, included coverage validation 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. In this exercise conducted during NDD February 2017 round, a total of 400 randomly selected schools and 400 *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. 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: Government of India provided the state with 68 user IDs and passwords for NDD mobile/ web application to be used at all blocks and districts for the purpose of coverage reporting. All blocks submitted coverage report to districts. The state has a pre-decided target of 11,65,922 children and while reporting coverage it deviated to 11,72,188 because later on State decided inclusion of brick kilns migrant population in their target, which increased the target while coverage reporting.

4.3 Key Findings of Process Monitoring and Coverage Validation

Process Monitoring findings highlight that 92% schools and 98% *anganwadis* attended training for the recent round of NDD and around 99% of schools and *anganwadis* conducted deworming either on NDD or mop-up day. Coverage validation findings also reflected that 99% of schools and 100% of *anganwadis* dewormed children during NDD or mop-up day (**Annexure L**).

Of the schools and *anganwadis* visited, around 95% and 97% respectively received NDD posters and banners. However, integrated distribution of NDD kits⁷ was comparatively lower for both schools (64%) and *anganwadis* (68%). This shows that only two third of the schools and *anganwadis* who participated in the trainings, received all materials (albendazole, banner/poster and handout/reporting forms) in the trainings which clearly indicates inefficient integrated distribution in all the trainings. In particular, drugs were not the part of the kit because of repackaging strategy adopted by state. The materials were distributed individually to remaining schools and *anganwadis*, thus increasing the costs incurred on logistic and also posing a risk on the availability of the materials prior to the round. Around 60% of schools and 50% of *anganwadis* received training reinforcement messages through SMS. Awareness on the possible adverse events, and adverse event management practices was fair among teachers and *anganwadi* workers. Around 63% of teachers and 57% of *anganwadi* workers reported the possibility of any adverse event among children after administration of albendazole tablets. Out of total, more than half 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.

⁷Integrated distribution of NDD kits includes albendazole, banner/poster and handout/reporting forms and provided to schools and AWC during the trainings.

Around 76% of sampled private schools (N=12⁸) reported being trained for NDD. All private schools (100%) received sufficient drugs for deworming, 76% had received a banner/poster, handouts and reporting forms. SMS related to NDD were received by only 27% of private schools teachers/headmaster. This shows that only drugs were made available to the schools and other component of NDD kit were not provided to schools. Around one fourth of the schools didn't attend training, which is a crucial aspect of program for receiving necessary knowledge and materials through integrated distribution.

Table 4: Key Findings from Process Monitoring and Coverage Validation

Indicator	School (%)	N	Anganwadi (%)	N
Received SMS for current NDD round	60	160	50	159
Attended training for NDD	92	160	98	159
Integrated Distribution of albendazole tablets and IEC materials	64	160	68	159
Schools/ <i>anganwadis</i> conducting deworming	99	400	100	400
Children consumed tablet	100	1,185	Not Applicable	Not Applicable
Followed correct recording ⁹ protocol	61	397	81	400
Copy of reporting form was available for verification	74	397	81	400
State level verification ¹⁰ factor	0.63	32,944	0.92	11,093
State level inflation ¹¹ rate	58	20,810	9	10,171
Estimated NDD coverage based on government coverage data	56	-	84	-
Estimated NDD coverage based on school attendance	82	-	Not Applicable	Not Applicable

⁸ 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

⁹ 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

¹⁰ Ratio of recounted value of the dewormed children to the reported value. This calculation is based on only those schools (n=293) and *anganwadis* (n=322) where deworming was conducted and copy of reporting form was available for verification.

¹¹ Proportion of over reported dewormed children against total verified children in schools and *anganwadis*.

Figure 8: Snapshot of M&E Activities

Snapshot of M&E activities	
I. Telephone Monitoring and Cross Verification	
<ul style="list-style-type: none"> • Telecalling conducted across 59 blocks in 08 districts of the state • 7,992 successful calls made during December, 2016-March, 2017 • 2,801 calls to health functionaries including district and block level officials and ANMs • 2,501 calls to WD&CW department (district, block level officials, Lady Supervisor, and AWW) • 2,690 calls to education department (district, block level officials, government and private schools) 	
II. Training Quality Assessment	
<ul style="list-style-type: none"> • A total of 24 block level training quality assessment was done using standard format. • In addition in-depth interview of one participant was conducted from each block level training. 	
III. Field Monitoring Visits	
<ul style="list-style-type: none"> • Total 21 monitoring visits by Evidence Action staff were made in selected schools and <i>anganwadis</i> • 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	
<ul style="list-style-type: none"> • Process monitoring was conducted in all 08 districts on NDD & mop-up day • 80 trained independent monitors from a third party agency, hired by Evidence Action, visited 160 schools and 160 <i>anganwadis</i> • 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	
<ul style="list-style-type: none"> • Coverage Validation was conducted in all 08 districts post mop-up day during February 21-28, 2017 • 80 trained independent monitors from a third party agency, hired by Evidence Action, visited 400 schools and 400 <i>anganwadis</i> 	

Convergence Strategy: The state decided to leverage the NDD platform for strengthening the ongoing WIFS program and include replenishment for four weeks in NDD kit. Additionally, state also decided to run a dedicated campaign to promote sanitation and hygiene practices among children during NDD. Accessories to complement the campaign, such as nail cutter and liquid soap were supplied to each government & private schools and *anganwadis* across the state.

As required by the NHM, Evidence Action designed monitoring tools to gauge success of state's convergence strategy to leverage NDD platform in delivering services for ongoing program, which was approved by the MD, NHM. Key findings reveal that three fourth of schools and two third of *anganwadis*, out of total sampled, were orientated during training on IFA tablet administration. Around 87 % of school and 82% of *anganwadis* were aware on the correct steps of hand washing. Out of total sample, more than 90% of school and *anganwadi* children washed their hands and cut their nails before albendazole administration on NDD and mop up day. The possible reasons for high indicators are proper dissemination of correct messages during block trainings and dedicated printing of IEC materials to converge with NDD program efforts.

Coverage validation data revealed that 61% of schools and 62% of *anganwadis* followed correct recording protocols for the number of children dewormed. Around 8% of schools and 15% of *anganwadis* did not adhere to any recording protocol. 87% of *anganwadi* workers did not have a list of unregistered preschool-age children and out-of-school children (62%) because of no involvement of ASHA as per the NDD guidelines. The possible reason could be lesser orientation of ASHA on their expected role in NDD during block training. Out of total schools and *anganwadis* conducted NDD copy of reporting form was available in 74% of schools and 81% of *anganwadis* as they were instructed to retain a copy as per NDD guidelines. In addition, the findings indicate high inflation (58%; verification factor of 0.63) for enrolled children against the treatment figures. Similarly, the state-level inflation rate was 6% (VF=0.94) for *anganwadi* registered children and 24% (VF=0.80) for out-of-school children. The high inflation rate indicates lack of proper documentation and aggregation errors in reporting of children dewormed at schools and *anganwadi*.

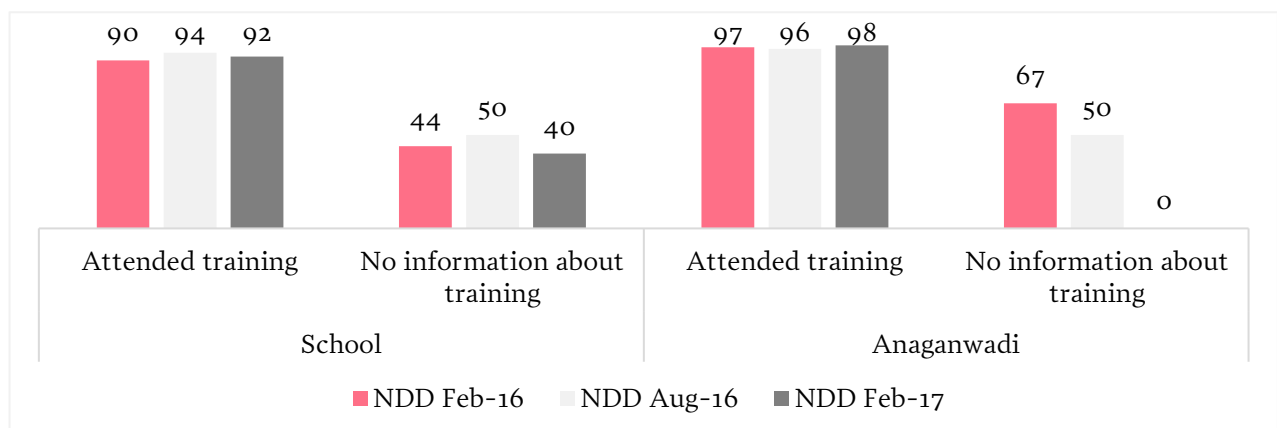
The state government reported 89% coverage in school and 91% in *anganwadis*. Through coverage validation, attempts were made to understand the maximum number of children that could have been dewormed in the schools and *anganwadis*. Coverage validation findings suggest that on an average, we could verify 63% of treatment figures reported by schools and 92% for *anganwadis*. Applying these verification factors to respective government reported coverage, it is estimated that 56% (63% of 89) children could have been dewormed in the schools and 84% (91% of 92) in *anganwadis*.

Further, we also estimated NDD treatment coverage in schools considering maximum attendance of children on NDD dates. Coverage validation data showed that 99% of schools conducted deworming on either NDD or mop-up day, maximum of 84% of children were in attendance, 99% of children received albendazole tablet and 99% of them reported to consume albendazole tablet under supervision. Taking these factors into account, 82% ($0.99 \times 0.84 \times 0.99 \times 0.99$) of enrolled children could have been dewormed in the schools.

The detailed tables with process monitoring results and coverage validations are attached herewith.

4.4 Trend of Key Indicators over the Rounds

Fig 9: Comparison of Training Indicators for School/Anganwadi August 2016 and February 2017 Round



To understand the changes in selected indicators from NDD August 2016 to NDD February 2017 round, which are presented in above graph. Data in figure 9 shows that two percentage point decline in training of headmaster/teacher and improvement by two percentage points for *anganwadi* worker from NDD August 2016 to February 2017. Lack of information about date/venue of NDD training or busy in other official work were the main reasons for headmaster/teachers not attending the training. Findings also reflect block functionaries were not sensitized on the necessity of attending trainings for each round. It is crucial that all block level trainings are completed as per the schedule and minimum 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 mobilize community and spread awareness on the program. Though training reinforcement SMS were sent for alerting training dates for district and block level. The percentage of SMS received is slightly increased but there is scope of improvement. However, contact database continues to be challenge impacting overall delivery of the SMS to the teachers, *anganwadi* workers. The indicators of participation in trainings are high so further efforts could be made in better planning of training dates and disseminating correct training messages during block trainings.

Fig 10: Comparison of Key Indicators in Schools during August 2016 and February 2017 Round

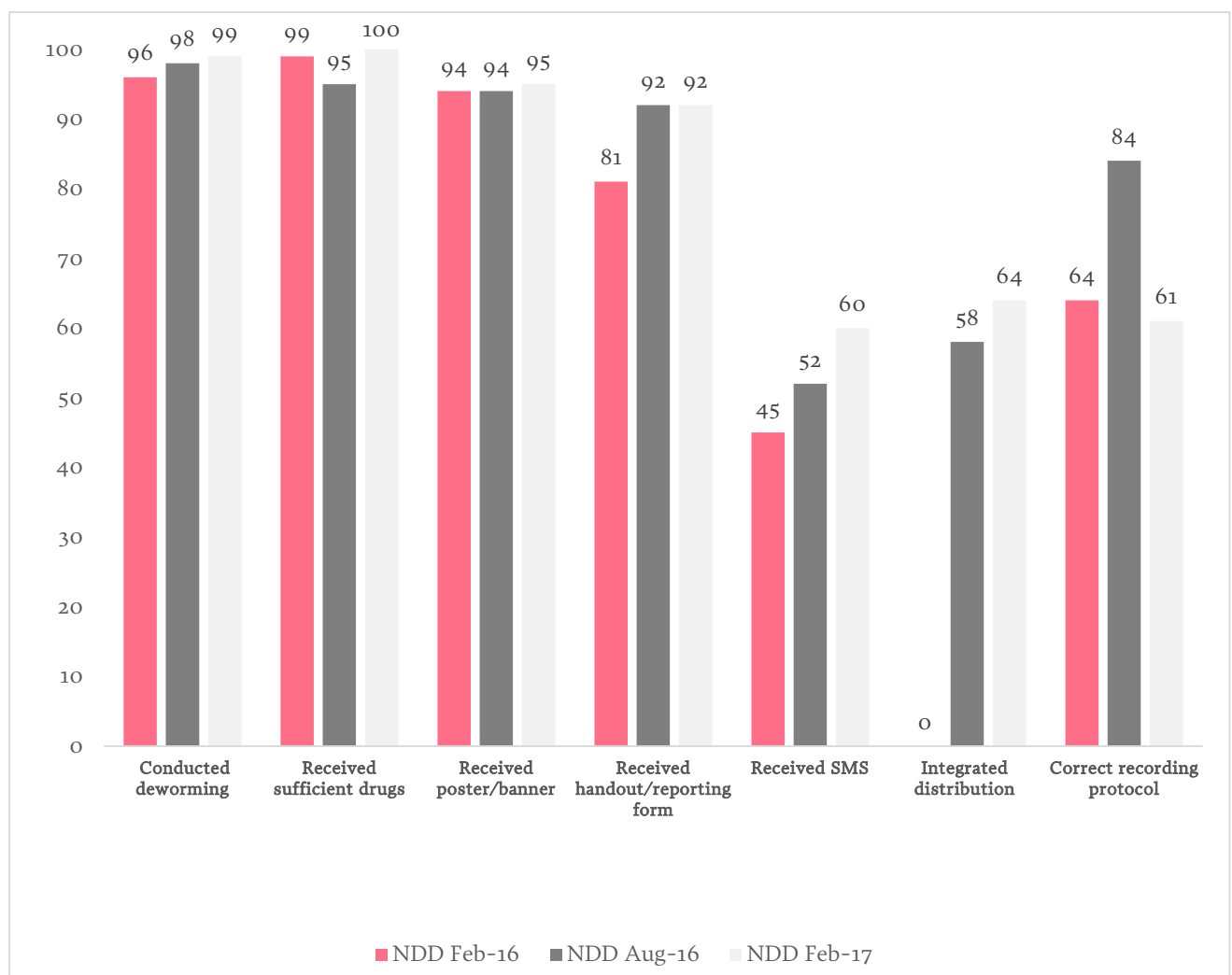
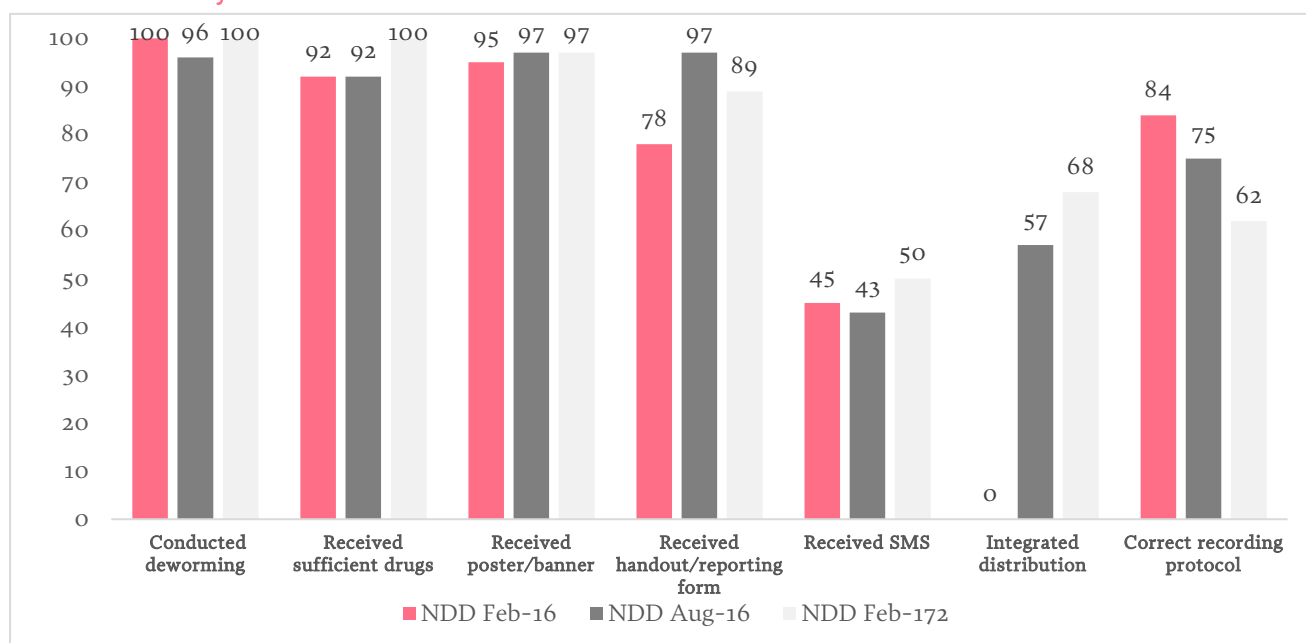


Fig: 11 Trend of Key Indicators in *Anganwadis* during August 2016 and February 2017 Round



All the sampled *anganwadis* and schools received sufficient drug for NDD February 2017. Trend in Figure 10 and 11 depicts improvement for all indicators in schools and *anganwadis* except following reporting protocol possibly because of continued efforts of government of Tripura in facilitating timely communication to districts with support of Evidence Action as its technical assistance partner.

The declining indicator of following correct reporting should be a reason of concern for the state and possible reason behind its fall could be limited reinforcement of information on criticality of following reporting protocol during block trainings. The trend also shows decline in received handout/reporting form in *anganwadis*, which could be because of its limited availability and it may not be a part of NDD kit and if situation remains so then it might create an impact while reporting coverage for forthcoming rounds.

5. Recommendations

It is critical to conduct consistent high coverage program every six months across the state to bring down 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. Below are few recommendations to be implemented in forthcoming rounds:

- 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 at least two

months 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.

- Department of health should take lead in enhancing collaboration with Education and Social Welfare and Social Education department for identification of unregistered children (1-5 years) in *anganwadis*. The social welfare and social education department should identify such children by door-to-door survey in community prior to determination of targets and the listing be available for ASHAs to mobilize.
- During coverage validation it was found that a substantial number of *anganwadis* did not have a list of unregistered preschool-age children (87%) and out-of-school children (62%). To extend deworming benefits to unregistered children of community, regular orientation of ASHA workers on their specific role in community mobilization through existing platforms would be vital for implementing future rounds. State ASHA cell's representative should be invited in SCM and post discussions, a letter to district's ASHA cell should be sent detailing the expected role of ASHAs during NDD implementation. Additionally, state needs to update contact database of ASHAs so that training reinforcement messages are being successfully delivered to them
- Findings of process monitoring shows integrated distribution was limited to 64% in schools and 68% in *anganwadi* respectively. Improvement in integrated distribution of drugs, IEC, and reporting forms through the training cascade should be improved for coming rounds. State at most of the places faced challenges in including drug as a component of kit because of repackaging of drug in pouches. To improve this indicator, state should communicate round specific strategy to districts two months prior of NDD, which will ensure smooth integrated distributions still schools and *anganwadis*. State should align integrated distribution with block trainings, it will save duplication cost in ensuring distribution of one particular component of NDD kit.
- As PMCV findings reveals only 60% of teachers and 50% of *anganwadi* workers received training reinforcement SMS there is urgent need by education and social welfare & social education department to update the contact database so that key information reaches teachers and *anganwadi* workers. However, indicator on SMS received trend over the past three rounds because of continuous updation exercise undertaken shows a substantial improvement in database of functionaries. The state should continue updating the contact database of its field functionaries.
- Coverage validation data suggest that a greater emphasis on recording protocols during the training is likely to improve the quality of coverage data. Training and reinforcement messages sent through SMS need to increase focus on the importance of correct reporting protocols, maintaining correct and complete documentation. Additionally, trainers should ensure that teachers and headmasters understand the guideline to maintain a copy of reporting forms in schools and *anganwadi* so that the data available for coverage validation is more robust. Currently, SMS plan

consists of three messages on reporting protocol, which should be increased for the forthcoming round

- State commitment towards improving hygiene practices with more extensive campaign should be continued in collaboration with Swachh Bharat Abhiyan to bring a sustainable impact in schools and community.

6. List of Annexure and annexures

Annexure A	Report Submitted by National Health Mission (NHM) Tripura to Government of India
Annexure B	Letter Issued to Cover Migrant Brick Kiln Workers
Annexure C	Detailed Roles and Responsibility for Education Department
Annexure D	Joint Directives
Annexure E	Letter related to PRI involvement in NDD
Annexure F	Circular on Drug re-bundling plan
Annexure G	Drug repackaging directive
Annexure H	Drug recall status
Annexure I	GOI IEC Budgets File, State Specific Plan
Annexure J	IEC Assessment Findings
Annexure K	Training Quality Assessment
Annexure L	Process Monitoring And Coverage Validations Findings