



Independent Monitoring of
National Deworming Day in Tripura
August 10, 2017

Report
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Process Monitoring and Coverage Validation

During each round of National Deworming Day (NDD), Evidence Action conducts process monitoring on NDD and mop-up day and coverage validation post-NDD through an independent survey agency to assess the planning, implementation, and quality of the program and to identify gaps and suggest recommendations for improvements in future NDD rounds. Process monitoring is conducted to understand government implementers' preparedness for NDD and their adherence to the program's prescribed processes, while coverage validation is an ex-post check of the accuracy of the reporting data and coverage estimates to verify government-reported treatment figures.

Methodology

Using a two-stage probability sampling procedure 160 schools and 160 *anganwadis* were selected for monitoring visits during process monitoring on NDD and mop-up day, and 400 schools and 400 *anganwadis* were selected for coverage validation. Through a competitive review process, Evidence Action hired an independent survey agency to conduct monitoring activities approved by the government. Evidence Action designed and finalized survey tools with approvals from Tripura's Department of Health. One combined tool for process monitoring was used at schools and *anganwadis* on NDD and mop-up day, and one each for schools and *anganwadis* for coverage validation.

Implementation

Prior to the survey, Evidence Action conducted a one-day comprehensive training of master trainers of the agency, who further conducted a two-day training of 100 monitors (including buffer monitors), which included a brief orientation on NDD, the importance of independent monitoring, details of the monitoring formats including CAPI practices, survey protocols, and practical sessions. Each monitor was allotted one school and one *anganwadi* for process monitoring on NDD and mop-up day and subsequently, five schools and five *anganwadis* for coverage validation. Monitors were provided with a tablet computer, charger, printed copy of monitoring formats as backup, and albendazole tablets for demonstration during data collection. The details of sample schools were shared with monitors one day before the commencement of fieldwork to ensure that they did not contact schools and *anganwadis* in advance. Appropriate quality assurance measures were taken to ensure the data collected was accurate, consistent, and authenticated, including that school and *anganwadi* workers (AWWs) were asked to sign a participation form with an official stamp to verify the visit. Further, monitors verified the photographs of schools and *anganwadis* collected during IM data collection and the CAPI process included authentication of the location of the interview. Evidence Action reviewed all the data sets and shared the feedback with agency for any inconsistencies observed. All analysis was performed using Stata version 13/14 and Microsoft Excel 2013.

Key Findings

Training

Prior to each NDD round, teachers and *anganwadi* workers are trained on processes and protocols of the program to ensure effective implementation of NDD including, integrated distribution of drugs and IEC materials. Findings shows that 94% of schools and 100% of *anganwadi* workers attended training for the August 2017 NDD round. Amongst those schools (government and private schools) who did not attend training, 44% of teachers/headmasters did not attend because they were busy with other official and personal work and 41% of teachers/headmasters did not attend because they were not aware of the date, time, or venue of the training (Annex-Table PM1). Thirty percent of trained teachers provided training to other teachers in their school (Annex-Table PM1). Fifty-nine percent of schools and 38% of *anganwadis* reported that they did not receive an SMS about deworming (Annex-Table PM1). One hundred percent of private schools reported receiving NDD training (Annex-Table PM7). The private school training attendance increased by 24% compared to the previous round because of increased participation of representatives at the district-level coordination committee meetings, and special meetings called by district and block education officers.

Integrated Distribution of NDD Kit Including Drugs

In support of the mandate in the NDD guidelines and a well-defined distribution plan, integrated distribution of the NDD kit was high; 82% of schools and 84% of *anganwadis* reported integrated distribution during training (Annex-Table PM4). Around 98% of government schools received albendazole tablets and 94% of them reported to have tablets in sufficient quantity, however, 100% private schools, received tablets for deworming and all of these schools reported having received a sufficient quantity of tablets (Annex-Table PM7). About 96% of schools and 97% of *anganwadis* received handouts/reporting forms (Annex-Table PM4).

Source of Information about the Recent Round of NDD

Training was the most reported mode of information in schools (63%) and *anganwadis* (61%) on NDD. Around 39% of schools and 38% of *anganwadis* reported having received information about NDD through the television. Radio was the least effective source of information about NDD for this round.

NDD Implementation

The proportion of schools and *anganwadis* that conducted deworming has remained high and consistent when compared with February 2017 round. Coverage validation data shows that 99% of schools and 100% of *anganwadis* dewormed children during the recent round of NDD (Annex-Table CV1). Out of 94 schools and 78 *anganwadis* that reported implementing NDD, monitors were able to observe deworming activities in 87% of schools and 94% of *anganwadis* (Annex-Table PM5).

Adverse Events - Knowledge and Management

A high level of awareness regarding potential adverse events due to deworming was observed among all the headmaster/teacher and AWWs interviewed. Nausea was listed as a side effect by 87% of principals and 81% of AWWs, followed by abdominal pain by 73% of principals and 69% of *anganwadi* workers. Further, 81% of teachers and 79% of *anganwadi* workers knew to make a child lie down in an open, shaded place in the case of any side effects, 57% of schools and 62% of *anganwadis* knew to give ORS/water, and around 24% of schools and 32% of *anganwadi* worker knew to observe the child for two hours at schools/*anganwadis*. Further, 63% of schools and 61% of *anganwadis* reported the need to call a PHC doctor if symptoms persisted (Annex-Table PM6).

Recording Protocol

Coverage validation data revealed that 68% of schools and 73% of *anganwadis* that conducted deworming followed the correct recording protocols. Around 29% of schools and 18% of *anganwadis* followed partial protocols (marking down different symbols or making lists of dewormed children); however, 3% of schools and 9% of *anganwadis* did not follow any protocol to record information about dewormed children (Annex-Table CV3). As recommended in the NDD guidelines, teachers and *anganwadi* workers were supposed to retain a copy of reporting forms; reporting forms were available in 78% of schools and 80% of *anganwadis* (Annex-Table CV1).

ASHAs are required to prepare a separate list of the children not attending schools and *anganwadis* and submit it to *anganwadi* workers. However, findings suggest that lists of out-of-school (6-19 years) and unregistered (1-5 years) children were not available at 66% of schools and 85% of *anganwadis* respectively (Annex-Table CV1). The figure (34%) converges with information shared by ASHAs, as 33% of the 259 ASHAs present at *anganwadis* at the time of the visit reported to prepare the list of unregistered and out of school children and 98% of those who prepared the list reported to share the list with the *anganwadi* workers. Moreover, 70% of ASHAs reported to conduct meetings with parents to inform them about NDD, and 57% reported to administer albendazole to children during NDD. However, only 22% of ASHAs who were available in *anganwadis* at the time of visit reported to have received incentives for the February NDD round (Annex-Table CV3).

Coverage Validation

Verification factors are common indicators to measure the accuracy of reported treatment values for Neglected Tropical Disease control programs. These factors also give an idea about record keeping and data management at the service delivery point. The verification factor was estimated based on the availability of a copy of reporting forms at schools and *anganwadis*. The state-level verification factor for school enrolled children was 0.91, indicating that on average, for every 100 dewormed children reported by the school, 91 were verified through available documents. The overall state-level verification factor for children dewormed at *anganwadis* was 0.92, which depicts over reporting of dewormed children in *anganwadis*.

However, category-wise verification factors for registered (1-5 years), unregistered (1-5 years) and out-of-school (6-19 years) children were 0.97, 0.71 and 0.61 respectively (Annex-Table CV3). Findings clearly indicate a lack of proper record management at schools and consequently over reporting of dewormed children at school level. Despite challenges in reporting and documentation of NDD coverage data, the majority (99%) of the children present at schools on NDD or mop-up day received and all of them consumed the albendazole tablet on either on NDD or mop-up day.

Against the state government reported 94% coverage in schools and 95% for 1-5 years registered children in *anganwadis*, attempts were made to understand the maximum number of children that could have been dewormed in the schools and *anganwadis* through coverage validation data. The NDD treatment coverage in schools was estimated considering the maximum attendance of children on NDD dates. Coverage validation data showed that 99% of schools conducted deworming on either NDD or mop-up day, a maximum of 80% of children were in attendance, 99% of children received an albendazole tablet, and 97% of children reported to consume the tablet under supervision. Considering these factors, 76% ($0.99 \times 0.80 \times 0.99 \times 0.97$) of enrolled children could have been dewormed in the schools (Annex-Table CV3). Since interviews of children are not conducted in *anganwadis*, the verification factor of 1-5 years registered children from coverage validation data is applied to government reported coverage data. It was estimated that around 89% (0.92×0.97) of registered children in *anganwadis* could have been dewormed. The calculation of verification factors is based on only those schools and *anganwadis* where a copy of the reporting form was available for verification. Therefore, adjusted coverage in schools and *anganwadis* based on verification factors needs to be interpreted with caution

Recommendations

The following are the key recommendations for program improvements that emerged from the process monitoring and coverage validation exercise.

1. As a substantial proportion of schools and *anganwadis* did not receive SMSs for this round, efforts should be made to have an updated contact database across all stakeholder departments, including frontline workers, to ensure timely sharing of the training reinforcement SMS and information pertaining to NDD.
2. There was a noted improvement in integrated distribution from the February 2017 to August 2017 NDD round in Tripura. Efficient planning for timely drug procurement and dissemination of training schedules need to be continued to strengthen the distribution of NDD materials at the block level trainings. Reinforcement on integrated distribution during video conferences and through SMS alerts would be helpful in facilitating integrated distribution.
3. Greater emphasis should be placed on generating community awareness and mobilizing out-of-school children to achieve high treatment coverage. As a substantial proportion of *anganwadi* centers did not have a list of unregistered and out-of-school children, greater involvement of ASHAs in mobilizing out-of-school children and spreading awareness on

deworming benefits is needed. Efforts are required to increase ASHA participation and engage ASHAs to prepare these lists in their communities. ASHA participation could be further strengthened by highlighting the role of ASHAs in the joint directive, encouraging their participation in training sessions, and sending reminder SMSs to them with information on incentives.

4. Coverage validation findings revealed that reporting forms were not available in around 20% of schools and *anganwadis*, which affects the verification of reported coverage data. Along with providing two copies of reporting forms during training, trainers should also ensure that teachers/headmasters and *anganwadi* workers understand how reporting forms need to be maintained at each level and ensure that practical sessions on recording protocols for schools and *anganwadis* facilitate accurate data documentation and management.