Evidence Action

Deworm the World Initiative

Bihar School-Based Mass Deworming Program

Photo Credit: Evidence Action

Round Four - Report

July 2015

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GLOSSARY

AED:	Additional Executive Director State Health Society
ANM:	Auxiliary Nurse Midwife
AWC:	Anganwadi Centre
AWW :	Anganwadi Worker
BEPC:	Bihar Education Project Council
BEEO:	Block Elementary Education Officer
BRP:	Block Resource Person
CS:	Civil Surgeon
DEO:	District Education Officer
DWCD:	Department of Women and Child Development
ED:	Executive Director cum Secretary State Health Society
GoI:	Government of India
GoB:	Government of Bihar
HM:	Headmaster
ICDS:	Integrated Child Development Services
IEC:	Information, Education and Communication
NHM:	National Health Mission
NDD:	National Deworming Day
PIP:	Program Implementation Plan
RBSK:	Rashtriya Bal Swasthya Karyakarm
SHSB:	State Health Society Bihar
SPD:	State Project Director, BEPC
SBD:	School Based Deworming
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 the National Deworming Day (NDD) observed as a fixed-day approach targeting 140 million children in 11 states in its first phase. Contributing to this national effort, Bihar implemented the fourth round of school-based mass deworming on February 21, followed by mop-up day on February 26, 2015 . In this round 18,718,184 school-age children were dewormed, including out- of-school children in the age group of 6-19 years, through the network of 71,326 government and government-aided schools across 38 districts in the state. The program was a continuation of the collaborative effort between the State Health Society Bihar (SHSB), the Bihar Education Project Council (BEPC), and Evidence Action- Deworm the World Initiative over the last three rounds of implementation. Children's Investment Fund Foundation (CIFF) provided funding support to Evidence Action for providing technical assistance to the deworming round.

Key Achievements of Round 4[1]

Number of school that reported deworming data	71,198 (99.8%)
Number of enrolled children dewormed (age 6-19 years)	17,600,122
Number of out-of-school children dewormed through schools (age 6-19 years)	1,118,062
Program coverage	91.6 %
Number of adults dewormed*	1,775,866*
Drugs received under WHO Global Drug Donation program for school age children	25.6 million Albendazole tablets

*Includes teachers/headmasters and other school personnel

Evidence Action closely supported the Government of India's Child Health Division in planning and implementation of the National Deworming Day by developing operational guidelines and related resource materials. In the state of Bihar, we continued our comprehensive technical assistance for the successful implementation of the National Deworming Day in February, with learnings from the previous rounds to guide program planning. These were in sync with strategies laid out under the National Deworming Day guidelines. Our continued advocacy, and the commitment and willingness of both the departments i.e. Health and Education led to the new initiative of sending training reinforcing messages (SMS) to all functionaries. To reach out to communities with messaging on the benefits of deworming, the Department of Health adopted awareness strategies using the National Deworming Day resource toolkit, which Evidence Action contextualized and adapted for the state. Evidence Action also put together a robust tracking and monitoring system,

[1] Based on the data submitted by Government of Bihar to Ministry of Health and Family Welfare, Government of India dated 13th April, 2015

through tele-calling and field-based teams that facilitated program preparedness and timely escalation of gaps for corrective action by the state. The emphasis on adherence to timelines for reporting accelerated coverage reported from districts within two months of deworming day. This was a huge achievement with the Government of Bihar submitting 91.6% coverage to the Government of India in the prescribed format within timelines **(Annexure A)**.

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 in adulthood, diminished work capacity and productivity[2].

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"3 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 pupils4. 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 deworming5. The existing and extensive infrastructure of schools provides the most efficient way to reach the highest number of children. Teachers, with support from the local health system, can administer treatment with minimal training. Preschool settings are often used to provide children with basic health, education, and nutrition services, making this a natural, sustainable, and inexpensive platform for deworming programs.6

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-

[2]Helminth control in school-age children- A guide for managers of control programmes: WHO, 2011
3 http://www.povertyactionlab.org/publication/deworming-best-buy-development
4 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.
5 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
6 http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0000223#pntd-0000223-g003

19 years).7 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 school and preschool (anganwadi)-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 Government of India renewed its focus on deworming by streamlining efforts through the school and anganwadi-based National Deworming Day launched in 2015.

1.3 State Program History

A Memorandum of Understanding (MOU) was signed on March 5, 2010 among State Health Society Bihar, Bihar Education Project Council, and Deworm the World Initiative to implement the school-based deworming program in the state for treatment of STH. Based on Prevalence Survey findings8, which suggested treatment recommendation of WHO9, the Government of Bihar decided to implement biannual state-wide deworming beginning 2011. Since then, Evidence Action has extended technical assistance to an annual round of deworming for all school-age children through a school-based model. The second round of deworming treatment was provided through the National Filaria Control Program (NFCP), which conducts annual mass drug administration of albendazole to the 2 years and above population at the community. In 2011, a total of 16.7 million children were dewormed at schools, earning the distinction of being the world's largest school-based deworming program. In 2012, 16.33 million children were dewormed in Round 2. 17.47 million, including 16.2 school- age children, were dewormed as part of Round 3 in 2014.

1.4 Recent Advancement in the State

Based on WHO guidelines, which recommends an assessment after three years and because Bihar has implemented three rounds of school-based deworming since 2011, a prevalence survey was conducted by Evidence Action in January and February 2015, before Round 4 was implemented (details covered under the Prevalence Survey section). At the same time, as the MoU would expire in June 2015, discussions around revisions and extension of the existing MoU were initiated. Given that the deworming program in Bihar has so far focused only on school-age children, we advocated for the inclusion of the Department of Women and Child Development (DWCD) as a stakeholder in the MoU for expansion of the intervention to pre-school age children. As a result of these efforts, in June 2015, after the completion of Round 4, this commitment was inked with a MoU till September 2018 signed between State Health Society Bihar, Bihar Education Project Council, Department of Women and Child Department, and Evidence Action **(Annexure B)**. The roles and responsibilities in the MOU are revised in light of the National Deworming Day guidelines

1.5 About National Deworming Day

The deworming program in India reached a key milestone with the launch of the National Deworming Day on February 10, 2015. The first phase of the National Deworming Day targeted

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

[8] STH prevalence across Bihar of 67.5%,

[9] "Helminth Control in School-age Children, A guide for managers of Control Programmes". Second Edition, 2011, *World Health Organization.* O

all children in the age group 1-19 years in 12 states, namely Assam, Bihar, Chhattisgarh, Dadra and Nagar Haveli, Delhi, Haryana, Karnataka, Maharashtra, MP, Rajasthan, Tamil Nadu, and Tripura through the network of government and government-aided schools and anganwadis.

Evidence Action supported the Ministry of Health and Family Welfare (MoHFW), Government of India to plan and finalize the operational guidelines for the National Deworming Day. These guidelines laid out key objectives and operating principles; clarified roles and responsibilities of stakeholders; provided a resource kit with training and community mobilization materials; and identified budget allocations to be adapted and adopted by states in preparations for program implementation. All related materials were uploaded on the National Health Mission website (http://nrhm.gov.in/national-deworming-day.html to ease preparations and make them easy to use.

We supported a national-level orientation meeting in Delhi on January 19 for all participating states, including states where Evidence Action is providing technical assistance (Madhya Pradesh, Bihar, Rajasthan, and Delhi). On February 9, 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, representatives from the media, development partners, and children participated in the launch event which got extensive media coverage. Evidence Action supported the organizing of the event including media management and press coverage.

2. Introduction – State School-Based Deworming, Bihar-February 2015

2.1 Target Beneficiaries

The target for Round 4 included 20,438,215 school-enrolled children[10] in the age group of 6-19 years. The round also covered out-of-school children through the platform of government, government-aided schools, but no target was defined for this group as the data for this population segment is currently undetermined.

2.2 Key Stakeholders

Department of Health and Family Welfare represented by the State Health Society Bihar led the overall implementation of the program, organizing Steering Committee meetings, ensuring drug requisition to WHO, logistics and supply, dissemination of adverse event management protocols, leading the IEC campaign through a media mix including radio broadcast, printing of posters for schools, banners for Primary Health Centres and hoardings (bill boards) for district headquarter.

Department of Education represented by the Bihar Education Project Council ensured all preparations and arrangements for training of Block Resource Persons and teacher/ headmasters, printing of training handouts, and reporting forms for schools.

[10] Based on enrolment data DISE,2013-14 by State Education Department

Evidence Action-Deworm the World Initiative coordinated with the stakeholder departments to facilitate planning and implementation of the deworming round. Technical inputs on adapting resources for training and IEC, quality assurance at district and select block trainings, overall program support through follow up and tracking with a tele-calling unit and field-based teams, and exhaustive monitoring of the round through independent monitoring and coverage validation, all aimed to facilitate greater coordination between stakeholders for effective program implementation.

3. Program Implementation

3.1 Prevalence Survey

To understand the impact of three rounds of school-based deworming, Evidence Action, with approvals and support from the State Health Society Bihar and Bihar Education Project Council, conducted the prevalence and intensity survey in early 2015 prior to the deworming round. To complete the survey, Evidence Action partnered with several organizations, including the Post-Graduate Institute of Medical Education and Research, Chandigarh as the technical agency. For the sampling and analysis of the survey we partnered with the Chennai-based National Institute of Epidemiology, of the Indian Council of Medical Research. For field work, GfK Mode was contracted, which had a team of field surveyors in Bihar with experience collecting stool samples from previous surveys. Field work for this survey was completed before the deworming day, and the detailed report is since completed and submitted to the Government of Bihar, Government of India, and WHO.

On the basis of analysed data, the overall weighted prevalence of any STH in Bihar was calculated as 35%. Roundworm was the most prevalent STH (19%), followed by hookworm (17%), and whipworm (6%). Additionally, sanitation indicators were very poor in the sampled households, with 88% of households practicing open defecation. Results of this survey suggest a significant difference in the average prevalence and intensity of the STH infections in Bihar between 2011 and 2015, suggesting that deworming is having an effect on infection in school-age children.

Following key recommendations, based on the findings of the study have been highlighted in the report submitted to Government:

Results of this survey suggest a significant difference in the average prevalence and intensity of the STH infections in Bihar between 2011 and 2015, suggesting that deworming is having an effect on infection in school-age children. However, since the prevalence of the infection is still high, and as per WHO guidelines, continuation of biannual deworming strategies is recommended. As there are still areas of the state with high prevalence (50%), additionally, the high rates of open defecation in Bihar suggest that rapid reinfection is likely, requiring regular and coordinated biannual administration of albendazole in order to move toward further reductions in prevalence.

The Government of Bihar should emphasize the need for coordination between the Mass School-based Deworming Program and the National Filaria Control Program, to ensure the establishment of rigorous timelines for program implementation whereby school-age children receive albendazole every six months.

Continued reinfection as evidenced by the current 35% prevalence suggests other strategies to expand coverage of children in the state through the coverage of children that may not be currently targeted, or are insufficiently reached under the current program. Therefore, the state must consider greater efforts to reach out-of-school children, children in private schools, and preschool children in *anganwadis*.

3.2 Policy and Advocacy

To effectively plan and prepare for the deworming program, a Steering Committee meeting was held on December 19, 2014, chaired by the Principal Secretary Health, with representatives from the Departments of Health and Education, Evidence Action, and other development partners. The key decisions from the meeting at listed below (Annexure C.1):

- Finalization of the dates: February 21 for deworming day and February 26 for mop-up day.
- Evidence Action will support district-level trainings for the Departments of Health and Education by providing master trainers, design and development of training materials, and IEC tools.
- State Health Society Bihar will ensure drug logistics and manage supplies to blocks. In addition they will undertake all necessary steps for storage of supplies received under the WHO drug donation program.
- As WHO drugs for the school program was received with some delays at the state and could not be aligned for distribution with the training cascade, a decision was taken to use available stock of albendazole (400mg) under the National Filaria Control Program for school-based deworming in February in all 38 districts. The decision taken with the available information that the drugs from the National Filaria Control Program were available at the district warehouses.
- The State Health Society Bihar supported Evidence Action's idea of using SMS for information dissemination to its health functionaries to increase community mobilization for increased coverage and use of opportunities such as ANM visits, Village Health Sanitation and Nutrition Day, *anganwadi*-based mother meetings, and home visits for dissemination of key messages on the deworming program and its benefits.

Evidence Action coordinated efforts with the State Health Society Bihar and Bihar Education Project Council to mitigate the challenges in the field, such as engagement of teachers on examination duty and 1146 higher secondary schools not being able to conduct deworming on February 21 because of examinations. Apprising this situation, the state instructed these schools to observe Deworming Day on March 10 followed by mop-up day on March 13 (Annexure C.2). In early February, the decision to schedule a mass drug administration for the Lymphatic Filariasis (LF) program in 14 districts[11] was also taken. To avoid duplication of deworming effort for children in the age group of 6-19 years, Evidence Action worked with State Health Society Bihar to align the two programs. As a result, school-based deworming was observed on February 18 followed by mop-up day on February 26, 2015 in these 14 districts. Supplementing the state's effort, constant communication was facilitated with district officials

[11] Aurangabad, Banka, Gopalganj, Jamui, Katihar, Khagaria, Munger, Purnia, Saharsa, Sheikhpura, Sheohar, Sitamarhi, Vaishali and Kisanganj

through Evidence Actions' district coordinators to ensure compliance.

Facilitating preparedness across all districts, the state included deworming program details in various conference calls held on January 14, February 2, and February 16, with district officials of the Departments of Health and Education. Amongst other things during these coordination calls, review of overall preparations, including preparations for response systems for adverse event management, and adherence to timelines for coverage reporting were reinforced.

3.3 District Coordination Committee Meeting

Increased engagement and ownership by district administration in the planning and implementation of the deworming program was demonstrated across all 38 districts as they organized District Coordination Committee meetings between January and February **(Annexure C.3)**. These meetings reviewed preparations for the program and clarified roles of stakeholders for improved inter-departmental coordination between Departments of Health and Education and others stakeholders. Key decisions for program implementation taken were disseminated with the issuance of minutes of the meetings that were circulated in 36 districts with the exception of Khagaria and Munger. Evidence Action's district coordinators facilitated and shared critical program updates in all the district meetings across program components and facilitated integration and alignment with Lymphatic Filariasis (LF) round.

3.4 3.4 Program Management

With support and guidance from the national office, Evidence Action state-based teams, including regional coordinators and short-term hires (district coordinators placed in all 38 districts and tele-callers) provided technical support to the program. Teams were trained on program strategy and components to build a common understanding to enable effective delivery of outputs. The regional and district coordinators supported district-level preparation in coordination with district and block officials to plan for trainings and other logistics for program implementation and timely reporting of coverage report.

Regional Coordinators: To support institutionalization efforts for the deworming program four regional coordinators were hired for year-round engagement, with each responsible for nine to eleven districts. Regional coordinators provide guidance to district coordinators and support district-level advocacy efforts during the deworming round. As their key role is to provide management and oversight to the district coordinators, they are also in charge of providing prompt remedial action in the field, while guiding district coordinators on advocacy with district officials. In addition, they facilitate organizing of the District Coordination Committee meetings, implementation of the training and distribution cascade, and timely reporting of coverage data. With specific activities of the deworming round now complete, the regional coordinators' efforts are geared towards exploring opportunities at the districts for inclusion of the deworming agenda in platforms where possibilities for synergies exist, including strengthening community mobilisation for higher participation in and coverage of the program.

District Coordinators: 38 district coordinators were hired to facilitate on the ground support around deworming round for a period of approximately three months. District coordinators worked closely with district and block-level officials from the Departments of Health and Education to facilitate filling of program gaps, with guidance from regional coordinators and the state team. These coordinators were instrumental in ensuring that training resources and

reporting forms were handed over to districts in time to align with trainings planned in the districts. Their role was integral in assuring the quality of the training where pre and post-tests were administered to participants. Post the deworming round, rigorous follow up by the district coordinators with concerned block and district-level officials supported the timely compilation of coverage reports.

Tele-callers: 6 tele-callers were hired during the deworming round to gather real time information from the field to assess the preparedness for program implementation. They made calls to officials at districts, blocks, and schools and focused on updates on drug and IEC availability, training schedules, and followed up on the status of reports after the deworming round. This dynamic flow of information gathered from district level and below by the tele-callers generated real time program updates that were continually shared with the state level officials to allow for necessary corrective measures across all program activities.

Figure 1: Snapshot of the Daily Tracker

Updated As on 17 Feb 2015				Programe Year:- 2015							Round 4 Bihar Tracker		
S.NO	Name of District	WHO Drug lifted from State Level	District Level Availability of Poster & Banner (Yes/No)	District Level Availability of LF Drug (Yes/No)	District Level Availability of IEC Material (Yes/No)	Drug availability At Block PHC (Yes/No)	Total Number of Blocks	Block PHCs Received The Drugs	Number Of BEOs Received The Drugs	Number Blocks Conducted Block Level Training	District Co-ordination Committee Meeting Date	District Co-ordination Committee Meeting Status	District Co-ordination Committee Meeting Minutes Status
1	ARARIA	Lifted	No	Yes	Yes	Yes	9	9	9	9	17-Feb	Up Coming	Not Received
2	BANKA	Lifted	No	Yes	Yes	Yes	11	11	11	11	9-Feb	Completed	Not Received
3	BHAGALPUR	Not Lifted	Yes	Yes	Yes	Yes	17	17	17	17	12-Feb	Completed	Not Received
4	KATIHAR	Lifted	No	Yes	Yes	Yes	16	16	13	16	12-Feb	Completed	Not Received
5	KISHANGANJ	Not Lifted	No	Yes	Yes	Yes	7	7	7	7	13-Feb	Completed	Received
6	MADHEPURA	Lifted	Yes	Yes	Yes	Yes	13	13	2	13	10-Feb	Completed	Not Received
7	PURNIA	Not Lifted	No	Yes	Yes	Yes	14	14	14	14	7-Feb	Completed	Not Received
8	SAHARSA	Not Lifted	Yes	Yes	Yes	Yes	10	10	10	10	13-Feb	Completed	Not Received
9	SUPAUL	Lifted	Yes	Yes	Yes	Yes	11	11	9	6	13-Feb	Completed	Not Received
10	BEGUSARAI	Not Lifted	No	Yes	Yes	Yes	18	18	18	18	14-Feb	Completed	Not Received
11	DARBHANGA	Lifted	No	Yes	Yes	Yes	19	19	13	18	18-Feb	Up Coming	Not Received
12	JAMUI	Not Lifted	Yes	Yes	Yes	Yes	10	10	9	10	9-Feb	Completed	Not Received
13	KHAGARIA	Lifted	No	Yes	Yes	Yes	7	7	7	7	14-Feb	Completed	Not Received
14	LAKHISARAI	Not Lifted	Yes	Yes	Yes	Yes	7	7	7	7	31-Jan	Completed	Received

3.5 Drug Procurement, Storage, and Transportation

Drug Procurement: All school-age children were treated with albendazole tablet (400 mg) in Round 4 of the school-based mass deworming program. Evidence Action supported the state government to avail donated drugs from WHO's global drug donation program for the year 2014-15 **(Annexure D.1).** In January 2015, 25.6 million[12] albendazole tablet for school-age children were received As decided previously in the state-level meetings held in December, all districts used the available stock of albendazole tablet under the Lymphatic Filariasis program for school- based mass deworming program since there was a delay in the receipt of drugs.

Simultaneously, with support from Evidence Action, State Health Society Bihar initiated immediate distribution of WHO drugs to districts, to replenish the stock of albendazole from the Lymphatic Filariasis program. Prior to the distribution of WHO drugs State Health Society Bihar ensured laboratory testing of samples at the state as per specifications **(Annexure D.2).** Albendazole, under the Lymphatic Filariasis program, were already tested for quality at state, before these were dispatched to districts.

Drug Logistics and Supply: With the objective of aligning drug distribution with block-level trainings, Evidence Action worked closely with State Health Society Bihar, which managed all aspects of drugs logistics and supply in this round **(Annexure D.3)**. Prior to the distribution,

[12] Based on DISE data for 2013-14

drugs were bundled for each block based on the requirement[13] provided by Bihar Education Project Council, while factoring in a buffer to cater to non-enrolled children. Furthermore, to integrate drug distribution at block-level trainings, the drugs were distributed to block health officials, within a stipulated timeframe[14] to ensure these are handed over to the Department of Education before the block-level trainings were scheduled. Given the scale of the program and the tight timelines, it was a systemic challenge to ensure these objectives were fully achieved. To the extent possible, Evidence Action's regional and district coordinators played a crucial role by coordinating with respective departments for integrated distribution.

3.6 Adverse Event Management Preparedness

As per the National Deworming Day operational guidelines, the State Health Society Bihar circulated detailed guidelines to all district and block-level medical officers on adverse event management protocols, with directives to establish block-level emergency response teams (Annexure D.4). A state-led conference call was conducted with all districts on February 16 to assess preparedness and to reinforce the need for emergency preparedness.

To respond to any adverse events reported on the deworming and mop-up days, block-level emergency response teams[15] of health personnel were constituted in all 537 blocks. At the block- level training, teachers and headmaster were oriented on adverse event management at schools and timely escalation of any serious events. No major adverse events were reported in this round, while the few minor cases were handled by schools with support for the health teams. The State Health Society Bihar sent out approximately 70,000 text messages to key health officials and frontline workers to reinforce protocols to timely response to adverse events.

3.7 Public Awareness and Community Sensitization

The State Health Society Bihar and Evidence Action rolled out a media mix to generate community awareness and increase program visibility to improve coverage in the state **(Annexure E.1)**. We supported the adaptation and contextualization of prototypes from the National Deworming Day IEC resource toolkit. At the state level, State Health Society Bihar, in coordination with the Department of Public Relation, Government of Bihar, published newspaper advertisement in four dailies[16] one day prior to deworming and mop up day, i.e., on 20 and 25 February **(Annexure E.2)** . Radio jingles, customized into three local dialects, were aired from 15 to 26 February on the All India Radio to maximize outreach to the community. For additional visibility of the program at the community level, State Health Society Bihar printed 513,625 posters (7 for each school, including distribution in the local community), 1068 banners for Primary Health Centers, hoardings at 38 district headquarter. All of these were adapted and contextualized by Evidence Action.

Due to the procedural delays in financial approvals, the printing of posters and banners experienced delays. However, Evidence Action stepped in to support transportation of the posters, since the trainings were already completed in most the blocks, thus they could not be aligned with the distribution cascade at the trainings. Districts, therefore, distributed these

[13] Updated data of enrolment figures from BEPC
[14] Between 10th-31st January 2015 as per pre decided timelines.
[15] Doctor, a male nurse and an ANM
[16] *Hindustan,Dainik Jagran,Rastriya Sahara and prabhar Khabar*

later, but given the limited time, it was a challenge to ensure timely availability of the posters to all schools, which is corroborated in the findings below.

Other community mobilization activities, including *Prabhat Pheris and Bal Sansad*, which are conducted by schools and led by students, to mobilize out-of-school children, raise awareness on program benefits, and inform about the dates of deworming **(Annexure E.3)** . Additionally, mike announcements were made at public places in blocks and district headquarters by Evidence Action for 5 days, closer to deworming day **(Annexure E.4)**. The state engaged with ASHAs and ANMs to disseminate information on deworming and its benefits using the platform of Village Health Sanitation and Nutrition Day (observed twice in February on the first and third Thursday). While the state emphasized the role of ASHAs in community engagements at all platforms, one of the key strategies recommended under the National Deworming Day guidelines, incentivizing ASHA workers for mobilizing out-of-school children, could not be implemented in this round due to paucity of time for planning.

State Level Launch: Evidence Action supported the State Health Society Bihar, to organize a state-level launch on February 21, 2015 at *Rajkiye Kanya Madhya Vidhayalye,* in the presence of the Secretary of the Health and Family Welfare cum Executive Director, and Additional Executive Director of the State Health Society Bihar; and State Project Director of the Bihar Education Project Council, and other senior dignitaries, representatives from development partners, media and children **(Annexure E.5)**. In addition, all 38 districts organized inaugural events in districts at schools, with support from Evidence Action's district coordinators in the presence of district-level officials from Departments of Health and Education. These events were covered by the local media.

Figure 2: State level inaugural event for Round 4 in Bihar.

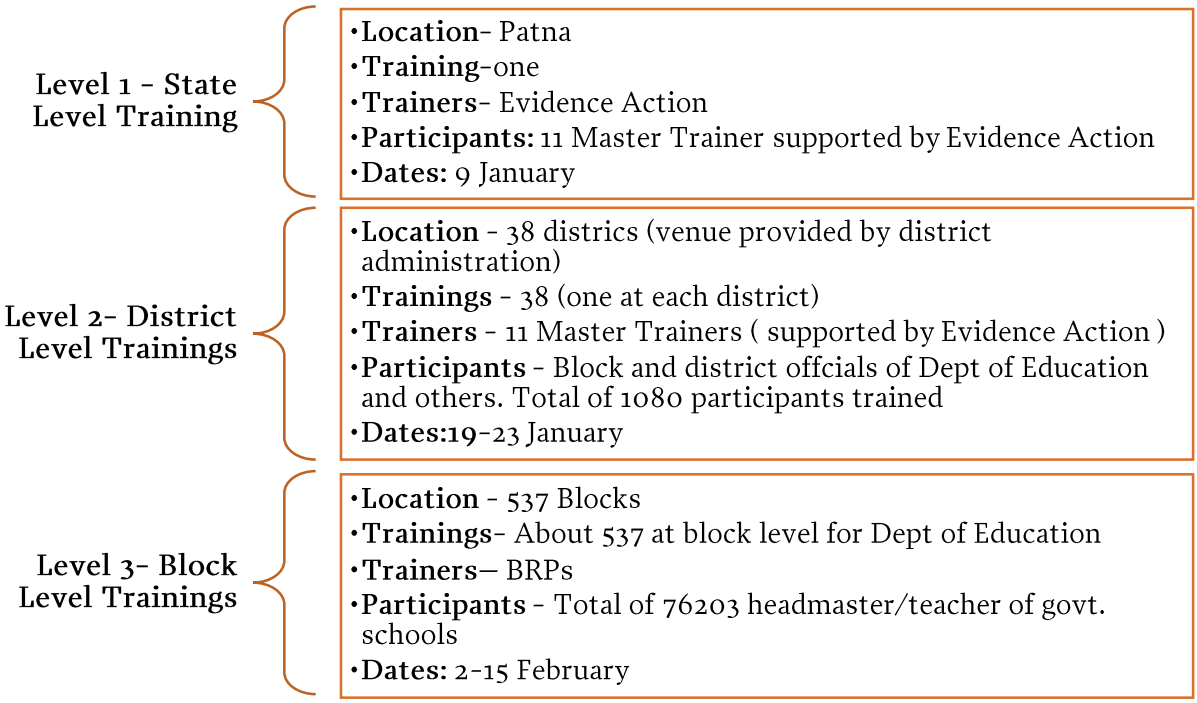
3.8 Training

Training Cascade: The trainings on deworming were conducted as per the cascade, with integrated distribution of kits comprising of drugs, reporting format, and handouts at the block-level. This was in sync with the strategy in the National Deworming Day operational guidelines. Based on advice from Evidence Action, past experience, and established best practices the government departments agreed to schedule trainings closer to the deworming round. All preparations for organizing trainings at block and district were ensured by Bihar Education Project Council. All, except for 3 districts[17], conducted the trainings as per schedule **(Annexure F.1)**. The delay was due to ongoing development of the Program Implementation Plan for 2015-16

Details of participants trained at all levels of cascade are below in Figure 3.

[17] Gaya, Muzaffarpur, and Saran

Figure 3: Training Cascade and Participation



Training Resources: To assure quality and standardization of messages, Evidence Action provided 1100 flipcharts as training aids to the trainers for use at the district and block-level trainings (**Annexure F.2).** These flipcharts were developed and designed with approvals from the concerned government departments and printed by us. Other training resources included 76,000 handouts for teachers and 151,000 reporting formats for schools, which were printed by the Bihar Education Project Council. Keeping in mind integrated distribution of these resources during trainings, Evidence Action supported the bundling of the material as per block requirement, which were then transported to all districts before the trainings commenced. Our districts coordinators played a vital role in ensuring the timely completion of tasks in order to distribute these kits at the block-level trainings.

Training Support and Monitoring: Along with the master trainers who led the district trainings, Evidence Action's district coordinators provided supportive supervision to all 38 district trainings. We conducted pre and post-tests to assess the knowledge gained by participants, details of which is shared below.

In almost all indicators, there was a substantial positive increase in scores from pre-test to post-test. For example, correct dosage of albendazole to be administered to children improved from 55% in pre-test to 95% in post-test. Substantial increase in scores on recording protocols for deworming and mop-up days was found (from 30% to 64% and 27% to 69% respectively) indicating that the training was useful in improving the quality of coverage reporting. District-wise variation in knowledge about recording protocols was also observed, with the districts of Khagaria, Katihar, Saharsha, and Samastipur, scoring less than 50% in post-test on knowledge about correct recording protocols for deworming and mop-up day.

To improve quality at the next level of the cascade based on these findings, 52 out of 537 block-level trainings were identified to receive close support from our district coordinators to reinforce correct messaging to teachers and headmasters.

Training Reinforcement: As per a strategically designed plan by Evidence Action for this round, text messages (SMS) on key program components were sent by the State Health Society Bihar and Bihar Education Project Council from their portals. Approximately 2,148,569 SMSs were sent to total of 98,294 health personnel, including 90,000 ASHAs. We supplemented the government's efforts by disseminating approximately 400,000 SMSs to district and block officials of the Departments of Health and Education, including 75000 teachers. **(Annexure F.3).**

3.9 Highlights of Deworming and Mop-Up Days

Round 4 of the school-based mass deworming program was observed on February 21 in 24 districts, while the remaining 14 districts observed it on February 18. This was followed by a mop-up day on February 26 to reach out to children who did not receive treatment on deworming day due to ill health or absenteeism. **(Annexure G)**

Launch events at the state and at each of the 38 districts was organized with support extended by Evidence Action. These contributed to the larger awareness about the program through media coverage.

4. Monitoring and Evaluation

Evidence Action places great emphasis on understanding the extent to which the schools, as well as the health system is prepared to implement mass scale deworming through a fixed National Deworming Day approach. This includes assessing the extent to which deworming processes are being followed, and the extent to which coverage has occurred as planned. We monitor and evaluate each deworming round in three ways: (1) process monitoring, (2) coverage reporting and (3) coverage validation. Since Bihar observed the fourth round of the school-based deworming program in 14 Lymphatic Filariasis districts on February 18 and remaining 24 districts on February 21, followed by mop-up day in all the districts on February 26, the monitoring at schools in 14 districts were prioritized on February 18 while for others was planned for February 21 and 26.

4.1 Process Monitoring and Coverage Validation

Through a competitive selection process, Evidence Action hired GfK Mode Private Limited as the independent monitoring agency that provided 125 monitors, who conducted monitoring activities of the deworming program across the state. The objective of independent monitoring is to determine whether deworming is being implemented according to planned protocols. Two-stage probability sampling was used to select schools for coverage validation on deworming day and mop-up day. First, 125 blocks were selected from all 38 districts by probability proportional to size sampling[18], followed by random sampling of schools to provide state-wide estimates of indicators. Evidence Action held a detailed training on February 15 and 16 to ensure the monitors were equipped with the necessary knowledge on the deworming

[18]Probability proportional to size sampling (PPS) selected blocks in Bihar, 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.

program to conduct monitoring effectively. The monitors visited the 123 randomly selected schools on deworming day and an additional 124 schools on mop up day to check for adequacy of drug supplies, awareness materials, whether teachers had received training, knowledge of adverse event management protocols, and reporting processes. The monitors gathered data through observation of deworming and interviews of headmasters, teachers, and randomly selected students.

During coverage validation an additional 748 randomly sampled schools were surveyed after deworming days to check whether deworming occurred, if reporting protocols were followed, and to validate the coverage reporting. Coverage validation data was gathered through interviews with headmasters and 3 students (in 3 different randomly selected classes in each school), and by checking of all class registers and reporting forms[19].

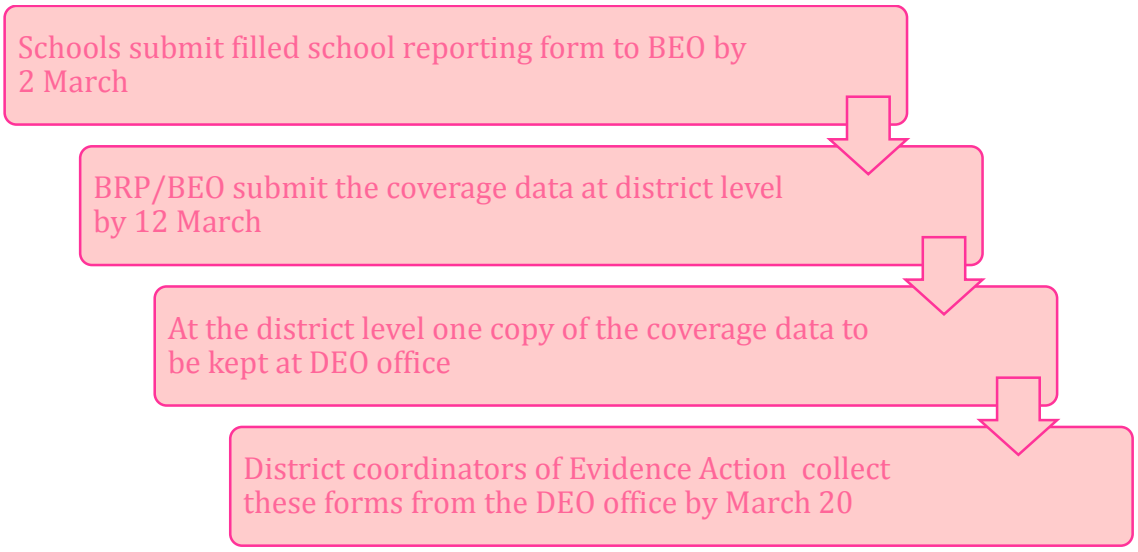
Field Monitoring Visits for Process Monitoring: Our field teams monitored districts and blocks, including physical verification at schools to assess sufficient availability of drugs, availability of IEC materials, and status of training.

Telephone Monitoring and Cross Verification for Process Monitoring: Our tele-callers made approximately 19,567 successful calls[20] made during the period of January to March 2015. These calls were made to 534 blocks across 38 districts to assess preparedness on all program areas. Daily tracking sheets outlining issues arising at districts, blocks, and schools were identified during the process and were shared with the state to assist the government to take real-time corrective action.

Coverage Reporting: A crucial component for understanding the success of program implementation is from the number of beneficiaries that the program reached. With close support from our teams, the State Health Society Bihar and Bihar Education Project Council collected and compiled the coverage report for the round within the reporting timelines in the prescribed reporting format **(Annexure H.1).** Coverage reporting structure and timeline is shown below in Figure 4:

Figure 4: Coverage Reporting Structure and Timeline

[19] Note that the coverage validation is only able to check the coverage of enrolled children in schools.
[20]Successful calls were those calls where the information was collected by tele-caller as per the requirement of the program.



4.2 Key Findings

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

Deworming in Schools: Interviews with headmasters on deworming day, mop-up day, and coverage validation indicated that 92% of schools had done deworming either on deworming day or mop-up day. There was also some district-wise variation, with Araria and Lakhisarai reporting the lowest number (75%) of sampled schools deworming; while Sheikhpura, Vaishali, Begusarai, Bhagalpur, Banka, Buxar, Kaimur, Arwal, and Jamui all sampled schools conducted deworming (Annexure G, Table 9). 89% of enrolled children interviewed on deworming day, mop-up day, or during coverage validation, indicated that they had received a deworming tablet on one of these days. Prima facie, this suggests that deworming occurred in a large percentage of schools (92%) 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 89% (Annexure H.2, Table 11).

Drug Availability: 76% headmasters reported they had sufficient drugs[21] for deworming. This shows that 24% of schools had not received sufficient drugs to carry out deworming of all children enrolled in the school (Annexure H.2, Table 11).

Reporting Forms and IEC Materials: Reporting forms and handouts, which were part of the integrated training and distribution cascade, were not available in 20% and 33% of schools. Posters were distributed later and were reported as being not available in 48% of schools. Of those who had received posters, only 36% of schools had displayed them (Annexure H.2, Table 11 & Table 2). Additionally, 47% of the headmasters interviewed on deworming day and mop-up day were not aware that one copy of the school reporting form is to be retained at the school (Annexure H.2, Table 3). 16% of students interviewed were not aware that the medicine given to them was for deworming (**Annexure H.2**, Table 2). In addition, only 13% had heard about

[21]Sufficient drugs is defined here as availability of drugs in accordance with the total number of children enrolled in the school.

deworming from their parents, while a further 5% had heard about deworming from their friends or relatives, while 5% heard about deworming through television. These findings suggest that new strategies and mediums need to be explored to raise awareness about deworming amongst parents and communities. (**Annexure H.2**, Table 2).

Training Status: Data from deworming day, mop-up day and coverage validation reflect that 14% of the schools did not attend the training for deworming program (Annexure H.2, Table 11). There was significant district variation, with Kishanganj and Araria reporting the lowest percentage (62.5%) to have received training, while all sampled schools (100%) in other districts reported they had received training (Sitamarhi, Siwan, Kaimur and Arwal) (Annexure H.2, Table 9). The primary reasons given by headmaster for non-attendance at training was that they did not know the dates of the training (68% of schools). 67% of headmasters received an SMS related to the deworming program.

Management of Adverse Events: The teacher interviews suggested lack of awareness about the possibility of occurrence of adverse events. 60% of the teachers interviewed on deworming day and mop-up day did not think there could be any adverse events during deworming. Additionally, only 83% of teachers separated out sick children before drug administration, increasing the risk that adverse events might be blamed on deworming rather than on existing illness. In addition, there was limited understanding of how to deal with mild adverse events, with 45% of teachers advocating taking the child to hospital immediately in case of adverse events, rather than following standard adverse event management protocols and assessing the seriousness of the situation before escalation (Annexure H.2, Table 5).

Training Effectiveness: Though data from deworming day, mop-up day, and coverage validation suggests that 86% of schools attended deworming related training, the effectiveness of the training was not reflected in following of the deworming protocols. For example, only 49% of teachers were observed giving any health education on the benefits of deworming at the class, and only 44% talked about how worms might be transmitted **(**Annexure H.2**, Table 1).** The training status indicator **(**Annexure H.2**, Table 10)**, which evaluates the disparity in quality of program in school that were trained and untrained, found that trained schools performed better as compared to non-trained schools on most indicators. For example, trained schools performed significantly better on information about whether reporting forms needed to be submitted for the deworming round, with only 42% of untrained schools were aware that a reporting form needed to be submitted (whereas, 82% of trained schools were aware that a reporting form was to be submitted for deworming). In general, there was also limited awareness around the date of report submission, with both trained and untrained schools generally unaware when the reports needed to be submitted. Only 31% of non-trained schools were aware about the dates for submitting the reporting forms, as compared to trained schools (75%). Untrained schools were also less likely to be aware that they need to refer children immediately to the hospital if there was a serious adverse event occurred, whereas 77% of the trained schools were aware about the serious adverse events and the necessary steps towards managing the adverse event. Finally, as will be discussed in the coverage validation section below, trained schools were also much more accurate in reporting coverage than untrained schools.

Program Coverage: The coverage data indicated that 17,600,122 enrolled children were dewormed in the state during National Deworming Day and mop-up days, against the total enrolled target of 19,335,950 children (as per DISE data). Substantial district-wise variation in

coverage reporting was observed in the state while the lowest coverage reported (around 80%) in the districts of Araria, Kishanganj, and Katihar, and 100% coverage was reported by the districts of Purnia, Sitamarhi, Aurangabad, Lakhisarai, and Jamui.

Recording Protocol and Coverage Validation: Of the schools monitored, only 69% of schools followed correct reporting protocols on deworming and mop-up days. In the schools sampled for coverage validation, we calculated the state-level verification factors, which are commonly calculated for Neglected Tropical Disease control programs around the world. 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 Bihar was found to be 0.81972, indicating that for every 82 enrolled children who were recorded as deworming in the schools, the school reported that 100 enrolled children had been dewormed. This corresponds to an overall 22% inflation of reporting in the state, meaning that reported numbers appear to be approximately 22% higher than the numbers recorded in attendance registers.

Training was found to increase the accuracy of reporting: trained schools had a 22% inflation in reporting, while untrained schools had a 26% inflation in reporting. There was also some evidence of district-wise variation in verification factors, with Darbhanga, Jamui and Sheohar indicating significant over-reporting of coverage; while Saharsa, Gopalganj, Sitamarhi and Siwan indicated significant under-reporting (Annexure H.2, Table 8).

5. 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 for successful program implementation and to prevent gaps and delays. Of particular importance are IEC, training, drug logistics, and adverse event management related preparedness.

1. Findings suggest a need for greater focus on integrated distribution during training in the next round to ensure that sufficient drugs and other materials reach schools before deworming day. This requires efficient planning for the integrated training and distribution cascade to ensure that it works effectively.
2. Need for intensive efforts towards building community awareness for deworming program and its benefits. For instance, targeting parents through community-based ASHA and anganwadi workers will be critical for increasing coverage of non-enrolled children and raising community awareness about the benefits of deworming. Incentivizing ASHAs as per the National Deworming Day guidelines will be a motivating factor towards this activity.
3. Findings from training attendance suggest that quality and coverage can be improved in future rounds by ensuring that sessions are planned earlier and greater emphasis is placed on communicating training dates in advance. In addition to reinforcing key messages after training sessions are conducted, SMSs may be useful for informing functionaries about the training dates, thereby maximizing participation. Improving attendance at trainings will likely benefit on the distribution cascade as well, since drugs and 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 during the training will improve the quality of coverage data in the next round.

6. Key Challenges and Successes

The ambiguous schedule of Lymphatic Filariasis mass drug administration in Bihar was a challenge to align with, so as to avoid any duplication of deworming efforts for the 6-19 age group. Considering the time constraint, it was crucial to ensure that districts were communicated to and that they complied with the decisions on mass drug administration. Going forward, there is a need to promote integration and communications between these two programs to minimize any such overlap. Delay in printing of posters and the delays in approvals hindered their timely distribution to schools, as indicated in the findings. Effective planning to ensure that distribution with trainings is key to maximizing reach to schools on a single day.

The success of the program is evident from the high coverage in this round of school-based deworming. This has been the highest in comparison to previous three rounds. The commitment from the national level gave the right momentum to the program in the state under the guidance of the Department of Health. Implementation of new strategies in the state, such as bulk messaging to frontline workers, has allowed for a sustainable and faster means to reach the last mile. The same will be further strengthened going forward.

7. WAY FORWARD

With the inclusion of Department of Women and Child Development under the revised Memorandum of Understanding, the program has now expanded to cater to preschool-age children from the next round of deworming. Aligned to the National Deworming Day operational guidelines, efforts will be coordinated to support the new stakeholder more intensively in the initial phase, while drawing from experiences from previous rounds in the state. As the program has achieved significant coverage for enrolled children in schools, moving forward the strategies will focus on impacting scale through coverage of out-of-school children, and devising strategies for reaching children in private schools. Sustaining the pace of program will require continued advocacy efforts to also ensure inclusion of committed resources for deworming under the state's Annual Program Implementation Plan.

8. Annexures

Attached as separate files:

Annexure A: Common Reporting Form Submitted by Bihar to Government of India dated April 13, 2015
Annexure B: Extension of Memorandum of Understanding in Bihar
Annexure C.1: Meeting Minutes of State Steering Committee Meeting Dated December 19, 2014
Annexure C.2: Letter from Department of Education to Districts for 1146 schools
Annexure C.3: Letter from Department of Health to Districts for Holding DCCM Meetings and Ensure Sufficiency of Albendazole
Annexure D.1: WHO Requisition Submitted by Department of Health under Global Drug Donation Program

Annexure D.2: Letter Issued for Testing of Albendazole by Department of Health
Annexure D.3: Letter Issued by State Health Society Bihar to Districts for Drugs Logistics and Supply
Annexure D.4: Adverse Event Protocols Issued to Districts
Annexure E.1: Details of Mass Media Mix in the State
Annexure E.2: Newspaper Advertisement on Deworming Day
Annexure E.3: Photograph of Community Awareness Activities in School
Annexure E.4: Photographs of Mike Announcement Supported by Evidence Action
Annexure E.4: Photos of State and District-level Launch
Annexure F.1: Table Showing District-level Training Schedule
Annexure F.2: Photos from Trainings
Annexure F.2: Training Resources
Annexure F.3: Training Reinforcement through Messages
Annexure G: Photos from Deworming and Mop-up Day
Annexure H.1: School Reporting Form
Annexure H.2: Key Results from Independent Monitoring
Annexure H.3: Definition

Evidence Action's technical assistance in Bihar was made possible with support from the Children's Investment Fund Foundation.

Annexure A: Common Reporting Form Submitted by Bihar to Government of Bihar Dated April 13, 2015

राज्य स्वास्थ्य समिति, बिहार
An ISO 9001:2008 Certified Agency

पत्रांक : SHSB/GA/1375/2015/2421

राहुल कुमार, भा.प्र.से
अपर कार्यपालक निदेशक

सेवा में,

Dr. Sila Deb,
Deputy Commissioner (Child Health),
Ministry of Health & Family Welfare,
New, Delhi

पटना, दिनांक : 13/04/2015

विषय : विद्यालय आधारित डिवर्मिंग कार्यक्रम के चौथे चरण का प्रतिवेदन प्रेषित करने के संबंध।

संदर्भ : डॉ0 शिला देव, स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार से प्राप्त Email.

महाशया,

उपर्युक्त विषयक सूचित करना है कि राज्य स्वास्थ्य समिति (बिहार), बिहार शिक्षा परियोजना परिषद्, पटना (BEPC), विश्व स्वास्थ्य संगठन एवं डिवर्म द वर्ल्ड के संयुक्त तत्वाधान में विद्यालय आधारित डिवर्मिंग कार्यक्रम का चौथा चरण दिनांक 21 फरवरी, 2015 (डिवर्मिंग दिवस) एवं दिनांक 26 फरवरी, 2015 (मॉप अप दिवस) को सफलतापूर्वक सम्पन्न किया गया।

अतः उक्त के आलोक में राज्य स्तर पर प्रतिवेदन संकलित कर प्रेषित किया जा रहा है।

विश्वासभाजन,
13/4/15
(राहुल कुमार)

COMMON REPORTING FORMAT (For Sub Centre, PHC, Block, District, State)

Please fill in all the details below and write 'NA' whenever it is not applicable.

State	**BIHAR**	District	**38**
Block**537**	Sub Centre	Village	**45098**
Number of schoolsa in the Block/District/State	**71326**	Number of Schools reported in the block/District/State	**71198**
Number of Aganwadi centres in the Block/District/State	N/A	Number of AganwadiCentres reported in the block/District/State	N/A
Number of ASHA's trained on Deworming		N/A	
Number of teachers/Principals trained on Deworming		**76203**	
Number of Aganwadi workers Trained on deworming		N/A	

Albandazole Coverage

	Girls	Boys	Total
Total number of children (1-19 years) in State/Block/sub centre (as applicable)	**10293820**	**10144395**	**(A) 20438215**
Total number of children enrolled in the schools	**10293820**	**10144395**	**20438215**
Total number of children registered in Aganwadis			
No. of enrolled children (class 1st to 5th) who were administered Albendazole on NDD and MUD			(1)
No. of enrolled children (class 6st to 12th) who were administered Albendazole on NDD and MUD	**8837933**	**8762189**	**(2)17600122**
No. of registered children (age group 1-5 years) who were administered Albendazole on NDD and MUD			(3)
No. of unregistered children (age group 1-5 years) who were administered Albendazole on NDD and MUD			(4)
No. of out of school children (age group 6-10 years) who were administered Albendazole on NDD and MUD			(5)
No. of out of school adolescents (age group 6-19 years) who were administered Albendazole on NDD and MUD	**575443**	**542619**	**11,18,062**
GRAND TOTAL of number of children and adolescents who were administered Albendazole (B = 1+2+3+4+5+6)	(B)1,87,18,184		
Percent coverage	(B) X 100/ (A)=**91.6%**		
Number of adverse events reported from all schools and AganwadiCenters (in prescribed format)	20		

Logistic Details

Total No. of Albendazole tablets given to the Sub-center/Block/District/State(pls. tick which is applicable)	**21702300**
Total No. of Albendazole tablets administered at the sub-centre/Block/District/State (Total of NDD and MUD)	**20494050**
Stock of Albendazole tablets left at sub-center /Block/District/State	**1200000**
Feedback from the sub-certer /Block/District/State(if any)	

Dr M K Sinha SPO SHSB
(Name and Signature of the Signatory)
(ANM/MO-BHPC/DISTRICT OFFICER/STATE OFFICER)

You may call up the State Programme officer (Name **Dr M K Sinha SPO SHSB**/Phone **09473197725**) for any assistance required

Government schools, Government added Schools and Ashram Shalas in the State.
Submit to _____ (as per the timelines, see annexure)

S. No	District Name	Count of Block	Total No. of Block submitted FORM B	Total Enrollment As Per DISE data	ACTUAL ENROLLMENT : Sum of Total Enrollment	Sum of Total Number of Schools	Total school Submitted Form S	Total Number of teacher attended training	Total no. of enrolled students administered Albendazole	Non-enrolled children administered Albendazole	Adult given pills	% Based on DISE enrollment covered	% based on Actual enrollment Reported covered	Total Children administered drug	Drugs Distributed to BEO office	Drugs remaining at BEO office (include returning drug also)
26	PATNA	23	23	733468	773622	3335	3335	3417	6,44,323	26984	87803	87.85%	83.29%	6,71,307	812600	5300
27	CHAMPARAN	27	27	1005199	1101642	3302	3298	3674	9,66,809	89414	311570	96.18%	87.76%	10,56,223	1455500	87707
28	PURNIA	14	14	620594	683211	2257	2257	3019	6,23,135	36012	31614	100.41%	91.21%	6,59,147	725200	34439
29	ROHTAS	19	19	529053	543455	2125	2125	2087	4,55,351	26248	52672	86.07%	83.79%	4,81,599	550300	16029
30	SAHARSA	10	10	401537	430492	1280	1280	1424	3,50,949	22277	14937	87.40%	81.52%	3,73,226	400000	11837
31	SAMASTIPU	20	20	825545	825545	2567	2650	3349	722287	67706	109855	87.49%	87.49%	7,89,993	989000	89152
32	SARAN	20	20	735398	797738	2524	2520	2500	7,14,547	120672	94727	97.16%	89.57%	8,35,219	935500	5554
33	SHEIKHPURA	6	6	114569	137127	499	499	488	1,06,351	7101	8558	92.83%	77.56%	1,13,452	129000	6990
34	SHEOHAR	5	5	121101	131790	426	426	426	1,12,590	7086	7224	92.97%	85.43%	1,19,676	132000	3859
35	SITAMARHI	17	17	631989	721045	2097	2097	2097	6,34,908	21572	28254	100.46%	88.05%	6,56,480	718900	34166
36	SIWAN	19	19	595360	597059	2125	2125	2135	5,45,421	39694	38064	91.61%	91.35%	5,85,115	825900	202721
37	SUPAUL	11	11	453364	458212	1753	1746	1804	3,95,036	16452	25036	87.13%	86.21%	4,11,488	438500	1976
38	VAISHALI	16	16	613192	609051	2083	2083	2033	5,17,390	35414	55988	84.38%	84.95%	5,52,804	649800	48452
	Total	**537**	**537**	**19335950**	**20381177**	**71,326**	**71,198**	**76,203**	**1,76,49,921**	**12,03,343**	**17,75,866**	**91.28%**	**86.60%**	**1,88,53,264**	**21702300**	**1159487**

District Name	Count of Block	Total No. of Block submitted FORM B	Total Enrollment As Per DISE data	ACTUAL ENROLLMENT : Sum of Total Enrollment	Sum of Total Number of Schools	Total school Submitted Form S	Total Number of teacher attended training	Total no. of enrolled students administered Albendazole	Non-enrolled children administered Albendazole	Adult given pills	% Based on DISE enrollment covered	% based on Actual enrollment Reported covered	Total Children administered drug
ARARIA	9	9	561435	522673	1976	1976	1867	4,47,250	43567	49459	79.66%	85.57%	4,90,817
ARWAL	5	5	146159	150122	538	538	538	1,28,715	7136	8072	88.07%	85.74%	1,35,851
AURANGABAD (BIHAR)	11	11	515353	559822	2121	2121	2121	5,19,981	13032	10396	100.90%	92.88%	5,33,013
BANKA	11	11	400128	409349	2054	2049	2636	3,62,040	23775	27248	90.48%	88.44%	3,85,815
BEGUSARAI	18	18	577317	577317	1542	1542	2536	496826	105212	25979	86.06%	86.06%	6,02,038
BHAGALPUR	17	17	541992	541992	1854	1852	2176	4,77,679	25183	29695	88.13%	88.13%	5,02,862
BHOJPUR	14	14	478813	506249	2017	2010	2010	4,52,842	31500	43474	94.58%	89.45%	4,84,342
BUXAR	11	11	339476	362519	1186	1184	1184	2,82,737	14538	20525	83.29%	77.99%	2,97,275
DARBHANG	19	19	698639	725957	2470	2444	2496	6,20,958	32624	61461	88.88%	85.54%	6,53,582
GAYA	25	25	776575	829487	3137	3137	3116	684795	30276	44841	88.18%	82.56%	7,15,071
GOPALGANJ	14	14	460697	512049	1785	1785	2235	4,45,009	29616	31056	96.59%	86.91%	4,74,625
JAMUI	10	10	376217	430012	1717	1705	1742	408279	9903	46113	108.52%	94.95%	4,18,182
JEHANABAD	7	7	215354	220730	900	900	900	2,07,884	19010	7918	96.53%	94.18%	2,26,894
KAIMUR	11	11	309716	351955	1216	1216	1216	2,94,826	21035	26905	95.19%	83.77%	3,15,861
KATIHAR	16	16	635148	645420	1941	1939	1941	5,13,148	37595	77313	80.79%	79.51%	5,50,743
KHAGARIA	7	7	348458	363186	1065	1062	1065	3,00,191	22270	35372	86.15%	82.65%	3,22,461
KISHANGAN	7	7	385315	377758	1577	1570	1609	3,10,359	26998	48595	80.55%	82.16%	3,37,357
LAKHISARAI	7	7	191603	220569	777	777	777	1,99,037	7989	12890	103.88%	90.24%	2,07,026
MADHEPUR	13	13	448712	480657	1486	1486	1514	4,00,706	14546	26307	89.30%	83.37%	4,15,252
MADHUBAN	21	21	896359	916243	2959	2864	2864	8,02,761	37496	93139	89.56%	87.61%	8,40,257
MUNGER	9	9	242188	267457	1123	1097	1170	2,06,846	18354	17241	85.41%	77.34%	2,25,200
MUZAFFARP	16	16	838381	887281	3041	3033	3320	771064	28437	35121	91.97%	86.90%	7,99,501
NALANDA	20	20	469389	488145	2185	2184	2431	4,10,102	22985	36146	87.37%	84.01%	4,33,087
NAWADA	14	14	399707	468157	1693	1693	1693	4,22,954	21509	23648	105.82%	90.34%	4,44,463
PAMPARA	18	18	702450	756082	2593	2593	2593	6,93,835	42125	70650	98.77%	91.77%	7,35,960

Annexure B: Extension of Memorandum of Understanding in Bihar

राज्य स्वास्थ्य समिति, बिहार

An ISO 9001:2008 Certified Agency

पत्रांकः—SHSB/Misc/28/10/Part -2/4100

राहुल कुमार, भा.प्र.से
अपर कार्यपालक निदेशक

सेवा में,

प्रधान सचिव, स्वास्थ्य विभाग, बिहार सरकार,
प्रधान सचिव, शिक्षा विभाग, बिहार सरकार,
सचिव, समाज कल्याण विभाग, बिहार सरकार,
सुश्री प्रिया झा, राष्ट्रीय निदेशक, ईवीडेन्स एक्शन डिवर्म द वर्ल्ड इनिसिएटिव, नई दिल्ली

पटना, दिनांक : 18 / 06 / 2015

विषय : डिवर्मिंग कार्यक्रम के सफल संचालन हेतु हस्ताक्षरित MOU प्रेषण के संबंध में।

महाशय / महाशया,

उपर्युक्त विषय के सम्बंध में सूचित करना है कि नेशनल डिवर्मिंग कार्यक्रम के अंतर्गत बिहार राज्य में डिवर्मिंग कार्यक्रम के संचालन हेतु स्वास्थ्य विभाग, शिक्षा विभाग, समाज कल्याण विभाग एवं ईवीडेन्स एक्शन डिवर्म द वर्ल्ड इनीसिएटिव के साथ MOU (Memorandum of understanding) हस्ताक्षर हो चुका है, जिसकी समय–सीमा 30 सितम्बर 2018 निर्धारित है।

उक्त MOU की प्रति सादर सूचनार्थ एवं आवश्यक कार्यवाई हेतु प्रेषित की जा रही है।

अनुलग्नकः **यथोक्त।**

विश्वासभाजन,

18.06.15

(राहुल कुमार)

(75.

REVISION AND RENEWAL OF MEMORANDUM OF UNDERSTANDING

The Memorandum of Understanding (MOU) Extension Agreement (herein after referred to as the "MOU Extension") is made and entered into this ..24..... Day of May, 2015, by and in among

STATE HEALTH SOCIETY, BIHAR
(DEPARTMENT OF HEALTH, GOVERNMENT OF BIHAR),

BIHAR EDUCATION PROJECT COUNCIL
(DEPARTMENT OF EDUCATION, GOVERNMENT OF BIHAR),

INTEGRATED CHILD DEVELOPMENT SERVICES (ICDS), GOVERNMENT OF BIHAR and

EVIDENCE ACTION- DEWORM THE WORLD INITIATIVE; a coalition of organizations led by Evidence Action and represented in India by Action Foundation for Social Services,

FOR

BIHAR ANGANWADI AND SCHOOL BASED MASS DEWORMING PROGRAMME

1. Parties to this agreement:

The parties entering this Memorandum of Understanding (MOU) are State Health Society Bihar (SHSB), Bihar Education Project Council (BEPC), Integrated Child Development Sevices (ICDS), Government of Bihar and Evidence Action – Deworm the World Initiative.

For the purpose of this agreement SHSB Department of Health, BEPC Department of Education, ICDS and Evidence Action- Deworm the World Initiative shall be referred to in this document as the 'parties'. The parties wish to document the terms and conditions of this partnership by this written agreement.

And, each agreeing to be bound by the terms and conditions of this MOU Revision and Renewal. The parties agree as follows:

2. Aims and purposes:

PRIOR MOU: The above mentioned parties, excluding ICDS Department, Government of Bihar had executed a MOU dated 5th March 2010 with a term of five years commencing on 5th March 2010 and expiring on 5th March 2015. The MOU was signed with the purpose of implementing the Bihar School Based Deworming Programme to treat at risk school age children for soil-transmitted helminths (intestinal parasitic worms). Further to the signing of the MOU, all parties have coordinated well and effectively implemented four annual rounds of school based deworming (first round from February through April 2011, second round in September 2012, third round in January 2014 and fourth round in February 2015). Since the period of prior MoU has expired, hence the present MoU is thus necessitated to implement the said programme further:

Annexure C.1: Meeting Minutes of State Steering Committee Meeting Dated December 19, 2014

Minutes of the State School Health Coordination Committee meeting, Bihar held on 19th Dec 2014 at State Institute of Health and Family Welfare Patna

Participants

- Shri Brijesh Mehrotra (IAS) Principal Secretary- Department of Health and Family Welfare
- Shri Anand Kishore (IAS) Secretary cum ED SHSB – Department of Health and Family Welfare
- Shri Rahul Kumar (IAS) AED SHSB- Department of Health and Family Welfare
- Dr. M K Sinha State Program Officer SHSB
- Dr. Chandrashekhar Deputy Director, Filaria
- Dr. M K Sharma SPO Vector Borne disease cell
- Dr. Y N Pathak SPO RKSK
- Shri Bharat Bhushan State Statistical Officer- Bihar Education Project Council -
- Representatives from Women and Child development Department
- Representatives from Department of PHED
- Representatives from Department of Social welfare administration
- Representatives from Human Resource Development Department
- Representatives from World Health Organization, Bihar
- Dr. S S Mahapatra Adolescent Health Specialist UNFPA Bihar
- Dr. Shivani Dar Nutrition Officer UNICEF Bihar
- Ms Priya Jha (Country Director), Mr. Diganka r Mukherjee (State Program Manager Bihar), Ms.Esha Kalra (Program Manager), Ms. Ranjana Pandey (State Program Coordinator, Bihar) and Mr. Rajeev Ranjan (Finance & Admin Associate, Bihar)- Evidence Action Deworm the World Initiative

Discussion details:

- Principal Secretary- Health, initiated the discussion by inviting Deworm the World Initiative to brief on the previous rounds of Deworming Program in the state.
- Deworm the World Initiative presented PowerPoint presentation on the Bihar Mass School Based Deworming Program sharing key findings from the previous Deworming rounds in the state. Key lessons learnt from the last round and the way forward for the program was also shared and discussed.
    - The Principal Secretary raised a query on the difference between Drug Administration and the actual drug consumption data. In a response to that Deworm the World shared that the data is based on the coverage reports received from all schools. Additionally Deworm the World Initiative made following provisions in the last round to ensure the quality of data received from schools:
        - During Round-3 dated 23rd and 28th January 2014, DtWI hired 125 independent monitors through a reputed agency to conduct an evaluation of deworming day and mop-up day implementation across the state.
        - The objective of independent monitoring is to determine whether the deworming day and mop-up day implementation is taking place as per the plan or not. Another objective is assess the quality of coverage data reporting from schools.
        - Of the total 537 blocks, 100 blocks were covered by independent monitoring. The findings of data generated by independent monitors were found to be similar as compared to the finding from aggregated coverage data from all schools. Hence, it can be considered as the actual consumption of the drugs.

- Data on Coverage reporting from Round 3 also included gender disaggregated coverage of girls and boys. When compared with gender disaggregated school enrolment data from Education department, it reflected that enrolment of girls in the government/ government aided schools is more than that of boys.
- Principal Secretary advised this data to be cross checked in terms of gender disaggregation as this finding has never been discussed in any other meeting. Deworm the World will clarify with the Education department and share.

- Principal Secretary advised the SHSB officials to finalize content on School health programs to be included in the school books and also in ready reference book which is under process of development containing all program information intervened in community through AWW or ASHA. Deworming, sanitation and hygiene messages must form part of routine prevention strategies as they are simple to do and easy to understand.
- Principal Secretary was further apprised that training materials for School Based Deworming Training cascade will be updated and shared by Deworm the World Initiative.
- Deworm the World also shared information from the tele calling unit. Principal Secretary reiterated the importance of using SMS For reporting and disseminating information. This includes sending weekly SMS to all principals and also to the community at large for their mobilization. Information on Adverse Event protocols and other key information need to be sent through the SMSs. The Principal Secretary directed that same to be disseminated through the existing government platforms (Health department coordinates for the same). ED SHS mentioned that CUG SIM will be issued to approx. 1 lakh ASHAs in the coming month and will be issued to disseminate these messages on Deworming and other health programmes.
  - The Principal Secretary approved and advised that SMSs on information regarding the meeting and reiterating the timely sharing of minutes be also sent for the districts coordination committees.
- Deworm the World also shared the idea of exploring SMSs as a reporting platform along with the paper format so that timely reports are received to have preliminary information on coverage.
- Principal Secretary and ED SHSB showed concern about the children who are neglected and drop outs, such as brick kiln workers, those living near railway stations and construction sites. They advised to reach this hard-to- reach population also to be covered during the Deworming Day/ Mop up day and strategies to be developed through using ASHA workers and ANMs.
- Deworm the World Initiative shared time line for renewal of the MoU. And inclusion of ICDS to cover preschool children for mass deworming program. The Principal Secretary acknowledge the need for renewal of MoU by 5 years along with inclusion of ICDS for extending deworming services to pre-school children as well. He gave a go-ahead to Deworm the World Initiative for further sharing of the draft with his office and the same to be moved on file on priority.
- Principal Secretary Health suggested the integration of the School Based Mass Deworming Round 4 with the Lymphatic Filariasis (LF) program in the state. The dates finalized for the Deworming Day is 21st February 2015 and Mop-Up Day will take place

on 26th February 2015. The same was agreed upon by all present including key officials looking after the LF program and School health program.

- The Principal Secretary asked for the School based Deworming to cover all children between 6 and 19 years in the school. All other populations will be given Albandazole and DEC on the said date as MDA for LF. In this way whole populations will be covered and school age children will be ensured of higher coverage and compliance as they are administered at school under supervision of their teachers.
- Discussion on including ICDS in the deworming program was also held in detail. The Principal Secretary was not assured of different instructions to AWW for administering deworming drug for 1- 2 year old and 2 year and above at the AWC. He confirmed that as part of LF program children between 2 year to 5 year are given Albendazole and DEC, ***this year too on Feb 21st they will be administered the same***. For children under 2 year guidance form health department Government of India shall be sought. The ICDS department however will be included in the MOU renewal process.
- IEC activities and community awareness were discussed as one of the major program components for making the program a success and for reaching higher number of children in and out of school. ED considered that expenses of printing of Poster, Radio Appeal and News Paper appeal will be borne by SHSB as was done in previous round. Deworm the world will share the prototypes and plan for same.
- Principal Secretary suggested SPO Dr. M K Sinha to initiate involvement of VHSND for community mobilization activity on Deworming day. The ANMs, ASHAs and AWWs will disseminate information about the program in their VHSND meetings in January and February and a letter to this effect must be sent to the Health department- all CMOs/ CS to include as part of monthly meetings at district and block level.
- The drug requirement for the round on 21st will be covered easily by the stocks available under LF as they are lying at the districts and will be easier to transport to the blocks and schools.
- For effective management of Adverse Event Activity engagement of ANM and ASHA along with AWW is recommended and instructed by Principal Secretary Health and availability of ORS at ASHA and AWC is to be assured by All MoI/Cs.
- It was also decided that engagement with the district administration is more actively needed. Executive Director, SHSB will send letter to all District magistrates to organize/initiate District coordination meeting as to facilitate better convergence between Health and Education departments at their level.
- Deworm the World Initiative also proposed the need to conduct a Prevalence survey for STH mapping in the state in Jan 2015 to measure impact after completion of 3 rounds of Deworming. It was clarified that all expenses for the program will be borne by the Deworm the World Initiative and approvals for the survey will be needed from Health Department. The Principal Secretary approved the same and asked for sharing the letter on file at the earliest. Further coordination with Education department will be facilitated at the state level between the concerned partners.
- As Decision making authority from Education department were not present hence it was decided that BEPC will undertake responsibilities which they agreed upon in last round-3 (School Based Mass Deworming Program 2014).

- The Principal Secretary also approved that the Nodal officers of the concerned departments will meet further to discuss specific plans and strategies and keep the officials informed.

The meeting was adjourned thanking all present.

Sincerely Yours,
Sd/-
(Rahul Kumar)
Additional Executive Director

Copy To:

- Shri Brijesh Mehrotra (IAS) Principal Secretary- Department of Health and Family Welfare
- Shri Anand Kishore (IAS) Secretary cum ED SHSB - Department of Health and Family Welfare
- Shri Rahul Kumar (IAS) AED SHSB- Department of Health and Family Welfare
- Dr. M K Sinha State Program Officer SHSB
- Dr. Chandrashekhar, Deputy Director, Filaria
- Dr. M K Sharma SPO Vector Borne disease cell
- Dr. Y N Pathak SPO RKSK
- Shri Bharat Bhushan State Statistical Officer- Bihar Education Project Council
- Representatives from Women and Child development Department
- Representatives from Department of PHED
- Representatives from Department of Social welfare administration
- Representatives from Human Resource Development Department
- Representatives from World Health Organization, Bihar
- Dr. S S Mahapatra Adolescent Health Specialist UNFPA Bihar
- Dr. Shivani Dar Nutrition Officer UNICEF Bihar
- Ms Priya Jha (Country Director), Mr. Dipankar Mukherjee (State Program Manager Bihar), Ms.Esha Kalra (Program Manager), Ms. Ranjana Pandey (State Program Coordinator, Bihar) and Mr. Rajeev Ranjan (Finance & Admin Associate, Bihar)- Evidence Action Deworm the World Initiative for Kind Information.

Additional Executive Director

Annexure C.2: Letter from Department of Education to Districts for 1146 Schools

बिहार सरकार
शिक्षा विभाग,
पत्रांक 35 (वि॰ अनु॰ क्रो॰)

प्रेषक,

आर. के. महाजन, भा.प्र.से.
प्रधान सचिव,
शिक्षा विभाग, बिहार, पटना।
विकास भवन, पटना–800015

सेवा में,

सभी जिला शिक्षा पदाधिकारी,
बिहार।

पटना, दिनांक : 19 / 02 / 2015

विषय : बिहार विद्यालय परीक्षा समिति, द्वारा दिनांक– 18 फरवरी 2015 से 3 मार्च 2015 तक परीक्षा आयोजित होने के कारण विद्यालय आधारित कृमी मुक्ति कार्यक्रम के अंतर्गत प्रस्तावित दिनांक 21 फरवरी, 2015 (डिवर्मिंग दिवस) एवं दिनांक–26 फरवरी, 2015 (मॉप अप दिवस) के स्थान पर 1146 विद्यालयों में दिनांक–10 मार्च 2015 (डिवर्मिंग दिवस) एवं दिनांक–13 मार्च, 2015 को (मॉप अप दिवस) किये जाने संबध में।

महाशय/महाशया,

उपर्युक्त विषय के सम्बन्ध में कहना है कि राज्य स्वास्थ्य समिति (बिहार), बिहार शिक्षा परियोजना परिषद्, पटना (BEPC), एवं डिवर्म द वर्ल्ड के संयुक्त तत्वाधान में विद्यालय आधारित डिवर्मिंग कार्यक्रम का चौथा चरण दिनांक– 21 फरवरी, 2014 (डिवर्मिंग दिवस) एवं दिनांक–26 फरवरी, 2014 (मॉप अप दिवस) को प्रस्तावित है। उक्त दिवस पर इस कार्यक्रम के अंतर्गत 6–19 वर्ष के सभी सरकारी एवं गैर–सरकारी स्कूली बच्चों को अलबेंडाजोल (400 mg) की गोली खिलाकर कृमि–मुक्त किया जाना है।

उल्लेखनीय है कि बिहार विद्यालय परीक्षा समिति द्वारा दिनांक– 18 फरवरी 2015 से 3 मार्च 2015 को आयोजित परीक्षा के कारण परीक्षा केन्द्र वाले 1146 विद्यालयों (सूची संलग्न) में डिवर्मिंग के अंतर्गत प्रस्तावित कार्यक्रम दिनांक– 21 फरवरी, 2015 (डिवर्मिंग दिवस) एवं दिनांक– 26 फरवरी, 2015 (मॉप अप दिवस) के स्थान पर दिनांक 10 मार्च 2015 (डिवर्मिंग दिवस) एवं दिनांक– 13 मार्च, 2015 (मॉप अप दिवस) को निर्धारित किया गया है।

अनुरोध है कि परीक्षा केन्द्र वाले विद्यालयों के प्रधान एवं सभी सम्बन्धितों को इस परिवर्त्तन की सूचना देते हुए नई तिथि पर कार्यक्रम पूर्ण करायेंगे। शेष विद्यालयों में यह कार्यक्रम पूर्ववत् होगा। कार्यक्रम की पूरी सफलता सुनिश्चित कराते हुए इसका प्रतिवेदन ससमय भेजेंगे।

विश्वासभाजन,
13/2/15
(आर. के. महाजन)
प्रधान सचिव

ज्ञापांक : 35 (वि॰ अनु॰ क्रो॰) पटना, दिनांक : 19 / 02 / 2015
प्रतिलिपि : प्रधान सचिव, स्वास्थ्य एवं परिवार कल्याण, बिहार, पटना/कार्यपालक निदेशक, राज्य [illegible] पटना/राज्य परियोजना निदेशक, बिहार शिक्षा परियोजना परिषद,

Annexure C.3: Letter from Department of Health to Districts for Holding DCCM Meetings and Ensure Sufficiency of Albendazole

राज्य स्वास्थ्य समिति, बिहार
An ISO 9001:2008 Certified Agency

पत्रांक:–SHSB/Misc/28/10/Part I/...240

राहुल कुमार, भा.प्र.से
अपर कार्यपालक निदेशक

सेवा में,

सभी सिविल सर्जन,
बिहार

पटना, **दिनांक :** ...12.../**01/2015**

विषय : विद्यालय आधारित डिवर्मिंग कार्यक्रम का चौथा चरण दिनांक 21 फरवरी, 2015 (डिवर्मिंग डे) एवं दिनांक 26 फरवरी, 2015 (मॉप अप डे) हेतु अलबेंडाजोल (400 mg) की गोली तथा जिला तथा प्रखण्ड स्तरीय स्कूल स्वास्थ्य समन्वय समिति की बैठक माह फरवरी 2015 के प्रथम सप्ताह में आयोजिन करने के संबंध में।

महाशय/महाशया,

उपर्युक्त विषयक कहना है कि विद्यालय अधारित डिवर्मिंग कार्यक्रम के तहत राज्य स्वास्थ्य समिति, बिहार, बिहार शिक्षा परियोजना परिषद्, पटना (BEPC), विश्व स्वास्थ्य संगठन एवं डिवर्म द वर्ल्ड के संयुक्त तत्वाधान में उक्त कार्यक्रम का चौथा चरण दिनांक 21 फरवरी, 2015 (डिवर्मिंग डे) एवं दिनांक 26 फरवरी, 2015 (मॉप अप डे) को प्रस्तावित है। इस कार्यक्रम के अंतर्गत सरकारी एवं गैर–सरकारी स्कूली बच्चों को अलबेंडाजोल (400 mg) की खिलाई जानी है । साथ ही डी0ई0सी0 गोलियाँ पूर्व निर्धारित डोज के अनुसार दी जानी है ।

विद्यालय आधारित डिवर्मिंग कार्यक्रम हेतु जिलावार अलबेंडाजोल (400mg) की गोलियाँ आवश्यकता के अनुसार उपलब्ध करायी गई है । इस संबंध में आप सभी को यह निदेशित है कि आपके क्षेत्राधिकार के अंतर्गत आने वाले सरकारी/गैर सरकारी विद्यालयों में अलबेंडाजोल (400 mg) एवं डी0ई0सी0 की गोली की उपलब्धता एक पखवारे के अंदर सुनिश्चित कराते हुए राज्य स्वास्थ्य समिति को सूचित करेंगे । उक्त कार्यक्रम की सूचना सभी VHSND के माध्यम से जन मानस में प्रचारित/प्रसारित करने हेतु सम्बंधित कर्मियों (MoI/C, ANM, ASHA) को ससमय प्रेषित करना सुनिश्चित करेंगें।

साथ ही निदेशित करना है कि उक्त डिवर्मिंग डे एवं मॉप अप डे पर डिवर्मिंग कार्यक्रम को सम्पन्न करने हेतु जिला तथा प्रखण्ड स्तरीय स्कूल स्वास्थ्य समन्वय समिति की बैठक माह फरवरी 2015 के प्रथम सप्ताह में आयोजित कराना सुनिश्चित करेगें, जिसमें शिक्षा एवं अन्य विभाग के प्रतिनिधि भी सम्मिलित हों तथा बैठक की कार्यवाई प्रतिवेदन राज्य स्वास्थ्य समिति, बिहार, पटना को उपलब्ध कराना सुनिश्चित करेगें।

विश्वासभाजन,
ह०/–
(राहुल कुमार)

अनुलग्नक : यथोक्त

ज्ञापांक : 240 पटना, **दिनांक** : 12/01/2015

प्रतिलिपि : प्रधान सचिव, स्वास्थ्य एवं परिवार कल्याण, बिहार, पटना को सादर सूचनार्थ समर्पित।
प्रतिलिपि : राज्य परियोजना निदेशक, बिहार शिक्षा परियोजना परिषद्, पटना को सूचनार्थ समर्पित।
प्रतिलिपि : सभी जिला पदाधिकारी, बिहार को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।
प्रतिलिपि : क्षेत्रिय उपनिदेशक बिहार, पटना को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।
प्रतिलिपि : उपनिदेशक/सहायक निदेशक, फाईलेरिया नियंत्रण कार्यक्रम, बिहार, पटना को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।
प्रतिलिपि : अधीक्षक, राज्य स्वास्थ्य भंडार, गुलजारबाग, पटना को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।
प्रतिलिपि : प्रभारी बिहार, विश्व स्वास्थ्य संगठन, बिहार पटना को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।
प्रतिलिपि : सभी जिला शिक्षा पदाधिकारी, बिहार को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।
प्रतिलिपि : सभी जिला फाईलेरिया पदाधिकारी, बिहार को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।
प्रतिलिपि : कार्यक्रम प्रबंधक, बिहार, डिवर्म द वर्ल्ड को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।

अपर कार्यपालक निदेशक

Annexure D.1: WHO Requisition Submitted by Department of Health under Global Drug Donation Program

STATE HEALTH SOCIETY, BIHAR
राज्य स्वास्थ्य समिति, बिहार
परिवार कल्याण भवन, शेखपुरा, पटना - 800 014
Pariwar Kalyan Bhawan, Sheikhpura, Patna- 800 014,
Tel : 0612-2290340, 2281545, Fax: 2290322, website: www.statehealthsocietybihar.org

File No: - SHSB/Misc/28/10/Part I/.....834

Sanjay Kumar Singh, IAS
Secretary, Health-cum-
Executive Director

To,

The World Health Organization
India Country Office, New Delhi.

Patna, **Dated: -....6.../02/2014**

Sub: **Supply of Albendazole tablets for mass deworming program in 2014**
Ref: *letter no.* F.DtWI/Bihar/2013-14/46 *Dated: 17.01.14 of Deworm the World*

Dear Sir,

The government of Bihar has successfully carried out School-based Mass Deworming Program in 2012, with drug donation support from WHO. A similar program is proposed to be held in the month of November, 2014. The Government of Bihar would appreciate if WHO donates Albendazole for the program scheduled in November 2014.

There would be a requirement of 2, 56, 00,000 tablets for the said round, if supplied in packs of 200 tablets. As per the requirement, the duly signed drug requisition form is enclosed herewith for your kind perusal and further action.

You may contact the undersigned, or representatives from our technical partner Deworm the World Initiative (DtWI) at Evidence Action for any further queries.

Looking forward to your cooperation.

Sincerely Yours,

06/02/14

(Sanjay Kumar Singh)

Encl.: As above

World Health Organization

The current version should be used in countries **endemic only** for **STH**

Joint request for selected PC medicines

The **World Health Organization (WHO)** manages the supply of **albendazole** 400 mg tablets (GSK) to national lymphatic

Country	Bihar, India	Year	2014

Number of tablets

Please select the medicine	Number of tablets				Total number of bottles	
	Required	In stock	In pipeline	Requested	Required	Requested
Albendazole for STH (SAC)	2,56,00,000	0		2,56,00,000	1,28,000	1,28,000
Mebendazole (SAC)		0		0	0	0
	0	0		0	0	0
	0	0		0	0	0
	0	0		0	0	0
	0	0		0	0	0

Number of people to be treated with donated medicine (see User Guide for details)

Please select disease		Round 1	Round 2
Soil-transmitted helminthiases	These figures are estimated only for targeted age groups to be treated with donated medicines in areas where treatment for specific disease is required	2,56,00,000	

Information on person(s) who has filled in the form **see note*

Title	Name	Phone	Email	Date
Other	Shri Sanjay Kumar Singh, Executive Director, State Health Society, Bihar	0612-2290328	ed_shs@yahoo.co.in	06.02.2014

*** NOTE: Who should fill in the form?**

such a coordinator, specific programme managers should coordinate their respective part. The final single request must be

Name and signature of NTD coordinator or Ministry of Health representative

Sanj 06/02/14

Date:

☐

Joint request for selected PC medicines

Country	Bihar, India	Year	2014

Information on planned PC interventions

Please select the medicine	Please select a date (M&Y) for		Please select a date (M&Y) for	
Albendazole for STH (SAC)	November	2014		

Information on shipment and consignee

Albendazole for STH (SAC)	Consignee	Delivery point / Final recipient
Name	Dr. Surendra Prasad, Director in Chief, Health Services	World Health Organization
Department/Unit	Health Department	The Superintendent, State Health Medical Store
Organization	Govt. of Bihar	Govt. of Bihar
Phone	9835406749	
Fax		
E-mail	surendra.directorinchief@gmail.com	
Mailing address	New Secretariat, Vikash Bhawan, Patna	Gulzarbagh, Patna - 800007

	Consignee	Delivery point / Final recipient
Name		
Department/Unit		
Organization		
Phone		
Fax		
E-mail		
Mailing address		

	Consignee	Delivery point / Final recipient
Name		
Department/Unit		
Organization		
Phone		
Fax		
E-mail		
Mailing address		

Additional information

Annexure D.2: Letter Issued for Testing of Albendazole by Department of Health

राज्य स्वास्थ्य समिति, बिहार
An ISO 9001:2008 Certified Agency

पत्रांक:–SHSB/Misc/28/10/Part I/...238

राहुल कुमार, भा.प्र.से
अपर कार्यपालक निदेशक

सेवा में,

अधीक्षक,
राज्य स्वास्थ्य भंडार,
गुलजारबाग, पटना, बिहार

पटना, दिनांक : ...12.../01/2015

विषय : विश्व स्वास्थ्य संगठन (WHO) के द्वारा डिवर्मिंग कार्यक्रम हेतु उपलब्ध कराये जा रहे अलबेंडाजोल (400mg) की गोलियों की प्राप्ति, भंडारण एवं गुणवत्ता जाँच कराने के संबंध में।

महाशय,

विदित है कि राज्य स्वास्थ्य समिति (बिहार), बिहार शिक्षा परियोजना परिषद्, पटना (BEPC), विश्व स्वास्थ्य संगठन एवं डिवर्म द वर्ल्ड के संयुक्त तत्वाधान में विद्यालय आधारित डिवर्मिंग कार्यक्रम का चौथा चरण दिनांक 21 फरवरी, 2014 (डिवर्मिंग डे) एवं दिनांक 26 फरवरी, 2014 (मॉप अप डे) को प्रस्तावित है। इस कार्यक्रम के अंतर्गत सरकारी एवं गैर–सरकारी स्कूली बच्चों को अलबेंडाजोल (400 mg) की गोली प्रदान करने हेतु WHO द्वारा कुल 3,00,49,021 (तीन करोड़ उन्चास हजार इक्कीस) अलबेंडाजोल (400 mg) की गोलियाँ उपलब्ध करायी जा रही है, जिनकी प्राप्ति, भंडारण एवं गुणवत्ता जाँच अधीक्षक, राज्य स्वास्थ्य भंडार, गुलजारबाग, पटना द्वारा कराया जाना है ।

WHO के द्वारा उपलब्ध कराये जा रहे अलबेंडाजोल (400 mg) की गोलियों की गुणवत्ता जाँच कराने हेतु अलबेंडाजोल गोलियों के प्रत्येक बैच में से 200 Tab सील बॉक्स बनाकर कार्यक्रम प्रबंधक, बिहार, डिवर्म द वर्ल्ड को प्राप्ति के उपरांत शीघ्र उपलब्ध करायेगें । साथ ही कृत कार्यवाई की सूचना राज्य स्वास्थ्य समिति, बिहार को कराना सुनिश्चित करेगें, ताकि अग्रेतर कार्यवाई की जा सके।

विश्वासभाजन,

12/01/15

(राहुल कुमार)

Annexure D.3: Letter Issued by State Health Society Bihar to Districts for Drugs Logistics and Supply

राज्य स्वास्थ्य समिति, बिहार
An ISO 9001:2008 Certified Agency

पत्रांक : SHSB/Misc/28/10/Part I/687

डॉ0 महेश कुमार सिन्हा
राज्य कार्यक्रम पदाधिकारी

सेवा में,
सभी सिविल सर्जन, बिहार

पटना, दिनांक : 02/02/2015

विषय : विद्यालय आधारित डिवर्मिंग कार्यक्रम का चौथा चरण दिनांक 21 फरवरी, 2015 (डिवर्मिंग डे) एवं दिनांक 26 फरवरी, 2015 (मॉप अप डे) हेतु राज्य स्वास्थ्य भंडार, गुलजारबाग, पटना से अलबेंडाजोल (400 mg) की गोली का उठाव एवं वितरण करने के संबंध में ।

महाशय/महाशया,

विदित है कि राज्य स्वास्थ्य समिति (बिहार), बिहार शिक्षा परियोजना परिषद्, पटना (BEPC), विश्व स्वास्थ्य संगठन एवं डिवर्म द वर्ल्ड के संयुक्त तत्वाधान में विद्यालय आधारित डिवर्मिंग कार्यक्रम का चौथा चरण दिनांक 21 फरवरी, 2014 (डिवर्मिंग डे) एवं दिनांक 26 फरवरी, 2014 (मॉप अप डे) को प्रस्तावित है। इस कार्यक्रम के अतर्गत सरकारी एवं गैर–सरकारी स्कूली बच्चों को अलबेंडाजोल (400 mg) की गोली खिलाए जाने हेतु WHO द्वारा उचित मात्रा में उपलब्ध करायी गई है, जिसका भंडारण राज्य स्वास्थ्य भंडार, गुलजारबाग, पटना में कराया गया है ।

विद्यालय आधारित डिवर्मिंग कार्यक्रम हेतु जिलावार अलबेंडाजोल (400 mg) की गोली की आवश्यकतानुसार सूची भेजी जा चुकी है। सूचीनुसार अलबेंडाजोल (400 mg) की गोली का उठाव तीन दिनों के अदर राज्य स्वास्थ्य भंडार, गुलजारबाग, पटना से करना सुनिश्चित करेगें। उक्त दवा का उठाव एवं वितरण सामान्य दवाओं के उठाव के साथ ही किया जाना है।

साथ ही निदेशानुसार जिलास्तरीय एवं प्रखण्ड स्तरीय समन्वय समिति गठित कर कृत कारवाई की शीघ्र सूचना Email ID: maheshksinhashsb@gmail.com पर भेजना सुनिश्चित करेगें।

निदेश का अनुपालन समय–सीमा के अंदर करेगें ।

अनुलग्नक : यथोक्त

विश्वासभाजन,

02/02/15
(डॉ0 महेश कुमार सिन्हा)

Annexure D.4: Adverse Event Protocols Issued to Districts

राज्य स्वास्थ्य समिति, बिहार
An ISO 9001:2008 Certified Agency

पत्रांक : SHSB/Misc/28/10/Part I/...945

राहुल कुमार, भा.प्र.से
अपर कार्यपालक निदेशक

सेवा में,

सभी सिविल सर्जन
बिहार

पटना, दिनांक : 11 / 02 / 2015

विषय: राष्ट्रीय डिवर्मिंग दिवस का आयोजन 21 फरवरी 2015 को किये जाने पर प्रतिकुल घटना के प्रबंधन हेतु दिशा निर्देश।

महाशय,

उपर्युक्त विषयक निर्देशानुसार बिहार राज्य में राष्ट्रीय डिवर्मिंग दिवस का आयोजन दिनाक 21 फरवरी 2015 को किया जाना प्रस्तावित है। उक्त दिवस पर इस कार्यक्रम के अंतर्गत सरकारी एवं गैर–सरकारी स्कूली बच्चों को अलबेंडाजोल (400 mg) की गोली खिलाकर कृमि मुक्त किया जाना है।

इस कार्यक्रम का उद्देश्य समस्त सरकारी/सरकारी अनुदान प्राप्त स्कूलों के माध्यम से समस्त 6–19 वर्षीय बच्चों को कृमि मुक्ति हेतु एल्बेन्डाजॉल (400 mg) गोली खिलाना सुनिश्चित कराना है। जिससे बच्चों के संपूर्ण स्वास्थ्य एवं पोषण स्तर, आयरन की कमी की रोकथाम से बौद्धिक विकास तथा विद्यालयों में उपस्थिति में सुधार हो सकें।

सरकारी विद्यालयों में किसी भी प्रकार की प्रतिकूल घटना का प्रबंधन सुनिश्चित किये जाने हेतु प्रतिकूल घटना के प्रबंधन संबंधी निर्देशिका (**Adverse Event Protocol**) एवं रिपोर्टिंग प्रपत्र संलग्न है।

संलग्नः यथोक्त।

विश्वासभाजन,

11/2/15

(राहुल कुमार)

(941)

अनुलग्नक–अ

विद्यालय अधारित डिवर्मिंग कार्यक्रम के अन्तर्गत प्रतिकूल घटनाओं का प्रबंधन

1. कार्यक्रम के पूर्व की तैयारीः– समस्त स्वास्थ्य केन्द्रों, उप स्वास्थ्य केन्द्रों में निम्नानुसार औषधियो की उपलब्धता सुनिश्चित होः–
   i. ORS Packets (विद्यालय एवं आशा के पास भी उपलब्धता सुनिश्चित करें)
   ii. Tab. Mangesium Hydroxide + Almuninium Hydroxide (500 mg+250 mg) / Suspenstion (625 mg +312 mg/5ml)
   iii. Tab. Chlorpheniramine maleate (4 mg)
   iv. Tab. Cetrizine (10mg)
   v. Tab. Dicyclomine (10 mg)
   vi. Tab. Domperidone (10/20 mg) / Susp. Domperidone (1 mg /ml)
   vii. Tab. Paracetamol (250 / 500 mg.) / Syp. Paracetamol (125 mg/ 5ml)
2. प्रतिकूल घटनाओं की सूचना प्रणालीः–'
   - सभी बच्चों (6–19 वर्ष) तक कृमि मृक्ति अलबेन्डाजोल (400mg) गोली सर्वथा निगरानी में दी जाए ताकि प्रतिकूल घटना की संभावना कम हो।
   - ग्राम स्तर पर कृमि मृक्ति अलबेन्डाजोल (400mg) गोली खिलाने पर आपातकालीन स्थिति के निराकरण की संपूर्ण प्रणाली तैयार हो।
   - 6–19 वर्ष के विद्यालय जाने वाले बच्चों में कृमि मृक्ति अलबेन्डाजोल (400mg) गोली का सेवन विद्यालय पर किया जाएगा, अतः आशा कार्यकर्त्ता/ए.एन.एम. द्वारा प्रतिकूल घटना के विषय में परामर्श दी जाए। गृह भ्रमण के दौरान इस विषय में जानकारी प्राप्त की जाए।
   - 6–19 वर्ष से बच्चों के अभिभावकों द्वारा कोई भी गंभीर प्रतिकूल लक्षण होने पर उल्लेखित 102 एवं 108 के दूरभाष नम्बर पर डायल कर आपातकालीन परिवहन व्यवस्था प्राप्त की जा सकती है।
   - समस्त स्वास्थ्य उपकेन्द्रों पर उपरोक्तानुसार दवा की उपलब्धा हो।
   - आपातकालीन स्थिति में निकटतम स्वास्थ्य केन्द्र के प्रभारी चिकित्सा पदाधिकारी का मोबाईल नम्बर स्वास्थ्य केन्द्रों, सरकारी विद्यालय के दीवार पर अंकित हो तथा प्रधानाध्यापक/हेडमास्टर के पास उपलब्ध हो।
   - मामूली लक्षण होने पर उपचार के साथ–साथ परामर्श भी दी जाए कि यह लक्षण गंभीर नहीं है तथा स्वतः ही यह कम हो जाते है।

प्रतिकूल घटना की सूचना प्रवाह निम्नानुसार की जाए:–

आशा/ए.एन.एम./स्वास्थ्य कार्यकर्ता → प्रभारी चिकित्सा पदाधिकारी → जिला नोडल पदधिकारी, चिकित्सा सेवा तथा सिविल सर्जन एवं राज्य कार्यक्रम पदधिकारी तथा अपर कार्यपालक निदेशक, राष्ट्रीय स्वास्थ्य मिशन।

मामूली एवं गंभीर प्रतिकूल घटना प्रोटोकॉल:–

कृमि मुक्ति दवा के सेवन से कुछ बच्चों में जी मचलना, उल्टी, हल्का पेट दर्द या थकान के लक्षण प्रकट हो सकते हैं। यह लक्षण मामूली एवं अस्थाई होते हैं तथा आमतौर पर इनके ईलाज के लिए अस्पताल ले जाने की आवश्यकता नही है।

विद्यालय में अलबेन्डाजोल (400mg) गोली खिलाने के पश्चात मामूली प्रतिकूल लक्षण होने पर निम्नानुसार कार्यवाही की जाए:–

- ✓ पीड़ित बच्चे को छायादार, खुली एवं समतल जगह पर लिटाकर आराम करायें।
- ✓ उसे पीने को साफ पानी दें तथा ओ0आर0एस0 का घोल तुरंत बनाकर पिलायें।
- ✓ आशा/ए.एन.एम/स्वास्थ्य कार्यकर्त्ता तथा चिकित्सा पदाधिकारी एवं बच्चे के अभिभावकों को सूचित करें।
- ✓ प्राथमिक उपचार तथा परामर्श के बाद 2 घंटे तक बच्चें को निगरानी में रखें।

मामूली एवं गंभीर प्रतिकूल घटना के दौरान मूलभूत उपचार हेतु संदर्भ तालिका:–

क्र.सं.	लक्षण	दवा	खुराक
1	चक्कर या घबराहट होना	Reduced Osmolarity Solution (ORS)	1 लीटर साफ पानी में 1 पैकेट ओ0आर0एस0 डालकर अच्छी तरह मिलायें एवं पीड़ित बच्चों को बार–बार पिलायें।
2	पेट में जलन या शरीर में खुजली होना	Tab. Magnesium Hydroxide + Aluminium Hydroxide (500 mg + 250 mg) / Suspension (625 mg +312 mg / 5 ml)	6–10 वर्ष के बच्चों को आधा गोली दें तथा 10 वर्ष के उपर के बच्चें को 1 गोली चबाकर खाने को बोलें।
3	दाने, चकत्ते या फिर खुजली होना	Tab. Chlorpheniramine maleate (4mg) or Tab. Cetrizine (10 mg)	6–10 वर्ष के बच्चों को आधी गोली तथा 10 वर्ष के उपर के बच्चें को 1 गोली खाने को बोलें।
4	उल्टी	Tab. Domperidone (10/20 mg) / Susp. Domperidone (1mg/ml)	6–10 वर्ष के बच्चों को 10 मि.ग्रा. की आधी गोली तथा 10 वर्ष के उपर के बच्चों को 20 मि.ग्रा. की 1 गोली खाने को बोलें।
5	पेट दर्द	Tab. Dicyclomine (10 mg)	6–10 वर्ष के बच्चों को आधी गोली तथा 10 वर्ष के उपर के बच्चें को 1 गोली खाने को बोलें।

गंभीर प्रतिकूल घटना प्रोटोकॉल

- गंभीर प्रतिकूल घटना होने पर सर्वप्रथम प्रभावित बच्चे को दूसरे बच्चों से अलग रखें। कृमि नियंत्रण गतिविधि को अस्थाई विराम दें।
- बिना घबराए बाकि समस्त बच्चों को धैर्य रखने हेतु परामर्श दें।
- निकटतम अस्पताल के हेल्पलाईन नंबर से तुरंत सम्पर्क करें एवं सूचना प्रवाह प्रणाली का उपयोग करें।
- चिकित्सक से दूरभाष पर उचित परामर्श प्राप्त करें तथा इमरजेन्सी रेस्पॉन्स टीम के आने तक प्राथमिक उपचार प्रारंभ करे।
- कॉल सेन्टर के माध्यम से आपातकालीन परिवहन हेतु 102 / 108 को तत्काल बुलायें।
- बच्चे के अभिभावक को तुरंत सूचित करें।

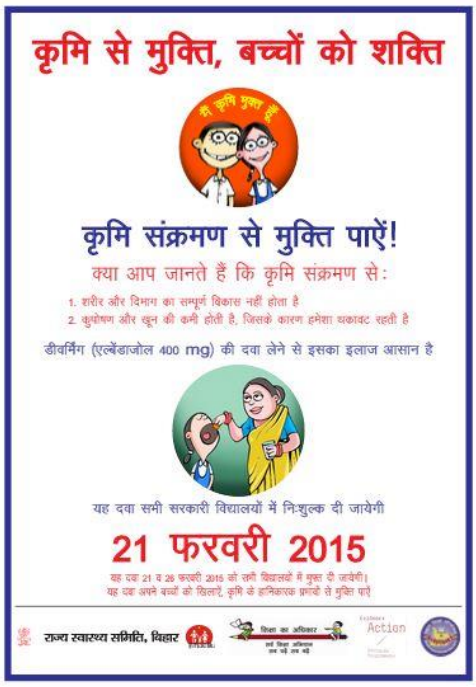
मीडिया से चर्चा

- मीडिया से चर्चा हेतु स्वास्थ्य विभाग की ओर से केवल निम्न अधिकारियों को मनोनित किया जाता है। प्रखंड स्तर पर, प्रभारी चिकित्सा पदाधिकारी, जिला स्तर पर जिला नोडल पदाधिकारी, चिकित्सा सेवाएँ बिहार एवं अरसैनिक शल्य चिकित्सा सह मुख्य चिकित्सा पदाधिकारी, राज्य स्तर पर राज्य कार्यक्रम पदाधिकारी एवं अपर कार्यपालक निदेशक, राज्य स्वास्थ्य समिति, बिहार।
- किसी भी परिस्थिति में अन्य पदाधिकारियों / कर्मचारियों द्वारा प्रतिकूल घटना हेतु अभिमत नहीं किया जाए।
- विभागीय प्रवक्ता का दायित्व होगा कि मिडिया को सही जानकारी उपलब्ध कराये जिससे सामुहिक दवा प्रदायगी बाधित न हों।
- मिडिया के बातचीत पूर्व प्रतिकूल घटना की संपूर्ण जानकारी प्राप्त की जाए।

Annexure E.1: Details of Mass Media Mix in the State

IEC Activities Undertaken	Details	Implementation by
Newspaper Advertisement	- printing (4 leading National dailies – Dainik Jagran,Hindustan,Prabhat Khabar and Rastriya Sahara)	SHSB
Radio Appeal	-Dissemination on AIR from 15th to 26th February 2015	SHSB
Posters for Schools (2 types)	513,625 Printing (7 posters per schools)	SHSB
Banner for PHC	1068 (Two per block)	SHSB
Hoarding for District Headquarter	38	SHSB
Miking	188 for 5 days in all the 38 districts	Evidence Action

Sample of Posters printed by State Health



Sample of Banner for Primary Health Centers

Sample of Hoarding for District Headquarter

Annexure E.2: Newspaper Advertisement on Deworming Day

Annexure E.3: Photographs of Community Awareness Activities in School

Prabhat Pheri in Gaya

Prabhat Pheri in Arwal

Annexure E.4: Photographs of Mike announcement supported by Evidence Action

Miking in Darbhanga

Miking in Kaimur

Annexure E.4: Photos of State and District-level Launch

State Level Launch in Patna

District level launch in East Chanparan

Annexure F.1: Table Showing District-level Training Schedule

S.No.	District	Training Date Status	No. Of Blocks	Total No. Of BRP Present	Other Participant(DEO,EFE,BEO,DPO,DSI,DPM,CS,DIO,MOIC)	Total No. Of Participant
1	PURNIA	19-Jan-15	14	16	2	18
2	SAHARSA	19-Jan-15	10	22	0	22
3	BEGUSARAI	19-Jan-15	18	25	0	25
4	MUNGER	19-Jan-15	9	14	0	14
5	SAMASTIPUR	19-Jan-15	20	43	3	46
6	PATNA	19-Jan-15	24	40	7	47
7	KISHANGANJ	20-Jan-15	7	34	2	36
8	SUPAUL	20-Jan-15	11	14	0	14
9	KAIMUR (BHABUA)	20-Jan-15	11	17	0	17
10	KHAGARIA	20-Jan-15	7	10	0	10
11	LAKHISARAI	20-Jan-15	7	21	0	21
12	ARWAL	20-Jan-15	5	13	5	18
13	NALANDA	20-Jan-15	20	41	0	41
14	ARARIA	21-Jan-15	9	20	3	23
15	PURBA CHAMPARAN	21-Jan-15	27	52	3	55
16	SHEOHAR	21-Jan-15	5	11	0	11
17	SIWAN	21-Jan-15	19	46	1	47
18	DARBHANGA	21-Jan-15	19	44	0	44
19	SHEIKHPURA	21-Jan-15	6	17	0	17
20	AURANGABAD (BIHAR)	21-Jan-15	11	11	0	11
21	BHAGALPUR	22-Jan-15	17	30	0	30
22	KATIHAR	22-Jan-15	16	34	3	37
23	GOPALGANJ	22-Jan-15	14	25	0	25
24	PASHCHIM CHAMPARAN	22-Jan-15	18	24	0	24
25	VAISHALI	22-Jan-15	16	29	9	38
26	JAMUI	22-Jan-15	10	17	1	18
27	MADHUBANI	22-Jan-15	21	41	7	48
28	BHOJPUR	22-Jan-15	14	25	4	29
29	BUXAR	22-Jan-15	11	17	5	22
30	JEHANABAD	22-Jan-15	7	17	2	19
31	BANKA	23-Jan-15	11	18	0	18
32	MADHEPURA	23-Jan-15	13	18	1	19
33	SITAMARHI	23-Jan-15	17	45	2	47

34	NAWADA	23-Jan-15	14	29	0	29
35	ROHTAS	23-Jan-15	19	37	1	38
36	GAYA	28-Jan-15	24	66	1	67
37	MUZAFFARPUR	30-Jan-15	16	0	0	0
38	SARAN	29-Jan-15	20	35	0	35

Annexure F.2: Photos from Trainings

District level training Patna

District level training Patna

District level training Vaishali

Annexure F.2: Training Resources

Flipchart for Block level training

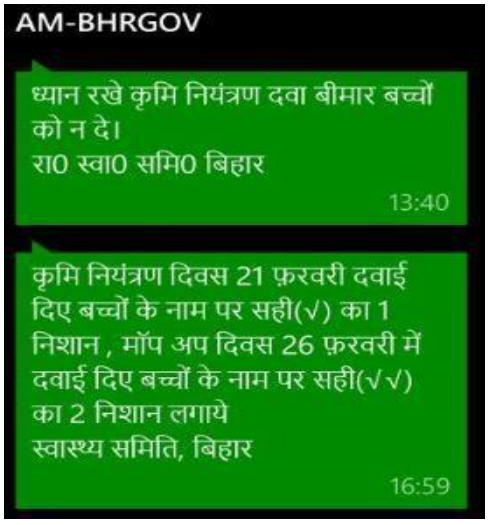
Handouts for Headmaster/School

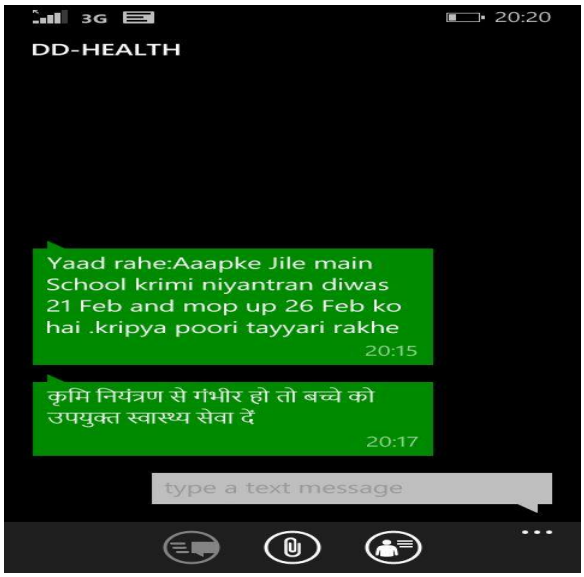
Handout-Front

Handout-Back

Annexure F.3: Training Reinforcement through Messages

Sample of SMS





Sample of SMS plan

SMS for Deworming

Schedule Day (Preferably evening time around 4-5PM)	Theme/ Key Message	Messages		Intended Audience	Language preference	No. of Target Audience (Total no. of respective audience)	
		Hinglish Message (upto 160 characters)	*Hindi* messages (upto 70 characters)				
	Timeline for Submission of Report						
Day 6 and 7		Sunishchit kare ki Sabhi Nodal pradhanadhyapak BEO karyalay ko Form S prapatr 2 March 2015 tak jama Karain		HM		(School Teacher/Head Master	total - 75000
Day 11 and 16		Sunishchit kare ki Sabhi BEO, 12 March 2015 tak FORM B DEO karyalay main jama karain		BEO		Head Master+BRP	534
Day 25		Sunishchit kare ki Sabhi DEO karyalaly, 20 March 2015 tak FORM D bharkar Deworm the world ke coordinators ko hastantarit karain		DEO, DPO, EFE , DC+RC -DtWI		DEO, DPO, EFE , DC+RC -DtWI	156
27-02-2015	Thank you message	Krimi niyantran karyakram ko safal banane me apke yogdan ke liye dhanyawad!	कृमि नियंत्रण कार्यक्रम को सफल बनाने में आपके योगदान के लिए धन्यवाद !	All Stakeholders (Education,Health)		DEO + BEO + BRP +School Teacher/Head Master) + (CS +ACS + MOIC +HSC + ASHA	total - 177782

SMS for Deworming

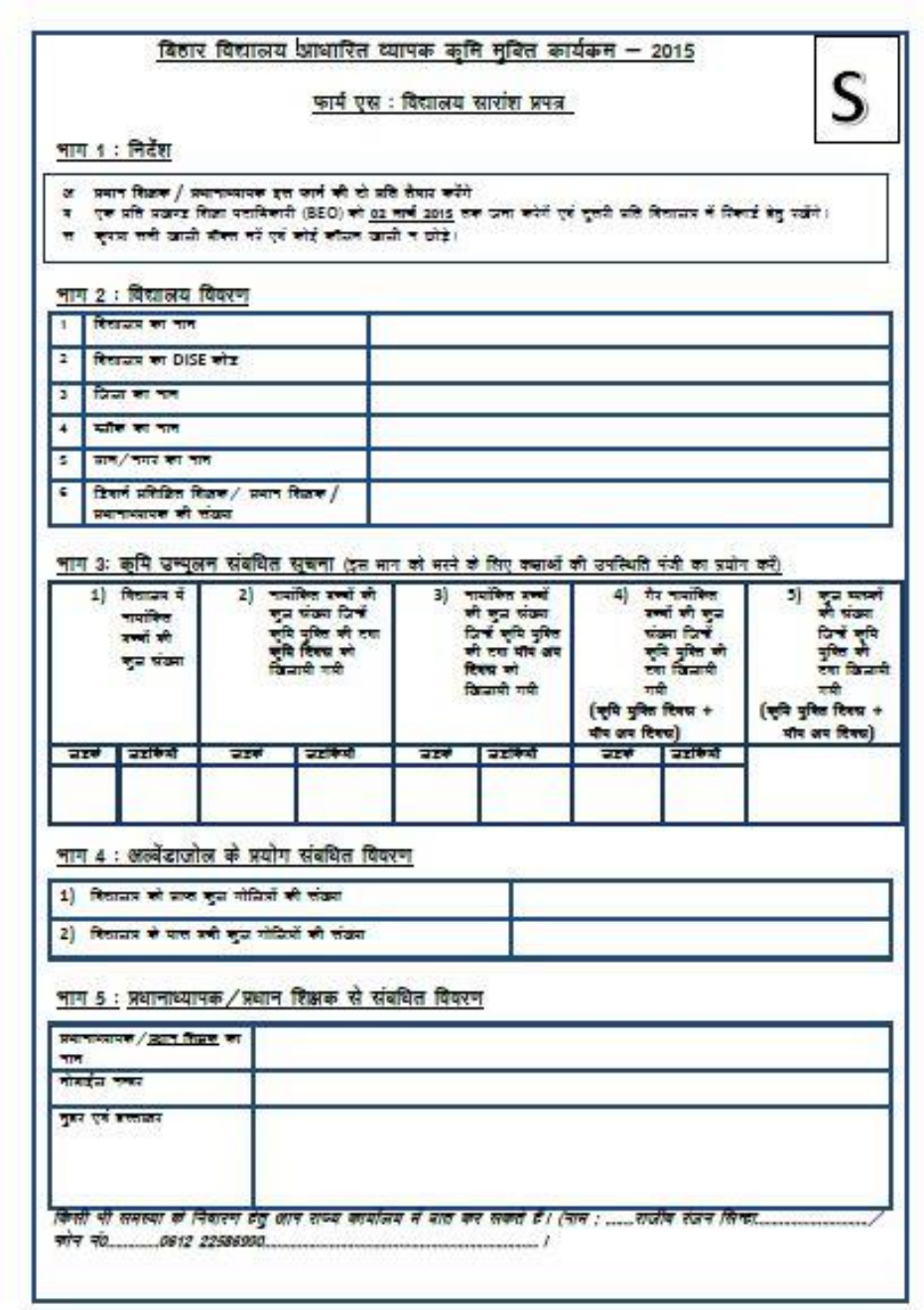
Scheduled Week	Schedule Day (Preferably evening time around 4-5PM)	Theme/ Key Message	Messages		Intended Audience	Language preference	No. of Target Audience (Total no. of respective audience)	
			Hinglish Message (upto 160 characters)	*Hindi* messages (upto 70 characters)				
	Day-10 (10 days before deworming day	**Dates of Deworming Day, Mop Up Day**	Krimi niyantran diwas schoolon me 21&26 Feb ko hai.Sunishchit kare ki Adverse Event Protocol ki jankari aur tayari ke nirdesh de diye gaye ho		CS+DPM+MOIC		CS+DPM+MOIC	total - 610
	Day -9	**Dates of Deworming Day,Mop Up Day and Deworming Week**	Yaad rahe-Krimi niyantran diwas 21 Feb, mop up diwas 26 Feb ko hai. Isme sabhi Namnkit ,gair namankit bachon,vyasko ko krimi niyantran dawai deni		Education Deptt : (DEO+EFE+BEO+BRP+School Teacher+Head Master)		(DEO + BEEO + BRP +School Teacher/Head Master)	total - 77210
			Yaad rahe:Aaapke Jile main School krimi niyantran diwas 21 Feb & mop up 26 Feb ko hai .kripya poori tayyari rakhe		Health Dept: CS+MOIC+PHC+CHC+HSC+ANM+ASHA		CS + MOIC +HSC + ASHA	total - 100572
	Day -8	**Availability of: 1. Handouts 2. Drugs**	Sunishchit kare ki apke school me krimi niyantran dawai,reporting form,handout	ध्यान दें:कृमि नियंत्रण दवा,रिपोर्टिंग	School HM+Teacher		School Teacher/Head	total - 75000

Annexure G: Photos from Deworming and Mop-up Day

Deworming in School-District Nalanda

Deworming in School-District Vaishali

Annexure H.1: School Reporting Form



बिहार विद्यालय आधारित व्यापक कृमि ग्रसित कार्यक्रम – 2015

S

फार्म एस : विद्यालय सारांश प्रपत्र

भाग 1 : निर्देश

अ प्रधान शिक्षक / प्रधानाध्यापक इस फार्म की दो प्रति तैयार करेंगे
ब एक प्रति सत्यापित शिक्षा पदाधिकारी (BEO) को 02 मार्च 2015 तक जमा करेंगे एवं दूसरी प्रति विद्यालय में रिकार्ड हेतु रखेंगे।
स कृपया सभी खाली कॉलम भरें एवं कोई कॉलम खाली न छोड़ें।

भाग 2 : विद्यालय विवरण

1	विद्यालय का नाम	
2	विद्यालय का DISE कोड	
3	जिला का नाम	
4	ब्लॉक का नाम	
5	गाम/नगर का नाम	
6	शिक्षार्थ प्रतिष्ठित शिक्षक / प्रधान शिक्षक / प्रधानाध्यापक की संख्या	

भाग 3: कृमि उन्मूलन संबंधित सूचना (इस भाग को भरने के लिए कक्षाओं की उपस्थिति पंजी का प्रयोग करें)

1) विद्यालय में नामांकित बच्चों की कुल संख्या		2) नामांकित बच्चों की कुल संख्या जिन्हें कृमि ग्रसित की दवा कृमि दिवस को खिलायी गयी		3) नामांकित बच्चों की कुल संख्या जिन्हें कृमि ग्रसित की दवा भीम आप दिवस को खिलायी गयी		4) गैर नामांकित बच्चों की कुल संख्या जिन्हें कृमि ग्रसित की दवा खिलायी गयी (कृमि मुक्ति दिवस + भीम आप दिवस)		5) कुल बच्चों की संख्या जिन्हें कृमि ग्रसित की दवा खिलायी गयी (कृमि मुक्ति दिवस + भीम आप दिवस)
लड़के	लड़कियाँ	लड़के	लड़कियाँ	लड़के	लड़कियाँ	लड़के	लड़कियाँ	

भाग 4 : अल्बेंडाजोल के प्रयोग संबंधित विवरण

1) विद्यालय को प्राप्त कुल गोलियों की संख्या	
2) विद्यालय के पास बची कुल गोलियों की संख्या	

भाग 5 : प्रधानाध्यापक/प्रधान शिक्षक से संबंधित विवरण

प्रधानाध्यापक/प्रधान शिक्षक का नाम	
मोबाईल नम्बर	
मुहर एवं हस्ताक्षर	

किसी भी समस्या के निवारण हेतु आप राज्य कार्यालय से बात कर सकते हैं। (पटना : .....राजकीय राजन शिक्षा.....
फोन नं0.....0612 2258990.....)

Annexure H.2: Key Results from Independent Monitoring

Table A: Sample sizes during independent monitoring. Day of visit	No. of schools visited	No. of headmasters/teachers interviewed	No. of children interviewed
Deworming day	123	123	123 (1 child per school)
Mop-up day	124	124	124 (1 child per school)
Coverage validation	748	748	2,244 (3 children per school)
Total	**995**	**995**	**2,491**

Table 1: 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	82.1	84.7	83.4
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	11.1	0.0	5.9
Weren't aware of the date of training	44.4	87.5	64.7
Problem due to monitory constraints	16.7	0.0	8.8
No information about the training	16.6	9.4	13.2
Other reasons	11.2	3.1	7.4
Responses from the teachers interviewed:			
Training status of teachers who were conducting deworming:			
Teachers who were trained at block level training	26.0	32.3	29.1
Teachers trained by headmaster or other teachers	43.1	48.4	45.7
Teachers who did not receive training	23.6	15.3	19.4
Based on monitor's observation:			
Deworming activities were taken place in the class	82.9	85.5	84.2
Type of health education about deworming had given			
Harmful effects of worms	50.0	47.7	48.8
How worms get transmitted	50.0	47.7	48.8
Benefits of deworming	48.1	50.5	49.3
Methods of STH prevention	43.3	44.1	43.7
No health education given	16.3	16.2	16.3
Percentage of teachers who identified sick children before administering the tablet	79.8	80.2	80.0
Schools where the drug was being given by teachers/headmasters	94.2	95.5	94.9
Teachers who told the children to chew the tablets before swallowing it	90.4	88.3	89.3
Teachers who followed the correct recording protocol of ticking (single tick on Deworming Day and double tick on Mop-Up Day)	80.8	56.8	68.4

Table 2: 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	31.7	41.1	36.4
Schools in which the poster was partially visible/ hidden in a room	3.3	3.2	3.2
Schools in which the poster was not visible	8.1	13.7	10.9
Schools which did not receive the poster	56.9	41.9	49.4
Received SMS about deworming program	63.4	63.7	63.6
Schools where handouts about deworming program was available	69.1	71.0	70.0
Handouts was helpful for:			
Drug dosage and administration	52.9	44.3	48.6
Adverse event	56.5	51.1	53.8
Health information on STH and transmission	54.1	42.0	48.0
Prevention of worm infection	58.8	65.9	62.4
Schools where safe drinking water was available	90.4	87.4	88.8
Teachers aware that if child is unwell could not give her/him the deworming tablet	85.4	87.9	86.6
Teachers aware that one deworming tablet were to be given	86.2	90.3	88.3
Responses from the children interviewed:			
Children who knew what the medicine was for deworming	85.0	83.6	84.3
Children who knew about deworming, even though they did not know what the tablet was for	5.9	16.7	11.4
Children who had heard of deworming before Deworming Day/before Mop-Up Day	46.2	71.6	58.7
Children who had heard of deworming on Deworming Day/Mop-Up Day	37.7	21.6	29.8
The following are the mediums through which children became aware of deworming-			
Teacher/school	78.3	85.3	81.7
Radio	0.0	3.9	1.9
TV	4.7	5.9	5.3
Newspaper	2.8	3.9	3.4
Posters	3.8	5.9	4.8
Street theatre	0.9	0.0	0.5
Parents/siblings	14.2	11.8	13.0
Friends/relatives	5.7	4.9	5.3

Table 3: Reporting Indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Schools where school reporting form was available	78.0	78.2	78.1
Respondents who were aware of the last date of submission of school reporting form	66.7	68.5	67.6
Respondents who were aware of whom to submit the school reporting form to	74.0	68.5	71.3
Respondents who were aware of one copy of school reporting form to be submitted	78.0	73.4	75.7
Respondents who were aware that a copy of school reporting form have to retain in the school	48.8	56.5	52.6

Table 4: 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	74.8	72.6	73.7
Schools received deworming tablets	88.6	91.9	90.3
According to the drug packets, the expiration date was			
Before Deworming Day on Deworming Day schools/before Mop-Up Day on Deworming Day schools	1.8	4.4	3.1
After Deworming Day on Deworming Day schools/before Mop-Up Day on deworming day schools	98.2	93.9	96.0
Schools received deworming drug at block level training	38.5	46.5	42.6
Schools received deworming drug, delivered by the BEO	45.9	37.7	41.7
Schools where children got deworming tablet on Deworming Day/ Mop-Up Day	82.9	84.7	83.8
Schools where storage was away from the reach of children	95.4	96.5	96.0
Responses from the children interviewed:			
Percentage of children who received a deworming tablet	83.7	82.3	83.0
Percentage of children who received medicine from the teacher/headmaster	86.7	92.7	89.7
Percentage of children consume deworming tablet	88.5	90.9	89.7
Percentage of children chewed tablet before swallowing	80.5	80.0	80.3

Table 5: Adverse Events Related Indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Percentage of teachers aware about unwell children could not get the deworming tablet	85.4	87.9	86.6
Percentage of teachers who thought it was acceptable for sick children to be dewormed	0.8	2.4	1.6
Percentage of teachers who did not identify sick children before administering the tablet	18.3	15.3	16.7
Schools where the monitor observed types of adverse event			
Stomach ache	1.0	5.4	3.3
Nausea	5.8	5.4	5.6
Vomiting	6.7	2.7	4.7
Diarrhea	0.0	-	0.0
Percentage of teachers who did not think there could be adverse effects due to deworming	57.7	62.9	60.3
Percentage of children who felt healthy before taking the tablet	80.5	74.5	77.6
Teachers who believed the following to be the adverse effects of deworming			
Mild abdominal pain	44.2	63.0	53.1
Nausea/vomiting	71.2	87.0	78.6
Diarrhea	9.6	10.9	10.2
Fatigue	9.6	19.6	14.3
When asked about their response in case a student suffers from adverse effects, the teachers answered:			
Make the child lie down in shade	58.5	61.3	59.9
Take the child to the hospital immediately	40.7	50.0	45.3
When asked about their response in case a student continues to suffer from adverse effects, the teachers answered :			
Call PHC or emergency number	24.8	26.5	25.7
Take the child to the hospital immediately	73.4	76.9	75.2

Table 6: Coverage Validation Indicators	
Indicators	Percentage
Responses from the headmasters/principals interviewed:	
Attended training for deworming program	86.6
For schools that didn't attend training, reasons were:	
Problem with the location of training	4.1
Problem with the timing of training	3.1
Weren't aware of the date of training	69.1
Problem due to monitory constraints	1.0
No information about training	14.4
Other reasons	8.3
Schools received the followings	
Poster	51.9
Handouts	66.4
Others	1.2
Received SMS about deworming program	68.2
Schools had the sufficient drugs for deworming	86.1
Schools had surplus storage of drugs after deworming	38.0
Schools where school reporting form was available after Deworming Day and Mop-Up Day	80.7
For schools that didn't have school reporting form, reasons were:	
Did not received	36.1
Submitted to block resource persons (BRP)	33.3
Unable to locate	17.4
Others	4.2
Schools had complete school reporting form	69.8
Schools did deworming on Deworming Day or Mop-Up Day	94.3
Schools reported mild adverse event after taking the medicine	6.2
Schools reported serious adverse event after taking the medicine	0.3
The followings adverse event was happened after taking the medicine	
Mild abdominal pain	39.1
Nausea/vomiting	76.1
Diarrhea	2.2
Fatigue	6.5
When asked about their response in case a student suffers from adverse effects, the headmaster answered:	
Make the child lie down in shade	80.4
Take the child to the hospital immediately	13.0
Schools received the adverse event reporting form	19.9
Schools where adverse event reporting form was available	79.3
Schools those who filled the adverse event reporting form	62.2

Table 7: Coverage Validation Indicators	
Indicators	
State level verification factor	0.81972
School following the recording protocol	68.6%
State inflation rate **(which measures the extent to which the recording in school reporting forms exceeds records at schools)**	22.2%
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)**	21.7%
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)**	25.9%
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).**	7.7%
Non-compliance of recording protocol	31.4%
Inaccuracy among compliant schools **(schools following recording protocols where ticks in registers did not match what was reported in school reporting forms)**	34.2%
Children who were present on Deworming Day or Mop-Up Day received deworming tablet, according to the responses from the children interviewed)	88.5%
Average attendance of children on Deworming Day and Mop-Up Day **according to the DD, MUD & CV data**	53.1%

Table 8: District-level Verification Factor	
District Name	Verification Factor
KISHANGANJ	0.822
SEIKHPURA	0.788
PASHCHIM CHAMPARAN	0.647
PURBA CHAMPARAN	0.815
MADHUBANI	0.791
DARBHANGA	0.225
SUPAUL	0.842
ARARIA	0.705
MADHEPURA	0.352
SAHARSA	1.760
SITAMARHI	1.358
SHEOHAR	0.334
GOPALGANJ	1.625
SIWAN	1.369
MUZAFFARPUR	1.073
SAMASTIPUR	0.906
AURANGABAD	0.703
GAYA	0.774
SARAN	0.712
VAISHALI	0.993
BEGUSARAI	0.449
KHAGARIA	0.799
BHAGALPUR	0.940
BANKA	0.523
LAKHISARAI	0.969
NALANDA	0.917
NAWADA	0.935
BHOJPUR	0.999
BUXAR	0.905
KAIMUR	0.980
ROHTAS	0.787
JEHANABAD	0.875
ARWAL	1.062
PATNA	0.832
PURNIA	0.795
KATIHAR	1.123
JAMUI	0.278
MUNGER	0.490

	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 9: District Wise Variation (DD, MUD & CV)									
Sl. No.	Name of Districts	I_1	I_2	I_3	I_4	I_5	I_6	I_7	N
1	KISHANGANJ	62.5	31.3	62.5	75.0	81.3	87.5	93.8	**16**
2	SEIKHPURA	87.5	12.5	100.0	100.0	75.0	87.5	100.0	**8**
3	PASHCHIM CHAMPARAN	75.0	71.9	19.4	32.3	75.0	62.5	84.4	**32**
4	PURBA CHAMPARAN	85.4	79.2	59.6	76.6	85.4	85.4	85.4	**48**
5	MADHUBANI	87.2	74.5	53.2	74.5	74.5	87.2	91.5	**47**
6	DARBHANGA	93.8	84.4	68.8	75.0	71.9	68.8	90.6	**32**
7	SUPAUL	75.0	87.5	66.7	70.8	70.8	91.7	91.7	**24**
8	ARARIA	62.5	75.0	50.0	12.5	66.7	75.0	75.0	**24**
9	MADHEPURA	75.0	62.5	20.8	50.0	50.0	75.0	91.7	**24**
10	SAHARSA	80.0	66.7	53.3	33.3	46.7	46.7	80.0	**15**
11	SITAMARHI	100.0	91.7	54.2	91.7	79.2	87.5	91.7	**24**
12	SHEOHAR	87.5	75.0	71.4	85.7	37.5	87.5	87.5	**8**
13	GOPALGANJ	96.9	53.1	65.6	75.0	71.9	84.4	93.8	**32**
14	SIWAN	100.0	62.5	37.5	66.7	83.3	75.0	83.3	**24**
15	MUZAFFARPUR	75.0	82.5	35.9	74.4	70.0	77.5	92.5	**40**
16	SAMASTIPUR	96.9	90.6	62.5	78.1	75.0	93.8	96.9	**32**
17	AURANGABAD	95.8	29.2	37.5	75.0	62.5	91.7	91.7	**24**
18	GAYA	93.8	62.5	56.3	64.6	79.2	81.3	91.7	**48**
19	SARAN	90.0	67.5	47.5	90.0	77.5	92.5	90.0	**40**
20	VAISHALI	93.8	65.6	21.9	65.6	68.8	93.8	100.0	**32**
21	BEGUSARAI	87.5	83.3	83.3	54.2	79.2	66.7	100.0	**24**
22	KHAGARIA	75.0	50.0	31.3	56.3	80.0	62.5	87.5	**16**
23	BHAGALPUR	70.8	79.2	33.3	41.7	79.2	70.8	100.0	**24**
24	BANKA	93.8	43.8	40.6	71.9	93.8	90.6	100.0	**32**
25	LAKHISARAI	75.0	62.5	0.0	75.0	75.0	75.0	75.0	**8**
26	NALANDA	81.3	62.5	59.4	59.4	68.8	71.9	78.1	**32**
27	NAWADA	95.8	87.5	54.2	87.5	79.2	83.3	95.8	**24**
28	BHOJPUR	66.7	70.8	50.0	70.8	87.5	79.2	83.3	**24**
29	BUXAR	93.3	66.7	60.0	80.0	85.7	60.0	100.0	**15**
30	KAIMUR	100.0	93.8	93.8	37.5	93.8	81.3	100.0	**16**
31	ROHTAS	81.3	75.0	53.1	62.5	78.1	87.5	90.6	**32**
32	JEHANABAD	81.3	43.8	56.3	62.5	75.0	87.5	93.8	**16**
33	ARWAL	100.0	25.0	100.0	100.0	75.0	100.0	100.0	**8**
34	PATNA	87.3	67.3	69.1	65.5	76.4	76.4	92.7	**55**
35	PURNIA	83.9	38.7	35.5	64.5	83.9	74.2	96.8	**31**
36	KATIHAR	79.2	54.2	54.2	79.2	83.3	75.0	95.8	**24**
37	JAMUI	87.5	58.3	54.2	70.8	79.2	75.0	100.0	**24**
38	MUNGER	93.8	56.3	37.5	87.5	87.5	75.0	93.8	**16**

Table 10: 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	93.1	55.6	93.3	62.5	93.2	59.0
Teachers who told the children to chew the tablets before swallowing it	91.5	77.8	92.9	54.5	92.2	65.8
Teachers who followed the correct recording protocol of ticking (single tick on Deworming Day and double tick on Mop-Up Day)	81.9	66.7	60.6	27.3	70.9	46.3
Schools where children were given less than one tablet	9.6	11.1	8.1	0.0	8.8	5.4
Schools where children were given more than one tablet	4.3	0.0	1.0	9.1	2.6	4.7
Teachers aware that one deworming tablet were to be given	95.0	50.0	95.2	62.5	95.1	56.3
Percentage of teachers who did not think there could be adverse effects due to deworming	56.4	72.2	60.0	81.3	58.2	76.8
Teachers who believed the following to be the adverse effects of deworming						
Mild abdominal pain	50.0	20.0	66.7	0.0	57.8	10.6
Nausea/vomiting	79.5	40.0	90.5	33.3	84.7	36.9
Diarrhea	11.4	0.0	11.9	0.0	11.6	0.0
Fatigue	11.4	0.0	16.7	33.3	13.9	15.6
When asked about their response in case a student suffers from adverse effects, the teachers answered:						
Make the child lie down in shade	68.3	11.1	68.6	18.8	68.4	14.9
Take the child to the hospital immediately	45.5	22.2	49.5	50.0	47.5	36.2
When asked about their response in case a student continues to suffer from adverse effects, the teachers answered :						
Call PHC or emergency number	26.5	14.3	27.9	9.1	27.2	11.6
Take the child to the hospital immediately	75.5	71.4	77.9	72.7	76.7	72.1
Respondents who were aware of the last date of submission of school reporting form	77.2	11.1	73.3	50.0	75.3	30.6
Respondents who were aware of whom to submit the school reporting form to	85.1	22.2	73.3	37.5	79.2	29.9
Respondents who were aware of one copy of school reporting form to be submitted	87.1	27.8	77.1	56.3	82.1	42.1
Respondents who were aware that a copy of school reporting form have to retain in the school	55.4	11.1	57.1	62.5	56.3	36.9

	Table 11: Aggregate Level Analysis (DD, MUD & CV)	
	Indicators	Percentage
	Responses from the headmasters/principals interviewed:	
1	Attended training for deworming program	85.8
2	For schools that didn't attend training, reasons were:	
	Problem with the location of training	3.1
	Problem with the timing of training	3.8
	Weren't aware of the date of training	67.9
	Problem due to monitory constraints	3.1
	No information about training	14.4
	Other Reasons	8.3
3	Received SMS about deworming program	67.0
4	Received poster about deworming program	51.6
5	Received handouts about deworming program	67.3
6	Schools had sufficient drugs for deworming	76.0
7	Schools had extra storage of drugs after deworming	38.6
8	Schools where children got deworming tablet on Deworming Day/ Mop-Up Day	91.7
9	Schools where school reporting form was available	80.1
	Response from the children interviewed:	
10	Percentage of children who were present on Deworming Day or Mop-Up Day received deworming tablet	88.5

Table 12: Enrolment- Attendance Analysis	Percentage
Percentage of children present on Deworming Day(based on two classes)	45.2
Percentage of children present on Mop-Up Day (based on two classes)	51.3
Average attendance of children on Deworming Day and Mop-Up Day ((based on DD MUD & CV data)	53.1

Annexure H.3: Definition

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 748 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 at all in reporting (i.e., where the value of this factor was 1).