Telangana August 2016 NDD, Program Report Executive Summary

Contributing to the Government of India's National Deworming Day (NDD), the state of Telangana implemented the second round of *anganwadi* and school-based mass deworming on August 10¹, followed by mop-up day on August 17, 2016. In this round, the state dewormed 73,21,703 children in the age group of 1-19 years across eight **districts² out of ten** in the state. This achievement is an outcome of exemplary leadership from the Department of Health, Medical & Family Welfare in coordination with the Department of Education (DoE) and Department of Women and Child Development (WCD). Evidence Action provided key technical support to the program, through funding support received from the Children's Investment Fund Foundation and Dubai Cares.

Table 1: Key Achievements of National Deworming Day August 2016³

Indicators	Achievement		
Total number of children targeted		7,613,809	
Number of schools reporting coverage		30,260	(98%)
Number of anganwadis reporting coverage		24,970	(98%)
Number of enrolled children (classes 1-12) who were administered albendazole on NDD and mop	Govt Schools	2,624,846	(96%)
up day	2,793,199	(96%)	
Number of registered children dewormed (1-5 years NDD and mop up day	1,096,590	(95%)	
Number of unregistered children dewormed (1-5 ye on NDD and mop up day	210,223	(92%)	
Number of out-of-school children (6-19 years) dewo and mop up day	596,845	(97%)	
Total number of children dewormed (1-19 years)		7,321,703	(96%)

*Source: Report submitted by National Health Mission (NHM) TS to Government of India on October 14, 2016 **(Annexure A)**

Evidence Action provided comprehensive technical assistance for the successful implementation of NDD in August 2016, incorporating learnings from the previous round to guide program planning. Compared to the February 2016 round of NDD in which the state dewormed 92,77,057 children against 99,68,994 targeted children across 10 districts, the state dewormed 7321703 children against 7613809 targeted children across eight districts in August. This represents a 3% increase in treatment coverage, from 93% in February to 96% in August. In both rounds, the state included private schools in all NDD implementing districts, which was strengthened with inclusion of religion based institutes⁴ in the August round. Department of Health led efforts for increased engagement with private school associations, as a result of which association sent approximately 1.75 lakh

 $^{^1}$ One district Mehboobnagar implemented the round on August 10 & followed by mop up day on August 26 due to month-long religious event *Pushkar Allu*

² Two districts Medak and Nalgonda in Telangana are LF endemic and Albendazole was administered in these districts under the National Filaria Control Program (NFCP) on August 10 and 17, 2016

³Based on the report submitted by National Health Mission (NHM) TS to Government of India on October 14, 2016

⁴ 377 Madrasas, 275 Catholic schools and 204 unregistered schools

text messages to parents, to build confidence and increase visibility of the program among stakeholders .

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 in places where prevalence is 20% or higher⁵. 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-Telangana

Deworming activities are implemented under GoI's National Deworming Day program. The program is based on national and global guidelines but is customized to fit the state's context. Key milestones are shown in Figure 2 below, and more information about NDD is provided in Section 2.

Figure 2: Telangana deworming program milestones



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

2. About National Deworming Day

Figure 3: NDD program highlights



The Government of India (GoI) implemented its first NDD in February 2015 and the program has achieved high coverage at large scale since its inception. Based on national level STH mapping⁶, as well as WHO treatment guidelines, the GoI issued a notification to states to recommend the appropriate frequency of deworming. Prevalence data and global best-practice guidelines indicated that 27 states and UTs, including Telangana, should deworm children twice per year. Thus, the state prepared for biannual treatment round in August 2016 (Annexure B).

In Telangana during the August round of NDD, the program targeted all children between 1-19 years. Regardless of their enrollment status, children were treated at *anganwadi* centers (AWCs), government schools, and government-aided schools in eight districts⁷. In all eight districts, out-of-school children were treated through AWCs, and children enrolled in private schools were targeted as well, bringing the overall target to 7,613,809 children.

3. NDD August 2016Program Implementation

3.1 Policy and Advocacy

Successfully implementing a program of such scale required stakeholder collaboration at each administrative and implementation level. The Department of Health led coordination with the Departments of Education and Women & Child Development to achieve coordinated program planning and implementation. The main points of inter-departmental collaboration are displayed in Figure 4 below.

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

⁷ Medak and Nalgonda districts were excluded from NDD August 2016 due to LF MDA

4 June, State steering comittee	5 July, National review meeting, New Delhi	21 July, State level joint directives	24 July, State Coordination with DIO	5 August, State video conference with districts
 Under the chairmanship of Principal Secretary- Health Decision on date of NDD and drug procurement 	 Review of NDD preparations State shared experience on private school inclusion Assessment of state's preparedness for August round 	 Signed by Principal Secretary -Health, Special Chief Secretary - Education and Secretary WCD, were issued to all implementing districts 	• To deliberate on program planning such as schedule of like training cascade, drug requirement	• To assess overall drug status and other preparations including adverse event

Figure 4:Efforts towards Stakeholder collaboration

All eight districts further conducted District Coordination Committee Meetings (DCCM) under the chairmanship of District Collectors during which stakeholders reviewed preparation activities for the program and assigned roles for improved inter-departmental coordination. Key decisions for program implementation were disseminated along with meeting minutes in the eight districts. The state referred to the NDD 2016 financial guidelines to plan its NDD budgets (Annexure C).

3.2 Program Management

Evidence Action provided technical assistance through a four-member state based team, including field-based regional coordinators and short-term hires such as district coordinators and tele-callers. The state team assisted with program planning and also coordinated with stakeholder departments to share real time updates on program implementation and facilitate corrective actions. Figure 5 gives an overview of the information flow between the Evidence Action team and district or block officials.





3.3 Drug Procurement, Distribution, and Management of Adverse Events

a) Drug Procurement: All school-age and preschool-age children were treated with one albendazole tablet (400 mg) on NDD. In order to cover all children in the target age group, the state procured approximately 1.4 crore albendazole (400mg) tablets with the initial plans to cover all 10 distrcits of the state. With the exclusion of two districts, the aforementioned procured quantity was made available to target 73 lakhs children in eight districts during august round with support from Evidence Action, the state had developed district and cluster wise drug bundling and distribution plans to streamline distribution of drugs to schools and *anganwadis* (Annexure D.1). Prior to drug distribution, the Department of Health, Medical & Family Welfare ensured laboratory testing of samples at the state level. The drug procurement & distribution delayed, due to engagement of health department in state emergency due to 'polio virus strain' in July

b) Drug Logistics and Distribution: Department of Health, Medical & Family Welfare managed the entire drug logistics and distribution at all levels. *To* align drug distribution with block-level training in accordance with NDD operational guidelines, Evidence Action supported the department in timely updating the information gathered from tracking of drug availability at district and below which allowed officials to undertake corrective actions. e, Prior to the distribution,Department of Health ensured bundling of NDD kits that included drugs and all program materials and distributed to health functionaries at the district level for onward distribution to Education and WCD functionaries at the block level training. The kits included drugs, IEC materials, training handouts, and reporting forms.

c) Adverse Event Management: The state also set up an adverse event management system engaging *Rashtriya Bal Swasthya Karyakarm⁸* teams, to effectively manage any adverse events in the field. Additionally, emergency helpline number (104) were put on alert to facilitate appropriate emergency response action by coordinating medical assistance from the nearest primary health center (Annexure D.2). To provide guidance on functionaries' roles and responsibilities to handle and report adverse events, the training cascade provided focused and customized information at all administrative levels. No severe adverse events were reported in the NDD August 2016 round.

3.4 Public Awareness and Community Sensitization

The state adapted and translated the NDD resource kit developed by Evidence Action for the Government of India and also uploaded on website. IEC materials included in the kit were designed to increase community awareness on the benefits of deworming, and were disseminated based on the timelines and target audiences specified by the NDD operational guidelines. For instance, the Department of Health printed materials such as posters and banners that were displayed at schools and AWCs.As per the he community sensitization strategy, Department of Health conducted state-wide outreach activities such as newspaper advertisements, radio jingles, TV spots, and *miking*; as illustrated in Figure 6 below.

These varied public awareness efforts were essential as sensitization of community members, including both children and families, helps build comfort and compliance with deworming, alleviates worries related to adverse events, and leads to greater program acceptance and coverage (Annexure E)



Figure 6: NDD 2016 IEC campaign activities

3.5 Training Cascade

As per NDD Operational Guidelines, a training cascade was implemented reaching from the state level to the eight participating districts, 126 clusters, and 536 PHCs between July 29

⁸ Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early identification and early intervention for children from birth to 18 years to cover 4 'D's viz. Defects at birth, Deficiencies, Diseases, Development delays including disability.

and August 7, 2016. Evidence Action supported the state-level training, while NHM led the cascade.

a) Training Cascade: Through the cascade, the state trained 18,467 teachers from government and government-aided schools, 6,350 private school teachers, 23,919 AWWs, and 19,507 ASHAs.⁹ District and block level officials from all nodal departments implementing the program were also trained.

b) Training Resources: The Department of Health, Medical & Family Welfare printed training resources including 74,370 handouts for teachers, 91,677 handouts for *anganwadi* workers, and 90,000 leaflets for ASHAs **(Annexure F.1).** Working towards integrated distribution of these resources during trainings, Evidence Action supported in drafting the bundling plan as per block requirements, enabling materials to be efficiently transported to all districts before trainings commenced.

Fi	gure	7:	Training	Cascade	and P	articipation
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State Level training	 Location: Hyderabad Date: June 29, 2016 Trainer: 4 Master Trainers from Department of Health Participants: 42 District level officials of Department of Health
District Level trainings	 Location: 8 districts Timelines: July 29-August 2, 2016 Trainer: 42 District level officials of Department of Health Participants: 265 District level officials of Health, Education and WCD
Cluster & PHC Level trainings	 Location: 126 clusters and 536 PHCs Timeline: August 3 -7, 2016 Trainer: District level officials of Health, Education and WCD Participants at Cluster: 5,726 Medical Officers, ANM, WCD supervisors, and private school representatives Participants at PHC: 24,817 teachers (Govt. & private), 23,919 AWWs, and 19,507 ASHAs

The trainings schedule under NDD at cluster and PHC for frontline functionaries for frontline functionaries experienced delays and were conducted very close to NDD (up to August 7) due to the delay in drug availability at block. In an effort to maximize integrated distribution, Evidence Action field coordinators assisted district and block health officials to revise training schedules and coordinate with cluster level officials, schools, and *anganwadis* to ensure trainings were completed before NDD the .

c) Training Reinforcement: Evidence Action and private school associations supported the reinforcement of key messages from the training sessions by delivering bulk SMS and voice messages (IVR calls) to the participants, as shown in the table below.

⁹ NDD coverage report submitted by state to GOI.

	Total SMSs	Total IVRs
Health	3,75,987	60,000
Education	3,09,720	57,538
Women and Child Development	4,33,503	35,314
Private school Presidents to	1,75,000 (Approx.)	
Parents		

Table 2: Details on training reinforcement messages NDD Aug 2016

d) Training Support: For training quality assurance, Evidence Action administered a prepost test to participants at the state-level orientation to measure knowledge of key messages. The Department of Health was briefed on the observations highlighting key messages which needed to be reinforced at district trainings. Thereafter, using a standardized checklist, Evidence Action's district coordinators attended and provided supportive supervision to all eight district trainings and 56 cluster trainings to ascertain that key messages were covered, as directed by NDD guidelines (Annexure F.2).

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 and able to implement the deworming activities effectively. This includes assessing the program and providing feedback during its preparation stage, while activities are ongoing, and after completion of program processes to guide mid-course corrections and to improve future performance based on the learnings.

4.1 Process Monitoring

Figure 8: Monitoring activities before, during, and after NDD

The aim of process monitoring is to assess the preparedness of schools, *anganwadis*, and health systems to implement mass deworming and the extent to which they have followed correct processes. Being prepared and adhering to best practices can ensure a high-quality deworming program. Evidence Action conducts process monitoring through telephone monitoring and cross verification, as well as physical verification through field visits.

Tele-calling and follow-up actions: Evidence Action assessed program preparedness prior to NDD through tele-callers who tracked the status of training, delivery and availability of drugs, and IEC materials at the district, *mandals*, and school and *anganwadis* levels. The

Pre-deworming activities	Preparedness through telecallersTraining quality assessment	
Activities during deworming	 Process monitoring -Aug 10 & 17 Monitoring by Evidence Action and government 	
Post-deworming activities	•Rapid coverage monitoring - Aug 11 & 12 •Coverage reporting •Coverage validation -Aug 23-27	9

tele-callers used pre-designed and standardized electronic tracking sheets to outline issues identified and addressed during calls. These tracking sheets were shared with the state government regularly to enable them to take rapid corrective actions as necessary. This corrective actions include issuing departmental directives, video conferencing including reinforcement messages through SMSs. Further, district and regional coordinators make the field visits to facilitate the corrective actions at district and below district levels.

Monitoring by an independent agency: Evidence Action also assessed the process and performance of the program by hiring an independent research agency whose trained monitors observed deworming processes on NDD and mop-up day. The real time findings were shared with state governments on the day of visits to enable immediate corrective actions.

Sample size: For process monitoring, a total of 409 randomly schools (government and private schools) and 205 nearby *anganwadis* were covered on NDD and mop-up day. For coverage validation, a total of 498 randomly selected schools and 500 randomly selected *anganwadis* were covered.

Figure 9: Key process monitoring activities

Key activities in process monitoring

I. Telephone Monitoring and Cross Verification

- 9,195 successful calls made during July-September 2016
- 1,412 calls to health functionaries like ANMs
- 2,837 calls to government/government-aided schools including private schools
- 3,112 calls to *anganwadi* workers across 124 clusters in eight districts
- 1,834 calls to district and mandal level officials

II. Field Monitoring Visits

• 196 monitoring visits: 79 by state government officials and 117 by Evidence Action state staff in selected schools and *anganwadis*

Monitors administered the checklist given in NDD guidelines

III. Process Monitoring by Independent Monitors

- Process monitoring was conducted in seven districts on NDD & mop up day
- 100 trained monitors from indpendent agency hired by Evidence Action visited 409 schools and 205 anganwadis
 Data collected electronically using Tablets and the tools developed by Evidence Action

4.2 Assessing treatment coverage

Two activities carried out during the August 2016 round of NDD in Telangana were aimed at assessing treatment coverage. These included a rapid coverage assessment to estimate whether coverage was sufficient in potential problem areas, and a coverage validation exercise to gauge the accuracy of reported treatment figures.

Rapid Monitoring of Treatment Coverage: In partnership with the state government, Evidence Action conducted a rapid treatment coverage exercise using the "Coverage Supervision Tool" developed by the World Health Organization (WHO). This exercise was carried out during the August round of NDD to understand performance in areas with a history of poor coverage during the previous round in February, with the aim to develop an immediate action plan to improve coverage on mop-up day. The areas of focus included three districts of the state: Karimnagar, Khammam and Nizamabad. In each district, total 20 children aged 1-19 years from 20 villages/enumeration areas were interviewed as per

WHO guideline¹⁰. The results revealed that all three districts had good coverage in terms of drugs received and compliance with treatment, which implies the coverage is above the WHO target threshold of 75%. It was recommended to state government to ensure to cover the left over children on mop-up day who had not received albendazole during NDD through appropriate departmental coordination. These recommendations were shared with the state government prior to mop-up day for the necessary corrective actions before MUD. The rapid monitoring exercise is identified as simple to use, easy to administer and effective concurrent monitoring tool to assess the performance status of the program.

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 (in three randomly selected classes) in each school, and by checking registers and reporting forms in the sampled schools. These activities provided a framework to validate coverage reported by schools and *anganwadis* and to calculate the level of accuracy in the data by comparing the recounted numbers (based on the documentation available in schools and *anganwadis*) with numbers reported in schools and *anganwadi* reporting forms that are aggregated at the block/*mandal* and district levels.

4.3 Key Findings

Process monitoring findings highlight that 58% of schools and 75% of *anganwadis* received training for the recent round of NDD and around 85% of schools and 94% of *anganwadis* reported to conduct deworming on the day of visit; however, coverage validation demonstrated that 90% of schools and 99% of *anganwadis* had dewormed children during deworming or mop-up day. Around 64% of schools and 75% of *Anganwadis*

¹⁰Rapid Monitoring of Treatment Coverage in Neglected Tropical Disease Programmes, Coverage Supervision Tool, World Health Organization Working Draft, February 2016.

received NDD posters and banners. However, integrated distribution of NDD kits¹¹ was low for both schools (29%) and *anganwadis* (33%). Around 65% of schools and 72% of *anganwadis* received training reinforcement messages through SMS. Awareness of the causes of worm infection (**Annexure G - Table 1**), possible adverse events, and adverse event management (**Annexure G - Table 5**) was high among teachers and *anganwadi* workers. Nevertheless, only 33% of schools and 34% of *anganwadis* reported the possibility of any adverse event among children after consuming albendazole tablets. Around half of the schools and *anganwadi workers* were aware about processes for management of adverse events.

Around 37% of private schools (n=97) reported being trained for NDD as compared to 58% government schools. Among private schools, 90% had sufficient drugs for deworming, and 52% received banner/poster and 57% handout/reporting forms. SMSs related to NDD were received by 43% of private school teachers/principals.

Key Findings from Process Monitoring and Cov	erage Validatio	n
Indicator	School (%)	Anganwadi(%)
Attended training for NDD	57.7	75.1
Schools/anganwadis conducted deworming	89.7	98.3
Received training reinforcement SMS for current NDD round	65.3	72.2
Integrated distribution of albendazole tablets & IEC materials	29.3	33.2
Reported any adverse events	2.7	0.9
Copy of reporting form was available for verification	36.1	35.5
Followed correct recording protocol	51.6	53.4
State level verification factor ¹²	0.66	0.78
State level inflation rate ¹³	49.9	27.8
Children consumed tablet	99.6	NA
Estimated NDD coverage	64-70	75

Table 3: Key findings

Coverage validation data revealed that only 51% of schools and 53% of *anganwadis* followed correct protocols for recording the number of children dewormed. However, around 38% of schools and 22% *anganwadis* did not adhere to any recording protocol. A substantial proportion of *anganwadi* workers did not have a list of unregistered preschoolage children (63%) and out-of-school children (75%), which they were instructed to gather in order to estimate target for this group of children. Only 36% of schools and *anganwadis* had a copy of their reporting form post submission, though they were instructed to retain a copy as per NDD guidelines. Coverage validation data for enrolled children exhibited high inflation (50%; verification factor of 0.66) of treatment figures. Similarly, the state level inflation rates for *anganwadi* registered children, unregistered and out-of-school children were 26%, 12% and 62% with corresponding verification factors of 0.79, 0.90 and 0.78 respectively. Nevertheless, interviews with children in schools indicated that 99% of them received a deworming tablet that indicates that though challenges in reporting and documentation of coverage data exist, however, almost all the children present on NDD or MUD received albendazole tablets.

Attempts were also made to understand the maximum number of enrolled children that could have been dewormed in the schools. School data suggests that on an average, we could verify 67% of total coverage numbers reported by schools. Applying this verification factor

¹¹Integrated distribution of NDD kits includes albendazole, banner/poster and handout/reporting forms and provided to schools and AWC during the trainings.

¹²Ratio of recounted value of the dewormed children to the reported value.

¹³Proportion of over reported dewormed children against total verified children in schools and *anganwadis*.

on government reported coverage, it is estimated that 64% children could have been dewormed in the schools. Further, coverage validation data showed that 90% of schools did deworming on either NDD or mop-up day and a maximum of 90% of the total school enrolled children were in attendance. Moreover, 99% of children interviewed reported to have received the albendazole and 87% of them reported to consume it under supervision. Based on these factors, 69% of children could have been dewormed in the schools. This indicates that NDD coverage most likely lies between 64-70% in the state of Telangana. This range falls below the WHO target of treating 75% of the target population.

In the case of *anganwadis*, data suggests that on an average, we could verify 78% of total coverage reported by *anganwadi* workers. Applying this verification factor on government reported coverage, we estimate that approximately 75% children could have been dewormed in the *anganwadis*. The detailed tables of results on process monitoring and coverage validations are attached herewith (Annexure G Appendix I).

5. Recommendations

- 1. As seen during the round, delay in timely procurement of drugs impacted the subsequent distribution further to the functionaries. In future rounds, efficient planning in timely procurement of drugs will ensure timely availability of drugs and also strengthen plan for aligning distribution at block to ensure that sufficient drugs and other materials reach schools and *anganwadis* before deworming day.
- 2. As the findings suggest that only 58% of teachers and 75% of *anganwadi* workers attended training sessions, it is possible that quality and coverage can be improved in future rounds by boosting participation. This may be possible by ensuring that sessions are planned earlier and greater emphasis is placed on communicating training dates in advance. Strengthening the communication channels from the block level to all schools and *anganwadis* may also help increase participation at trainings.
- 3. Integrated drug distribution can be strengthened by ensuring clear responsibilities are assigned for bundling at all levels, through a state/district released directive. Also, necessary supervision at all levels is required for ensuring adequate quantity gets bundled and distributed in a timely manner.
- 4. Greater emphasis needs to be made on increasing coverage and accurate reporting of unregistered and out-of-school children. There is an opportunity to do this by strengthening the role of ASHA in mobilizing these children and correctly reporting their treatment.
- 5. Coverage validation data suggest that a greater emphasis on recording protocols during the training is likely to improve the quality of coverage data in the next round. Training and reinforcement messages shared through SMS need to increase focus on the importance of correct reporting protocols and maintaining correct and complete documentation. Additionally, trainers should ensure that teachers and headmasters understand the directive to maintain a copy of reporting forms in schools so that the data available for coverage validation is more robust.

NDD August'16 (2nd Round) Report State						
NDD August	. 10 (2110 Kouliu) ke	port State				
No. of Govt./Govt. aided schools	22594	reporting covera	-	22549		
No. of targeted private schools	8029	No. of targeted p reporting covera		7711		
No. of anganwadi centers (AWCs)	25398	No. of AWCs rep	orting coverage	24970		
No. of ASHAs oriented/trained on NE		19507				
No. of Govt./Govt. aided schools who NDD		18467				
No. of private schools who attended		6350				
No. of agnanwadi workers oreinted/i	trained for NDD	23919				
Coverage Details/ (TARGET)				-		
		Girls	Boys	Total		
Total children out-of school		307095	305704	612799		
Total children unregistered in angany		111361	116766	228127		
Total children registered in anganwa		574354	575180	1149534		
Total children enrolled in the	Govt. school	1388532	1343874	2732406		
schools	Pvt. school	1409889	1481054	2890943		
Total number of children targeted				7613809		
No. of enrolled children (classes 1-	Govt. school	586410	565589	1151999		
5) who were administered albendazole on NDD and MUD	Pvt. school	523040	574044	1097084		
No. of enrolled children (classes 6-	Govt. school	742582	730265	1472847		
12) who were administered albendazole on NDD and MUD	Pvt. school	838631	857484	1696115		
No. of registered children in AWCCs (were administered albendaxole on N		547439	549151	1096590		
No. of unregistered children in AWCC were administered albendaxole on N		100062	110161	210223		
No. of out of school children (6-10 ye administered albendazole on NDD an		104442	105572	210014		
•	No. of out of school adolescent (10-19 years) who were administered albendazole on NDD and MUD			386831		
Grand Total Of number of children w administered Albendazole (T = 1a+1b	3636748	3684955	7321703			
Percent coverage				96.16		
No. of severe adverse events reporte anganwadis	d from schools and	0				
Logistic Details: Block/District/State (Govt. Schools	Private Schools	Anganwadis		
Total No. of albendazole tablets give		2939438	2881943	1909364		
Total No. of albendazole tablets adm	inistratered	2352145	2603322	1622820		
Stock of albendazole tablets left		317956	259436	232240		

Annexure B- State Coverage Report August 2016

Annexure C- Financial guidelines to plan

PROCEEDINGS OF COMMISSIONER OF HEALTH & FAMILY WELFARE AND MISSION DIRECTOR (NHM) TELANGANA HYD.

Present: Sri. Buddhaprakash M.Jyoti., IAS

Rc.No.31/RBSK/NDD/NHM/TS/2016

Dated:25.07.2016

- Sub: NDD- Observation of National De-worming Day on 10.08.2016 Releasing of budget to the districts – Regarding.
- Read: 1. D.O. letter No: Z-28023/237/2013-CH-I, Dt.09-05-2016 from Secretary, (MoHFW).
 - 2. D.O. letter No: Z-28023/237/2013-CH-II, Dt.04-04-2016 from Joint Secretary, (MoHFW)

ORDER:

Sanction is hereby accorded for an amount of Rs.49,26,750/- (Rupees Fourty nine lakhs twenty six thousand seven hundred and fifty only) to all the District Medical & Health Officers (except Medal & Nalgonda Districts) in the state to meet expenses towards conducting National De-worming Day on 10th August 2016 as per the statement and financial guidelines enclosed.

The Chief Finance Officer (NHM) is authorized to transfer the amounts electronically to DMHOs (as per the statement enclosed) from the budget FMR codes as detailed below.

SI. No	Activity	FMR Code	Amount
1	Half day orientation training	A.9.11.3	Rs. 22,69,300/-
2	Launch, Rally and Miking	B.10.6	Rs.5,31,350/-
3	Hiring of vehicles	A.10.8	Rs. 32,000/-
4	Incentives to ASHA	B.1.1.3.5	Rs. 20,94,100/-
		Total	Rs.49,26,750/-

Sd/-Commissioner of Health and Family Welfare

То

The Chief Finance Officer (NHM), O/o CHFW, Hyd.

Copy to

All the DM&HOs (except Medal & Nalgonda Districts) in the state. All the District Immunization Officers in the state.

Copy to all the District Collectors in the state for information

OFFICE OF THE COMMISSIONER OF HEALTH & FAMILY WELFARE AND MISSION DIRECTOR (NHM), TELANGANA, HYDERABAD

Rc.No.31/RBSK/NDD/NHM/TS/2016

Dated:25.07.2016

DISTRICT FINANCIAL GUIDELINES NATIONAL DE-WORMING DAY (NDD) ON 10th AUGUST 2016

The following guidelines are issued to maintain discipline and promptness in utilization of the released budget for the NDD scheduled to be conducted in the state on 10th August 2016 and Mop up day on 16th August 2016.

- On the 10th August 2016, the DM&HOs to ensure that the launch of the program shall be made by Higher Officials / Public representatives and organize a rally to create awareness among the communities for which the districts are permitted to incur expenditure of Rs. 10,000/- from the budget under FMR code: B.10.6.
- The districts are requested to give wide publicity about the program through Miking @ Rs. 850/- per PHC from the budget under FMR code: B.10.6.
- For the activity the most recently received stocks of Albendazole from TSMSIDC should be utilized.
- ASHA incentive of Rs.100/- for mobilizing and ensuring every eligible child (1-19 years-out of school and non-enrolled) is administered Albendazole. In a district there will be approximately 2000 ASHAs. (Expenditure to be met from B.1.1.3.5 (other incentives))
- Orientations/Trainings at District, Cluster levels @ Rs.100/- per participants (Apart from printing of training materials) meeting the expenditure from A.9.11.3.
- Mobility support for field level monitoring (for 1 day) 4 hired vehicles at rent of Rs.1,000/- for 1 day or fuel of Rs.1,000/- meeting the expenditure from A.10.8.
- To ensure that the program shall be implemented successfully and SOEs to this office soon the activity is completed.
- To ensure the distribution of the medicine and IEC material well in advance to the field level as it was done earlier de-worming day, if any deviation in transportation of medicine and IEC material will be viewed seriously.

Sd/-Commissioner of Health and Family Welfare

S. No.	District	at Dis Clust @Rs. paticip	ion training trict and ter level 100/- per ant - FMR A.9.11.3	Launch, Rally FMR Code B.10.6	Miking @ Rs.850/- per vehicle - FMR Code B.10.6	Hiring charges for 4 vehicles @ Rs.1000/- per vehicle - FMR Code A.10.8	Payment of Incentives from to ASHA @Rs.100/- each for Mobilizing 1-19 years children - Out of School & Non- enrolled-FMR Code	Total Amount
		District	Cluster			A.10.0	B.1.1.3.5	
1	Mahabubnagar	10,000	2,90,000	10,000	73,100	4,000	3,92,200	7,79,300
2	Rangareddy	10,000	2,08,500	10,000	34,850	4,000	1,55,500	4,22,850
3	Hyderabad	10,000	2,65,400	10,000	72,250	4,000	1,11,800	4,73,450
4	Nizamabad	10,000	2,65,400	10,000	38,250	4,000	2,15,400	5,43,050
5	Adilabad	10,000	2,90,000	10,000	64,600	4,000	2,99,000	6,77,600
6	Karimnagar	10,000	2,90,000	10,000	61,200	4,000	2,84,200	6,59,400
7	Warangal	10,000	2,90,000	10,000	58,650	4,000	3,17,700	6,90,350
8	Khammam	10,000	2,90,000	10,000	48,450	4,000	3,18,300	6,80,750
	Total	80,000	21,89,300	80,000	4,51,350	32,000	20,94,100	49,26,750

A B S T R A C T NATIONAL DE-WORMING DAY - 10th August 2016 Budget releases to the districts as per FMR Codes mentioned against each Activity

Sd/-Commissioner of Health and Family Welfare

Annexure D.2 adverse event management protocol

Adverse Event Protocol

NDD – At schools and Anganwadi Centers

Adverse Event Protocol

1. PURPOSE:

This document is primarily based on the World Health Organization (WHO) guidelines13 for assuring drug safety during mass drug administration (MDA). The deworming drug (Albendazole 400 mg) used in the Government of India's school and anganwadi center — based mass deworming program - NDD - is effective, very safe, and approved by the WHO

and the MOHFW of India for treating soil-transmitted helminths in preschool and school-age children. Extensive experience of deworming millions of children worldwide confirms that this drug itself causes only rare, mild and transient side events or adverse drug reactions, and that these reactions are generally related to degeneration of the worms that have been killed. Most of the adverse events observed in school programs occur during initial rounds of implementation of the intervention – a time when children harbor more infections of high intensity. Mild abdominal pain, nausea, vomiting, diarrhoea and fatigue are the most commonly reported adverse events in some children with increased worm load, are not serious and do not normally require medical treatment.

An effective Adverse Event Protocol is intended to protect the program, and those who administer the program, by providing clear instructions on the management of adverse events. Although rare, adverse events can and do occur in programs on a large scale in mass drug administration, and all stakeholders should be well-prepared to ensure safety of all children participating in the program.

2. DEFINITIONS

An **Adverse Event (AE)** is a medical incident that takes place after a preventive chemotherapy intervention and is suspected to be but is not necessarily caused by the medicines used in the intervention. Some AE, after investigation, may be found to have been caused by the medicine. Such AE will also be referred to as adverse drug reactions or side effects.

A **Severe Adverse Event (SAE)** is fatal, life-threatening, disabling, or incapacitating or that results in hospitalization after drug intake.

Severe adverse events can be defined as those that:

- are life-threatening or fatal
- cause or prolong hospital admission
- cause persistent incapacity or disability; or
- concern misuse or dependence on the drug

There are a number of key types of SAEs:

- Those caused by the drugs themselves: e.g., an allergic reaction to the drugs
- Those caused by the parasites degeneration when they are killed: e.g., intestinal blockage
- Those caused by operational issues: e.g., choking

- Those which are coincidental but unrelated: e.g., malaria around the same time as drug administration.

3. Preparatory phase for managing adverse events

To effectively deal with any AE or SAE on Deworming Day, a coordinated approach should be established between the Health Department, the Education Department and WCD (ICDS) Department of the respective State Government. The roles and responsibilities of these three primary departments in adverse events management are detailed below.

13Assuring safety of preventive chemotherapy interventions for the control of neglected tropical diseases., practical advice for national programme managers on the prevention, detection and management of severe adverse events., WHO(2011)

3.1. Health Department:

H	ealth Department Roles	and Responsibilities

WHO	WHAT
State Nodal Officer	 Designate offi cial at state level for overall adverse event management Orient the District Civil Surgeon about the fl ow of information of any AE and SAE Adaptation of adverse event protocol in local language and further dissemination to districts and blocks Orient District Civil Surgeon about the fl ow of information of any Adverse Events and distribute reporting form to the District Civil Surgeon (Annexure 7)
District Civil Surgeon 1	 1.Inform and orient the Block Medial O ffi cer about Deworming Day and Mop-Up Day. 2. Prepare an Emergency Response Team engaging RBSK and AYUSH doctors and train them to handle any AE or SAE at the Block level 3. Ensure that Ambulance Services other mobility support vehicles i.e RBSK are available at Block level 4. Distribute the reporting forms and cascade of information diagram to the Block medical officer. 5. Circulate list of important phone numbers of the District health officials to every Block Medical Officer (Annexure 7 Section II)
Block medical officer	 Inform and orient the PHC/CHC/ANMs about Deworming and Mop-Up Day Depute doctors to handle calls on the emergency helpline for Deworming Day and Mop Up Day Prepare PHCs/CHCs/ANMs to manage an increased number of children presentin gwith minor, non-specifi c symptoms Ensure ambulance services and other mobility support are on ALERT for handling any SAE cases Ensure phone numbers of the PHCs/ANMs are circulated to the Block education department for distribution to the school principals, ICDS-CDPO's Supervisors, anganwadi workers, and ASHAs.
ANMs	Should be prepared to accompany sick children to health facilities and ensure they receive appropriate medical attention and care. Visit assigned schools in advance if possible and collect information and phone numbers of the school principal. Provide their phone number to the school principal. Share the information collected with the Civil Surgeon. Also share the phone number of the helpline to all the assigned schools

3.2 School Education and Literacy Department:

Department Roles and Responsibilities of School Education & Literacy					
WHO	WHAT				
State Education nodal officer	1. Inform all District education offi cers about Deworming Day and Mop-Up Day.				

District Education Officer	 2. Distribute the reporting form to the District education officer (Annexure I) 3. Distribute the locally adapted Adverse event protocol and reporting format to the District education department. 1. Inform and orient the Block education officer about
	 Deworming Day and Mop-Up Day. 2. Distribute the reporting form to the District education officer or the "cascade" of information flow to the District Civil Surgeon (Annexure I)
Block Education Officer	 Inform and orient the principal and school teachers about Deworming Day and Mop- Up Day. The fl ow of information or the "cascade" on SAE in the school is to be shared with the department offi cials and school principals. Ensure to circulate important phone numbers of the Block level health offi cials to the school principal and instruct schools to display the emergency contact numbers in schools before deworming day
Principals and Teachers	 1.Teachers should inform parents of the children through different forums such as school management committee meetings or parents teachers meeting as appropriate ahead of Deworming Day about the following : a. Deworming and Mop-Up Day b. Benefits of deworming on children's health and education c. Mild side effects in children may be expected to only children with high worm load. The side effects are usually not serious and would pass by soon. d. Preparations undertaken by the Education and Health Department to manage any AE. e. Build confidence that the child will be taken under observation and care if they show any serious side effects. They will be immediately taken to the nearest health centre. 2. Schools should prepare a shaded open area and keep safe drinking water available for children experiencing any side effects to rest until recovery

3.3 Women and Child Development

Women and Child Development (ICDS) Department Roles and Responsibilities						
WHO	WHAT					
State Program Officer (ICDS) - Nodal Officer	 Inform all District ICDS officers about Deworming Day and Mop- Up Day. Distribute the reporting form to the District ICDS officer (annexure I) Distribute the Adverse Event Protocol and reporting format to the District ICDS Department. 					
District ICDS Officer	1. Inform and orient the Child Development Block Officer (ICDS-CDPOs) about Deworming Day and Mop-Up Day.					

	2. Distribute the reporting form to the District education Officer or the "cascade" of information fl ow to the District civil surgeon (Annexure I)
Child Development Block Offi cer (CDPO) – ICDS	 Inform and orient the ICDS Supervisors and anganwadi workers about Deworming Day and Mop-Up Day. The flow of information or the "cascade" on SAE in the anganwadi centers is shared with the department offi cials and anganwadi workers. (Annexure I) Ensure to circulate important phone numbers of the Block level health officials to the ICDS Supervisors, anganwadi workers and instruct anganwadis to display the emergency contact numbers at anganwadi centers before deworming day
Anganwadi Workers and ASHAs	 AWWs and ASHA should inform parents of the children through different forums such as VHND, VHSNC meetings, Gram Panchayats, home visit etc. about the following : a. Deworming and Mop-Up Day. b. Benefits of deworming on children's health and education. c. Mild side effects may be experienced in children with high worm load. The side effects are usually not serious and would subside soon. d. Preparations undertaken by the WCD (ICDS), Education and Health Department to manage any Adverse Event. e. Build confidence that the child will be taken under observation and care if they show any serious side effects. In case of a prolonged adversity the child would be taken immediately to the nearest hospital. 2. AWCs should prepare a shady open area for children experiencing any side effects to rest until recovery.
ANMs and ASHAs	Should be prepared to accompany sick children to health facilities and ensure they receive appropriate medical attention and care. Visit assigned AWCs in advance if possible and collect information and phone numbers of the AWWs. Give own phone number to the AWWs. Share the information collected with the Civil Surgeon. Also share the phone number of the helpline with all the assigned AWWs.

4. MANAGING ADVERSE EVENTS ON DEWORMING DAY

On National Deworming Day, school principals, teachers and anganwadi workers should be prepared for any AE or SAE by having read through the Adverse Events Protocol/Guidelines in advance, and ensuring that the protocol and emergency numbers are on hand. All teachers and AWWs should clearly understand that children who are not well on deworming day should not be given the deworming drug.

The teacher and anganwadi workers MUST administer albendazole tablet under their direct supervision in Schools and Angawadi on Deworming and Mop-Up Day. The tablet must not be handed over to the child or their family member for consumption later at home.

4.1 Mild Adverse Events

Women and Child Development (ICDS) Department Roles and Responsibilities WHAT ARE THEY?

Events such as nausea, mild abdominal pain, vomiting, diarrhea and fatigue may occur among children especially those with high worm infestation. These side effects are transient and usually do not require hospitalization.

WHAT SHOULD THE TEACHER/PRINCIPAL/AWWS DO WHEN MILD ADVERSE EVENT AT SCHOOL OR ANGANWADI CENTERS HAPPENS?

1. Children with ANY side effects should be taken to an open and shaded place and allowed to lie down and rest. They should be provided with clean drinking water.

2. Teachers, AWWs and parents should be prepared for these events and take immediate action in case that they occur.

3. Children should remain at school or anganwadi center for at least 2 hours after treatment.

DO NOT PANIC AND FOLLOW GUIDELINES

4.2 Severe Adverse Events (SAE)

Women and Child Development (ICDS) Department Roles and Responsibilities

A Severe Adverse Event (SAE) is fatal, life-threatening, disabling, or incapacitating or that results in hospitalization after drug intake. Choking hazard/asphyxia causes a severe adverse event which needs to be responded to immediately.

1. Separate the affected child from other children and stop deworming activities.

2. Stay calm and communicate that the SAE is likely not due to the deworming drug.

3. School principal should immediately call the Helpline number as per shared details. The school principal should use the information cascade.

4. If ambulance services are available, immediate ALERT the ambulance should be given for transport of the child to the nearest PHC/CHC.

5. The child's parents should be informed immediately.

6. Immediate treatment should be provided to the child by medical/health personnel (See Annexure 7)

Section VI: Guidelines for Emergency Response Team). Medical treatment for adverse event should only be administered by medical/health personnel.

7. The ANM should inform the Medical offi cer who should complete an incident report form and submit it to the Civil Surgeon within the same day.

8. Once the reporting form is received, further notification to the next level must be made as per "cascade" of information flow.

9. The Mission Director (NHM) or the designated offi cer will sign/confi rm the report(s), and determine if further investigation is needed and submit the report to the Mission Director immediately. The Mission Director or the designated offi cer will be the spokesperson to the media.

5. MEDIA HANDLING

MEDIA HANDLING
The designated officer at state level will be the spokesperson to the media. In all cases, it is
important to
maintain calm messaging and indicate that the adverse event is very likely not due to deworming
medicine.
Before any media contact it is vital to prepare:

• Key messages;

• Answers for the likely and awkward questions;

• List of issues not to respond to (e.g. blaming an individual or speculating on the cause before the investigation is complete) etc.

If the teacher or AWWs is unable to manage Deworming Day after a SAE they should do the following:

1. Principal / AWW should suspend deworming temporarily until the health officials reach the school/AWC and make a decision about how to proceed.

2. Immediately elevate the situation via the information cascade.

6. MANAGEMENT OF SAE AFTER DEWORMING DAY

It is possible that an adverse event may occur after deworming day and may still be attributed to the administration of deworming drugs. Teachers, AWWs, parents, health facilities and all health officials and providers, including ANMs must be vigilant for such incidents in their area and elevate immediately through the information cascade. By becoming involved early in any potential SAE, the principals and ANM will reduce the chances that SAEs are incorrectly attributed to deworming drugs and will be able to undertake good and accurate community sensitization ahead of any media coverage.

WHO	WHAT
Parents	Should be informed that though mild AEs are expected and severe events are likely to be unrelated to the drugs, they are encouraged to report the incident at the earliest to ANM, ASHA or school principal if they are very worried about the health of their child.
Teachers / AWWs / ASHAs	Should investigate absenteeism more carefully after deworming day and encourage any sick children to seek treatment or inform an ANM if they are worried.
ANMs	To report any case brought into notice to the District Civil Surgeon or Chief Medical Officer through Block Medical Officer or directly as feasible

RESPONSIBILITIES AFTER DEWORMING DAY

7. DO'S AND DON'TS FOR SCHOOL AND ANGANWADI TO AVOID ANY SAE:

DO	DON'T
• Keep telephone numbers for helpline and the nearest health center and / or provider such as ANM and MOIC handy	Do not administer medicine to a sick child.Do not instruct children to swallow the medicine
 Always direct the children to CHEW the medicine to avoid choking. 	without chewing first.Do not hand over medicine to
• Administer the tablet under your direct supervision.	parents/children for consumption at home
• For younger children at anganwadi, crush the table first and then administer	

Information Cascade: If there is any SAE at the school or home the information cascade should be followed:

SECTION - I

INFORMATION CASCADE

Home:

To fill the reporting form for Adverse Events (Annexure 7 Section IV) Parent Principal or AWW or ANM Medical Officer Medical Officer in Charge Civil Surgeon State Program Officer / Nodal Officer Mission Director (NHM)

SECTION - II

CONTACT LIST OF DISTRICT MEDICAL OFFICERS The form is to be filled by the State Civil Surgeon and given to the State Education Officer for dissemination to schools and AWCs

STATE HEALTH SOCIETY CONTACT DETAILS									
District wise Name & Contact No									
S.NO	District District Medial Officer Mobile No								

		SECTION - II							
CONTACT LIST OF BLOCK MEDICAL OFFICERS The form is to be filled by the District Medical Officer and given to the District Education Officer and District Programme Officer(ICDS) for dissemination to schools and AWCs Respectively									
STATE	HEALTH SOCIETY CONT	ACT DETAILS							
District	wise Name & Contact No								
S.NO	District	District Medial Officer	Mobile No						

District	Drug bundling & distribution detail
Hyderabad	1300000
Nizamabad	977126
Warangal	1146050
Khamman	984000
Mahaboobnagar	1736200
Karimnagar	1155800
Rangereddy	1348104
Adilabad	1234000
Total	9881280

Annexure D.1	drug	bundling	&	distribution	plan
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	-	-	-	-		-			4		-	
S. No.	District	No. of clusters/ district	No. of cluster level Trainers (@ 5 per cluster)	Flip chart @ 1Chart/Trai ner	Asha leaflet @1 /Trainer	Handout for Schools@ 1 handout /Trainer	Handout for Anganwa di	1 FAQ /trainer	Common Reporting Format	Poster	Asha reportin g format	NDD Guidelines
	from Educati	on, 1 from l	per district 1 Heath , 1 from rt School ,1 DC)	50	50	50	50	50	50	50	50	50
1	Adilabad	17	85	85	85	85	85	85	85	85	85	10
2	Nizamabad	14	70	70	70	70	70	70	70	70	70	10
3	Karimnagar	20	100	100	100	100	100	100	100	100	100	10
4	Warangal	16	80	80	80	80	80	80	80	80	80	10
5	Rangareddy	11	55	55	55	55	55	55	55	55	55	10
6	MENR	19	95	95	95	95	95	95	95	95	95	10
7	Khammam	15	75	75	75	75	75	75	75	75	75	10
8	Hyderabad	14	70	70	70	70	70	70	70	70	70	10
	Total	126	630	680	680	680	680	680	680	680	680	130
	10% buffer	13	63	68	68	68	68	68	68	68	68	13
	Total	139	693	748	748	748	748	748	748	748	748	143
	Round off Total	200	800	800	800	800	800	800	800	800	800	200

Annexure F.1 Training Resource

The below table depicts state level detail analysis of each indicators assessed from pre post test administered at state level master training on 27th June 2016. The district indicated in the table correspondents to the incorrect responses in the post training, which need to be reiterated in the next training cascade. The indicators highlighted in yellow reflect incorrect response from the district participants. N= number of participants

Q. No	Questions Asked during training	Pre Test (%)	Post Test (%)	Districts
		(N-35)	(N-35)	
1	Correct Knowledge about NDD Date	90	93	Warangle, Hyderabad
2	Correct Knowledge about Mop-Up Day	90	93	Warangle, Hyderabad
3	Health Benefits of Deworming			
	A. Controls anemia	100	100	
	B. Improves nutritional uptake	96	100	
	C. Helps improve immunity	96	100	
	D. Improves attendance of children	96	100	
	E. Improve capacity to learn	96	100	
	F. Helps improve work potential and livelihood opportunities	96	100	
4	Ways to control transmission of worm infection			
	A. Wash fruits and vegetable with clean water	96	100	
	B. Always use a toilet	100	100	
	C. Wear shoes/slippers	96	100	
	D. Washing hands with soap especially before eating and after using the toilet	96	100	
	E. Keep your surroundings clean	96	100	
	F. Keep your nails clean and short	96	100	
	G. Always keep food covered	96	100	
	H. Always drink clean water	96	100	
5	Correct way to consume albendazole	73	100	
6	Dose of Albendazole(400mg) should be administered to children in schools	93	100	
7	Correct way to administer Albendazole to 1-2 years of children	93	97	Karimnagar, Mahabumnagar, Adilabad, Rangareddy
8	Correct way to administer Albendazole to 2- 19 years of children at <i>Anganwadi</i>	93	97	Hyderabad, Rangareddy
9	Whether a chill should be give Albendazole in case of sickness or any other medication	40	90	Adilabad, Hyderabad, Khammam
10	Knowledge about side effects of Albendazole			

	A. Diarrhea	60	94	Khammam, Nizamabad, Warangle
	B. Nausea or vomiting	60	94	Khammam, Adilabad
	C. Stomach ache	60	94	Hyderabad, Rangareddy
	D. Dizziness/fatigue	58	94	Hyderabad, Warangle
11	Correct knowledge about Adverse event management			
	A. Make child lie down in open and shady area	80	100	
	B. Give water to drink	80	100	
	C. Make call to ANM/ Health center	80	100	
	<i>Correct knowledge about recording/reporting the information of dewormed children</i>			
12	On National Deworming Day	80	100	
13	On Mop-up day	83	100	
	Correct information on Reporting protocols/date			
14	To whom the School teachers and AWWs will submit the reporting forms?	87	100	
15	What is the last date of submitting anganwadi/School reporting form ?	72	94	Mahabumnagar, Khammam, Nizamabad
16	Will you retain a copy of filled anganwadi/ school reporting form at Anganwadi/school before submitting it?	80	100	
17	What is the last date of submitting ANM Reporting form to MO-PHC?	76	98	Nizamabad, Adilabad
18	What is the last date of submitting the reporting form filled by DM&HO to State Nodal Officer?	80	92	Hyderabad, Khammam

Annexure G key findings of process monitoring

	Key indicators of <i>school</i> IM/CV and result in percentage										
	Training attended	Drug sufficiency	SMS	Poster	Handouts	Reporting formats	Conducted deworming	Total number of schools surveyed			
TS	58	92.5	65.3	63.6	65.8	37.5	85	907(N)			

	Key indicators of <i>anganwadi</i> IM/CV and result in percentage										
		Training attended	Drug sufficiency	SMS	Poster	Handouts	Reporting formats	Conducted deworming	Total number of <i>anganwadi</i> surveyed		
Γ	TS	75	93.1	72.2	74.6	72.7	72	94	705(N)		

SCHOOLS - Process Monitoring indicaators ,Total Sample= 409										
Districts	Number of school visited	Attended Training	Received SMS	Received poster	Received handouts/ reporting forms	Sufficient drugs for deworming				
Adilabad	75	62.7	77.3	74.7	65.3	92.8				
Hyderabad	25	92.0	80.0	72.0	88.0	100.0				
Karimnagar	87	65.5	77.0	60.9	72.4	94.7				
Khammam	61	42.6	59.0	60.7	78.7	88.5				
Nizamabad	55	81.8	61.8	78.2	61.8	88.0				
Rangareddy	58	43.1	56.9	44.8	53.5	95.6				
Warangal	48	27.1	39.6	56.3	45.8	90.6				

Annexure G Appendix 1 detail findings of process monitoring & coverage validation

School Coverage Validation, Total Sample=498										
Districts	No. of school visited	Conducted deworming	Reporting form available	reported	verified	Verification factor	Inflation rate			
Adilabad	94	98.9	44.1	6175	3812	0.617	62.0			
Hyderabad	30	83.3	12.0	1044	122	0.117	755.7			
Karimnagar	105	89.5	39.4	8688	8650	0.996	0.4			
Khammam	75	89.3	29.9	3888	3522	0.906	10.4			
Nizamabad	65	93.9	52.5	6877	2694	0.392	155.3			
Rangareddy	69	78.3	37.0	4743	3688	0.778	28.6			
Warangal	60	98.3	47.5	6839	3817	0.558	79.2			

Anganwadi – Process Monitoring indicators ,Total Sample= 409									
Districts	Number of school visited	Attended Training	Received SMS	Received poster	Received handouts/ reporting forms	Sufficient drugs for deworming			
Adilabad	39	87.2	69.2	84.6	74.4	39			
Hyderabad	14	78.6	85.7	85.7	78.6	14			
Karimnagar	43	79.1	90.7	58.1	60.5	43			
Khammam	29	51.7	82.8	75.9	82.8	29			
Nizamabad	28	92.9	64.3	85.7	78.6	28			
Rangareddy	27	77.8	40.7	70.4	66.7	27			
Warangal	25	52.0	68.0	72.0	76.0	25			

Anganwadi Coverage Validation, Total Sample=498									
Districts	No. of school visited	Conducted deworming	Reporting form available	reported	verified	Verification factor	Inflation rate		
Adilabad	95	99.0	95	2955	2195	0.743	34.6		
Hyderabad	30	100.0	30	973	606	0.623	60.6		
Karimnagar	105	97.1	105	2951	1745	0.591	69.1		
Khammam	75	98.7	75	1081	1197	1.107	-9.7		
Nizamabad	65	98.5	65	1851	1607	0.868	15.2		
Rangareddy	70	97.1	70	1885	1431	0.759	31.7		
Warangal	60	100.0	60	881	762	0.865	15.6		