Evidence Action

Deworm the World Initiative

Rajasthan School and Anganwadi-Based Mass Deworming Program

Photo Credit: Evidence Action

Round Three - Report

July 2015

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[2]Based on the data submitted by Government of Rajasthan to Ministry of Health and Family Welfare, Government of India dated 15th April, 2015

ACRONYMS

AMD	: Additional Mission Director
ANM	: Auxiliary Nurse Midwife
AWC	: *Anganwadi* Centre
AWW	: *Anganwadi* Worker
AWTC	: *Anganwadi* Worker Training Centre
BEEO	: Block Elementary Education Officer
BRP	: Block Resource Person
CDPO	: Child Development Project Officer
DC	: District Coordinator
DWCD	: Department of Women and Child Development
GoI	: Government of India
GoR	: Government of Rajasthan
HM	: Headmaster
ICDS	: Integrated Child Development Services
IEC	: Information, Education and Communication
MT	: Master Trainer
MD	: Mission Director
NHM	: National Health Mission
NDD	: National Deworming Day
NYKS	: *Nehru Yuva Kendra Sangathan*
PRI	: *Panchayati Raj* Institutions
PIP	: Program Implementation Plan
RC	: Regional Coordinator
RBSG	: *Rajasthan Bharat* Scouts & Guides
RCEE	: Rajasthan Council of Elementary Education
RBSK	: *Rashtriya Bal Swasthya Karyakarm*
RMSC	*:* Rajasthan Medical Services Corporation Limited
TC	: Tele-caller
UNICEF	: United Nations Children's Fund
ULB	: Urban Local Bodies
WHO	: World Health Organisation

Executive Summary

This year was a landmark achievement for the school and anganwadi-based deworming program in the country with the announcement of National Deworming Day (NDD), targeting 140 million children in the first phase. Aligning with this national commitment, Rajasthan's third round of school and anganwadi-based deworming was observed on February 10, followed by a mop-up day on February 13, 20152. 11,858,768 school-age and preschool-age children, including out-of-school children, were dewormed through a network of 71,985 government schools and 60,292 anganwadis in the state (Annexure A). This accomplishment was a result of coordinated efforts between the Department of Health and Family Welfare, Department of Women and Child Development, Department of Education, Government of Rajasthan, and technical assistance partners Evidence Action and UNICEF. The Michael & Susan Dell Foundation supported Evidence Action's technical assistance to the program.

Table 1: Key Achievements from the School and Anganwadi-based Deworming Round 3 in Rajasthan[3]

Education for School-age Children		
Indicator	**Findings**	**% Achievement**
Total number of schools reporting deworming coverage	67,676	94.01
Total enrolled children (6-19 years) dewormed at schools	6,463,898	83.57
Total non-enrolled children dewormed at schools	683,631	NA
Total adults dewormed	567,401	NA
Drugs received from WHO Drug Donation Program for government schools	18,539,400 tablets	NA
ICDS for Preschool-age Children		
Total AWCs reported deworming data	59,551	98.77
Total registered children dewormed through AWCs (1-5 years)	4,711,239	86.6
Total drug doses for preschool-age children procured by the Department of Health (tablets and syrups)	6,974,533	NA

At the national level, Evidence Action worked closely with the Government of India's (GoI) Child Health Division to develop operational and financial guidelines for the National Deworming Day. As the third round of deworming in the state, program implementation was guided by learnings from previous rounds, and supplemented with advocacy by Evidence Action for greater institutionalization within the government system. Department of Health was recognized as the nodal agency, and showed increased ownership by steering some new

2 *Anganwadis* observed deworming for four days, from February 10-13, to achieve greater coverage.
[3]Based on the data submitted by Government of Rajasthan to Ministry of Health and Family Welfare, Government of India dated 15th April, 2015

initiatives in this round that aimed at improving program coverage, such as including non-enrolled children and 1-2 year olds, and utilizing community-based networks for greater community engagement. Evidence Action provided the state with additional technical support by planning with all stakeholder departments, conducting quality assurance in trainings, contributing to contextualizing IEC materials, conducting program monitoring, and facilitating coordination at all levels. The state referred to the National Deworming Day financial guidelines, ensured engagement at districts, and allowed for greater ownership at the last level, which facilitated timely reporting of coverage data within two months to GoI. The robust tracking and monitoring systems guided the state to undertake remedial measures for identified gaps. Experiences and findings from this deworming round in the state will be crucial for planning and implementation of future deworming rounds.

1. Program Background

In India, approximately 241 million children between the ages of 1 and 14 are at risk of parasitic intestinal worms (known as Soil-Transmitted Helminths or STH). The infected children represent approximately 68% of Indian children in this age group and 28% of all children at-risk for STH infections globally, according to the WHO. These parasitic infections result from poor sanitation and hygiene conditions, and are easily transmitted among children through contact with infected soil. Various studies have documented the widespread and debilitating consequence of chronic worm infections, which cause anaemia and malnutrition among children, affecting their physical and cognitive development. Worm infections contribute to absenteeism and poor performance at school, and diminished work capacity and productivity in adulthood[4].

1.1 A Cost-Effective Win for Education: Deworming through Schools

Evidence from across the globe shows that deworming leads to significant improvement in outcomes related to children's health, education, and long-term well-being. In 2008 and again in 2012, the Copenhagen Consensus Centre identified school-based deworming as one of the most efficient and cost-effective solutions to the current global challenges. School-based deworming is considered a development "best buy"[5] due to its impact on educational and economic outcomes. The benefits of using such platforms for deworming are immediate. Regular treatment can reduce school absenteeism by 25%, with the greatest participation gains among the youngest pupils[6]. Young siblings of those treated and other children, who live nearby but were too young to be dewormed, also showed significant gains in cognitive development from school-based deworming.[7]The existing and extensive infrastructure of schools provides the most efficient way to reach the highest number of children, and teachers, with support from the local health system, can administer treatment with minimal training.

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[4]Helminth control in school-age children- A guide for managers of control programmes: WHO, 2011
5 http://www.povertyactionlab.org/publication/deworming-best-buy-development
6 Miguel, Edward and Michael Kremer. "Worms: Identifying Impacts On Education And Health In The Presence Of Treatment Externalities," Econometrica, 2004, v72 (1,Jan), 159-217.
7 Ozier, Owen. "Externalities to Estimate the Long-Term Effects of Early Childhood Deworming." Working Paper, Jun. 2011. http://economics.ozier.com/owen/papers/ozier_early_deworming_20110606a.pdf

1.2 Deworming Children in India

Deworming children is part of the Government of India's school and preschool health programs, such as the Weekly Iron-Folic Acid Supplementation (WIFS) program, which provides a weekly dose of Iron Folic Acid (IFA) with biannual deworming for adolescents (10-19 years).[8] National Iron Plus Initiative (NIPI) is a national anaemia control program which offers IFA supplementation and deworming for a wider age group of 1-45 years, including preschool-age children who also receive Vitamin A. Until recently, only a few states ran effective *anganwadi* and school-based deworming programs with good coverage. Many programs had sporadic deworming efforts and low coverage, while in other states no deworming programs existed. Considering this complex environment and the clear need to accelerate treatment for India's children, the GoI renewed its focus on deworming by streamlining efforts through the school and *anganwadi*-based National Deworming Day launched in February 2015.

1.3 State Program History

In 2012, the Government of Rajasthan expressed keen interest in implementing a mass deworming program through the network of schools and *anganwadis*, and invited Evidence Action to provide technical support. The Department of Education (represented by the Rajasthan Council for Elementary Education and Department of Secondary Education), Department of Health, and the Department of Women and Child Development, identified as the key stakeholders of the program, along with UNICEF and Evidence Action- Deworm the World Initiative, inked the partnership in June 2012. The partners rolled out a school and *anganwadi*-based deworming program targeting all school-age children (6-18 years) through schools, and preschool-age children (2- 5 years) through *anganwadis,* for treatment of Soil-Transmitted Helminths.

Rajasthan's mass deworming program was launched on 15 October 2012, also observed as "Global Handwashing Day." Stakeholders coordinated to ensure rapid roll-out for the first round of deworming in 2012, which was followed by the second round of deworming in 2013. These rounds dewormed 10.9 million and 10.8 million school and preschool-age children respectively **(Annexure – B.1)**. The third round of deworming was initially scheduled for October 15, 2014. However, due to delayed arrival of WHO donated drugs for school age children and delay in local procurement of syrups for preschool-age children, the round was rescheduled for December 2014. Later, with the announcement of National Deworming Day, all stakeholders at the state decided to align the third round with the National Deworming Day in February 2015, adhering to the notification of the Government of India sent to states. **(Annexure – B.2)**

2. About National Deworming Day

The deworming program in India reached a key milestone with the Government of India's launch of National Deworming Day on February 10, 2015. The first phase of National Deworming Day targeted all children aged 1-19 years in 12 states/union territories (Assam, Bihar, Chhattisgarh, Dadra and Nagar Haveli, Delhi, Haryana, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Tamil Nadu, and Tripura) through the network of government and government-aided schools and AWC.

[8]http://www.nrhmhp.gov.in/sites/default/files/files/Iron%20plus%20initiative%20for%206%20months%20-5%20years.pdf

Evidence Action supported the Ministry of Health and Family Welfare (MoHFW) to plan and finalize the operational guidelines for National Deworming Day. These guidelines laid out key objectives, implementing framework, clarity on roles and responsibilities of stakeholders, and provided budgetary allocations for states. All training, community awareness materials, monitoring and reporting forms, and other reference materials available through the National Deworming Day resource kit were uploaded on the NHM website[9] for participating states/union territories for the launch of National Deworming Day. Evidence Action supported a national-level orientation meeting on January 19, 2015 in Delhi for all states and union territories participating in the first phase, including the four states where Evidence Action was engaged as technical assistance partner (Madhya Pradesh, Bihar, Rajasthan, and Delhi). On February 9, 2015, the Union Minister of Health inaugurated the National Deworming Day in Jaipur, Rajasthan. The State Minister of Health for Rajasthan and other senior officials from the national and state government participated in the launch event alongside representatives from development partners and the media. The event received extensive media coverage.

3. Introduction – State School and Anganwadi-Based Deworming Round 3

3.1 Target Beneficiaries

Third round targets were based on enrolment data reported by the districts and included 7,734,343 children enrolled in classes 1-12 in government schools; 5,417,639 preschool-age children registered at *angandwadis;* as well as non-enrolled school-age children.[10]

4. Program Implementation

The state conducted the National Deworming Day on February 10, 2015 with a mop-up day (MUD) on February 13, 2015 to reach out to the target population. The *anganwadis* observed the deworming program between the 10-13 February for increasing coverage. National Deworming Day implementation included several program components as detailed below:

4.1 Policy and Advocacy

The stakeholders attended a steering committee meeting on July 10 to discuss and plan for third round of the program which was originally scheduled for October 15, 2014. The key decisions at the meeting included **(Annexure C.1):**

1. The Department of Health would be the nodal agency and lead deworming implementation in the state, including drug supply and logistics, community awareness, printing and distribution of IEC, and reporting materials in coordination with Departments of Education and Women and Child Development.
2. Deworming at *anganwadis* would be a week-long initiative, with the objective of improving coverage of preschool-age children.

[9] http://nrhm.gov.in/national-deworming-day.html
[10] As per letter sent by Department of Education to MD, NHM

3. The program would extend reach to include out-of-school children and would explore specific strategies to engage ASHAs.
4. All involved departments would designate monitoring teams for visits on Deworming Day to build capacity of individual departments and acquire information on ways to improve subsequent deworming rounds. This would also bring more accountability in the system to implement a high quality program.
5. Evidence Action would support district level trainings for Departments of Health, Education and Women and Child Development through providing master trainers, and design and develop training materials.

Later the Government of India's Ministry of Health and Family Welfare announced the launch of National Deworming Day which reinforced some of the decisions mentioned above. **(Annexure C.2)**

On 6 February 2015, the Director of the National Health Mission (NHM) chaired a video conference attended by all key stakeholders from the districts to apprise them on National Deworming Day guidelines, including financial guidance, and ensure preparedness for the round **(Annexure C.3).** The Department of Education communicated with districts and lower-level officials to facilitate preparations at schools as per finalized dates, clarifying responsibilities, and sharing important instructions for implementation.

Engagement at District Level: During this round of deworming, district officials from the concerned departments participated in the District Coordination Committee meetings. Adhering to a directive from Departments of Health and Education issued to districts, all 33 districts conducted meetings to establish coordination framework among the stakeholders, of which 11 districts issued formal minutes **(Annexure C.4)**.[11] Evidence Action's field-based district coordinators facilitated and shared critical program updates and related information in 14 of these meetings.

To pace the preparation for the program, in accordance with National Deworming Day guidelines, the Department of Health directed districts to shoulder greater responsibility of key program activities including printing and disseminating IEC, and organizing inaugural events. This resulted in greater ownership at the districts, but given the time constraint, effective planning and interdepartmental coordination could not be ensured. Some activities could not be completed on time. District and block officials of all departments were also directed to assess field preparations by conducting visits on Deworming Day and mop-up day and to record these visits through standardized checklists **(Annexure C.5).**

4.2 Program Management

Evidence Action's technical assistance was provided by a state-based team, including full time field-based regional coordinators and short term hires, such as district coordinators and tele-callers. All field-based team members were trained ahead of time on program components to build a common understanding of the program strategy.

Regional Coordinators: Evidence Action hired two full time regional coordinators for a year-long engagement to support institutionalization efforts for the deworming program. Each was responsible for 16-17 districts. They provided program management support and oversight to the district coordinators, organised District Coordination Committee meetings, supported

[11] Baran, Churu, Kota, Dhoulpur, Bundi, Bharatpur, Sirohi, Pali, Chittaurgarh and Banswara.

information sharing, led prompt remedial action in the field, guided advocacy with district officials, facilitated the training and distribution cascade, and ensured timely reporting of coverage data. Regional coordinators played an instrumental role in providing trainings to NYKS[12] volunteers at the district level as well as to *anganwadi* workers. After deworming activities were completed for National Deworming Day, their efforts shifted towards exploring opportunities at the districts for synergies with existing work and possible platforms to integrate deworming. The regional coordinators will continue working with district officials to include deworming in district action plans for the next financial year to support institutionalization efforts.

District Coordinators: 33 district coordinators were hired for three months during the deworming round to closely facilitate program implementation. In each district, they coordinated with officials from the Departments of Health, Education and Women and Child Development. District coordinators were instrumental in facilitating delivery of training aids such as flipcharts (designed and developed by Evidence Action), to the concerned officials in time for training. They supported all district-level trainings, and a sample of block-level trainings, by reinforcing correct messaging at trainings and administering pre- and post-tests to the participants. They conducted field visits and escalated any gaps observed to the regional coordinators and the state team for appropriate follow up at the state level. Post Deworming Day, they supported concerned officials at block and district levels with timely compilation of coverage reports through rigorous follow-up.

Tele-callers: Three tele-callers were hired for three months to assess program preparedness by calling officials at the block level and below to check on training schedules, drug and IEC availability, and to follow up on the status of coverage reports. This dynamic flow allowed information gathered from block level and below, particularly around coverage reporting, to be shared promptly with the state government for timely corrective actions and faster compilation of coverage reports.

Figure 1: Snapshot of the daily tracker

Rajasthan School& Angawadi Based Deworming Round-3

Summary Update As on 02-03-2015

Tracking status on the basis of calls made by Telecallers of Deworm the World Initiative

DISTRICT	BLOCK	NAME OF BRP	Total number of Nodals in the block	Number of Nodals from which filled forms are receive	Number of Nodals from which filled forms are not receiv	Date by which RP would ensure that all Nodals HMs have submit the filled reporting forms	Have Reports been submitted to district lev
JAIPUR	SAMBHAR LAKE	Satya Pal Jat	50	50	0	Received	02-03-2015
JAIPUR	AMBER	Shakil ahmad	48	30	18	03-03-2015	04-03-2015
JAIPUR	SHAHPURA	Rajkumar Bunker	33	33	0	Received	Submitted
JAIPUR	VIRATNAGAR	Revad Ram	43	42	1	02-03-2015	04-03-2015
JAIPUR	DUDU	Vijendra kumar	56	55	1	02-03-2015	03-03-2015
JAIPUR	BASSI	Kailash Choudha	39	39	0	Received	02-03-2015
JAIPUR	CHAKSU	RAM KISHORE	37	37	0	Received	02-03-2015
JAIPUR	JAIPUR WEST	Nisha Araya	12	12	0	Received	Submitted
JAIPUR	KOTPUTLI	Sardul yadav	45	45	0	Received	Submitted
JAIPUR	GOVINDGARH	vidhyadhar godha	46	46	0	Received	02-03-2015
JAIPUR	JAMWA RAMGA	Sharwan lal meer	43	43	0	Received	Submitted
JAIPUR	PHAGI	Kuldeep sharma	31	31	0	Received	03-03-2015
JAIPUR	JHOTWARA	Ramesh	16	16	0	Received	Submitted
JAIPUR	JAIPUR EAST	Tara chand	21	21	0	Received	03-03-2015
JAIPUR	SANGANER	Ravindra Kumar T	31	31	0	Received	Submitted

[12] Nehru Yuva Kendras (NYK) i set up in 1987-88, is the largest autonomous organization under the Government of India, Ministry of Youth Affairs and Sports. It channelizes the power of youth aged 13-35 years on the principles of voluntarism, self-help and community participation.

4.3 Drug Procurement, Storage, and Transportation

Drug Procurement: Evidence Action facilitated the state government to avail donated drugs from the WHO global drug donation program. The state received approximately 18 million albendazole tablets for school-age children in October 2014 for use in third Round. While the government previously received around 11 million tablets, this increase to 18 million tablets accounted for out-of-school children and an additional buffer due to the elimination of drug repackaging at the state level. The larger drug order ensured that each school with an enrollment of less than 200 was supplied with a jar of 200 tablets, so that they could also cater to out-of-school children. Further, Evidence Action facilitated testing of the drugs through the laboratory empaneled with the Rajasthan Medical Services Corporation (RMSC). These were reported as per specifications **(Annexure D.1).** Since Rajasthan has already been administering deworming syrups for preschool-age children, the Department of Health had procured half of the required[13] stock for preschool-age children in November 2014. With the National Deworming Day guidelines recommending tablets for preschool-age children, the Rajasthan Medical Services Corporation (RMSC) procured tablets through the Department of Health to meet the remaining requirement. Thus, in this round at the AWCs both syrups and tablets for preschool-age children were administered during this round.

As the previous deworming round in the state recommended albendazole administration after food intake, Evidence Action sought technical guidance from WHO-Geneva. A clarification on the same was received from WHO stating that food intake is not a prerequisite for albendazole administration. The guidance from WHO in the form of a letter was shared with the Department of Health for revision in round 3 guidelines **(Annexure D.2)**. This was further shared with other stakeholders at all levels.

Drug Logistics and Supply: For albendazole tablets received from WHO for school-age children, UNICEF supported the transportation of drugs from the state to blocks for further distribution to schools. Evidence Action further worked with RCEE to distribute albendazole tablets in block level trainings, for distribution to schools. With delays in arrival of drugs, the integrated distribution at the trainings was not completely aligned across all blocks. In 121[14] blocks, wherever drug distribution could not be aligned with trainings, drugs were distributed later through other opportunities, such as at meetings of nodal teachers. Prior to distribution, Evidence Action coordinated with RCEE to develop micro-plans using block level school enrolment data[15] to determine the requirements for each block. This approach facilitated easier bundling of 200-tablet jars at the state level.

However, this integrated distribution approach remained a challenge for drugs for preschool-age children due to delays in procurement of syrups and tablets for this age group at the state-level. Drugs procured by the government were supplied directly to the districts, and logistics and supply were managed by the Department of Health in coordination with Department of Women and Child Development using their distribution mechanisms to supply to AWCs.

[13] Based on DWCD's estimate of requirements in *anganwadis*
[14] Data reflected in tracking conducted by Evidence Action's tele-callers
[15] DISE data 2013

4.4 Adverse Event Management Preparedness

In line with the National Deworming Day operational guidelines and advice from Government of India, Rajasthan's Department of Health instructed all district health officials to establish block-level emergency response teams (**Annexure D.3)**. These comprised of a doctor, a male nurse, and an Auxiliary Nurse Midwife (ANM) to respond to and manage any severe adverse events reported on deworming and mop-up days. To provide access to protocols, the Department of Health uploaded documents onto the state's website (http://www.rajswasthya.nic.in/NDD). In addition, Government of India issued an advisory to the states before mop-up day to alert all emergency units and personnel to respond quickly in cases of adverse events. As a result, mobile ambulances, under *Rashtriya Bal Swasthya Karyakarm,*[16] were on alert in 25 districts and block-level emergency response teams were formed in 26 of 33 districts. The Department of Health sent out approximately 60,000 messages to key health officials and frontline workers to reinforce protocols for correct and timely management of adverse events.

4.5 Public Awareness and Community Sensitization

Given the short amount of time between the announcement of the National Deworming Day and Deworming Day, awareness raising activities were especially important. The Department of Health planned to roll out messages via media mix throughout the state **(Annexure E.1).** To maximize reach, 60 second radio jingles were aired from February, 7-13 on eight FM channels, while TV scrolls were played on six leading local channels. Evidence Action supported in the developing National Deworming Day IEC toolkit and contextualizing prototypes, such as for the radio jingle and TV scrolls. Although financial resources were allocated under the National Deworming Day guidelines, newspaper advertisements that were planned for release in ten dailies could not be completed due to the last-minute approval process at the state. To supplement the efforts of the state and provide need based support, Evidence Action facilitated print of a newspaper advertisement on Deworming Day that covered the benefits of deworming in leading dailies like *Rajasthan Patrika* and *Dainik Bhaskar,* to encourage community sensitization and participation**. (Annexure E.2)**

With committed financial resources under the National Deworming Day guidelines, the state government guided all 33 districts to ensure timely printing and dissemination of posters for schools and *anganwadis.* For ease of access and timely completion of these activities at the district, the Department of Health uploaded the adapted prototypes onto its portal. Other community engagement activities aimed at raising awareness about the program included miking, wall writing, hoarding, and district level launch events undertaken by the district. Details on IEC activities conducted and resources spent are being collated from the districts.

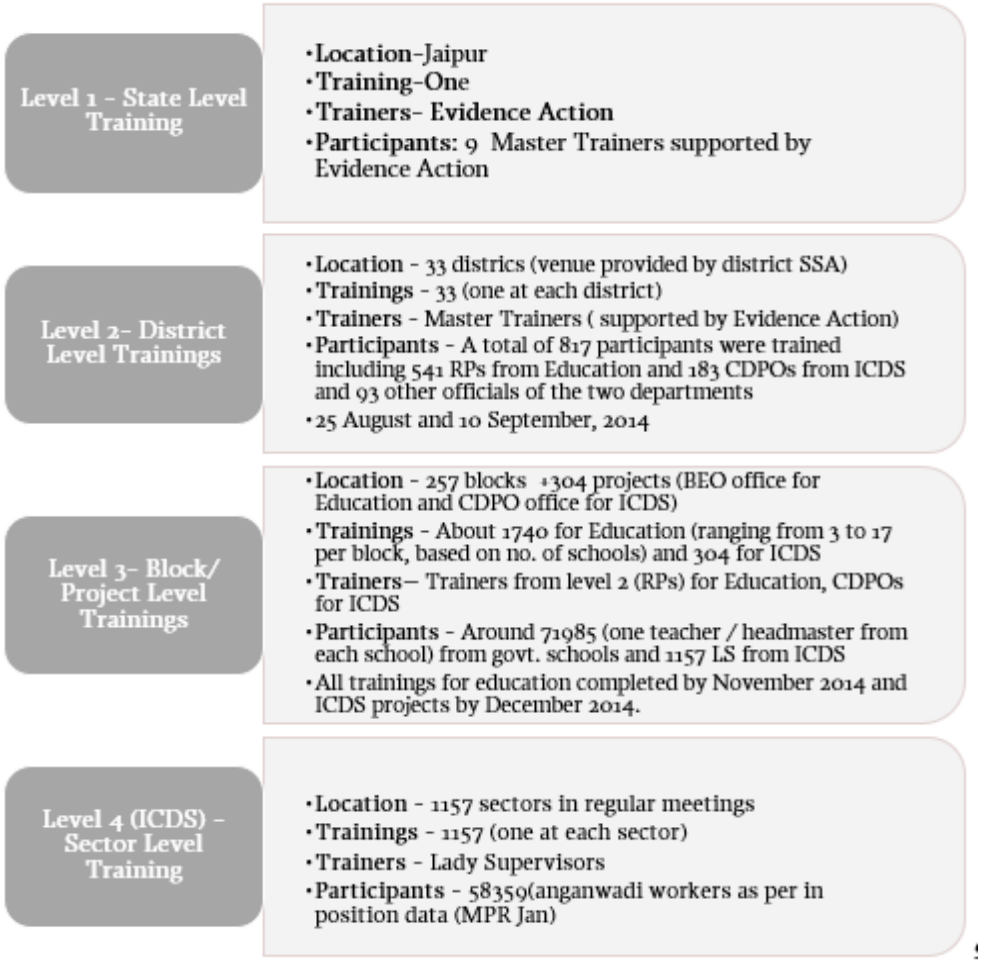
All 33 districts organized inaugural events on Deworming Day, which were held at either government schools or *anganwadis* in the presence of district officials from key stakeholder departments. Evidence Action's district coordinators facilitated preparation for these events. One of the strategies recommended by National Deworming Day guidelines to increase mobilization of out-of-school children was active engagement of ASHAs with performance-based incentives. While the Government of Rajasthan emphasised their role at all platforms, no clear guidelines were set for implementing this strategy during the round

To supplement the state's efforts for community engagement, Evidence Action worked with the Department of Health to engage with volunteer platforms such as Nehru Yuva Kendra Sangathan (NYKS) and Scouts and Guides **(Annexure E -3).**[17] This wide network of volunteers helped to sensitize communities on the importance and benefits of deworming.

4.6 Training Cascade

In preparation for the deworming round that was previously scheduled for October 2014, all stakeholders had coordinated to plan for the training cascade. As in previous rounds, the cascade was designed to be integrated within existing platforms at the block level, such as monthly meetings for *anganwadi* workers and annual teachers training under the Department of Education**(Annexure F.1).**Evidence Action hired nine Master Trainers, who facilitated trainings at each district. Prior to the district trainings they were the participation are depicted as below:

Figure 2: Training Cascade and Participation



[17] The Rajasthan State Bharat Scout and Guide is a voluntary, non-political, educational movement for young people with approximately 20,000 to 22,000 units in the state of Rajasthan covering approximately 7 lakh children NYKS - 4,00,000 lakh volunteers approximately, Scouts and guides, 7,00,000 volunteers registered in 22000 units)

Training Resources*:* Evidence Action provided training aids for trainers in the form of flipcharts, which were developed and designed in consultation with stakeholders to assure high quality and standardized messages **(Annexure F.2)**. Evidence Action printed and transported 900 flipcharts to all blocks with support from district coordinators. In line with National Deworming Day guidelines, the districts undertook the printing of teacher and *anganwadi* handouts in January 2015. Since these could not be distributed during the trainings that were completed in November, handouts were distributed along with posters to the schools and *anganwadis.*

Training Support*:* Along with the master trainers who led the district trainings, Evidence Action's district coordinators provided supportive supervision to all 33 district trainings. Additionally, the team conducted pre- and post-tests to assess the knowledge gained by participants, which is further explained below.

A total of 521 participants at district level trainings filled in the pre- and post-test completely. When asked if deworming reduces deficiency of blood in children, 49% gave the correct response in the pre-test while 85% gave the correct response in the post-test. Knowledge that deworming helps increase the nutritional status of children increased from 79% to 97% in the post-test. Knowledge that deworming leads to an increase in school attendance increased from 57% in the pre-test to 93% in the post-test.

Based on the lowest scores in a district, from the pre- post assessment, a sample of 3 blocks each for the Department of Education and ICDS, were identified in all 33 districts to support block-level trainings and reinforce correct messages. Thus, of the 257 block-level trainings for the Department of Education and 304 project level trainings for ICDS, Evidence Action's district coordinators attended a total of 198 trainings.

Reinforcement through Bulk Messages: As there was a considerable gap between the training conducted in November 2014 for teachers and *anganwadi* workers and Deworming Day in February 2015, there was a need to reinforce key messages on the program to functionaries at all levels. All three government departments (Health, Education, and Women and Child Development) sent out text messages as per a strategic SMS plan designed by Evidence Action, using their respective portals **(Annexure F.3).** This was a tremendous achievement demonstrating greater movements towards program ownership. The Departments of Health and Women and Child Department sent approximately 154,778 and 17,337 messages respectively to officials and frontline workers. The Department of Education also sent 92,143 messages to headmasters and teachers reinforcing preparedness for the program. Evidence Action supplemented the efforts to refresh key content and messages by disseminating 400,000 text message and 100,000 voice messages to all block officials and teachers.

4.7 Highlights from Deworming Day and Mop-Up Day

The third Round of school and *anganwadi*-based mass deworming was observed on February 10 2015 and was followed a by mop-up day on February 13 to cover children who were not treated on Deworming Day due to sickness or absenteeism. *Anganwadis* observed deworming for four days, from February 10-13, to achieve greater coverage **(Annexure G).**

- District-level inauguration took place in all 33 districts. The District Magistrate and other senior officials were present at launch events in 18 districts.
- ASHAs were engaged in the field to mobilize out-of-school children to come to the nearest government school for deworming treatment.
- Block officials of Departments of Education and Health carried out monitoring visits and tracking along with Evidence Action on National Deworming Day (Annexures E -1).
- Few mild adverse events were reported and were managed at the school or *anganwadis*-level.

4.8 Monitoring and Evaluation

Understanding program reach and quality is a key component of a successful deworming program. In order to fulfil this need, Evidence Action worked intensively with the Departments of Health, and Educations to ensure quality planning and implementation of the deworming round. The preparedness of the schools, a*nganwadis,* and health systems to undertake deworming, adherence to the prescribed deworming processes, and ensuring accurate reporting of coverage are key components of the supportive supervision process followed by Evidence Action. The process of monitoring and evaluation in each deworming round are performed in three ways: (1) process monitoring, (2) coverage reporting and (3) coverage validation. In Rajasthan, both process monitoring and coverage validation were carried out in schools, while only coverage validation was done at a*nganwadis.* This is because the four-day long (10-13 February) deworming program in *anganwadis* made process monitoring a challenge.

Process Monitoring, Coverage Reporting, and Coverage Validation: Process monitoring assesses the preparedness of the schools, *anganwadis,* and health systems to implement mass deworming and the extent to which they have followed correct processes to ensure a high quality deworming program. Evidence Action assesses the program preparedness during pre-deworming phase and selected independent monitors observe the deworming processes on Deworming Day and mop-up day. We conduct process monitoring in two ways: a) telephone monitoring and cross verification and b) physical verification by visiting schools and training venues.

Through a competitive selection process, Evidence Action hired the State Institute of Health and Family Welfare (SIHFW), Jaipur as the independent monitoring agency. SIHFW provided 125 monitors who conducted monitoring activities of the deworming program across the state. The objective of independent monitoring is to determine whether the program is being implemented according to planned protocols. Two-stage probability sampling was used to select schools for independent monitoring on Deworming Day and mop-up day. First, 125 blocks were selected from all 33 districts by probability proportional to size (PPS) sampling[18], followed by random sampling of schools to provide state-wide estimates of indicators. Evidence Action held a detailed two-day training at the SIHFW campus in Jaipur to ensure the monitors were equipped with the necessary program knowledge to conduct monitoring effectively. These 125 monitors visited 125 schools on Deworming Day and an additional 125

[18]Blocks were selected by Probability proportional to size sampling (PPS) in Rajasthan, according to the number of schools in that block. PPS corrects for unequal selection probabilities in random sampling of unequally sized blocks. Schools were then randomly selected from the selected blocks.

on mop-up day to check for adequate drug supplies and awareness materials, to confirm whether teachers had received training, and to assess knowledge of adverse event management protocols and reporting processes. Monitors gathered data through observation of deworming and through interviewing headmasters, teachers, and randomly selected students.

Field Monitoring Visits for Process Monitoring: A team of 33 district coordinators and 2 regional coordinators from Evidence Action further monitored districts and blocks for deworming preparedness by physically verifying drug availability, IEC availability and training status. Monitoring information was communicated to district and state officials on a daily basis leading up to National Deworming Day.

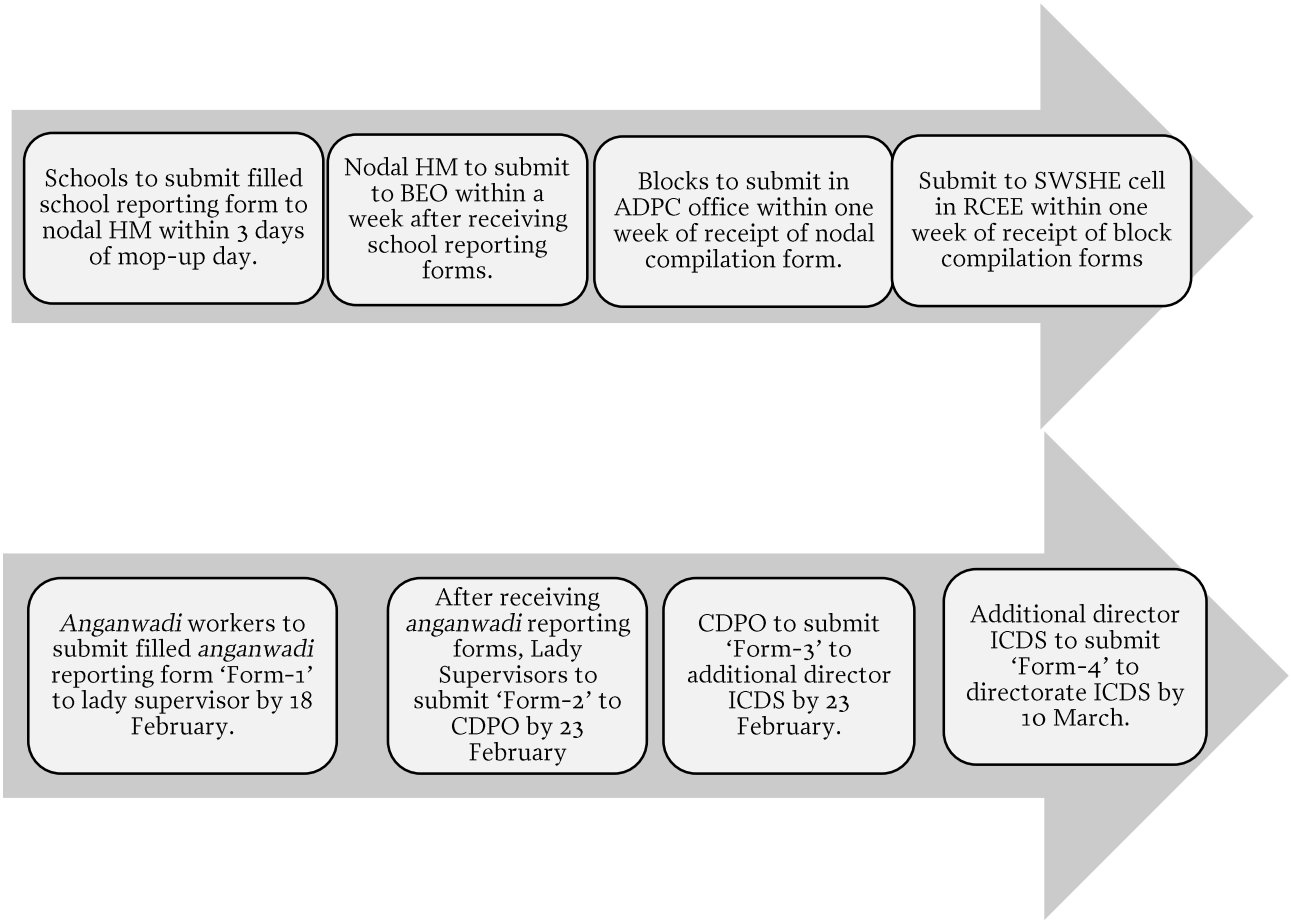
Telephone Monitoring and Cross Verification for Process Monitoring: Evidence Action's tele-callers tracked the status of training sessions and availability of drugs and IEC materials at the district, block, and school/*anganwadi* levels through approximately 14,485 successful[19] calls. Tele-callers made 258 calls to the Department of Health and 7,717 calls to ICDS at district, project, and sector level. Another 4,598 calls were made to block and district-level education officials to track various program components. In total 734 calls were made to schools covering 249 blocks across the 33 districts to assess preparedness.

Tele-callers created tracking sheets to outline issues identified during calls and monitoring visits. Issues at the districts, blocks, and schools/*anganwadi* levels were shared with the state government to ensure that the government was able to take corrective action to address the gaps in real time as necessary.

Coverage Reporting assesses the estimated numbers of program beneficiaries and is a crucial component for understanding the success of program implementation. As in previous rounds, a simplified reverse cascade for report collection was followed as agreed by the Departments of Education and Women and Child Development. The overall tracking through Evidence Action's district coordinators and tele-callers, coupled with efforts by both departments, enable districts to compile and report coverage data to the State Health Mission within four to six weeks of Deworming Day. Evidence Action's advocacy with the government resulted in printing of reporting forms for schools and *anganwadis* by the Departments of Education and Health respectively. In this round, each school and *anganwadi* was supposed to fill a one-page, simple reporting form **(please see Annexure H.1 for school and *anganwadi* reporting forms)**. Every teacher and *anganwadi* worker was required to put a single tick mark (✓) next to a child's name in the school /*anganwadi* register if they were administered albendazole on Deworming Day and double-tick mark (✓✓) if dewormed on mop-up day. School headmasters and *anganwadi* workers were responsible to compile the number of dewormed children, fill the reporting format and submit it to the next level. Reporting structure of coverage data from schools and *anganwadis* and timelines are given below:

[19]Successful calls were those calls where the information was collected by tele-caller as per the requirement of the program.

Figure 2: Reporting Structure of Coverage Data and Timelines in Schools and Anganwadis



Coverage Validation is an ex-post check of the accuracy of the reporting data and coverage estimates. Coverage validation data to verify coverage of enrolled children, was gathered through interviews with headmasters and three students (in three different randomly selected classes in each school visited), and checking of all class registers and reporting forms[20]. Whereas, *anganwadi* coverage validation data was gathered through interviews with *anganwadi* workers, checking *anganwadi* registers and *anganwadi* reporting forms. These activities provide a framework to validate coverage reported by schools and *anganwadis* and calculate inaccuracy levels in the reporting data by comparing the ticks with the numbers reported in school/*anganwadi* reporting forms.

Key Findings: While the detailed results of independent monitoring are shared in **Annexure H.2**, the key results were as follows:

Deworming in Schools and *Anganwadis*: Based on monitoring, we know that deworming was directly observed by monitors in 87% of the schools visited on Deworming Day and mop-up day **(Annexure H.2, Table 2)**. Interviews with headmasters on Deworming Day, mop-up day, and on coverage validation visit indicated that 94% of schools had done deworming on Deworming Day and/or mop-up day. There was also some district-wise variation, with Dhaulpur reporting the lowest number (83%) of sampled schools deworming; while 15 districts

[20]Please note that the coverage validation is only able to check the coverage of enrolled children in schools.

(Ajmer, Bikaner, Sirohi, Alwar, Baran, Bundi, Churu, Hanumangarh, Jaisalmer, Jhunjhunu, Karauli, Kota, Pali, Rajsamand and Sawai Madhopur) found that all sampled schools had conducted deworming **(Annexure H.2,Table 10)**. 94% of children interviewed on Deworming Day, mop-up day, or during coverage validation indicated that they had received a deworming tablet at the school. Prima facie, this suggests that deworming occurred in a large percentage of schools (approximately 94%) on one of the deworming days, according to headmaster interviews. Additionally, it suggests that the coverage of enrolled children who were in attendance on one of the deworming days was approximately 94% **(Annexure H.2, Table 12)**. Average attendance during deworming days was 72% **(Annexure H.2, Table 8)**. In conjunction with the 94% of enrolled attending children who said they had been dewormed, this suggests that approximately 68% (or 94% of the average 72% children who attended during deworming days) of enrolled children were covered in schools during National Deworming Day. Therefore, the coverage numbers based purely on attendance and children who said they had been dewormed on Deworming Day or mop-up day, suggest that coverage was not very high in schools, since it would require that most enrolled children who attended class on Deworming Day, did not attend class on mop-up day, and vice-versa. Further, 92% of *anganwadi* workers reported that deworming happened in their centres **(Annexure H.2, Table 13)**.

Drug Availability: 94% of headmasters reported that they had sufficient drugs(sufficient drugs is defined here as availability of drugs in accordance with number of children enrolled in the school) for deworming (this is a combined estimate from independent monitoring visits on Deworming Day, mop-up day, and coverage validation) **(Annexure H.2, Table 12)**. However, availability of drugs for adverse event management presented a challenge; for example, ORS packets were available only in 14% of schools **(Annexure H.2, Table 5)**. Around 89% of *anganwadis* reported sufficient availability of drugs for deworming **(Annexure H.2, Table 13)**.

Reporting Forms and IEC Materials: Significant gaps were found regarding school-level availability of reporting forms and IEC materials. Reporting forms (**Annexure H.1)** were available in 84% of schools, while only 30% received any handouts about deworming. Only 36% of schools received deworming posters, and these were only clearly displayed in about 24% of schools. When children were interviewed, around 74% were aware that the drug given to them was for deworming. This may reflect a lack of health education by teachers or may indicate that teachers were not sufficiently trained. In addition, only 2.4% of children heard about deworming from their parents/siblings, while 6% read about deworming through the newspaper. 70% of the children had heard about deworming from their teacher/school and other sources of information were radio, television, posters, *prabhat pheri,* and friends and relatives. These findings reflect inadequate reach of IEC materials in terms of raising awareness about deworming amongst parents and siblings. It also indicates that the ultimate beneficiaries of the program knew very little about deworming and its benefits **(Annexure F2, Table 3)**. 51% of *anganwadi* centres received posters, while 29% received handouts **(Annexure H.2, Table 13)**.

Training Status: Data from Deworming Day, mop-up day, and coverage validation suggests that only 64% of schools attended deworming related training. There was also large district wise variation, with Bharatpur, Sikar, and Kota districts reporting the lowest representation (12%, 25% and 33% respectively) at training, while more than 90% of headmasters and teachers received training in Dhaulpur, Pratapgarh, Jhunjhunu and Jalore **(Annexure H.2, Table 10)**. The primary reason for non-attendance at training was lack of information about training dates (73% of schools). 70%of all headmasters received any SMS related to the

deworming program. Though this is significant reach, further efforts need to be made to reach all headmasters through more accurate and complete databases of headmaster contact details **(Annexure H.2, Table 12)**. Around 90% of *anganwadis* received information about deworming from Lady Supervisors at departmental meetings, and only 18% reported receiving SMS related to the deworming program **(Annexure H.2, Table 13)**.

Training Effectiveness: It is interesting to note that there is not much difference observed between trained and untrained schools on most indicators. For example, 80% of trained schools were aware that a reporting form is to be submitted, which was same for untrained schools. There was generally low awareness around the date of report submission, with trained schools (60%) only slightly more aware of the deadline compared to untrained schools (54%). Irrespective of training status, around 95% of teachers were aware that children should receive one deworming tablet and informed children to chew the tablet before swallowing it. Again, irrespective of training status, similar percentage of headmasters were aware that they should retain a copy of school reporting forms in the school **(Annexure H.2, Table 11)**. This small difference in most of the indicators between trained and untrained schools could be explained to previous trainings conducted in Rounds 1 and 2 of the deworming round. It might also be argued that the large time gap between the training and Deworming Day could have diluted the effect of training.

Management of Adverse Events: The teacher interviews suggested lack of awareness about the possibility of adverse events due to deworming. 41%of teachers who were interviewed on Deworming Day and mop-up day did not think there could be any adverse events due to deworming. Only 83% of teachers separated out sick children before deworming, increasing the risk that adverse events might be blamed on deworming rather than on existing illness. In addition, there was very limited understanding in teachers of how to deal with mild adverse events, with 68% of teachers advocating taking the child to hospital immediately, rather than following standard adverse event management protocols and assessing the seriousness of the situation before referrals **(Annexure H.2,Table 6)**. Mild adverse events were observed at 29% of the *anganwadi* centres. 49% of the *anganwadi* workers reported that these events included nausea/vomiting followed by mild abdominal pain (40%) and diarrhoea (18.5%) **(Annexure H.2, Table 13)**.

Program Coverage: The coverage data from government schools in Rajasthan indicated that throughout the state, 6,463,898 out of 7,734,343 enrolled children in classes 1-12 were dewormed during National Deworming Day. An additional 683,631 non-enrolled children were dewormed in government schools. **Thus, government reports indicate a program coverage rate of 83.57% (excluding non-enrolled children).** Substantial district wise variation in coverage reporting was observed in the state. The district of Barmer appears to be highest (99.74%) in terms of program coverage, while the lowest coverage was reported in Udaipur (69%). The coverage data from *anganwadis* indicate that 4,711,239 registered preschool-age children were treated during the deworming days out of 5,440,175 total registered children in *anganwadis*. **Thus, government reports indicate a program coverage rate of 86.6% in *anganwadis*.** The next section further explores the likelihood that these estimates are accurate.

Recording Protocol and Coverage Validation: Of the schools monitored, 66% followed correct reporting protocols on Deworming Day and mop-up day **(Annexure H.2, Table 2)**. In the 375 schools which were sampled for coverage validation, state level verification factors which are commonly calculated for Neglected Tropical Disease control programs around the

world were calculated. This state verification factor compares the aggregated number of ticks in school registers (which is the way teachers were supposed to record deworming of children) to the deworming coverage reported by schools in the reporting forms submitted to the state. A verification factor of 1 means the schools reported the exact same figures that they recorded on Deworming Day. A verification factor less than 1 indicates over-reporting, while a verification factor greater than 1 indicates under-reporting. The state level verification factor for Rajasthan was found to be 0.86955, indicating that for every 87 enrolled children who were recorded as dewormed in school registers, the school reported that 100 enrolled children had been dewormed. This corresponds to an overall 15% inflation of reporting in the state, meaning that reported numbers appear to be approximately 15% higher than the numbers recorded in attendance registers. Training was found to increase the accuracy of reporting: trained schools had a 13.9% inflation in reporting, while untrained schools had a 17.2% inflation in reporting.

State verification factors, inflation factors, and other reporting indicators were also calculated for *anganwadi* data. Similar to the school findings, the state level verification factor for *anganwadis* was found to be 0.80108, indicating that for every 80 children recorded as dewormed at the *anganwadi*, workers reported that 100 children had been dewormed. This corresponds to an overall 24.8% of reporting for the *anganwadis* in Rajasthan. There was also some evidence of district-wise variation in verification factors, with Karauli and Jaipur indicating significant over-reporting of coverage; while Chittorgarh, Dausa, Dhaulpur, Alwar and Ganganagar indicated significant under-reporting **(Annexure H.2, Table 9)**.

4.9 Recommendations

Since the program follows a fixed-day approach and engages multiple stakeholders, it is critical that all program components are aligned with each other to prevent gaps and delays in program execution. Of particular importance are IEC, training, drug logistics, and adverse event management related preparedness.

1. Findings suggest a need for greater focus and planning for drug distribution in the next round to ensure that sufficient drugs reach schools and *anganwadis* before deworming. This may require additional time spent planning the integration of training and distribution (to include drugs, IEC materials, reporting forms) cascade to ensure that it works effectively. For instance, monitoring indicators suggest that the integrated distribution cascade could be strengthened by more timely printing of IEC materials.
2. Findings also suggest a need for intensified efforts towards generating community awareness for deworming. For instance, parents and siblings may be targeted with a strengthened community mobilisation campaign. Incentivizing ASHA workers for community mobilization as per National Deworming Day guidelines will also be critical for increasing coverage of non-enrolled children, and raising awareness in the general population about the benefits of deworming.
3. Findings about training attendance suggest that quality and coverage can be improved in future rounds by ensuring that sessions are planned earlier, and that greater emphasis is placed on communicating training dates in advance. Findings also suggest that in addition to reinforcing key messages after training sessions are conducted, SMS may be useful for informing functionaries about the training dates and thereby facilitating maximum participation. Finally, better attendance at trainings may also be used to capture contact details, improving the ability of the deworming program to reach out to the ultimate implementers of the program. Improving attendance at trainings will likely have benefits on

the distribution cascade as well, since drugs and other materials are intended to be distributed at the time of training.

4. Coverage validation data, as well as differences in reporting between trained and non-trained schools, suggest that a greater emphasis on recording protocols will improve the quality of coverage data in the next round.

5. Key Challenges and Successes

The program's overall momentum was challenged by the postponement of Deworming Day on two separate instances. At times, it was difficult to communicate these delays and other program revisions to implementers at all levels. For instance, there were challenges in rapidly conveying that the drug protocol had been revised to include tablets instead of syrups for *anganwadis*, and that 1 and 2 year-olds should be treated along with preschool-age children. To overcome this, Evidence Action coordinated with the Department of Health to make revisions to all IEC materials for frontline workers. However, given the time constraints and printing delays, the distribution cascade had gaps due to which materials did not all reach schools and *anganwadis* on time, as reflected in the findings above. Evidence Action employed other strategies like bulk messages and tele-calling during this round to mitigate IEC gaps as much as possible. Perhaps the most notable program achievement during Round 3 was increased coverage through inclusion of out-of-school children and 1-2 year-olds in the targeted group. The commitment from the national level gave extra momentum to the program activities at the state level, with guidance from the Department of Health and participation of all stakeholders. This round witnessed greater ownership by the districts, which laid the foundation for an even stronger local engagement in future rounds.

6. Way Forward

The third round of deworming in the state demonstrated progress towards program institutionalization, which has laid the groundwork for even stronger government ownership and sustainability in future rounds. A critical piece of learning derived from this round is the importance of strengthening the training cascade through adequate planning and monitoring, and maximizing its efficiency by using it to distribute all materials and drugs. This is also an established best practice recommended by WHO for all school-based deworming programs for effectiveness, not just in implementation, but also for cost-effectiveness of the program.

Looking to the future, maintaining the program's strong pace will require continued advocacy to ensure that the state commits resources for deworming under its annual Program Implementation Plans. Moving forward, the state should explore opportunities for further strengthening the coordination between relevant stakeholders, and ways to leverage existing platforms to enrich the deworming program. For instance, this may include in-service trainings at *Anganwadi* Worker Training Centres (AWTCs), District Institute of Education and Training (DIET), and ANM Training Centres. Another potential opportunity to explore is greater community/ village-level community engagement through ASHAs. Currently, partners to Rajasthan's school and *anganwadi*-based mass deworming program are coordinating for revision and extension of the existing MOU to align it with National Deworming Day Operational Guidelines, and roles and responsibilities of all stakeholders prescribed in it.

Evidence Action's technical assistance in Rajasthan was made possible with support from the Michael & Susan Dell Foundation

7. Annexures

Annexure A:

Common Reporting form submitted by State to National Ministry

Government of Rajasthan
Directorate of Medical Health & (F.W) Services, Jaipur

SNO/RCH/101/2015/297 dated: 15/4/2015

Deputy Commissioner, Child Health
Ministry of Health & Family Welfare
Govt of India, New Delhi

Sub:- Coverage of Deworming round held from 10th to 13th Feb 2015 in ICDS & on 10th &13th Feb 2015 in govt schools (NDD)

Dear Madam,

On the subject cited above the deworming report collected from Education & ICDS department is enclosed in prescribed performa herewith for your perusal and necessary action.

Enclose-as above

Director RCH
Directorate Medical Health & (F.W) Service
Rajasthan , Jaipur

SNO/RCH/101/2015/297 dated: 15/4/2015

Copy to :-

1. PS to Hon' ble Health Minister, GoR
2. PS to ACS, WCD, GoR
3. PS to PHS , GoR
4. PS to Principal Secretary, Elementary Education department
5. PS to MD,NHM
6. PS to Director, ICDS
7. PA to Director, RCH
8. Nutrition Specialist, Unicef, Rajasthan
9. State Program Manager, Evidence Action-Deworm the World Initiative
10. CSR to kindly mail to drsiladeb@gmail.com, nipi.mohfw@gmail.com, sjacob@unicef.org, vijay.shekhawat@dewormtheworld.org, director.wcd@rajasthan.gov.in, swshecell@hotmail.com, rajssa_dir@yahoo.co.in, md-nrhm-rj@nic.in, directoriec-rj@nic.in, maheshsharmagor@gmail.com.

Director RCH

COMMON REPORTING FORMAT			
State : Rajasthan			
Number of schools in state	71985	Number of schools reported in state	67676
Number of Anganwadis in state	60126	Number of Anganwadis reported in state	59551
Number of ASHAs trained for Deworming			47797
Number of Teachers/ principal trained for Deworming			71985
Number of Anganwadi worker trained on deworming			58359
Albendazole Coverage			
Total number of children (1-19) years in State			13174518
Total number of children enrolled in schools			7734343
Total number of children registered in Anganwadis			5440175
Total number of out of school children registered in anganwadis			NA
No. of **school enrolled** children who were adinistered Albendazole on NDD and MUD			6463898
No. of **AWC registered** children who were adinistered Albendazole on NDD and MUD			4711239
No. of **AWC registered** out of school adoloscents who were adinistered Albendazole on NDD and MUD			NA
No. of **non - enrolled/ out of school** children who were administered Albendazole on NDD and MUD			683631
Number of Adult (staff+ parents) in school Target			625000
Achivement (staff+ parents) in school			567401
GRAND TOTAL of number of children who were administered Albendazole inculed Adult			12426169
Percent Coverage			84.49
Number of Adverse Events			very very few
Logistic Details			
Total number of Albendazole tablets given to state			25513933 Tablet
Total number of Albendazole tablets administered at state			12426169*
Stock of Albendazile tablets left			Arranging of this information is under process.
Feedback from State:			The programe was implemented in the State very effectively

*This !ncludes number of non-enrolled children (683631) and adults (567401) administered drugs

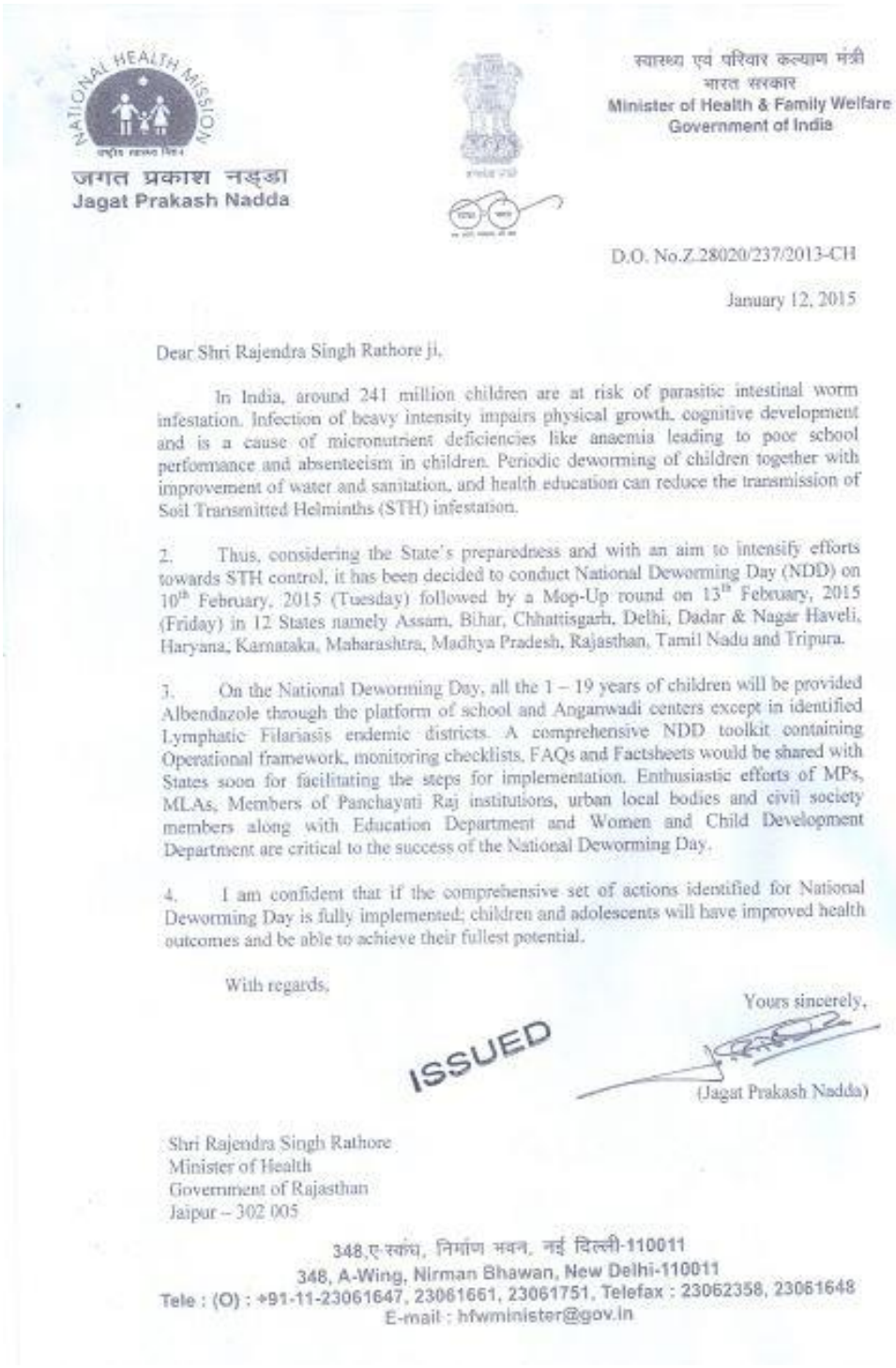
Annexure B.1:

Coverage for Round 1 and 2

Coverage for Round 1 and 2			
Sl. No.	Indicator	Coverage Round 2	Coverage Round 1
1	No. of school children covered	6,691,558(82.5%) were dewormed out of target of 8.13 million (8,131,731) enrolled children from classes 1 to 12 in 81,000 government schools.	7 million school-age children were covered in the first round of deworming
2	No. of preschool children covered	4,151,147(59%) dewormed against target of 7 million pre-school children aged 2-6 in 59,000 government run *anganwadis*.	3.9 million preschool-age children were covered aged 2 – 6 years
3	No. of trainers trained at district	713	-
4	No. of teachers/headmasters trained	84,836	1,23,524
5	No. of *anganwadi* workers trained	53,000	-
6	No. of health workers trained	-	59000
6	Drugs received from WHO Drug Donation Program for government schools	11.2 million albendazole tablets	12 million albendazole tablets
7	Syrups procured by GoR for *anganwadis*	7,003,328	-

Annexure B.2

Letter from GOI to State for observing NDD



NATIONAL HEALTH MISSION

जगत प्रकाश नड्डा
Jagat Prakash Nadda

स्वास्थ्य एवं परिवार कल्याण मंत्री
भारत सरकार
Minister of Health & Family Welfare
Government of India

D.O. No.Z.28020/237/2013-CH

January 12, 2015

Dear Shri Rajendra Singh Rathore ji,

In India, around 241 million children are at risk of parasitic intestinal worm infestation. Infection of heavy intensity impairs physical growth, cognitive development and is a cause of micronutrient deficiencies like anaemia leading to poor school performance and absenteeism in children. Periodic deworming of children together with improvement of water and sanitation, and health education can reduce the transmission of Soil Transmitted Helminths (STH) infestation.

2. Thus, considering the State's preparedness and with an aim to intensify efforts towards STH control, it has been decided to conduct National Deworming Day (NDD) on 10th February, 2015 (Tuesday) followed by a Mop-Up round on 13th February, 2015 (Friday) in 12 States namely Assam, Bihar, Chhattisgarh, Delhi, Dadar & Nagar Haveli, Haryana, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Tamil Nadu and Tripura.

3. On the National Deworming Day, all the 1 – 19 years of children will be provided Albendazole through the platform of school and Anganwadi centers except in identified Lymphatic Filariasis endemic districts. A comprehensive NDD toolkit containing Operational framework, monitoring checklists, FAQs and Factsheets would be shared with States soon for facilitating the steps for implementation. Enthusiastic efforts of MPs, MLAs, Members of Panchayati Raj institutions, urban local bodies and civil society members along with Education Department and Women and Child Development Department are critical to the success of the National Deworming Day.

4. I am confident that if the comprehensive set of actions identified for National Deworming Day is fully implemented; children and adolescents will have improved health outcomes and be able to achieve their fullest potential.

With regards,

Yours sincerely,

ISSUED

(Jagat Prakash Nadda)

Shri Rajendra Singh Rathore
Minister of Health
Government of Rajasthan
Jaipur – 302 005

348,ए-स्कंध, निर्माण भवन, नई दिल्ली-110011
348, A-Wing, Nirman Bhawan, New Delhi-110011
Tele : (O) : +91-11-23061647, 23061661, 23061751, Telefax : 23062358, 23061648
E-mail : hfwminister@gov.in

Annexure C.1

Minutes of the Steering Committee Meeting-July 10

Rajasthan Council of Elementary Education

SWSHE

2nd Floor, 5th Block, Shiksha Sankul, J.L.N. Marg, Jaipur Ph. 0141-2708487
E-mail : swshecell@hotmail.com

No. F. 5 (4) (114) IRCEE/SWSHE/DEWORM/2013/237 Date : 21/07/14

Minutes of Meeting

The 3rd round of School and Anganwadi based mass deworming programme is scheduled to be organized on 15th October, 2014 (Global Hand Washing Day) in all government schools and anganwadies. A meeting was convened on July 10, 2014 at 4.00 PM in the Meeting Hall, RHSDP to discuss School and Anganwadi based mass De-Worming Programme. As per the direction of Principal Health Secretary the meeting was chaired by Sh. Neeraj K. Pawan, Additional Mission Director, NHM. List of officials, who attended the meeting is enclosed at **Annexure-1**.

The meeting began with welcome of the participants. After a detail discussions, the following decisions were taken during the meeting : -

1. During the discussion, discrepancy emerged in the number of beneficiary children of Anganwadies. It was directed to ICDS representative to inform the actual number of beneficiaries children to Medical & Health Department who are supposed to be administered deworming drugs on 15th October 2014. Medical & Health department will procure the deworming drugs for Anganwadi's beneficiary children as per the information provided by ICDS department. **(Action : ICDS Deptt.)**
2. It was felt during the meeting that the coverage of deworming in anganwadi during last years was quite low. Hence, following activities will be ensured by ICDS department in month of July- August 2014 **(Action : ICDS Deptt. & Medical & Health Deptt.)**

   - Deworming drugs will be administered for one week from 15th October, 2014 in all the Anganwadies instead of single day.
   - ASHA/Sahayogini/Sahaika will inform to all households of their jurisdiction regarding School and Angwanwadi Mass Deworming programme scheduled to be held on 15th October, 2014. All the parents will be motivated to send their children on 15th October, 2014 to Angwadi or Schools as per age group for taking the dose of Deworming drug. Mr. Someshwar Devda, Assistant Director (Monitoring) ICDS shall be responsible for ensuring above task. Mr. Devda shall also send a compliance report to chair by 20th August, 2014.
   - Medical & Health representative must attend the forthcoming meeting of Dy. Director (ICDS), and will inform to all Dy. Director (ICDS) about the details of deworming drugs for District level/ CDPO level / LS.
   - During the upcoming MCHN day at Angwanwadi, the ANMs will create awareness regarding dewomring prgormme among beneficiaries.
   - District ASHA coordinator will also ensure to disseminate the message of School and Anganwadi mass deworming programme -15 October, 2014 in community.

3. Ms. Priya Jha, Country Director, Evidence Action- Deworm the World Initiative informed that National Deworming Strategy is one of the programmes of the Ministry of Health ,GoI under Prime Minister's 100 days agenda programmes. She offered a proposal for organizing National Level Launch of School and Anganwadi mass deworming programme at Jaipur on 15th October, 2014 on behalf of the discussions held with Health Officials of Govt. of India. The consent was conveyed to Ms Jha by the chair for the same. The launch may be organized in the rural school nearby Jaipur. Deworm the World Initiative will bear the expenses on account of logistic arrangements towards organsing National Level Launch in addition to allotted budget by the government. **(Action : RCEE/ Medical & Health /ICDS Deptt./ DtWI)**
4. For national level launching, selection of one school of rural area near Jaipur within 20-25 KM range shall be done by Dy. Director (Sec.) Jaipur. Children of nearby Anganwadi may also be brought in the school.
5. On the above lines, the district level launch of the programme will also be organized. District Collectors may be requested to launch the district level ceremony of school and anganwadi mass deworming programme. Medical Dept. will write letters to districts collectors requesting them for the same. **(Action : RCEE/ Medical & Health /ICDS Deptt.)**
6. Ms. Priya Jha also informed that delivery of drugs for school children from WHO donation programme may be got delayed as per the telephonic information received from WHO officials. A letter to WHO will be written in next three days for early delivery of drugs for school children. **(Action : Medical & Health / DtWI)**
7. Storage space for deworming drugs from WHO will be provided by Medical & Health Department. RCEE will also explore the possibility of storage space at SIEMAT. **(Action : RCEE /Medical & Health)**
8. UNICEF's representative agreed to bear the expenses towards repackaging and transportation of Albendazole (400 mg) up to block level for school children. RCEE will submit a detailed proposal along with distribution plan to UNICEF for the same. **(Action : RCEE /UNICEF)**
9. State/district level training of trainers for School and Angandi will be organized by Deworm the World with support of RCEE. . **(Action : RCEE/ Medical & Health /ICDS Deptt./ DtWI)**
10. Training on deworming to govt. and private school teachers will be imparted during the block level teachers training of U-DISE. The deworming drugs of government and private schools will be distributed to Nodal Teachers during the training. . **(Action : RCEE/ DtWI)**
11. School & Anganwadi Mass Deworming Programme covers only to registered children of these institutions. It was decided that children of following categories will also be administered deworming drugs on 15th October, 2014 . **(Action : RCEE/ Medical & Health /ICDS Deptt./ DtWI/Social Justice / Tribal Welfare / Labour) :**

    - Children of Private Schools of rural area only should also be administered drugs on 15th October, 2014 through government schools. SSA will impart the training to private school of rural area teachers during the upcoming block level training of U-DISE. Teachers of private school shall be instructed to collect tablet from govt. school of their vicinity.
    - Children enrolled in Institutions /Hostels/schools running by Social Justice and Empowerment Dept. (Directorate of Child Rights) and Tribal & Welfare Deptt. will also be administered deworming drugs on 15th October, 2014.

- In addition to this, street and begging children will also be targeted across the state through network of NGOs registered with the Directorate of Child Rights (Social Justice Department).
- A letter will be sent to concern departments for number of beneficiaries for procurement of drugs by Medical & Health Department.

12. Medical and Health Deptt will explore the possibility to bear expenses on account of printing of IEC material and IEC activity towards School and Anganwadi Mass Deworming Programme. The Deworm the World will provide technical support for the same. **(Action : Medical & Health/ DtWI)**
13. It was asked to the Health, Education and ICDS to deploy officials for monitoring the program on Deworming day. Deworm the World also agreed that it will provide independent monitors and District and Regional Coordinators across sampled blocks and district in significant numbers to conduct monitoring.**(Action : RCEE/ Medical & Health /ICDS Deptt./ DtWI)**
14. An MoU between MHFW, RCEE, Secondary Education, ICDS, UNICEF and Deworm the World (DtW) for implementation of School and Anganwadi Mass Deworming Programme was signed in year 2012 for three years, which ends during the year 2014. Hence, it was decided that Medical & Health department shall be the nodal department for implementation of School and Anganwadi Mass Deworming Programme as this an health intervention. A file for a new MoU to implement deworming programme will be initiated by Medical and Health Department . . **(Action : Medical & Health)**

The meeting ended with a vote of thanks to the chair.

21/7/14

Commissioner, RCEE

No. F. 5(H)(114)/RCEE/SWSHE/DEWORM/2013/237 Date: 21/07/14

CC: for information and necessary action:

1. PS to Principal Secretary, M&H and Family Welfare
2. PS to Secretary, School Education
3. PS to Mission Director, NHM
4. PS to Managing Director, RMSC
5. PS to Commissioner, RCEE
6. Add. Mission Director, NHM
7. Sh. R.C. Dhenwal, Joint Secretary, Elementary Education, Secretariate, Jaipur
8. Director, Secondary Education, Bikaner
9. Director, Elementary Education, Bikaner
10. SPD, RMSA, Shiksha Sankul, Jaipur
11. Director, ICDS, 2, Jal Path, Gandhi Nagar, Jaipur
12. Director (RCH), Medical & Health Dept. Swasthya Bhawan, Jaipur
13. Commissioner, Social Justice and Empowerment Dept. (Directorate of Child Rights)
14. Commissioner, Tribal Welfare Department.
15. Ms. Sangeeta Jacob, Nutrition Specialist, UNICEF, Jaipur
16. Ms. Priya Jha, Country Director, Evidence Action - Deworm The World Initiative
17. PA to Add. Commissioner, RCEE, Jaipur
18. Add. Director (RCH)/Nodal Officer, Deworming, Swasthya Bhawan, Jaipur
19. Nodal Officer, Deworming, ICDS, 2, Jal Path, Gandhi Nagar, Jaipur
20. Sh. Kamlesh Sharma, Dy. Director (Sec.) Shikha Sankul, Jaipur
21. Dr. Kalpana Vyas, ED (Logistics) RMSC, Jaipur
22. Sh. Someshwer Devra, Assistant Director (Monitoring), ICDS, 2, Jal Path, Gandhi Nagar, Jaipur

21/7/14

Add. Director (RCH)

minutes of meeting 10.07.13

Annexure-1

List of Participants :

1. Mr. Hanuman Singh Bhati, Commissioner, RCEE
2. Mr. Anoop Khnichi, SPD, RMSA, Jaipur
3. Mr. R.C. Dhenwal, Joint Secretary Education, Secretariat, Jaipur
4. Ms. Priya Jha, Country Director, Evidence Action - Deworm The World Initiative
5. Dr. S.M. Mittal, Additional Director (RCH) Medical and Health Department.
6. Dr. Kalpana Vyas, ED (Logistics) RMSC, Jaipuir
7. Mr. Prem Singh, Medical and Health Department, Jaipur
8. Dr. Sharad Barkataki, Associate Director, Evidence Action - Deworm The World Initiative
9. Sh. Kamlesh Sharma, Dy. Director (Sec.) Jaipur
10. Mr. Manoj Mathur, Assistant Engineer, RCEE
11. Mr. Maninder Jit Singh, Technical Officer, RCEE
12. Mr. Varun Gutpa, MIS, RCEE Jaipur
13. Mr. Someshwar Devda, Assistant Director (Monitoring) ICDS
14. Dr. Shewta Apadhayay, State Consultant, Unicef, Jaipur
15. Mr. Vijay S. Shekhawat, State Programme Manager, Evidence Action - Deworm The World Initiative

Annexure C.2

Letter from Health to Education and WCD for observing NDD

Government of Rajasthan
Department of Medical, Health and Family Welfare Rajasthan Jaipur

No./NRHM/Deworm/15/CH/41 Date: 21-1-15

1. Commissioner, RCEE
   Shiksha Sankool, JLN Marg, Jaipur

2. Director, ICDS

Subject: Regarding organising National Deworming Program on 10th February, 2015

Dear Sir,

The postponement of deworming program from 3rd Dec 2014 to February 2015 was communicated to you earlier. The Government of India has recently announced the launch of National Deworming Day on 10th February 2015 (13th February 2015 as the Mop Up day). In ICDS the activity will continue from 10th to 13th of February 2015. Kindly take a note of it and plan the activities accordingly.

Thanking you.

Yours sincerely,

Director, RCH

No./NRHM/Deworm/15/CH/41 Date: 21-1-15

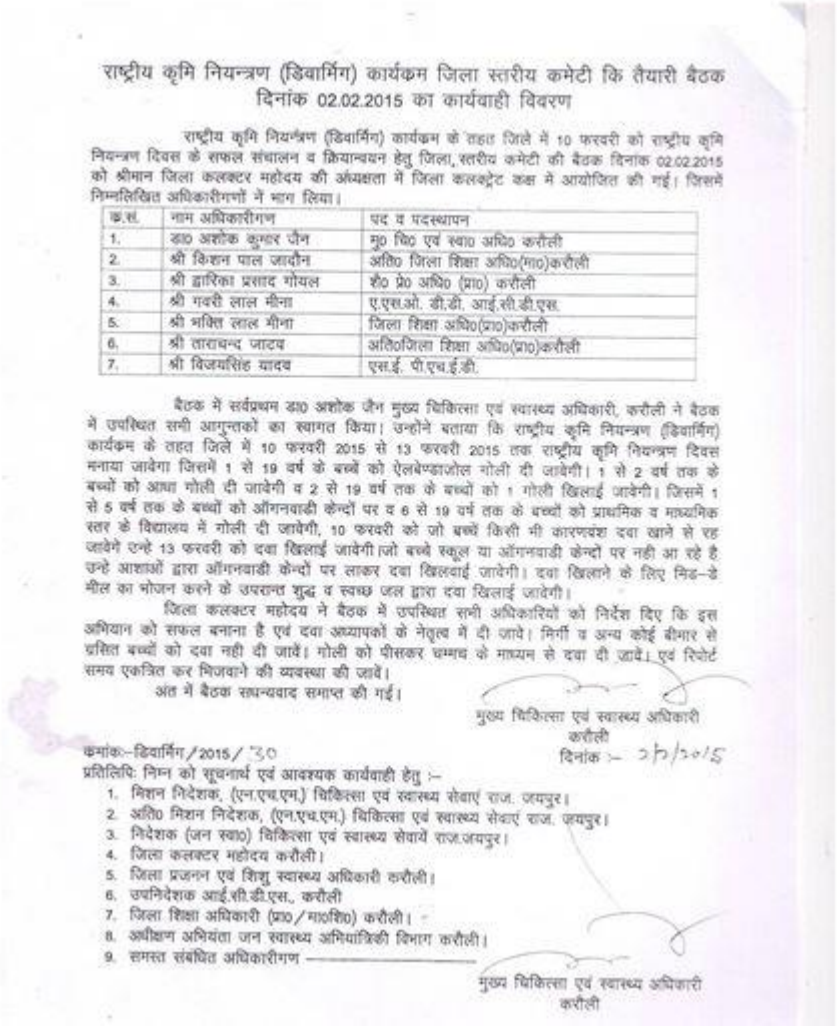
Copy to:

1. PS to Principal Health Secretary, Medical, Health & Family Welfare Services, Jaipur
2. PS to MD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
3. PS to AMD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
4. Mr. Vijay Shekhawat, State Program Manager, Evidence Action-Deworm the World Initiative
5. Dr. Sangita Jacob, Nutrition Specialist, UNICEF, Rajasthan
6. Copy to CSR for sending email of this letter to MD, NHM (md-nrhm-rj@nic.in), AMD, NHM (directoriec-rj@nic.in), Director ICDS (director.wcd@rajasthan.gov.in), Commissioner RCEE (rajssa_dir@yahoo.co.in), Dr. Sangita Jacob (sjacob@unicef.org) and Mr. Vijay Shekhawat (vijay.shekhawat@dewormtheworld.org).

Director, RCH

Annexure C.3

Minutes of the District Coordination Committee Meeting of district Karauli



राष्ट्रीय कृमि नियन्त्रण (डिवार्मिंग) कार्यक्रम जिला स्तरीय कमेटी कि तैयारी बैठक
दिनांक 02.02.2015 का कार्यवाही विवरण

राष्ट्रीय कृमि नियन्त्रण (डिवार्मिंग) कार्यक्रम के तहत जिले में 10 फरवरी को राष्ट्रीय कृमि नियन्त्रण दिवस के सफल संचालन व क्रियान्वयन हेतु जिला, स्तरीय कमेटी की बैठक दिनांक 02.02.2015 को श्रीमान जिला कलक्टर महोदय की अध्यक्षता में जिला कलक्ट्रेट कक्ष में आयोजित की गई। जिसमें निम्नलिखित अधिकारीगणों ने भाग लिया।

क.सं.	नाम अधिकारीगण	पद व पदस्थापन
1.	डा0 अशोक कुमार जैन	मु0 चि0 एवं स्वा0 अधि0 करौली
2.	श्री किशन पाल जादौन	अति0 जिला शिक्षा अधि0(मा0)करौली
3.	श्री द्वारिका प्रसाद गोयल	रै0 प्रे0 अधि0 (प्रा0) करौली
4.	श्री गवरी लाल मीना	ए.एस.ओ. डी.डी. आई.सी.डी.एस.
5.	श्री भक्ति लाल मीना	जिला शिक्षा अधि0(प्रा0)करौली
6.	श्री ताराचन्द जाटव	अति0जिला शिक्षा अधि0(प्रा0)करौली
7.	श्री विजयसिंह यादव	एस.ई. पी.एच.ई.डी.

बैठक में सर्वप्रथम डा0 अशोक जैन मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी, करौली ने बैठक में उपस्थित सभी आगुन्तकों का स्वागत किया। उन्होने बताया कि राष्ट्रीय कृमि नियन्त्रण (डिवार्मिंग) कार्यक्रम के तहत जिले में 10 फरवरी 2015 से 13 फरवरी 2015 तक राष्ट्रीय कृमि नियन्त्रण दिवस मनाया जावेगा जिसमें 1 से 19 वर्ष के बच्चों को ऐलबेण्डाजोल गोली दी जावेगी। 1 से 2 वर्ष तक के बच्चों को आधा गोली दी जावेगी व 2 से 19 वर्ष तक के बच्चों को 1 गोली खिलाई जावेगी। जिसमें 1 से 5 वर्ष तक के बच्चों को आँगनवाडी केन्दों पर व 6 से 19 वर्ष तक के बच्चों को प्राथमिक व माध्यमिक स्तर के विद्यालय में गोली दी जावेगी, 10 फरवरी को जो बच्चें किसी भी कारणवश दवा खाने से रह जावेगे उन्हे 13 फरवरी को दवा खिलाई जावेगी।जो बच्चे स्कूल या आँगनवाडी केन्दों पर नही आ रहे है उन्हे आशाओं द्वारा आँगनवाडी केन्दों पर लाकर दवा खिलवाई जावेगी। दवा खिलाने के लिए मिड–डे मील का भोजन करने के उपरान्त शुद्ध व स्वच्छ जल द्वारा दवा खिलाई जावेगी।

जिला कलक्टर महोदय ने बैठक में उपस्थित सभी अधिकारियों को निर्देश दिए कि इस अभियान को सफल बनाना है एवं दवा अध्यापकों के नेतृत्व में दी जाये। मिर्गी व अन्य कोई बीमार से ग्रसित बच्चों को दवा नही दी जावें। गोली को पीसकर चम्मच के माध्यम से दवा दी जावें। एवं रिपोर्ट समय एकत्रित कर भिजवाने की व्यवस्था की जावें।

अंत में बैठक सधन्यवाद समाप्त की गई।

मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी
करौली
दिनांक :- 2/2/2015

क्रमांक:–डिवार्मिंग/2015/ 30

प्रतिलिपि: निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु :–

1. मिशन निदेशक, (एन.एच.एम.) चिकित्सा एवं स्वास्थ्य सेवाएं राज. जयपुर।
2. अति0 मिशन निदेशक, (एन.एच.एम.) चिकित्सा एवं स्वास्थ्य सेवाएं राज. जयपुर।
3. निदेशक (जन स्वा0) चिकित्सा एवं स्वास्थ्य सेवायें राज.जयपुर।
4. जिला कलक्टर महोदय करौली।
5. जिला प्रजनन एवं शिशु स्वास्थ्य अधिकारी करौली।
6. उपनिदेशक आई.सी.डी.एस., करौली
7. जिला शिक्षा अधिकारी (प्रा0/मा0शि0) करौली।
8. अधीक्षण अभियंता जन स्वास्थ्य अभियांत्रिकी विभाग करौली।
9. समस्त संबंधित अधिकारीगण ——————

मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी
करौली

Annexure C.4

Letter for State Health to ICDS for deputing monitors for field monitoring

Government of Rajasthan
Department of Medical, Health and Family Welfare Rajasthan Jaipur

No./NRHM/Deworm/15/ 56 Date: 22.1.15

Director, ICDS
Jaipur

Subject: Deputing monitors for supervising deworming program in the state

Dear Sir,

The Government of India has decided to organise the National Deworming Day on 10th of February 2015 (13th February as the Mop Up day). During the deworming program, Albendazole is given to all Anganwadi children through the medium of Anganwadi Centers. The CDPOs, LS and anganwadi workers are already trained in this regard.

As it is a large scale program, monitoring is an essential component. The Department of Health would engage its District (CMHOs, RCHOs) and Block level (BCMHOs) officials for the same and Evidence Action-Deworm the World Initiative would also engage Independent Monitors to look into the program. But, as there are a large number of anganwadi centers it would increase the coverage if we have more monitors on board.

It is thereby requested, to kindly depute monitors (ICDS department officials) for supervising the program implementation in the State. Please find enclosed a draft monitoring checklist for your review.

Looking forward for your support and cooperation!

Yours sincerely.

AMD, NHM

No./NRHM/Deworm/15/ 56 Date: 22.1.15

Copy to:
1. PS to Principal Health Secretary, Medical, Health & Family Welfare Services, Jaipur
2. PS to MD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
3. Director, RCH, Directorate of Medical, Health & Family Welfare Services, Jaipur
4. Mr. Vijay Shekhawat, State Program Manager, Evidence Action-Deworm the World Initiative
5. Dr. Sangita Jacob, Nutrition Specialist, Unicef, Rajasthan
6. Copy to CSR for sending email of this letter to Director, ICDS (director.wcd@rajasthan.gov.in), Dr. Sangita Jacob (sjacob@unicef.org) and Mr. Vijay Shekhawat (vijay.shekhawat@dewormtheworld.org)

AMD, NHM

Annexure C. 5

National Deworming Day-Monitoring Checklist

NATIONAL DEWORMING DAY MONITORING FORM

DATE OF VISIT (tick the box which applies): ☐ National Deworming Day (10th February 2015)
☐ Mop Up Day (13th February 2015)

GENERAL INFORMATION					
Name & Mobile No. of Monitoring Officer	School/AWC Name	School DISE / AWC Code	District	Block	Ward/ Village

MONITORING SECTION: Circle the correct option based on your observations and interviews.			
Deworming Observations			
1.	Does the school/AWC have deworming drugs?	A. YES	B. NO
2.	Are the drugs available in sufficient quantity to deworm the enrolled as well as non-enrolled children?	A. YES	B. NO
3.	What is the expiry date of the drugs?		
4.	Does the school/AWC have the following provisions for the deworming process? Circle all that apply. Markers B. School/AWC Reporting Form C. Drinking Water D. None of these		
5.	Are the deworming drugs being administered to children?	A. YES	B. NO
6.	Who is administering the drugs to the children? Circle all that apply. A. AWW B. Teacher/ Principal C. ASHA C. Other ..... D. No Deworming taking place		
7.	Is the ASHA present in the AWC?	A. YES	B. NO
8.	Is the ASHA assisting the AWW in the deworming process?	A. YES	B. NO
9.	Is the teacher/AWW separating sick children from healthy children before deworming?	A. YES	B. NO
10.	Did the teacher tick (✓/✓✓) each child's name in the attendance register after giving them the drug?	A. YES	B. NO
11.	Did the ASHA / AWW make a list of the non-enrolled/out of school children who got the drug? YES. B. NO. C. Non-enrolled children did not receive drugs at this AWC		

12.	Where did the teacher/AWW receive training? A. At school. B. At block training. C. At District training D. Teacher/AWW did not receive training		
Adverse Events			
13.	According to the teacher/AWW, can the deworming drugs be given to sick children?	A. YES	B. NO
14.	Is the teacher/AWW aware of the possibility of adverse events from deworming?	A. YES	B. NO
15.	According to the teacher/AWW, what is the appropriate response in case of adverse events? Circle all that apply. A. Let the child rest in an open and shaded place B. Provide clean water to drink C. Contact the ANM/nearby PHC D. No adverse events possible with Albendazole E. Other		
16.	Did you witness any serious cases of adverse events in the school/AWC?	A. YES	B. NO
17.	Does the school/AWC have the phone numbers of the nearest ANM or MO-PHC?	A. YES	B. NO
Community Awareness and IEC Materials			
18.	Which of the following IEC materials are visible at the school/AWC? Circle all that apply. Poster B. Banner C. Other IEC materials D. No IEC materials		
19.	Which of the following reference documents are available at the school/AWC? Circle all that apply. Principal/Teacher Handout B. AWW Handout C. Adverse Events Protocol D. No documents		
20.	Which of the following community mobilization steps have been undertaken by the ASHA before National Deworming? Circle all that apply. A. Conducted village meetings with parents B. Informed parents about harmful effects of worms C. Informed parents of benefits of deworming D. Informed parents about behavior change to prevent reinfection		
ADDITIONAL COMMENTS: Please write any observations that have not been captured in the preceding sections			

Annexure D.1.

Letter from WHO on Albendazole Administration

World Health Organization

20, AVENUE APPIA – CH-1211 GENEVA 27 – SWITZERLAND – TEL CENTRAL +41 22 791 2111 – FAX CENTRAL +41 22 791 3111 – WWW.WHO.INT

Tel. direct: +41 22 791 3122
Fax direct: +41 22 791 4777
E-mail: montresora@who.int

In reply please refer to: alb

Your reference:

To who it may concern

Geneva 22 December 2014

Albendazole administration with food

Several drugs are administered with food to increase drug absorption (and therefore drug efficacy) or reduce side effects.

In the case of **albendazole** for Soil Transmitted Helminthiases, drug absorption is not required as the worms live in the intestine and the drug acts directly on them.

In addition, evidence has shown that the ingestion of albendazole in conjunction with food is not reducing the minor side effects that can occasionally accompany this drug's intake. These side effects (nausea and intestinal discomfort) are due to the movements and death of the worms and are not influenced by food in the stomach or intestine.

For these reasons there is no WHO recommendation supporting the association of albendazole administration with food.

Every year several millions of children are treated with albendazole without food.

Antonio Montresor

Department of Control of
Neglected Tropical Diseases
World Health Organization

Annexure D.2

Letter from State to District on Adverse Event Management preparations

Government of Rajasthan
Department of Medical, Health and Family Welfare Rajasthan Jaipur

No./NRHM/Deworm/15/73 Date: 30.1.15

All CMHOs & RCHOs

Subject: Regarding constitution of Emergency Response Team for the National Deworming Program to be organised on 10th of February, 2015

The National Deworming Day (NDD) is going to be organised on 10th of February 2015 in all the government schools and anganwadi centers of the state. In order to manage the adverse events during the duration of the program every district is required to constitute Emergency Response Team in all the blocks. Each block level Emergency Response Team would comprise of a doctor, a compounder and an ANM. The members of these Emergency Response Teams should be trained at district level before 5th of February 2015. Kindly inform the district and block level officials of Department of Education and ICDS about these block level Emergency Response Teams and coordinate with them for effective management of adverse events. It is also directed to ensure sharing of mobile numbers of BCMHOs, MO (PHC, CHC) and ANM (sub-center level) with headmasters, principals and anganwadi workers as it is very necessary to communicate information about the adverse event if it happens.

Yours Sincerely,

Director, RCH

No./NRHM/Deworm/15/73 Date: 30.1.15

Copy to:

1. PS to Principal Health Secretary, Medical, Health & Family Welfare Services, Jaipur
2. PS to MD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
3. PS to AMD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
4. Commissioner, RCEE
5. Director, ICDS
6. Mr. Vijay. S. Shekhawat, State Program Manager, Evidence Action-Deworm the World Initiative, Rajasthan
7. Dr. Sangita Jacob, Nutrition Specialist, Unicef, Rajasthan
8. Copy to CSR for sending email of this letter to Commissioner, RCEE (rajssa_dir@yahoo.co.in), Director, ICDS (director.wcd@rajasthan.gov.in), Dr. Sangita Jacob (sjacob@unicef.org) and Mr. Vijay. S. Shekhawat (vijay.shekhawat@dewormtheworld.org)

Director, RCH

projectdirectorrch@gmail.com

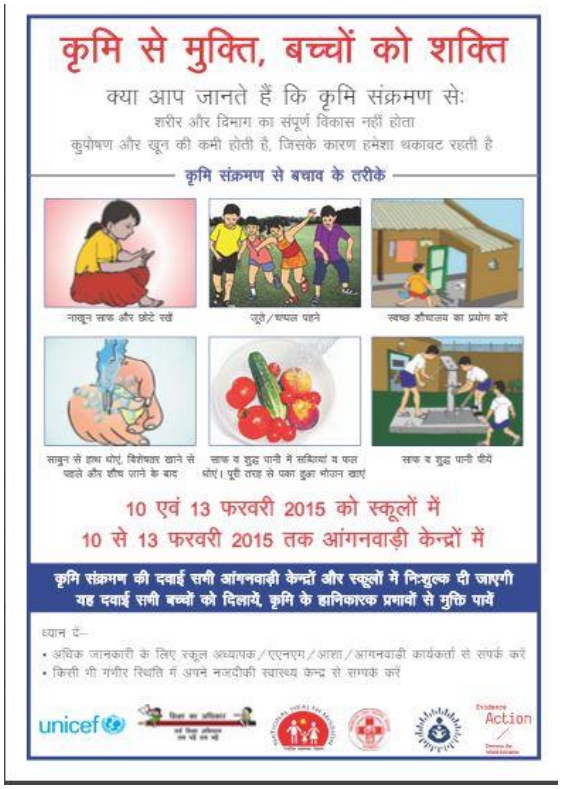
Annexure E.1

Details of Media Mix in the state

IEC Activities undertaken	Support from Department of Health	Support from Deworm the World Initiative
Newspaper Advertisement	-	Designed and printing (2 leading National dailies – Rajsthan Patrika and Dainik Bhaskar)
Posters for Schools and Anganwadi centres	Printing and transportation	Designed (2)
Banner	Printing	Designed
Wall writing	Execution	Designed
TV scroll	Aired on ETV Rajasthan, Urdu, Sahara NCR, India New Raj., Jan TV, Zee Marudhar	Designed

Annexure E.2

Public Awareness and Community Sensitization



Posters used in schools and anganwadis

Hoarding in Kota

पत्रिका patrika.com/city राजस्थान पत्रिका 03

Evidence Action

एविडेंस एक्शन- डीसर्म द लान्सेट इनीशियेटिव को राजस्थान के विद्यालय एवं आंगनवाड़ी केन्द्र आधारित कृमि नियन्त्रण कार्यक्रम को तीसरे साल में सहयोग करने में गर्व है

कृमि नियन्त्रण आसान और सुरक्षित है!

जो बच्चे कृमि मुक्त होते हैं उनका स्वास्थ्य और शैक्षिक उपलब्धियां बेहतर होती हैं

अभिभावक अपने बच्चों को 10 फरवरी 2015 को राजकीय विद्यालयों एवं आंगनवाड़ी केन्द्रों में कृमि नियन्त्रण की दवाई लेने के लिए अवश्य भेजें। यह मुफ्त में उपलब्ध है।

Statewide Newspaper advertisement in Rajasthan Patrika

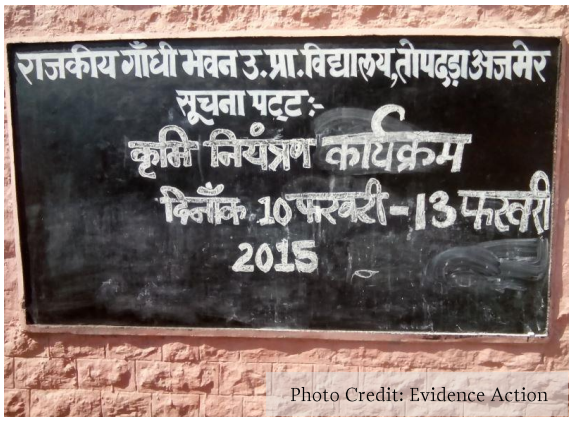


Photo Credit: Evidence Action

Display in School in Ajmer

Photo Credit: Evidence Action

Wall writing in Sawai Madhopur

छात्राओं को खिलाई कृमिनाशक दवा

» मटका चौक स्कूल से हुई अभियान की शुरुआत

श्रीगंगानगर। स्वास्थ्य विभाग की तरफ से स्कूली बच्चों को कृमिमुक्त करने की मुहिम शुरू की गई है। इसके तहत स्कूली बच्चों को कृमिनाशक दवा का वितरण किया जाएगा। इस कार्यक्रम की शुरुआत आज राजकीय उच्च माध्यमिक विद्यालय मटका चौक से की गई। कार्यक्रम में मुख्य अतिथि के रूप में अतिरिक्त जिला कलक्टर किरोड़ीलाल मीणा ने छात्राओं को अपने हाथ से दवा खिलाकर कार्यक्रम की शुरुआत की।

स्वास्थ्य विभाग के अधिकारियों तथा शिक्षकों की मौजूदगी में स्कूल के सभागार में कार्यक्रम आयोजित किया गया था, जिसमें बड़ी संख्या में छात्राएं उपस्थित हुईं। स्वास्थ्य अधिकारियों ने छात्राओं को बताया कि पेट में कीटाणु रहने के कारण अच्छी खुराक के बावजूद बच्चों का स्वास्थ्य ठीक नहीं रहता। अच्छे खान-पान के बावजूद शरीर कमजोर रहता है। इसी से बचाव के लिए विभाग कृमिनाशक गोलियों का वितरण करता है। एडीएम किरोड़ीलाल मीणा ने भी छात्राओं को संबोधित कर अच्छे स्वास्थ्य के प्रति जागरूक किया।

कार्यक्रम में एडीएम मीणा ने छात्राओं को अपने हाथ से दवा खिलाकर अभियान की शुरुआत की। उन्होंने छात्राओं से दवा को अच्छी तरह चबाकर खाने को कहा, ताकि इसका असर जल्द हो।

बच्चों को दी डी वार्मिंग दवा

पत्रिका XPOSE अजमेर

कटेगा कीड़े का 'मकड़जाल'

बच्चों को स्वस्थ रखने का विशेष अभियान

कृमि नियंत्रण के लिए कारगर होगी दवा

यह है मकसद

महत्वपूर्ण निर्देश

विद्यालय आधारित राष्ट्रीय कार्यक्रम

Wide Coverage in Newspapers

Launch Event

Photo Credit: Evidence Action

Photo Credit: Evidence Action

Photo Credit: Evidence Action

National level launch in Jaipur

Annexure E.3:

Letter from Health to NYKS for community engagement

Government of Rajasthan
Department of Medical, Health and Family Welfare Rajasthan Jaipur
No./NRHM/Deworm/15/04/453 Date: 29-1-15

Shri Veerender Khatri, Zonal Director,
Nehru Yuva Kendra Sangthan (NYKS), Rajasthan,
Room No. 205, Block 'A', Kendriya Sadan Parisar,
Sector 10, Vidyadhar Nagar, Jaipur-302023
0141-2276436, 07727856262

Sub: Regarding involvement of NYKS volunteers in community mobilization for deworming program

Dear Sir,

The Dept. of Medical & Health, Education and ICDS have been organising school and anganwadi based mass deworming program since 2012 with technical assistance from UNICEF and Evidence Action-Deworm the World Initiative (DWI). Deworming is significant for children as it improves their health (prevents anemia, malnourishment, impaired mental and physical development) and leads to better education (improves attendance and retention of children in school) and livelihood opportunities (better adult outcomes and economic development) for them.

The Government of India has recently announced 10th February 2015 as the National Deworming Day. For the success of deworming program community mobilization is an important element. Since NYKS volunteers are from local communities and they play key role in mobilizing different community based stakeholders, we seek your support for engaging these volunteers in mobilizing community members (parents, youth, women, Panchayat members) for sending all children to schools and anganwadi centers on 10th and 13th February (Mop Up day), 2015. Representatives of Evidence Action-Deworm the World Initiative would support you in planning the state wide involvement of NYKS volunteers.

Looking forward for your support and cooperation!

Yours sincerely,
AMD, NHM

No./NRHM/Deworm/15/04/453 Date: 29-1-15

Copy to:
1. PS to Principal Health Secretary, Medical, Health & Family Welfare Services, Jaipur
2. PS to MD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
3. Director, RCH
4. Commissioner, RCEF
5. Director, ICDS
6. Mr. Vijay Shekhawat, State Program Manager, Evidence Action-Deworm the World Initiative, Rajasthan
7. Copy to CSA for sending email of this letter to Zonal Director-NYKS (nkyks@yahoo.com, khatriveerender@gmail.com), Director ICDS (director.wcd@rajasthan.gov.in), Commissioner RCEF (rajsas_dir@yahoo.co.in) and Mr. Vijay Shekhawat (vijay.shekhawat@dewormtheworld.org)

AMD, NHM

Letter from Health to Rajasthan State Bharat Scouts & Guide for community engagement

Government of Rajasthan
Department of Medical, Health and Family Welfare Rajasthan, Jaipur

No./NRHM/Deworm/15/CH 50 Date: 22.1.15

Shri Niranjan Arya, State Chief Commissioner,
Rajasthan State Bharat Scouts & Guides,
JLN Marg, Bajaj Nagar, Jaipur-302015
Ph. No. 0141-2706830, 2706032

Sub: Regarding involvement of Scouts & Guides in community mobilization for deworming program

Dear Sir,

The Dept. of Medical & Health, Education and ICDS have been organising school and anganwadi based mass deworming program since 2012 with technical assistance from UNICEF and Evidence Action-Deworm the World Initiative (DtWI). Deworming is significant for children as it improves their health (prevents anemia, malnourishment, impaired mental and physical development) and leads to better education (improves attendance and retention of children in school) and livelihood opportunities (better adult outcomes and economic development) for them.

The Government of India has recently announced 10th February 2015 as the National Deworming Day. For the success of deworming program community mobilization is an important element. Since Scouts & Guides play key role in number of social development programs, we seek your support for engaging them in mobilizing community members (parents, women and youth) for sending all children to schools and anganwadi centers on 10th and 13th February (Mop Up day) 2015. Representatives of Evidence Action-Deworm the World Initiative would support you in planning the state wide involvement of Scouts & Guides

Looking forward for your support and cooperation!

Yours sincerely.

AMD, NHM
Dept. of Medical, Health and Family Welfare

No./NRHM/Deworm/15/CH 50 Date: 22.1.15

Copy to:

1. PS to Principal Health Secretary, Medical, Health & Family Welfare Services, Jaipur
2. PS to MD, NHM, Directorate of Medical, Health & Family Welfare Services, Jaipur
3. Director RCH
4. Commissioner, RCEE
5. Director, ICDS
6. Mr. Vijay Shekhawat, State Program Manager, Evidence Action-Deworm the World Initiative
7. Copy to CSR for sending email of this letter to State Chief Comm., Raj. State Bharat Scouts & Guides (rajscoutguide@yahoo.com), Director ICDS (director.wcd@rajasthan.gov.in), Commissioner RCEE (rajssa_dir@yahoo.co.in) and Mr. Vijay Shekhawat (vijay.shekhawat@dewormtheworld.org).

AMD, NHM

Annexure: F.1

Photograph of district level training

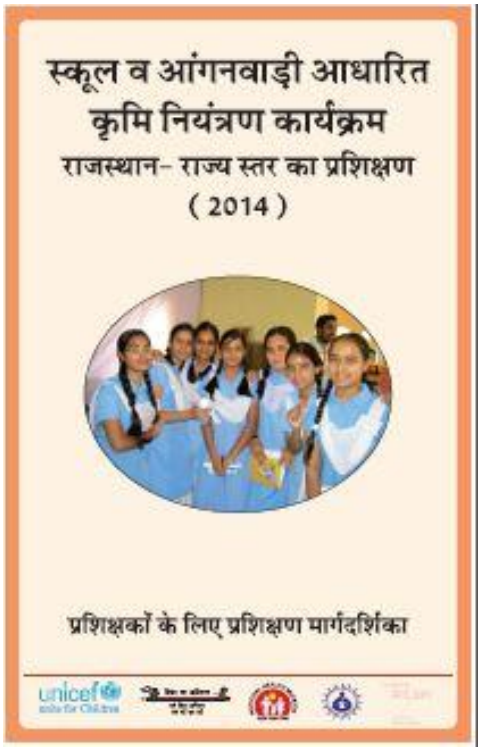
District Level Training

Annexure F.2:

Training Resources

Handout for teachers

Handout for anganwadi workers



Training Flipchart

Annexure F.3:

Reinforcement Messages

Sample of Voice message sent to *Anganwadi-*

नमस्कार !कल कृमि नियंत्रण दिवस है सभी आंगनवाड़ी केन्द्रों मे कृमि नियंत्रण की दवाई, रिर्पोटींग फार्म, पोस्टर और हेण्डआउट की उप्लब्धता सुनिश्चित करे

Message Sent by Department of Education		
02-02-2015	Yaad rahe-Krimi niyantran diwas 10 Feb, mop up diwas 13 Feb ko hai. Isme sabhi schooli,gair namankit bachon,vyasko ko krimi niyantran dawai deni hai.Tayari rakhe	ADPC 33 + DEO 66(Ele. +Sec.)+ + BEEO 257 + BRP 514+School Teacher/Head Master 91198)
06-02-2015	A video conference is scheduled on 06-02-2015 at 10:30 AM to review Deworming program. Please ensure to attend with preparation	All DEOs + ADPCs Total - 66

SMS Plan by Evidence Action-Deworm the World Initiative				
S.no	Date	Time	Content of message	Functionaries
1.	07/02/2015	4:24 PM	कृमि नियंत्रण की दवाई और आई.ई.सी. सामग्री सभी आंगनवाड़ी केन्द्रों और विद्यालयों में 07/02/2015 तक पहुंचना सुनिश्चित करें।	Health Department – CMHOs, RCHOs, BCMHOs (314)
2.	08/02/2015	1:56 PM	ध्यान दें : कृमि नियंत्रण दवा, रिपोर्टिंग फार्म और हैण्डआउट पर्याप्त हो	Department of Education - BRPs and HMs (257+ 91198)
3.	09/02/2015	7:10 AM	कृमि नियंत्रण की दवाई पी.एस. यू.पी. एस. सेकण्डरी, सी.सेकण्डरी सभी स्कूलों में 09/02/2015 की शाम तक पहुंचना सुनिश्चित करें	Department of Education – BRPs (257)
4.	11/02/2015	3:59 PM	मॉप-अप डिवस 13 फरवरी 2015 के दिन के लिए कृमि नियंत्रण की दवाई की पूर्ति करें, जिन बच्चों को 10 फरवरी 2015 को दवाई नहीं मिली उन्हें 13 फरवरी को दवाई जरूर दें	Department of Education – HMs (91198)
5.	11/02/2015	6:30 PM	यदि आपके स्कूल में कृमि नियंत्रण की दवाई, रिपोर्टिंग फार्म, आई.ई.सी. सामग्री नहीं है तो कृपया बी.ई.ओ. /नोडल एच.एम. से कल सुबह तक अवश्य प्राप्त करें	Department of Education – HMs (91198)
6.	16/02/2015	11:13 AM	कृमि नियंत्रण कार्यक्रम के रिपोर्टिंग फार्म जमा करने की अन्तिम तिथि 16 फरवरी है, यदि फार्म नहीं जमा करवाया है तो, आज ही नोडल ऑफिसर को जमा करवाए	Department of Education – HMs (91198)
7.	18/02/2015	11:58 AM	सभी नोडल एच.एम. सुनिश्चित करें कि भरे हुए कृमि नियंत्रण संकलन प्रपत्र 23 फरवरी 2015 तक बी.ई.ओ. को जमा करवाए	Department of Education – HMs (91198)
8.	22/02/2015		सभी नोडल एच.एम. सुनिश्चित करें की भरे हुए कृमि नियंत्रण संकलन प्रपत्र 23 फरवरी 2015 तक बी.ई.ओ. को जमा करवाए	Department of Education BRP and HMs (257+ 91198)
9.	04/03/2015		सभी बी.आर.पी. सुनिश्चित करें की सभी नोडल एच.एम. कृमि नियंत्रण संकलन प्रपत्र जमा करवाए	Department of Education (BRP – 257)

Message sent by Department of Medical, Health and Family Welfare							
Date on which sent		Messages		Intended Audience	No. of Target Audience (Total no. of respective audience)		Frequency of sending SMS
		Hinglish Message (upto 160 characters)	*Hindi* messages (upto 70 characters)				
03/02/2015	Dates of deworming	Krimi niyantran diwas schoolon me 10 aur 13 Feb, Anganwadi me 10 se 13 Feb hai. Sunishchit kare ki Adverse Event Protocol ki taiyari ke nirdesh de diye gaye ho		CMHO+BCMHO+RCHO+BCMHO+PHC+CHC+DAC+ANM+ASHA	CMHO 33 + RCHO 33 + BCMHO 257 +PHC 1476 s+CHC 378 +DAC 33 + 47027 ASHA	total — 49237	1
05/02/2015	General Message communicating benefits of Deworming		कृमि नियंत्रण दवाई बच्चों के स्वाLFय और विकास के लिए लाभदायक है	ASHA	47027 ASHA	total— 47027	1
09/02/2015	ANM Support regarding Adverse event	Krimi niyantran karyakram mein agar kisi bacche ki gambhir sthiti ho to sunishchit karen ki us bacche ko upyukt swasthya/chikitsa sewa mile		ANM	ANM – 11487	Total 11487	1
10/02/2015	Inclusion of Non-Enrolled Children		सुनिश्चित करें कि कृमि नियंत्रण कि दवाई गैर नामांकित बच्चों को भी मिले	ASHA	ASHA 47027	total— 47027	1

Annexure G

Photographs from Deworming and Mop Up day

Annexure H.1:

Reporting Forms

राजस्थान प्रारम्भिक शिक्षा परिषद

शिक्षा का अधिकार

राजस्थान विद्यालय आधारित कृमि नियंत्रण (डिवर्मिंग) कार्यक्रम – 2014
शाला प्रतिवेदन प्रपत्र

भाग 1 : निर्देश

क. शाला प्रधान इस प्रपत्र की दो प्रतियां तैयार करें। एक प्रति नोडल विद्यालय के पास जमा की जाएगी तथा दूसरी प्रति स्कूल में रिकॉर्ड के लिए रखी जाएगी।
ख. कृपया किसी भी खानें को खाली न छोड़ें।

भाग 2 : निर्देश

1.	स्कूल का नाम	
2.	स्कूल का डाईस कोड	
3.	गांव/वार्ड का नाम	
4.	ब्लॉक का नाम	
5.	जिले का नाम	

भाग 3 : कृमि नियंत्रण से संबंधित जानकारी

(कृपया इस भाग को पूर्ण करने के लिए हाजिरी रजिस्टर का प्रयोग करें)

1. स्कूल में नामांकित बच्चों की कुल संख्या	2. नामांकित बच्चों की कुल संख्या जिन्हें कृमि नियंत्रण दिवस को दवाई (डिवर्मिंग गोली)	3. नामांकित बच्चों की कुल संख्या जिन्हें मॉप–अप के दिन दवाई (डिवर्मिंग गोली)	4. नामांकित बच्चों की कुल संख्या जिन्हें बीमारी या अनुपस्थिति के कारण कृमि नियंत्रण की दवाई (डिवर्मिंग गोली)	5. गैर–नामांकित बच्चों की संख्या, जिन्हें कृमि नियंत्रण दिवस को दवाई (डिवर्मिंग गोली)	6. गैर–नामांकित बच्चों की संख्या, जिन्हें मॉप–अप के दिन दवाई (डिवर्मिंग गोली) दी गई		7. व्यस्कों की संख्या, जिन्हें कृमि नियंत्रण की दवाई दी गई (अध्यापक, अभिभावक, SMC सदस्य)	
बालक बालिका				बालिका	बालक	बालिका	महिला	पुरुष
कुल :	कुल :	कुल :	कुल :	कुल :	कुल :		कुल :	

भाग 4 : (डिवर्मिंग गोली) के प्रयोग का विवरण

1. स्कूल द्वारा प्राप्त की गयी गोलियों की कुल संख्या	
2. भाग–3 के अनुसार कुल खिलाई गई डिवर्मिंग गोलियों की संख्या	
3. स्कूल में कृमि नियंत्रण कार्यक्रम के बाद बची डिवर्मिंग गोलियों की कुल संख्या	

भाग 5 : शाला प्रधान का विवरण

शाला प्रधान का नाम		मो. नं.	
मोहर एवं हस्ताक्षर			

इस प्रपत्र की एक प्रति नोडल विद्यालय को मॉप–अप दिवस से तीन दिनों के अन्दर भेजना सुनिश्चित करें।

खुले में शौच कभी नहीं जाना स्वच्छता को अपनाना	भोजन से पहले शौच के बाद अच्छन धोओ साबुन से हाथ।

School Reporting Form

राजस्थान आंगनवाड़ी केन्द्र आधारित कृमि नियंत्रण कार्यक्रम (10–13 फरवरी, 2015)
सूचना प्रपत्र– आंगनवाड़ी केन्द्र प्रपत्र–1

वितरण के बाद बची हुई कृमि नियंत्रण की दवाई को कृपया सुरक्षित स्थान पर रखें।

आंगनवाड़ी केन्द्र का नाम..... सेक्टर.....

गांव / शहर का नाम व पता..... आंगनवाड़ी केन्द्र का कोड ☐☐☐

ब्लॉक / परियोजना..... जिला.....

आंगनवाड़ी कार्यकर्ता का नाम..... मोबाइल नं.....

आंगनबाड़ी सर्वे के अनुसार केन्द्र पर 1–5 वर्ष के कुल बच्चों की संख्या			कुल बच्चों की संख्या जिन्हें कृमि नियंत्रण दिवस (10 फरवरी, 2015) को दवाई दी गई			कुल बच्चों की संख्या जिन्हें मॉप–अप अवधि (11–13 फरवरी, 2015) के दौरान दवाई दी गई			कुल बच्चों की संख्या जिन्हें कृमि नियंत्रण की दवाई नहीं दी गई			आंगनबाड़ी केन्द्र को प्राप्त कृमि नियंत्रण की दवाई की कुल संख्या	उपयोग में आयी कृमि नियंत्रण की दवाई की कुल संख्या	वितरण के दौरान खराब हुई कृमि नियंत्रण की दवाई की कुल संख्या	आंगनबाड़ी केन्द्र में शेष रही कृमि नियंत्रण की दवाई की कुल संख्या
लड़के	लड़कियां	कुल	लड़के	लड़कियां	कुल	लड़के	लड़कियां	कुल	लड़के	लड़कियां	कुल				

आंगनवाड़ी कार्यकर्ता के हस्ताक्षर

नोट:

- आंगनवाड़ी कार्यकर्ता इस प्रपत्र के आधार पर अपने केन्द्र पर प्रत्येक अभियान का संधारण रजिस्टर में करेंगी। **18 फरवरी, 2015** तक प्रपत्र में सूचना भर कर अपनी लेडी सूपरवाईजर को आवश्यक रूप से भेज दें।
- कृमि नियंत्रण दिवस (10 फरवरी 2015) को सूची / रजिस्टर में दवाई देने के बाद बच्चों के नाम के सामने एक (✓) सही का निशान लगायें। जो बच्चे कृमि नियंत्रण दिवस के दिन छूट गये हैं, उन्हें मॉप अप अवधि (11–13 फरवरी 2015) के दौरान दवाई दें। सूची / रजिस्टर में दवाई देने के बाद बच्चों के नाम के सामने 2 सही (✓✓) के निशान लगायें।
- **इस भरे हुए सूचना प्रपत्र की एक प्रति आंगनवाड़ी केन्द्र में रखें और एक अन्य प्रति लेडी सूपरवाईजर को जमा करें।**

Anganwadi Reporting Form

Annexure H.2 –

Key Results from Independent Monitoring

Table 1: Sample Sizes During Independent Monitoring	Schools			No. of *anganwadi* visited
	No. of Schools Visited	No. of Headmasters/Teachers Interviewed	No. of children Interviewed	
Deworming Day	125	125	125 (1 child per school)	NA
Mop-Up Day	125	125	125 (1 child per school)	NA
Coverage Validation	375	375	1,125 (3 children per school)	375
Total	**625**	**625**	**1,375**	**375**

Table 2: Training related indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Responses from the headmasters/principals interviewed:			
Attended training for deworming program	63.2	61.6	62.4
For schools that didn't attend training, reasons were:			
Problem with the location of training	0.0	0.0	0.0
Problem with the timing of training	4.5	0.0	2.2
Weren't aware of the date of training	27.3	14.9	20.9
Problem due to monitory constraints	0.0	0.0	0.0
No information about training	47.7	51.0	49.4
Other reasons	20.5	34.1	27.5
Responses from the teachers interviewed:			
Training status of teachers who were conducting deworming:			
Teachers who were trained at block level training	36.8	27.2	32.0
Teachers trained by headmaster or other teachers	27.2	34.4	30.8
Teachers who did not receive training	33.6	35.2	34.4
Based on monitor's observation:			
Deworming activities were taken place in the class	94.4	79.2	86.8
Type of health education about deworming had given			
Harmful effects of worms	60.0	56.0	58.0
How worms get transmitted	44.8	36.8	40.8
Benefits of deworming	67.2	54.4	60.8
Methods of STH prevention	42.4	40.8	41.6
No health education given	17.6	7.2	12.4
Percentage of teachers who identified sick children before administering the tablet	75.2	69.6	72.4

Schools where the drug was being given by teachers/headmasters	93.6	77.6	85.6
Teachers who told the children to chew the tablets before swallowing it	88.8	76.8	82.8
Teachers who followed the correct recording protocol of ticking (single tick on Deworming Day and double tick on Mop-Up Day)	79.2	53.6	66.4
Schools where children were given less than one tablet	4.0	8.0	6.0
Schools where children were given more than one tablet	2.4	0.8	1.6

Table 3: Awareness related indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Poster visibility			
Schools in which the poster was clearly visible to all	24.0	23.2	23.6
Schools in which the poster was partially visible/hidden in a room	2.4	2.4	2.4
Schools in which the poster was not visible	9.6	4.8	7.2
Schools which did not receive the poster	64.8	66.4	65.6
Received SMS about deworming program	56.0	72.8	64.4
Schools where handouts about deworming program were available	34.4	43.2	38.8
Handouts was helpful for:			
Drug dosage and administration	27.2	32.8	30.0
Adverse event	22.4	30.4	26.4
Health information on STH and transmission	23.2	27.2	25.2
Prevention of worm infection	36.0	42.4	39.2
Schools where safe drinking water was available	87.2	73.6	80.4
Teachers aware that if child is unwell they should not give her/him the deworming tablet	96.8	90.4	93.6
Teachers aware that one deworming tablet was to be given	98.4	96.8	97.6
Responses from the children interviewed:			
Children who knew what the drug was for deworming	84.8	63.2	74.0
Children who knew about deworming, even though they did not know what the tablet was for	17.6	26.7	21.9
Children who had heard of deworming before Deworming Day/Mop-Up Day	49.6	43.2	46.4
Children who had heard of deworming on Deworming Day/Mop-Up Day	28.0	15.2	21.6
The following are the mediums through which children became aware of deworming-			
Teacher/School	78.4	61.6	70.0
Radio	1.6	0.8	1.2

TV	5.6	6.4	6.0
Newspaper	6.4	5.6	6.0
Posters	5.6	4.0	4.8
Prabhat pheri	2.4	1.6	2.0
Parents/siblings	3.2	1.6	2.4
Friends/relatives	7.2	3.2	5.2

Table 4: Reporting indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Schools where school reporting form was available	81.6	82.4	82.0
Respondents who were aware of the last date of submission of school reporting form	52.8	61.6	57.2
Respondents who were aware of whom to submit the school reporting form to	88.8	89.6	89.2
Respondents who were aware of one copy of school reporting form to be submitted	75.2	84.0	79.6
Respondents who were aware that a copy of school reporting form has to remain in the school	92.8	96.0	94.4

Table 5: Drug availability and storage indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Respondents who got information about drug delivery at block level headmaster's training	75.2	71.2	73.2
Schools received deworming tablets	98.4	97.6	98.0
According to the drug packets, the expiration date was			
Before Deworming Day/Mop-Up Day	0.8	1.6	1.2
After Deworming Day/Mop-Up Day	95.2	91.2	93.2
Schools where the monitor observed spoilt tablets was			
Thrown away	84.0	71.4	78.3
Given to children	0.0	0.0	0.0
Left on the floor	0.0	0.0	0.0
Kept in some other place	8.0	19.0	13.0
Schools received deworming drug at cluster level training	41.6	39.2	40.4
Schools where children got deworming tablet on Deworming Day/Mop-Up Day	98.4	82.4	90.4
Schools where storage was away from the reach of children	96.0	95.2	95.6
ORS packets were available in the schools	12.0	16.0	14.0
Responses from the children interviewed:			
Percentage of children got deworming tablet	98.4	72.8	85.6
Percentage of children who received drug from the teacher/headmaster	96.7	72.8	84.8
Percentage of children consume deworming tablet	98.4	72.8	85.6
Percentage of children who chewed tablet before swallowing	94.3	94.5	94.4

Table 6: Adverse events related indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Percentage of teachers aware that unwell children should not get the deworming tablet	96.8	90.4	93.6
Percentage of teachers who thought it was acceptable for sick children to be dewormed	2.4	2.4	2.4
Percentage of teachers who did not identify sick children before administering the tablet	24.8	9.6	17.2
Schools where the monitor observed types of adverse event:			
Stomach ache	2.4	0.0	1.2
Nausea	2.4	1.6	2.0
Vomiting	2.4	0.8	1.6
Diarrhea	0.0	0.0	0.0
Percentage of teachers who did not think there could be adverse effects due to deworming	41.6	40.8	41.2
Percentage of children who felt healthy before taking the tablet	84.8	58.4	71.6
Teachers who believed the following to be the adverse effects of deworming:			
Mild abdominal pain	65.3	70.4	67.8
Nausea/vomiting	87.5	91.5	89.5
Diarrhea	25.0	25.4	25.2
Fatigue	13.9	16.9	15.4
When asked about their response in case a student suffers from adverse effects, the teachers answered:			
Make the child lie down in shade	59.2	52.0	55.6
Take the child to the hospital immediately	66.4	70.4	68.4
When asked about their response in case a student continues to suffer from adverse effects, the teachers answered :			
Call PHC or emergency number	44.0	32.0	38.0
Take the child to the hospital immediately	79.2	80.8	80.0

Table 7: Coverage validation indicators	
Indicators	Percentage
Responses from the headmasters/principals interviewed:	
Attended training for deworming program	64.8
For schools that didn't attend training, reasons were:	
Problem with the location of training	0.8
Problem with the timing of training	0.0
Weren't aware of the date of training	26.6
Problem due to monitory constraints	0.0
No information about training	47.7
Other reasons	24.9
Percentage of schools received the followings:	
Poster	37.6
Handouts	24.8
Received SMS about deworming program	73.3
Percentage of schools which had sufficient drugs for deworming	96.0
Percentage of schools had surplus storage of drugs after deworming	78.1
Percentage of schools where school reporting form was available after Deworming Day and Mop-Up Day	85.3
For schools that didn't have school reporting form, reasons were:	
Did not received	38.2
Submitted to block resource persons (BRP)	41.8
Unable to locate	1.8
Percentage of schools had complete school reporting form	84.0
Percentage of schools did deworming on Deworming Day or Mop-Up Day	97.6
Percentage of schools reported mild adverse event after taking the drug	8.3
Percentage of schools reported serious adverse event after taking the drug	0.0
The followings adverse event was happened after taking the drug	
Mild abdominal pain	51.6
Nausea/vomiting	74.2
Diarrhea	12.9
Fatigue	0.0
When asked about their response in case a student suffers from adverse effects, the headmaster answered:	
Make the child lie down in shade	51.6
Take the child to the hospital immediately	48.4
Percentage of schools received the adverse event reporting form	0.3
Percentage of schools where adverse event reporting form was available	0.0
Percentage of schools those who filled the adverse event reporting form	0.0

Table 8: Coverage validation indicators	
Indicators	
State level verification factor	0.86955
School following the recording protocol	84.8%
State inflation rate (which measures the extent to which the recording in school reporting forms exceeds records at schools)	15.0%
State level inflation rate among trained schools (which measures how much the coverage reported in reporting forms exceeded school records in registers for schools that received training)	13.9%
State level inflation rate among untrained schools (which measures how much coverage reported in reporting forms exceeded school records in registers for schools that were not trained)	17.2%
School level inflation rate for schools that followed the recording protocol (measures how much coverage reported in reporting forms exceeded school records in registers, for schools that were following recording protocols, i.e., ticking).	8.9%
Non-compliance of recording protocol	15.2%
Inaccuracy among compliant schools (schools following recording protocols where ticks in registers did not match what was reported in school reporting forms)	28.0%
Children who were present on Deworming Day or Mop-Up Day received deworming tablet, according to the responses from the children interviewed)	93.8%
Enrollment-attendance analysis:	
Percentage of children present on Deworming Day (based on two classes)	74.7%
Percentage of children present on Mop-Up day (based on two classes)	74.0%
Average attendance of children on Deworming Day and Mop-Up Day (based on DD, MUD & CV data)	72.3%

Table 9: District Level Verification Factor	
District Name	Verification factor
Ajmer	0.832
Alwar	1.470
Banswara	0.603
Baran	1.276
Barmer	0.820
Bharatpur	1.042
Bhilwara	0.879
Bikaner	0.863
Bundi	0.578
Chittorgarh	1.686
Churu	0.810
Dausa	1.564
Dholpur	1.458
Dungarpur	1.319
Ganganagar	1.422
Hanumangarh	1.389
Jaipur	0.458
Jaisalmer	0.633
Jalore	0.663
Jhalawar	0.987
Jhunjhunun	0.640
Jodhpur	1.155
Karauli	0.415
Kota	1.166
Nagaur	0.674
Pali	0.837
Pratapgarh	0.734
Rajsamand	0.582
Sawai madhopur	0.824
Sikar	0.668
Sirohi	0.673
Tonk	1.219
Udaipur	0.725

	Indicators
I_1	Attended Training for Deworming Program
I_2	Received SMS about deworming program
I_3	Received poster about deworming program
I_4	Received handouts about deworming program
I_5	Had the sufficient drugs for deworming
I_6	Had school reporting form available
I_7	Had deworming on deworming or mop-up day

Table 10: District Wise Variation (DD, MUD & CV)

District	I_1	I_2	I_3	I_4	I_5	I_6	I_7	N
Ajmer	59.1	52.4	31.8	27.3	90.9	81.8	100.0	22
Bikaner	76.9	84.62	69.23	84.6	100	100	100	13
Udaipur	69.7	60.6	33.3	21.2	93.93	78.78	84.84	33
Sirohi	70.0	70.0	40.0	20.0	100.0	90.0	100.0	10
Alwar	76.0	84.0	20.0	40.0	96.0	88.0	100.0	25
Banswara	76.2	57.1	52.4	52.4	100.0	90.5	90.5	21
Baran	62.5	87.5	25.0	25.0	87.5	75.0	100.0	8
Barmer	39.5	81.4	20.9	16.3	76.7	81.4	95.3	43
Bharatpur	11.8	64.7	29.4	29.4	82.4	76.5	94.1	17
Bhilwara	59.3	77.8	66.7	29.6	100.0	81.5	92.6	27
Bundi	61.5	69.2	30.8	53.8	100.0	84.6	100.0	13
Chittaurgarh	84.6	53.8	53.8	46.2	100.0	69.2	92.3	13
Churu	66.7	60.0	33.3	60.0	86.7	80.0	100.0	15
Dausa	84.6	53.8	69.2	15.4	100.0	100.0	92.3	13
Dhaulpur	91.7	58.3	33.3	16.7	91.7	83.3	83.3	12
Dungarpur	63.6	63.6	36.4	31.8	90.9	90.9	95.5	22
Ganganagar	55.0	85.0	60.0	60.0	95.0	95.0	90.0	20
Hanumangarh	62.5	100.0	18.8	25.0	93.8	93.8	100.0	16
Jaipur	60.0	82.9	37.1	37.1	91.4	82.9	94.3	35
Jaisalmer	75.0	87.5	12.5	25.0	100.0	100.0	100.0	8
Jalore	95.0	95.0	40.0	40.0	100.0	100.0	95.0	20
Jhalawar	56.3	56.3	25.0	12.5	93.8	81.3	93.8	16
Jhunjhunu	93.8	75.0	50.0	43.8	100.0	81.3	100.0	16
Jodhpur	45.7	68.6	20.0	14.3	91.4	85.7	88.6	35
Karauli	87.5	62.5	37.5	25.0	100.0	100.0	100.0	8
Kota	33.3	75.0	33.3	25.0	91.7	91.7	100.0	12
Nagour	76.5	67.6	44.1	20.6	100.0	94.1	94.1	34
Pali	50.0	42.9	7.1	7.1	92.9	85.7	100.0	14
Pratapgarh	93.3	60.0	33.3	46.7	93.3	86.7	93.3	15
Rajsamand	86.7	73.3	40.0	13.3	100.0	93.3	100.0	15
Sawai Madhopur	66.7	50.0	50.0	41.7	100.0	91.7	100.0	12
Sikar	25.0	25.0	43.8	31.3	81.3	87.5	87.5	16
Tonk	60.0	60.0	33.3	13.3	93.3	60.0	86.7	15

Table 11: Indicators by trained and untrained schools	Deworming Day		Mop-Up Day		Aggregate (DD & MUD)	
Indicators	Trained Schools	Untrained Schools	Trained Schools	Untrained Schools	Trained Schools	Untrained Schools
Teachers aware that if child is unwell could not give her/him the deworming tablet	97.5	97.7	96.1	83.0	96.8	90.4
Percentage of teachers who thought it was acceptable for sick children to be dewormed	2.5	2.3	2.6	2.1	2.6	2.2
Teachers who told the children to chew the tablets before swallowing it	94.7	92.7	96.9	97.1	95.7	94.7
Teachers who followed the correct recording protocol of ticking (single tick on Deworming Day and double tick on Mop-Up Day)	88.2	75.6	72.3	58.8	80.9	68.0
Schools where children were given less than one tablet	5.3	2.4	10.8	8.8	7.8	5.4
Schools where children were given more than one tablet	3.9	0.0	0.0	2.9	2.1	1.3
Teachers aware that one deworming tablet were to be given	100.0	97.7	98.7	95.7	99.4	96.7
Percentage of teachers who did not think there could be adverse effects due to deworming	46.8	34.1	37.7	46.8	42.3	40.4
Teachers who believed the following to be the adverse effects of deworming						
Mild abdominal pain	66.7	62.1	75.0	56.0	70.8	59.0
Nausea/vomiting	85.7	89.7	87.5	92.0	86.6	90.8
Diarrhea	19.0	31.0	27.1	20.0	23.1	25.5
Fatigue	16.7	10.3	18.8	12.0	17.7	11.2
When asked about their response in case a student suffers from adverse effects, the teachers answered:						
Make the child lie down in shade	65.8	47.7	58.4	42.6	62.1	45.2
Take the child to the hospital immediately	59.5	79.5	63.6	83.0	61.6	81.3
When asked about their response in case a student continues to suffer from adverse effects, the teachers answered :						
Call PHC or emergency number	51.3	31.8	37.7	23.4	44.5	27.6
Take the child to the hospital immediately	74.4	90.9	79.2	85.1	76.8	88.0
Respondents who were aware of the last date of submission of School reporting form	50.6	59.1	70.1	48.9	60.3	54.0

Respondents who were aware of whom to submit the school reporting form to	92.4	84.1	92.2	87.2	92.3	85.7
Respondents who were aware of one copy of school reporting form to be submitted	72.2	81.8	88.3	78.7	80.2	80.3
Respondents who were aware that a copy of school reporting form have to retain in the school	93.7	93.2	97.4	95.7	95.5	94.5

	Table 12: Aggregate level analysis (DD, MUD & CV)	
	Indicators	Percentage
	Responses from the headmasters/principals interviewed:	
1	**Attended training for deworming program**	63.8
2	**For schools that didn't attend training, reasons were:**	
	Problem with the location of training	0.5
	Problem with the timing of training	0.9
	Weren't aware of the date of training	24.2
	Problem due to monitory constraints	0.0
	No information about training	48.4
	Other reasons	26.0
3	**Received SMS about deworming program**	69.8
4	**Received poster about deworming program**	36.2
5	**Received handouts about deworming program**	30.4
6	**Schools had sufficient drugs for deworming**	94.4
7	**Schools had surplus storage of drugs after deworming**	82.9
8	**Schools where Children got deworming tablet on Deworming Day/Mop-Up Day**	94.1
9	**Schools where school reporting form was available**	84.0
	Response from the children interviewed:	
10	**Percentage of children who were present on Deworming Day or Mop-Up Day received deworming tablet**	93.8

Table 13: *Anganwadi* related indicators (based on coverage validation data)	Percentage
Anganwadis had sufficient drugs for deworming	89.4
Anganwadis had surplus storage of drugs for deworming	60.6
Anganwadis where Anganwadi reporting form was available	53.5
Anganwadis received information on deworming by the lady supervisor in the departmental meeting	89.6
Anganwadis received SMS about deworming program	17.6
Anganwadis received poster about deworming program	51.1
Anganwadis received handouts about deworming program	29.3
Registered children received deworming drug (response from the *Anganwadi* worker)	91.5
Anganwadis reported mild adverse event after taking the drug	29.0
Anganwadis reported serious adverse event after taking the drug	0.3
The followings adverse event was happened after taking the drug	
Mild abdominal pain	39.8
Nausea/vomiting	49.1
Diarrhoea	18.5
Fatigue	8.3
Asked AWW about their response on that adverse events-	
Ask the child lie down in shade	37.0
Take the child to the hospital immediately/doctor was called immediately	37.0
Anganwadis received adverse event reporting form	5.5
Anganwadis followed recording protocol	63.3
State level verification factor for *Anganwadis*	0.80108
State inflation rate (which measures the extent to which the recording in *Anganwadi* reporting forms exceeds records at *Anganwadis*)	24.8
Inflation rate for *Anganwadis* that followed the recording protocol	6.8
Non-compliance of recording protocol	36.4
Inaccuracy among compliant *Anganwadis* (Anganwadis following recording protocols where ticks in registers did not match what was reported in Anganwadi reporting forms)	7.4

Annexure H.3:

Definitions

We calculated verification factors and reporting inflation rates from our coverage validation exercise. Verification factor is an indicator which is often used to assess the reporting quality. It is also widely used in health programs for the same reason. A state level verification factor (VF) was calculated from the data. **State level verification factors** are calculated by comparing the recorded number of ticks in school registers to the numbers being reported in the school reporting forms. A value of VF greater than 1 suggests that coverage data was deflated relative to actual coverage. A value of VF less than 1 suggests that inflation has occurred. The VF was calculated using the following formula:

$$\text{State level verification factor} = \frac{\text{Number of ticks found in schools across the state}}{\text{Total reported number for those schools}}$$

Thus, in the 375 schools from which coverage validation data was received from, we calculate the aggregated number of ticks for all these schools and divide the sum by the sum of deworming coverage reported in these schools.

We calculated the **state inflation rate** in reporting data by comparing the cumulative numbers reported in the school reporting form, with the total number of ticks actually present in the attendance registers of all schools visited during coverage validation. The state level inflation was calculated using the following formula:

$$\text{State inflation rate} = \frac{\text{(Total no. reported in S forms} - \text{Total no. of ticks in attendance register)}}{\text{Actual number of ticks}}$$

District- level verification factor was calculated by modifying the state level formula. The district-level distribution of this verification factor gave several interesting results. It was calculated for schools which either had positive ticks or had positive values in the reporting form using the formula:

$$\text{District Verification Factor} = \frac{\text{Number of ticks found in schools across the district}}{\text{Total reported number for those schools}}$$

The districts that had a value of 0 in this indicator, suggests that there were no ticks at all across all the schools visited by independent monitors in these districts. There were well-performing districts where the monitors detected no inaccuracy in reporting (i.e., where the value of this factor was 1).