# National Deworming Day-February, 2016 



A Report on Round-5 of Bihar Anganwadi and School-Based Mass Deworming Program May 2016
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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 |
| DIO: | District Immunization 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: | RashtriyaBalSwasthyaKaryakarm |
| SHSB: | State Health Society Bihar |
| SPD: | State Project Director, BEPC |
| SBD: | School Based Deworming |
| WHO: | World Health Organisation |
| WCD: | Women and Child Development |

## Executive Summary

Contributing to the nationwide campaign of deworming, Government of Bihar implemented the fifth round of anganwadi and school-based mass deworming program on February 10, followed by mop-up day on February 15, 2016.The state of Bihar dewormed 3,46,44,288 children in the age group of 1-19 years, through the network of 73,949 schools and 84,425 anganwadi centres (AWCs) across 38 districts in the state. The program was a collaborative effort between the State Health Society Bihar (SHSB), the Bihar Education Project Council (BEPC), Department of Women and Child Development (WCD). Evidence Action's Deworm the World Initiative provided key technical support to program implementation, through funding received from the Children's Investment Fund Foundation (CIFF)

Table 1: Key Achievements of National Deworming Day February 2016¹

| Indicators |  | Result <br> (in figures) | Coverage (in <br> $\%$ |
| :--- | :--- | :--- | :--- |
| Total number of children targeted |  | 37988157 |  |
| No of enrolled children (classes 1-12) who were <br> administered albendazole on NDD and MUD | Govt <br> Schools | $2,09,99,567$ | 89 |
|  | Pvt <br> Schools | $2,59,999$ | 99 |
| Number of registered children dewormed (1 to 5 years) at <br> AWCs on NDD and MUD | $58,10,279$ | 91 |  |
| Number of unregistered children dewormed (1 to 5 years) at <br> AWCs on NDD and MUD | $37,46,756$ | 82 |  |
| Number of out-of-school children (6-19 years) dewormed on <br> NDD and MUD | $38,27,687$ | 115 |  |
| Total number of children dewormed (1-19 years) | $3,46,44,288$ | 91 |  |

Source: Based on the coverage report submitted by Government of Bihar to Ministry of Health and Family Welfare, Government of India dated May 2, 2016 (Annexure A)

Building upon the success of first phase of National Deworming Day (NDD) in 2015 in 11 states ${ }^{2}$, including Bihar the Government of India (GoI) scaled up NDD 2016 across India targeting 27 crore children in 30 out of 36 states and Union territories. Evidence Action worked in close association with the GoI's Child Health Division to plan and implement round two of NDD. In the state of Bihar, Evidence Action continued comprehensive technical assistance for the successful implementation of NDD, with learnings from previous rounds to guide program planning. In line with the NDD 2016 guidelines revised to call for inclusion of private schools as a pilot effort in four selected districts ${ }^{3}$ and centrally affiliated schools across all 38 districts.

[^0]Learnings from this round, especially private school engagement and strategies to reach out-of-school children, will contribute to a sustainable deworming program that aims to reduce the prevalence and intensity of worm infections for all school-age and preschool-age children in the state.

## l.Program Background

In India, approximately 22 crores 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 atrisk for STH infections globally, according to the World Health Organization (WHO). These parasitic infections result from poor sanitation and hygiene conditions, and are easily transmitted among children through contact with contaminated 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. ${ }^{4}$
l.l 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 Center identified school-based deworming as one of the most efficient and cost-effective solutions to the current global challenges. School-based deworming is considered a development "best buy"5 due to its impact on educational and economic outcomes. The existing and extensive infrastructure of schools provides the most efficient way to reach the highest number of children, and teachers, with support from the local health system, can administer treatment with minimal training. 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. ${ }^{6}$ The benefits of using such platforms for deworming are immediate. Regular treatment can reduce school absenteeism by $25 \% .^{7}$ Young siblings and others who live nearby treated children but were too young to be dewormed also showed significant gains in cognitive development following mass school-based deworming. ${ }^{8}$

## l. 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-

[^1]19 years). ${ }^{9}$ 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 the launch of NDD in 2015, only a few states ran effective school and anganwadi-based deworming programs with high coverage. Many 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 a fixed-day school and anganwadi-based National Deworming Day.

## l. 3 State Program History

On March 5, 2010, a Memorandum of Understanding (MOU) was signed between State Health Society Bihar, Bihar Education Project Council, and Evidence Action- Deworm the World Initiative to implement the school-based deworming program in the state for treatment of STH. Based on Prevalence Survey findingsio in 2011, which suggested treatment recommendation of $\mathrm{WHO}^{11}$, the Government of Bihar decided to implement biannual statewide deworming beginning 2011 (Annexure B). Since then, Evidence Action has extended technical assistance to an annual round of deworming for all school-age children through a school-based model ${ }^{12}$ To continue the technical assistance and expand program's reach to preschool-age children which up till now only was school-based, 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 was necessary. As a result of these efforts, in June 2015, after the completion of Round 4, this commitment was inked with a signing of MoU till September 2018 between State Health Society Bihar, Bihar Education Project Council, Department of Women and Child Department, and Evidence Action.

At the same time based on WHO guidelines, which recommends an assessment after three years, a prevalence survey was conducted by Evidence Action in January and February 2015, before onset of NDD-Feb 2015 (round four). The survey was implemented in partnership with several organizations, including the Post-Graduate Institute of Medical Education and Research, Chandigarh as the technical agency and National Institute of Epidemiology for sampling and analysis and Gfk Mode as field partner. The result of the survey indicated weighted prevalence of any STH in Bihar was calculated as $35 \%$. 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 which was $65.5 \%$ in 2011 to $35 \%$ in 2015, suggesting that deworming is having an effect on infection in school-age children. As some areas of Bihar still indicated a higher prevalence than $50 \%$ combined with high rates of open defecation in Bihar suggest that rapid reinfection is likely, Based on WHO recommendation regular and

[^2]coordinated biannual administration of albendazole is required in order to move toward further reductions in prevalence.

Coverage over the successive rounds in the state: In 2011, a total of 1 crore 67 lakh children were dewormed at schools, earning the distinction of being the world's largest school-based deworming program. In 2012, 1 crore 63 lakh children were dewormed in Round two. 1 crore 74 lakh, including 1 crore 62 lakh school- age children were dewormed as part of Round three in 2014. Bihar, being one of the implementing state, under phase one of National Deworming Day achieved a coverage of 91.6 \% deworming 1 crore 87 lakh school-age children.

## l. 4 Learnings from Bihar NDD 2015 Round:

To enhance program quality and outreach in 2016, the state health department took note of the key findings and recommendations from the previous NDD round. Some of the key learnings included the necessity of stronger program planning through timely steering committee meetings, and finalization of drug and IEC plans to strengthen integrated distribution ${ }^{13}$. In the 2015 round, lack of awareness of training dates was a common reason for non-attendance. As a result, in the 2016 round the Department of Health and Evidence Action sent out text messages to all district, block officials from all stakeholder departments as well as teachers and anganwadis workers, with reminders of the planned training dates and other key messages about deworming. ASHAs role being critical for community mobilization and increasing coverage of non-enrolled and out-of-school children, this year the state government aligned with the NDD guidelines, laid out clear provisions for ASHAs incentives, which contributed to better performance and greater out-reach to the community.

## 2. About National Deworming Day

Deworming in India reached a key milestone when the national government launched NDD on February 10, 2015. The first phase of NDD targeted all children aged 1-19 years in 11 states/union territories ${ }^{14}$ through the network of government and government-aided schools and AWCs, achieving national coverage of 8.9 crore children. After this unprecedented coverage, in November 2015 the Ministry of Health and Family Welfare (MoHFW) announced that NDD would be expanded across all 36 states and UTs from February 2016.
In preparation for the 2016 round, on October 27, 2015, the Child Health Division held a technical review meeting supported by Evidence Action in order to discuss the learnings from NDD 2015. The meeting highlighted lessons learned from participating states and included discussions on coverage data and state-level findings from Evidence Action's independent monitoring and coverage validation. Other key outcomes included standardization of target population ${ }^{15}$, increased incentives for ASHAs, and consensus around expanding the program to target private schools. With a high enrollment of children in private schools ( $29 \%$ nationally as per Annual Status of Education Report 2014 data), the government is committed to ensuring

[^3]that those students have access to deworming, and receive benefits for improved health and education outcomes.

A national level orientation was subsequently organized by MoHFW with support from Evidence Action on December 1, 2015, with participation of 31 out of 36 states/UTs. The meeting was used for sharing objectives and strategies and standardizing messages and plans under the revised NDD 2016 operational guidelines for robust implementation in the second round. The MoHFW also held a coordination meeting with joint secretaries from the Ministry of Education and Women and Child Development, Panchayati Raj, and Drinking Water and Sanitation departments, focused on facilitating national-level convergence for effective implementation. Efforts at the national level further cascaded to state and districts via joint directives issued by the secretaries of the ministries of Health, Education, and Women and Child Development to the chief secretaries of all states and UTs emphasizing coordination between stakeholder departments to achieve NDD goals. In addition, the Child Health Division called a meeting of development partners working in child health to garner support for implementation of NDD 2016 in states where the partners have a presence. Evidence Action, UNICEF, and the Micronutrient Initiative attended the meeting and reiterated support for the government's NDD strategy.

As technical assistance partner for NDD, Evidence Action supported the MoHFW to update content and messaging for NDD materials including training and IEC, implementation and financial guidelines, monitoring and reporting forms, and other reference materials included in the resource kit (available on NHM website ${ }^{16}$ ). These materials enabled simplified, standardized messaging and laid out key information such as objectives, roles and responsibilities of stakeholders, and budgetary allocations for states to finance program implementation.

On February 9, 2016, the Union Minister of Health launched NDD 2016 in Hyderabad, Telangana. The State Minister of Health for Telangana and other senior officials from the national and state government participated in the launch event alongside representatives from development partners and the media. The event received extensive media coverage.

## 3. NDD-February 2016 in Bihar

### 3.1 Target Beneficiaries

The program targeted all children between 1-19 years, regardless of their enrollment status, at anganwadi centers, government, and government aided schools in 41 districts. Out-of-school children were treated through AWCs. Children enrolled in private schools were also targeted in four districts of the state during this round, bringing the overall total to $3,46,44,288$ children targeted for deworming.
3.2 Key Stakeholders

Department of Health and Family Welfare represented by the State Health Society Bihar was the nodal agency, holding key responsibilities such as finalizing target figures and ensuring

[^4]transportation and distribution of albendazole at all levels. The Department of Health also trained functionaries; disseminated adverse event management protocols; printed and distributed training and Information Education Communication (IEC) IEC materials; distributed reporting and monitoring forms; and provided guidelines and budgetary allocations to districts to support efficient implementation and timely coverage reporting. The department also facilitated involvement of ASHAs in mobilizing out-of-school children and unregistered children

Department of Education represented by the Bihar Education Project Council and Department of Women and Child Development were responsible for providing requisitions of albendazole tablets to health department based on school enrolment figures and the number of registered and out-of-school children targeted at AWCs. The departments were also responsible for ensuring that trainings on drug administration and adverse event management were attended by their respective functionaries including headmasters, teachers, AWWs, and lady supervisors. The education department coordinated with private schools in four pilot districts for engagement of teachers in block level trainings. Further, these functionaries were oriented on timely submission of coverage reports to the Health Department in standardized formats.

Evidence Action-Deworm the World Initiative funded by CIFF for technical support activities, worked closely with all stakeholders to ensure high quality planning and implementation of deworming. Evidence Action provided intensive support for program planning; facilitated information sharing through tele-calling; Independent monitoring, adaptation of NDD training materials and IEC resources, and operational guidelines to the state context.

## 4. Program Implementation

## 4. PPolicy and Advocacy

Department of Health organized state level Steering Committee meeting on August 12, 2015 a to effectively plan and prepare for the deworming program. The meeting was chaired by the Principal Secretary Health, with representatives from the Departments of Health, Education, Women and Child Development, Lymphatic Filariasis program state representative, Evidence Action, and other government stakeholders. Key decisions from the meeting reflected commitment of government to expand coverage to include children of preschool-age and enrolled in private schools. (Annexure C.1). Closer to the round, another Steering Committee Meeting was held on December 16, 2015 to review preparation and undertake critical decisions (Annexure C.2)

- Finalization of the four districts i.e Paschim Champaran, Begusarai, Purnia, Muzaffarpur for private school inclusion as a pilot initiative; selected on the basis of STH prevalence data indicating high prevalence which was in line with the GOI guidance for states to include private schools for at least $10 \%$ of implementing districts.
- Greater engagement with state level representation of Kendriya and Navodayavidyalaya implementing the program for the first time.
- Appointment of District Immunization officer as nodal officer from Health to lead planning and coordination with Education and Women and Child Development counterparts for planning and program implementation.

Regular nodal officer meeting from all concerned stakeholder including Women and Child Development with support from Evidence Action, guided program planning and coordinated efforts for effective program implementation. As part of NDD preparations, Evidence Action worked with the state to adapt operational guidelines, define timelines, and clarify roles of concerned stakeholders for program implementation, which were disseminated to all stakeholders (Annexure C.3).To strengthen the inter-sectoral convergence among the stakeholder departments at the district level, Principal Secretaries of Health, Education and Women and Child Development signed a joint directive on December, 23 which were disseminated to all districts along with financial guidelines for effective program implementation (Annexure C.4). In four districts i.e Paschim Champaran, Begusarai, Purnia, Muzaffarpur to garner greater engagement of private schools for observing NDD on February 10, additional letters were released from Department of Health to District Magistrates for leading overall planning and program execution which built the momentum towards greater ownership for the program.(Annexure C.5).
Evidence Action advocated with the Departments of Health, Education and Women and Child Development to leverage existing resources for the deworming program in order to maximize program impact. As a result, the department of Health supported initiatives such as uploading deworming-related information to the department's website ${ }^{17}$ and sending bulk SMS to program functionaries using existing portals. Further to pace the preparation for the program, in accordance with NDD guidelines, the Department of Health directed district and block officials of all departments to assess field preparations by conducting visits on deworming day and mop-up day and to record these visits through standardized checklists leading to greater ownership at the districts.

Closer to the program to facilitate preparedness across all districts, Principal Secretary, Health, Secretary-ICDS and State Project Director- Education convened video conference calls on January, 29 and February, 9 respectively with district officials of the concerned stakeholders of Departments of Health, Education and Women and Child Development. Amongst other priorities of the program during these coordination calls, focus remained on frequent review of overall program preparations, readiness of emergency response systems for adverse event management, and adherence to timelines for coverage reporting.

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 ${ }^{18}$ between January and February under the chairmanship of District Magistrate adhering to the directive issued by the Department (Annexure C.7). These meetings reviewed preparations for the program and clarified roles of stakeholders for improved inter-departmental coordination between Departments of Health, Education, Women and Child Development and others stakeholders. Key decisions for program implementation were disseminated along with meeting minutes circulated in 38 districts. In four districts, additional directives from the Department of Education were released for greater engagement of private schools. Closer to deworming, second round of meetings were held in all 38 districts to assess the preparations needed. Evidence Action's district coordinators

[^5]facilitated and shared critical program updates in all the district meetings across program components and facilitated for follow up action for aligning coordination. In line with NDD financial guidelines, Evidence Action worked with the state health department to facilitate timely submission of 2015-16 Program Implementation Plan to the national government. The approval in the Record of Proceedings 2015-16 was assigned for all the activities under NDD including printing of training and IEC materials being approved for all 38 districts.

### 4.2 Program Management

Evidence Action's technical assistance was primarily provided by a four-member state-based team, including field-based regional coordinators and short-term hires such as district coordinators and tele-callers. Additional support and guidance was provided by the national team. Evidence Action's state team provided trainings to field-based and short-term hires on various program components, building a strong common understanding of the program strategy.
Regional and district coordinators participated in the aforementioned video conference meeting, along with district officials, and were part of review meetings for program preparations. They collaborated with district and block officials to plan for trainings and other logistics around program implementation.

Regional Coordinators: Evidence Action hired four regional coordinators for year-round engagement, with each responsible for 9-11 districts. They provided program management and oversight to district coordinators, supported information sharing, led prompt remedial action in the field, guided advocacy with district officials, facilitated the training and distribution cascade, and ensured timely reporting of coverage data. After the first round of NDD was completed, their efforts shifted towards exploring opportunities at the districts for synergies with existing work and possible platforms to integrate deworming. The regional coordinators will promote program institutionalization by working with district officials to include deworming in district action plans for the next financial year (2016-2017).

District Coordinators: 38 district coordinators, including four additional coordinators for private school districts, provided on-the-ground program coordination for three months around the deworming round. They were instrumental in ensuring timely delivery of training materials such as flipcharts, and distribution of NDD kits at the trainings for all functionaries. They participated in trainings at district and block levels and escalated any observed gaps to regional coordinators and the state team for appropriate follow-up at the state level. Their role was integral in ensuring high quality of the trainings where pre and post-tests were administered to participants. After the deworming round, they provided rigorous follow-up with block and district-level officials to support timely compilation of coverage reports.

Tele-callers: Five tele-callers were hired to support the deworming round. Each tele-caller was assigned to work closely with one regional coordinator, as well as the district coordinators within their region. Calls were made at districts, blocks, and schools to obtain updates on drug and IEC availability, training schedules, and status of reports after the deworming round. This dynamic flow of information allowed tele-callers to generate detailed, real-time program updates which were continuously shared with state level officials and enabled any necessary corrective measures to be taken (Figure 1)

With support and inputs provided by short-term hires, Evidence Action's state team held debriefing sessions with officials at the state health department to share updates and information from deworming day monitoring visits to schools and anganwadis. These updates resulted in corrective actions around issues such as drug and IEC availability, ensuring adherence to program guidelines and ultimately supporting increased coverage

Figure 1: Snapshot of the Daily Tracker

| Bihar- | ary Update of tracking of district drugs and training |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SI. No | Name of District | DCCM Meeting Conducted/Not Conducted | Dates of DCCM | Minutes issued | District <br> training <br> Status | $\qquad$ | Total Participants at the training | Participatio $n$ of Navodaya Vidyalaya | Participation of Kendriya Vidyalaya | IEC received by District | IEC <br> Materials Status at on District Date Rec. |
| 1 | ARARIA | Conducted | 01-05-2016 | Yes | Conducted | 09-01-16 | 65 | Present | Absent | Received | 08-01-16 |
| 2 | BANKA | Conducted | 1/30/2016 | Yes | Conducted | 05-01-16 | 44 | Absent | Absent | Received | 07-01-16 |
| 3 | BHAGALPUR | No | 1/29/2016 | Yes | Conducted | 07-01-16 | 72 | Present | Present | Received | 07-01-16 |
| 4 | KATIHAR | No | 1/24/2016 | Yes | Conducted | 06-01-16 | 75 | Present | Absent | Received | 06-01-16 |
| 5 | KISHANGANJ | Conducted | 12/30/2015 | Yes | Conducted | 10-01-16 | 88 | Absent | Absent | Received | 06-01-16 |
| 6 | MADHEPURA | Conducted | 01-03-2016 | Yes | Conducted | 08-01-16 | 67 | Present | Not Available | Received | 07-01-16 |

### 4.3 Drug Procurement, Storage, and Transportation

Drug Procurement: All school and preschool-age children were treated with albendazole tablet ( 400 mg ) on NDD 2016. Evidence Action supported the state government to avail donated drugs from WHO's global drug donation program for the year 2015-16, under which 2.5 crore ${ }^{19}$ albendazole tablets were received in October, 2015 for school-age children as per the requisition sent in August 2014. For preschool-age children, in light of the delays in procurement of tablets at state level, decision was taken to utilize the existing stock of 1.95 crore albendazole tablets under 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 including the drugs leveraged under Lymphatic Filariasis program ${ }^{20}$,(Annexure D.1).

Drug Logistics and Supply: As per NDD operational guidelines and established best practices, drug distribution was integrated with the training cascade (as detailed in the training section below), wherein NDD kits were provided to health functionaries at the district level trainings for onward distribution. The kits included drugs, IEC materials, training handouts, and reporting forms. Evidence Action worked closely with State Health Society Bihar, which managed drugs logistics and supply in this round .Prior to the distribution, drugs were bundled for each block based on the requirement ${ }^{21}$ provided by Bihar Education Project Council for school-children and State Health Society for preschool-age children while factoring in a buffer

[^6]of $15 \%$ to cater to out-of-school children. The district level procurement and distribution cascade is depicted in the Figure 2.

Figure 2: Drug procurement and distribution cascade for NDD


Adverse Event Management: To provide guidance on functionaries' roles and responsibilities in minimizing adverse events, and to handle and report adverse events that did occur, Evidence Action assisted the state health department to adapt adverse event management protocol based on NDD guideline and shared with district collectors, CMHOs, education and Women and Child Development departments, that included emergency contact numbers, briefing on media handling along with directives to establish block-level emergency response teams in coordination with Rashtriya Bal Swasthya Karyakarm, ${ }^{22}$ team (Annexure D.3). A state-led conference call was conducted with all districts on February, 9 to assess preparedness and to reinforce the need for emergency preparedness. All emergency units and personnel were put on alert to respond quickly in cases of adverse events, mobile ambulances under RBSK and 102/108 ambulances were on alert in all districts.
Additionally, functionaries were trained on adverse event management. A network of ambulance vans was prepared to stay on alert at each block to handle adverse events if reported. Six mild cases were reported across 38 districts, with no serious adverse events reported. To emphasize the aspects of safe and supervised drug administration along with timely response to any serious case, Evidence Action sent out approximately 11 lakhs text messages (SMS) to all frontline functionaries of Health, Education and anganwadi.

### 4.4 Public Awareness and Community Sensitization

Activities designed to increase community awareness of deworming were rolled out based NDD operational guideline of NDD. Sensitization of children and families helps build trust toward deworming, alleviates worries related to adverse events, and overall leads to greater program uptake. The deworming and mop-up day dates were highlighted in all IEC materials along with other key deworming messages to ensure maximum attendance of the children at the schools and AWCs (Annexure E).Evidence Action developed all IEC and community mobilization materials that were approved by the Government of India and uploaded on the NHM website. The state adapted and printed the material, including posters and banners for display at schools and AWCs. The community sensitization strategy also included outreach activities such as newspaper advertisements; radio jingles; TV scrolls and spots; miking; banners at health, education and WCD offices; and wall writings were included in IEC campaign as detailed below

Table 2: NDD IEC campaign details

| Activity | Implemented by | Timeline | Frequency (times a week/day was this activity repeated?) | Channel/Station/Paper |
| :---: | :---: | :---: | :---: | :---: |
| TV Spot | State Health Society Bihar | $9^{\text {th }}-14^{\text {th }}$ <br> February | 2-3 times x6 days | ETV (Bihar \& Jharkhand) Doordarshan |
| Radio spot | State Health Society Bihar | $9^{\text {th }}-14^{\text {th }}$ <br> February | 3-5 days x 6days | Radio Mirchi 98.3 <br> Prasar Bharti (AIR Patna, <br> Bhagalpur, Darbhanga, <br> Purnea and Saharsa) |
| Radio jingle (30 sec ) | State Health Society Bihar | $9^{\text {th }}-14^{\text {th }}$ <br> February | Radio Mirchi 5/day x 6days, Prasar Bharti 3/day x 6 days | Radio Mirchi 98.3 <br> Prasar Bharti (AIR Patna, Bhagalpur, Darbhanga, Purnea and Saharsa) |
| TV scroll | Evidence Action | ```5 days between (9- 15}\mp@subsup{}{}{\mathrm{ th Feb)}``` | 5/ day x 4 days | ETV Bihar |
| Flash Advertising | Evidence Action | $9,10,14,15$ <br> February | 5/ day | ETV Bihar |
| Newspaper advertisement (NDD and MUD | State Health Society Bihar | $10 \& 13^{\text {th }} \mathrm{Feb}$ | 1/ day | DainikJagran, The Times Of India, Prabhatkhabar, DainikBhaskar |
| Newspaper appeal | State Health Society Bihar |  | 1/ day | DainikJagran, Hindustan, |
| Miking | State Health Society Bihar | $9^{\text {th }}-15^{\text {th }} \mathrm{Feb}$ | 1/day x 5 days | 17 district through auto/rickshaw |
| Prabhatpheri | BEPC | $8^{\text {th }}-10^{\text {th }} \mathrm{Feb}$ | 3 days | Schools conducted prabhatpheri on 8, 9, 10 February. |
| Handbill distribution in paper to districts | Evidence Action |  | 50,000 printed | Prabhatkhabar, Dainikjagran, Hindustan newspapers |

For additional visibility of the program at the community level, State Health Society Bihar, printed 332,096 posters (two versions for each school and anganwadi), 538 banners for Primary

Health Centers (PHC), hoardings at 38 district headquarters .All of these were adapted and contextualized by Evidence Action. Additionally, Evidence Action supplemented mike announcements for five days closer to NDD in 115 blocks which were selected based on criteria of lower coverage reported in NDD 2015. In an effort to increase community engagement, in 12 districts which were selected on the basis of over-reporting in NDD 2015 including four private school districts, we printed 6000 handbills which were distributed through local newspapers.

As a new initiative in this round, the state printed 538,000 community handbills for community mobilization through ASHA to ensure greater outreach and uniformity in delivery of information. The state engaged with ASHAs and ANMs to disseminate information on


Handbill distribution in Begusarai deworming and its benefits using the platform of Village Health Sanitation and Nutrition Day (observed twice in February on the first and third Thursday). Unlike NDD 2015, the state put provisions for financial incentives for ASHA workers to motivate them for community mobilisation.

Launch Event: Evidence Action supported the State Health Society Bihar, to organize a statelevel launch on February 10, 2015 at Bankipur Girls Senior Secondary School, Patna, in the presence of the Hon'ble Health Minister of Bihar-Shri Tej Pratap Singh and other senior dignitaries including Principal Secretary, Executive Director, State Health Society Bihar; representatives from development partners, media and children. In addition, all 38 districts organized launchevents 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.

4.5 Training

Training Cascade: As per NDD Operational Guidelines and the state specific operational plan developed in collaboration between Evidence Action and the State Health Society Bihar, a training cascade was implemented at all districts and blocks between Jan 4 to Feb 9, 2016. The cascade trained 73,071 government and government-aided teachers, 506 private school teachers, 87,791 AWWs, and 79,398 ASHAs. ${ }^{23}$ District and block level officials from all nodal departments implementing the program were also trained. Block level trainings included integrated distribution of drugs and print material (training handouts and IEC). All preparations for organizing trainings at block and district were ensured by Bihar Education Project Council and State Health Society Bihar for anganwadi.

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

[^7]Figure 3: Training Cascade and Participation

## State

## Location- Patna

Trainers- Evidence Action
Participants: 19 Master Trainers ( 2 district/ MT) supported by Evidence Action, SHSB and WCD
Timeline: 2 January, 2016


| Block | EDUCATION <br> Location -537 blocks ( <br> venue by BEO office) <br> Trainers- -arrticipants from <br> district trainings <br> Participants - 73577 from <br> each government and private <br> schools HM /Teacher <br> Timeline: January 15-31, <br> 2016 |
| :--- | :--- |

> HEALTH and WCD
> Location -PHC
> Trainers - Participants from district trainings
> Participants - 79398 ASHA
> +87791 (AWW+LS)
> Timeline:January 15Feruary 8, $2016^{*}$
*The trainings schedule under NDD for the anganwadi functionaries experienced delays due to the on-going training of "polio program" at health centers from January 16-21, 2016. Evidence Action field coordinators facilitated with district and block health officials for revised training schedule and further communication to anganwadi workers to ensure trainings are completed before NDD.

Training Resources: To assure quality and standardization of messages, Evidence Action provided 1,600 flipcharts as training aids to the trainers for use at the district and block-level trainings (Annexure F.1).Other training resources included 74,370 handouts for teachers, 91,677 handouts for anganwadi and 90,00o leaflets for ASHA, which were printed by the State Health Society Bihar. Working towards integrated distribution of these resources during trainings, Evidence Action supported in drafting the bundling plan as per block requirements,
enabling materials to be efficiently transported to all districts before trainings commenced. Evidence Action's district coordinators played a vital role in ensuring the timely completion of tasks in order to ensure availability and distribution of these kits at the block-level trainings.

Training Support and Monitoring: Evidence Action's district coordinators attended and provided supportive supervision in all 38 district trainings. The team monitored trainings across all 38 districts and conducted pre- and post-tests to assess the knowledge gained by participants in 8 selected districts ${ }^{24}$ and 16 blocks ${ }^{25}$. Evidence Action also used a monitoring checklist to assess training quality, ensuring that all the components of deworming were covered as per NDD guidelines. Facilitating real-time corrective actions, Evidence Action's state team engaged with the nodal officer and provided up-to-date findings from the field. Timely coordination and information from the field enabled district officials to take remedial steps during implementation (Annexure F.2).

SMS: To reinforce key training messages, the state departments sent post-training SMS through their existing platforms to various functionaries. The SMS contained reminders on dates of trainings and NDD, deworming and its benefits, reporting timelines, and instructions for adverse event management. Evidence Action also sent the 30 -second voice recorded message as an Interactive Voice Response SMS during NDD and MUD to 1,46,299 frontline functionaries to create awareness on dates for NDD and behavioral change messages on health and sanitation.

Table 3: Details of text messages sent for NDD 2016

|  | Stakeholder | Health | Education | ICDS | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Text <br> messages <br> (SMS) | Health | 80794 | 820998 | 908220 | $\mathbf{1 8 1 0 0 1 2}$ |
|  | Evidence Action | 46732 | 1004157 | 836914 | $\mathbf{1 8 8 7 8 0 3}$ |

## 5. Highlights of Deworming and Mop-Up Day

NDD was observed on February 10 in 38 districts followed by an MUD on February 15 to reach out to children who did not receive treatment on deworming day due to ill health or absenteeism. (Annexure G)
$\checkmark$ The program launch was held on February 10, 2016 at state and in all 38 districts with political commitment and bureaucratic leadership. These contributed to the larger awareness about the program through media coverage
$\checkmark$ Consultants from MoHFW, GOI state health department, and development partners including Evidence Action, conducted monitoring visits on NDD. Evidence Action shared findings from the field with the Executive Director, SHSB on the same day.

[^8]$\checkmark$ The mild adverse events reported were managed well on the ground. No severe adverse events were reported.
$\checkmark$ Before MUD, state issued direction to all districts to call for a review meet (District Tasks Force) exclusively for deworming in presence of all stakeholders to assess gaps observed or reported from field on NDD. The ownership exhibited by the districts helped to coordinate for corrective action
$\checkmark 436$ visits were conducted by the field and regional teams on NDD and MUD to schools and anganwadis centers for observing field activities and facilitating for corrective action.

## 6. Monitoring and Evaluation

It is imperative that majority children have access to deworming drug and receive benefits for improved health and education outcomes Evidence Action places great emphasis on understanding the extent to which schools, anganwadis and the health system are prepared to implement mass deworming. This includes assessing the extent to which deworming processes are being followed, and the extent to which coverage has occurred as planned. Monitoring and evaluation are done in three ways: (1) process monitoring, (2) coverage reporting and (3) coverage validation. For NDD 2016 in Bihar, independent monitoring exercise (process monitoring and coverage validation) was conducted, on deworming day and mop-up day, followed by coverage validation from February 20-26, 2016. (Annex H.1)

## 6.l Process Monitoring

Process monitoring assesses the preparedness of schools, anganwadis, and health systems to implement mass deworming and the extent to which they have followed correct processes. Evidence Action assesses the program preparedness during the pre-deworming phase and independent monitors observe the processes on deworming day and mop-up day.
Field Monitoring Visits A total of 558 monitoring visits ( 122 visits by state government officials and 436 visits by Evidence Action's state and field team) were conducted in randomly selected schools and anganwadis. As recommended under national guidelines, the team used the NDD monitoring checklist during their visit. Monitors visited 625 anganwadis, 626 government- government aided schools and 41 private schools. The NDD monitoring data has been submitted to GOI along with the coverage report. (Annexure H.2)

Telephone Monitoring and Cross Verification Evidence Action tele-callers placed phone calls to track the delivery and availability of training, drug, and IEC materials at the district, block, and school/anganwadi levels as deworming day approached. Approximately 16,150 calls were made from January to March 2016, including 1389 calls to health functionaries like ANMs, 3754 calls to government and government-aided schools and private school teachers/principals, 1567 calls to anganwadi workers across 534 blocks in 38 districts. An additional 8746 calls were made to district and block level officials to address gaps identified during block monitoring at each level. Tele-callers used electronic tracking sheets to outline issues identified during calls and monitoring visits. These tracking sheets were shared with the state government to enable them to take rapid corrective actions as necessary.
With support and inputs provided by short-term hires, Evidence Action's state team held debrief sessions with officials at the state health department to share updates and information from deworming day monitoring visits to schools and anganwadis. These updates resulted in issuance of letters to the districts prescribing corrective action around issues such as drug and

IEC availability, ensuring adherence to program guidelines and ultimately supporting increased coverage (Annexure. I)

## 6.l Coverage Reporting

Coverage Reporting provides the numbers of program beneficiaries dewormed which is crucial to measure the success of the program. With close support from Evidence Action's state and field teams, the Department of Health collected and compiled the coverage report for NDD in selected schools and anganwadis. School teachers/anganwadi workers had been trained on the recording and reporting protocols. These protocols, along with the reporting cascade and timelines, were shared with all districts through the state's directives and intended to improve the accuracy of coverage reports submitted by schools/anganwadis. Every teacher/anganwadi worker was required to put a single tick mark $(\checkmark)$ next to a child's name in the attendance register if he was administered albendazole on deworming day, and a double-tick mark ( $\checkmark \checkmark$ ) next to a child's name if he was administered albendazole on MUD. Schools/anganwadis were supposed to derive the number of enrolled children dewormed by counting the single and double tick marks in attendance registers. School headmasters were then asked/required to compile the number of dewormed children as recorded in class registers, fill the school reporting form and submit it to the designated person in the reporting cascade. Coverage reporting structure and timeline is shown below in Figure 4

Figure 4: Coverage Reporting Cascade and Timeline

> | > School/Village level reporting | - Teachers/ HM will submit completed formats to CRC. |
| :---: | :--- |
| > Date $: 19^{\text {th }}$ February, 2016 | Anganwadi workers will submit completed formats to |

> | > Cluster level reporting | - CRC will compile the formats and submit to BEO |
| :---: | :--- |
| > Date: $26^{\text {th }}$ February, 2016 | - ANM will compile the formats and submit to MOIC |

Block level reporting
Date: $10^{\text {th }}$ March, 2016

District level reporting
Date: $17^{\text {th }}$ March, 2016

State level reporting
Date: $29^{\text {th }}$ march, 2016

- BEO will aggregate the reports to the DEO/DPO
- MOIC will aggregate the reports to the Civil Surgeon
- DEO/DPO will aggregate the report and submit to Civil Surgeon
- Civil surgeon will aggregate the report and submit to the State Health Department
- The State Health Department will aggregate final report for school and anganwadi and submit to MoHFW


### 6.2 Coverage Validation

Coverage validation was done within 5-7 days of the mop up day. During this exercise, monitors checked and verified deworming related data available in schools and anganwadis using their respective attendance registers and reporting forms. In each school, one teacher and three students were interviewed. In anganwadis, only anganwadi workers were interviewed.

Sampling and Sample Size

Two-stage probability sampling was used to select schools and anganwadis 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 ${ }^{26}$, followed by random sampling of schools to provide state-wide estimates of indicators. A total of 263 schools and 250 nearby anganwadis were visited on NDD and mop up day. For coverage validation, a total of 405 randomly selected schools and 375 randomly anganwadis were visited.

Table 4: Target and Coverage of Schools and Anganwadis during NDD, February 2016 Independent Monitoring

| Indicators | Process monitoring |  | Coverage validation |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Target | Achieved | Target | Achieved |
| Total number of districts | 38 | 38 | 38 | 38 |
| Total number of blocks | 125 | 125 | 125 | 125 |
| Total number of schools | 270 | 263 | 405 | 405 |
| Total number of <br> government/government aided  <br> schools   | 250 | 251 | 375 | 375 |
| Total number of private schools | 20 | 12 | 30 | 29 |
| Total Number of children interviewed in schools* | 270 | 263 | 1215 | 1215 |
| Total number of anganwadis | 250 | 258 | 375 | 375 |

*Children were interviewed only where deworming has been conducted on the day of monitor's visit
Independent Monitoring Formats
To ensure comprehensive coverage and triangulation of data, four questionnaires were administered- one each for school and anganwadi process monitoring on NDD and MUD, and one each for schools and anganwadis for the coverage validation. Questionnaires were designed by Evidence Action and finalized in consultation with state Department of Health. The questionnaires were translated into regional language, and checked to ensure that the language was concise and easily understandable, before being scripted and loaded onto tablet PCs/minilaptops for the monitor to administer.

## Training of Trainers and Independent Monitors

Through a competitive selection process, Evidence Action hired Karvy Insights to implement the independent monitoring in Bihar. Evidence Action provided a one-day comprehensive training to three master trainers from Karvy Insights in Patna. These master trainers conducted a two day training of 20 supervisors and 125 monitors from February 6-8, 2016 in batches of 45-50 monitors. After training, a test was administered to all participants to assess their comprehension and ability to work in the field. Only those who could pass the test were shortlisted as the monitors.

## Field Implementation

After training, the selected monitors were sent to their allotted districts. Each monitor was allotted two schools and two anganwadis for process monitoring. Subsequently, they were

[^9]allotted three schools and three anganwadis to survey during coverage validation. Monitors were provided a tablet PC, charger, printed questionnaires, and albendazole tablets for demonstration. The details of their allotted schools were shared with them one day before fieldwork commenced to ensure that monitors did not inform local educational authorities ahead of the actual deworming, thus potentially affecting compliance.
In case a school or anganwadi was closed on NDD or MUD it was replaced by the nearest school/anganwadi. For coverage validation, however, this strategy was slightly modified: if a school or anganwadi was found closed, monitors were asked to cover the next school or anganwadi on their list, and return to the first school or anganwadi at another time on a subsequent day. If the school or anganwadi was non-traceable or closed consistently after making three attempts, a new school was substituted for the old one.

## Quality Control

Appropriate quality control measures were taken to ensure that data collected was accurate and comprehensive. School headmasters and anganwadi workers were asked to sign a participation form and provide an official stamp, verifying that the school or anganwadi was actually visited. The agency contacted approximately $15 \%$ of schools and anganwadis on phone the next day to confirm that they had participated in the monitoring and validation process. In addition, district coordinators visited sampled schools and anganwadis to spot check the processes and tele-callers contacted schools and anganwadis to verify monitoring visits.

## 7. Key Findings and Program Recommendations

Key findings from the independent monitoring emphasize the importance of strengthening the training cascade and the integrated distribution of drugs and IEC materials at the trainings to ensure all teachers and anganwadi workers are equipped to implement NDD effectively. The detailed independent monitoring tables are attached as Annexure J

## Training

Participation at trainings: Independent monitoring data demonstrated that $84 \%$ of schools and $80 \%$ of anganwadi workers received training for the recent deworming round. Among private schools, only five out of 13 schools reported attended training on deworming in the previous two months. Out of those who did not attend the training, $49 \%$ of all (government, private) school teachers and $61 \%$ anganwadi workers were unaware of the date/timing of trainings. As training is crucial to equip teachers and anganwadi workers with the necessary knowledge and drugs for implementing NDD, efforts must be made to increase participation at the trainings. In this direction, for NDD 2016 round, the government and Evidence Action sent out bulk SMSs on reinforcing training schedules and venue information prior to the trainings, along with post training messages on deworming. During independent monitoring, it was found that only $63 \%$ of schools and $56 \%$ anganwadi workers received training reinforcement SMS related to the deworming program, which could be the reason for an insignificant increase in training participation from the NDD 2015 round.

Key recommendations:

- Regular updates and strengthening of the database of block level functionaries and teachers/schools and anganwadi workers to improve SMS coverage efor dissemination of program information to key audiences in a timely manner.
- Advise block level officials to strengthen the communication channels from the block

Quality of trainings: Findings show that only $77 \%$ of headmasters reported providing training to other teachers after they were trained on deworming. The headmasters/ principals and anganwadis also reported incomplete knowledge on the different ways that children can get worm infections; only $49 \%$ of these functionaries reported open defecation/not using sanitary latrine as a route of worm transmission.

Key Recommendations:

- Improve training sessions with a stronger focus on the importance of sharing training messages at schools so that all teachers are equipped to deworm children in accordance with the protocols.
- Trainings should have greater emphasis on practices for controlling worm infection.


## Integrated Distribution of Deworming Materials including Drugs

Findings from independent monitoring data revealed that only $37 \%$ and $39 \%$ of all school and anganwadis respectively completed integrated distribution ${ }^{27}$ of the NDD kit; however, as reflected in the below table, individual components of the kit were still distributed on a large scale at the trainings.

Table 5: Distribution of NDD kits material

| NDD kit content | For Schools |  |  | For Anganwadi |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Received | Verified* | Received <br> in <br> training | Received | Verified* | Received <br> in <br> training |
| Tablets | $\mathbf{9 1}$ | 79 | 60 | $\mathbf{9 2}$ | 77 | 63 |
| Poster/Banner | 77 | 73 | 60 | 75 | 72 | 63 |
| Handouts/ <br> Reporting form | 66 | 73 | 57 | $\mathbf{6 4}$ | 72 | $\mathbf{6 3}$ |

* The first column shows data on the availability of NDD kit content received by the teachers and anganwadis, as reported by them. The second column shows verification of availability items in NDD kit by monitors with the schools and Anganwadis. The third column states teachers and anganwadis reporting receipt of NDD kit content at the trainings

As per the table above, majority of the teachers and anganwadi workers reported receiving most of the NDD kits including tablets, posters/ banners, handouts/reporting forms. Findings suggest a need to strengthen integrated distribution of training, IEC materials, and drugs during block level trainings. While the state planned the bundling process far in advance of the

[^10]NDD, little more than one third of teachers and anganwadis reporting receiving all materials at the trainings.

Key Recommendations:

- Improved bundling and proper distribution is done at all levels down to the blocks, where the ultimate implementers receive materials. This can be done through ensuring clear responsibilities are assigned for bundling at all levels, through state/ district released directive, also necessary supervision at all levels is required for ensuring adequate quantity gets bundled and distributed in a timely manner.


## Drug Sufficiency

During coverage validation, $86 \%$ of the schools and $91 \%$ anganwadis reported to have sufficient drugs for deworming. ${ }^{28}$.Moreover, $51 \%$ of schools and $70 \%$ of anganwadis had surplus drugs after deworming. The drug surplus at the schools and anganwadis can be because of the availability of WHO drugs in a sealed jar of 200 tablets which cannot be repackaged because of drug safety protocols, as well as buffer being considered while drug bundling.

Key recommendation:

- Availability of surplus drug at the schools and anganwadis after the deworming round is completed, need to be assessed by the state government in terms of making use of available drugs, along with following necessary drug safety protocols.


## Source of Information about Recent Round of Deworming

In order to sensitise the teachers and anganwadis, various channels of communication were used in the programme, including departmental communication, posters, banners etc. Monitoring data revealed that during the recent round of deworming, departmental communication was the major source of information, in other words the maximum number of a medium reported by $62 \%$ of schools and $47 \%$ anganwadis, followed by training ( $38 \%$ of schools and $33 \%$ of anganwadis). School teachers were the major source of information to students for deworming (94\%). However, $17 \%$ of students interviewed were not aware that the medicine given to them was for deworming. With reference to children enrolled in private schools, total seven out of eight interviewed children were aware that the tablet given to them was for deworming.

## Implementation of Deworming

While $87 \%$ of schools and $88 \%$ of anganwadis reported conducting deworming on either NDD or mop-up day, independent monitors observed ongoing deworming activity in $83 \%$ schools and $89 \%$ of anganwadis respectively. Coverage validation demonstrated that $93 \%$ of schools and $95 \%$ of anganwadis had observed deworming during NDD or mop-up day. Out of all enrolled children interviewed on NDD and mop-up day around 95\% reported to have received a deworming tablet. Prima facie, this suggests that deworming occurred in a large percentage of schools and anganwadis on one of the deworming days. However, 27 of the 30 private schools observed during coverage validation reported deworming activities on NDD or mopup day.

## Adverse events- knowledge and management

[^11]Interviews with teachers and anganwadi workers during process monitoring demonstrated a lack of awareness regarding the possible occurrence of adverse events. Only $35 \%$ of headmasters/principals and $25 \%$ of anganwadi workers acknowledged that adverse events were possible after ingesting albendazole. Out of those who knew that adverse events are possible, only the majority of teachers and anganwadi workers were aware of how to manage adverse events with most of them advocating that mild adverse events should be handled at schools/ anganwadis while more severe or continued adverse events should be referred to the nearest PHC. During class observations, around $90 \%$ of teachers and $84 \%$ anganwadi workers asked children whether they were sick before administering drugs. More than $94 \%$ of teachers and anganwadi workers ensured that drug administration was well supervised, asking children to chew tablets before swallowing.

Key recommendation:

- Increased focus needs to be given at the trainings on the adverse events that can happen on mass scale program and more importantly, on being equipped to properly manage the adverse events as per the adverse event management protocols.

It was also seen during process monitoring that many schools and anganwadis were delaying drug administration to coincide with mid-day meals. As per WHO guidance, there is no need to consume food along with albendazole. Often, children leave school premises right after the mid-day meal, meaning that they do not remain with teachers for two hours post- deworming when any possible adverse events could be properly managed by the trained teacher/ anganwadi worker. Thus, training and monitoring functions should provide greater focus on the correct drug administration protocols in future rounds.

## Recording Protocol

Coverage validation data demonstrated that $62 \%$ of schools and $90 \%$ of anganwadis followed correct ${ }^{29}$ recording protocols, $17 \%$ of schools did not adhere to any recording protocol and remaining $21 \%$ schools followed recording protocol partially ${ }^{30}$.As per NDD guidelines, ASHAs were required to prepare a list of unregistered anganwadi children and out-of-school children for submission to AWWs; however, findings suggest that less than $50 \%$ of anganwadis had a list available.

Key recommendation:

- Increased focus on the importance of correct recording, reporting protocols and maintaining correct and complete documentation at the trainings of frontline functionaries.


## 7. 1 Program Coverage

Following table highlights the coverage details from the state including the total coverage of $91.2 \%$ according to government reported figures as well as coverage across various categories

Source: Report submitted by State Health Society Bihar to GOI dated April, 2016 (Annexure A).

[^12]| Indicators |  | Coverage <br> (in figures) | Coverage (in <br> $\%$ |
| :--- | :--- | :--- | :--- |
| Total number of children targeted |  | 37988157 |  |
| No of enrolled children (classes 1-12) who were <br> administered albendazole on NDD and mop-up <br> day | Govt <br> Schools | $2,09,99,567$ | $89.5 \%$ |
|  | Pvt <br> Schools | $2,59,999$ | 99.5 <br> $\%$ |
| Number of registered children dewormed (1 to 5 years) at <br> AWCs on NDD and mop-up day | $58,10,279$ | $90.8 \%$ |  |
| Number of unregistered children dewormed (1 to 5 years) at <br> AWCs on NDD and mop-up day | $37,46,756$ | $82.2 \%$ |  |
| Number of out-of-school children (6-19 years) dewormed on <br> NDD and mop-up day | $38,27,687$ | $115 \%$ |  |
| Total number of children dewormed (1-19 years) | $3,46,44,288$ | $91 \%$ |  |

Substantial district wise variation was observed in NDD coverage reporting. 16 out of total 38 districts reported coverage below the state level with Munger (77\%) having the lowest coverage followed by Sheikhpura ( $81 \%$ ) and Araris ( $82 \%$ ). Further, districts of Pashchim Champaran, Siwan, Janhanabad and Saran reported coverage of more than $95 \%$ in the state.

Evidence Action also advised the state government in finalising program target figures, allowing for accurate performance measurement across the state. The target groups include four categories: government school, private school, anganwadis, and out-ofschool/unregistered. To establish the targets, Health Department referred to the data from state Education Department (District Information System for Education) and WCD. Evidence Action referred to credible data sources including 2011 census data for estimation of preschoolage children and advised the state Health Department in finalising the target for unregistered preschool-age children. The state defined the final target for unregistered preschool children, based on the recommendation.
The following section explores the extent to which the reported coverage figures are likely to be an accurate reflection of the number of children dewormed

### 7.2 Coverage Validation

In the schools and anganwadis sampled for coverage validation, we calculated state-level verification factors, which are commonly calculated for Neglected Tropical Disease control programs around the world. The verification factor compares the number of ticks in school/anganwadi registers (where teachers/AWWs recorded dewormed children) to the coverage figures in the reporting forms that schools/anganwadis submitted to the state. A verification factor of 1 means the schools reported the exact same figures as recorded in registers on deworming day. A verification factor less than 1 indicates over-reporting, while a verification factor greater than 1 indicates under-reporting.

Coverage verification factors are estimated on the basis of availability of a copy of reporting forms at schools and anganwadis. In Bihar only $61 \%$ of schools and $55 \%$ of anganwadis had
copy of the reporting form available after deworming and mop-up day. Although during trainings, school teachers/ headmasters and anganwadi workers s were instructed to retain a copy of their respective reporting form; $15 \%$ of headmasters and $23 \%$ of the AWWs interviewed during process monitoring were not aware of retaining a copy of the form.

In Bihar, the state level verification factor for enrolled children was found to be 0.76 , indicating that for every 76 enrolled children who were recorded as dewormed in the schools, the school reported that 100 enrolled children had been dewormed. This corresponds to an overall $31 \%$ inflation of reporting in the state, meaning that reported numbers appear to be approximately $31 \%$ higher than the numbers recorded in attendance registers. Similarly, the state level verification factors for anganwadi registered children, non-registered children (1-5 years), and out- of- school (6-19 years) children were $0.74,0.77$, and 0.69 respectively with corresponding inflation rates of $35 \%, 29 \%$ and $44 \%$. Training was found to increase the accuracy of reporting: trained schools had only $30 \%$ inflation in reporting, while untrained schools had $70 \%$ inflation in reporting.

Around, $96 \%$ of the children interviewed during coverage validation reported to have received the deworming tablet and $96 \%$ of them consumed the tablet under supervised administration in the school. Further attempts were made to understand the maximum number of enrolled children that could have been dewormed in the state. Coverage validation data demonstrated that $93 \%$ of schools did deworming on either of the days and attendance data showed that a maximum of $74 \%$ of the enrolled children would have been in attendance considering the attendance of both the days. Based on deworming implementation status and attendance of enrolled children on deworming and mop-up day and children's interview, maximum $65 \%$ ( $95 \%$ children out of $74 \%$ present in $93 \%$ of schools conducted deworming) children could have been dewormed in the state.

Key recommendations:

- Correct recording, reporting protocols and the importance of retaining a copy of reporting form for verification purposes, need to be further reinforced at future trainings
- Additionally, greater emphasis need to be made for increasing coverage and accurate reporting of unregistered and out-of-school children. This suggests the need to strengthen the role of ASHAs in mobilising these children and correctly reporting their treatment.
Private school engagement: Since this was the first round for the state to engage private schools in deworming, participation was low and can be increased in the future. In order to broaden the reach of the program, it is critical to include private schools in every aspect of future rounds.
Key recommendations:
- The continued engagement of District Magistrates will help strengthen the implementation of the program at ground, as reported by the state NDD nodal officers.
- Comprehensive training for teachers and other staff, along with adequate and timely information about the program, may help generate awareness and interest from private schools.
Engaging with private schools has been a largely untapped area for school health programs. However the efforts made during NDD February 2016, and the experiences will guide future strategies for other such initiatives.


## Key Recommendations from NDD Feb 2016

## Training

- Regular updates and strengthening of the database across program functionaries for sending training reinforcement SMSs.
- Strengthen the communication channels from block to all schools and anganwadis on participation at trainings
- Strengthen training component of the program through focusing more on the following:

1) Importance of sharing training messages by the trained teacher to all other teachers at school
2)Practices for controlling worm infection
2) Importance of correct recording, reporting protocols and maintianing correct and complete documentation form for verification purposes
-4) Knowldege on adverse events that can happen on mass scale program and more importantly, on being equipped to properly manage the adverse events as per the protocols

## Integrated distribution of NDD kits at trainings

- Strengthening integrated drug distribution through ensuring clear responsibilities are assigned for bundling at all levels, through state/ district released directive. Also, necessary supervision at all levels is required for ensuring adequate quantity gets bundled and distributed in a timely manner.


## Community mobilisation

- Greater emphasis need to be made for increasing coverage and accurate reporting of unregistered and out-ofschool children. This suggests the need to strengthen the role of ASHAs in mobilizing these children and correctly reporting their treatment.


## Private school engagement

- Comprehensive training for teachers and other staff, along with adequate and timely information about the program, may help generate awareness and interest from private schools.
- The continued engagement of District Magistrates will help strengthen the implementation of the program at ground


## 8. Way Forward

Bihar has laid strong foundation for extending deworming treatment to all children ages 1-19 with the inclusion of preschool-age and private school children under the ambit of NDD, which so far was limited to school-based mass deworming. The state has made progress toward institutionalizing deworming by including NDD activities in PIPs, leading the timely finalisation of coverage targets, convening steering committee meetings at state and district levels, and planning ahead for integrated material distribution in trainings. For the biannual round in August, sustained efforts with Women and Child Development will be focussed for strengthening capacity of stakeholder and planning for next rounds. The learnings emerged from private school engagement in this round will be crucial to inform program strategies while scaling the initiative to all districts. Strengthened planning for the biannual round in August, and wider reach to schools including government, government-aided and private schools, will pave the way towards higher coverage. Evidence Action will also strengthen the deworming program in line with the above recommendations through close collaboration with government stakeholders including Lymphatic Filariasis to align all preparation for biannual round in August 2016.

## Annexures

Attached as separate files:
Annexure A: Common Reporting Form Submitted by Bihar to Government of India dated May 2, 2016

Annexure B: Prevalence Survey of Bihar
Annexure C.1: Meeting Minutes of State Steering Committee Meeting Dated August 12, 2015
Annexure C.2: Meeting Minutes of State Steering Committee Meeting Dated December 16, 2015

Annexure C.3: Letter from SHSB to WCD and Department of Education for sharing Operation Plan NDD 2016

Annexure C.4: Joint Guideline issued for NDD February 2016 with signature from Principle Secretary of Health, Education and WCD

Annexure C.5: Letter Issued From SHSB to District Magistrate for Private School Engagement

Annexure C.6: Letter issued from SHSB for conducting District Coordination Committee Meeting

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 E: Details of Mass Media Mix in the State
Annexure F.1: Training Photo of Sample District and Block and SMS
Annexure F.2: Training Quality Assessment Findings
Annexure G: Drug Administration Photo from Field on NDD and Mop- Up Day
Annexure H.1: Letter Issued by SHSB for Monitoring
Annexure H.2: Submission of Monitoring Visit Data by GoB to GoI, MoHFW
Annexure I: Tele-Calling Indicators for Tracking Conducted During NDD February 2016
Annexure J: Key Results from Independent Monitoring

# Annexure A: Common Reporting Form Submitted by Bihar to Government of India dated May 2,2016 

| Dr. Surendra Kumar Chief Meslical Officer = cum State Programme Officer State Programme Officen Child Health |  |  |
| :---: | :---: | :---: |

जोता में,
Dr Sila Deht,
Dewaly Commissioner (Child Health).
Ministey of Health \& Family Welfare.
New, Delhi

मटना दिनांक $\qquad$
$\qquad$ 2016

 महाशया





करच्या जा रहा है।
विक्षासमाजन्
स०./-
(बॉं० सृरेन्द क्मार)

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| तेलिखि | समी सिबिल खर्जन ज्ञिता रचास्य सनिति बिहार को सूयनार्ष प्रणित। |
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बिहारराष्ट्रीय कृमि मुक्ति दिवस-2016 सामान्य रिपोोटिंग प्रारूप (उपकँँद, लॉंक,जिल, राज्य के लिए)



## Annexure B: Prevalence Survey Brief Bihar

## Evidence Action <br> 

Deworm the World Initiative

## Prevalence and Intensity of

Soil-Transmitted Helminths in

## Bihar

In January and February 2015, Ey idence Action conducted a field survey to measure the prevalence and itrensity of sot1-transmitred helminths (STH) tnfections across the stane of Bthar. The STHs like roundworm, whipworm, and hookw orm, are a public health coocern in India; aver 261 million children are an risk of infection. The survey was condacied to assess the effect of three rounds of Bthar's school-based deworming program, following a 2012 survey that assessed baseline prevalence and tutenstry of STH tiffections.

The 1005 survey was carried out across 65 government primary shools in 14 blocks of 12 districts among chtlaren zged s to 20 . The sarvey covered all three agro-climatic zones of Blhar. It was timed to occur immediarely before the Nartomal Deworming Day in 2015.

The sarvey was conducted in partuershtp whit the government of Sihar, National Instrute of Eptdemtology; the Post-Graduare Instirute of Medtcal Education and Research, Chand Igark; and CfK Mode, a market research firm. The survey sample destgn and eptdemiological amalysis were undertaken by the National Insiture of Eptdemiology. Parastrologtal analysts was complesed by the Post-Gradusue Institute of Medical Education and Researh in field laboravortes ustng the WHOrecommended Karo-Kanz method. Cfik Mode supplied the field teams that vistred the householis of chliten from selected schools to collect stool samples and school, household, dew orming, and santrat fon related Informatton, to better understand potental correlates with tnfection and allow for sample weighting.


## Key Results and Findings

The overall average prevalence of any 5 TH in Bthar was calkulated as $35 \%$. Foundwocm had the hishest prevalence, wth prevalence of $10 \%$, whisle hookworm and whypworm pres alence were found to be $77 \%$ and $6 \%$, respectively. he prev alence in different agro-chmatic zones ranged from $20 \%$ in South Ehhar A luvial Plisns to so\% in North East Alhustal Platrs. Overall, the observed prevalence in thts survey was less than the observed prevalence $\ln 2011(67.5 \%)$

The proportion of chsldren with high and moderate tntenstiy infections in the state was coly $7.5 \%$ in 2005 , compared to $16 \%$ high and moderate intenalty Infections in 2001. Generally, chilifen wth higher intensty infections are those with the greatest STH-relited morbldsty. Therefore, even amongst those still infected, the lower average intenstly infections means that the debolitating tripact of worms in those chitdren is lesser todry in Ethar, than st was in 2011. The change in prevalence and intensty of STH :nfections indicates that the school-bused deworming program appears to have bad some effect on parastic worm infections in the state

## Recommendations for the

 Government of BiharBased on the findsngs of the prevalence survey and WHO guidelines, Evidence Actlon recommends that the state goverument continue with the blannual deworming treatment that was endorsed in 2001 . Currently, the Btammal treatment is planned to be afteved through the implementatton of one round of mass drug adminstration through the state's existing school-based deworming program, whisch admintsters albendazole to all children. The second round of deworming will be achseved through the Nattomal Flaria Control Program, whisch includes annual administration of albendazole through a communtry-based model. EvSdence Action, in line with glebal best practices, recommends that the adrnintstration of school-based deworming program and the National Fllarta Control Program be timed 6 months apart to maximize impact.

As evidenced by the current $35 \%$ prevalence, Bthar contmues to have high rates of STH infection, and sbould conssder strategles to expand dew orming coverage. This expanston should consilder greater efforts to reach out-of-schaol chstidren, chlliden in private schools, and preschool-age chisldren through angomadis

## Mapping Prevalence for Treatment Strategies

The WHO estimates that over 570 million preschool and school-age chtliren world wide are at risk of STH $\operatorname{lnfec}$ tson and 2.41 million children are at risk in India. 5 TH infections snterfere with rutrient uptake; can lead to anemia malnourishment and impased mental and physteal development; and pose a serlous threat to chlliren's bealth, education, and productivty. To mitigate the morbdity caused by STH infections, the wHO recommends treatment strategies based on STH prevalence in a regton. To date, there bas been lismtted state-wide worm prevalence data collection in India, making it dificult to develop approprite treatment strategles that reflect actual worm loads. The acou survey, however, found high prevalence of STH infections in Blhar and led to the geneals of the largest

Precticted prevalence map of STH in Bihur

shool-based deworming program in the world at the time.
In 2015 Evilience Action renewed a memorandum of understanding wth the government of Blhar to continue providing techntcal assistance for the statewsie schoolbased deworming program and to expand the program to preschoolage chlldren through angoverdis, thus targeting all at-rtak chaldren in Bthar. The government of Blhar took part in the Nattonal Deworming Day on February 10, 2015, reaching 18.7 million chiliten aged $6-19$. The school-based devorming program is a jotnt effort of the State Health Soclety Bthar and the Bthar Education Project Councli. Evidence Action provides technlcal assistance to the government of Blhar to strengthen the achool-based dew orming program.

[^13]
# Annexure C.1: Meeting Minutes of State Steering Committee Meeting Dated August 12, 2015 



Letter No $\qquad$ Date 4/9/15

Dr. Surendra Kumar
SPO(Deworming), SHS Bihar

To,
Principal Secretary, Department of Health and Family Welfare, GoB
Principal Secretary,Department of Human Resources Development, GoB
Secretary W\&CD
ED, SHS Bihar
State Project Director, BEPC, Patna
Director, ICDS
Director in Chief,Health services
AO,SHS Bihar
SPM, SHS Bihar RBSK
SPO BEPC, Deworming Program
State Team Leader ASHA Coordinator, SHS Bihar
Ms Priya Jha, Country Director, Evidence Action- Deworm the world Initiative, INDIA Program State Representative, WHO,Bihar Field Officer, Patna
SPM, Evidence Action- Deworm the world Initiative

Sub - Sharing of attached Minutes of Steering Committee Meeting held on 12 August 2015 regarding forthcoming Mass Deworming Programme.

Dear Sir/Madam
Please find the attached Minutes of Steering Committee Meeting held on 12 August 2015 regarding forthcoming next round of Mass Deworming Programme for your kind reference and records.

Your sincerely
(Dr. Surendra Kumar)

# STEERING COMMITTEE MEETING MINUTES <br> DATE: $12^{\text {事 }}$ August, 2015 

## PARTICIPANTS:

Shri Jitendra Srivastava, IAS, Executive Director, SHSB, Chairperson of the Meeting Shri Shashi Bhushan Kumar, IAS, Director ICDS, Govt. of Bihar
Sint. Anita Kumari, Assistant Director ICDS, Govt of Bihar
Shri S.Paswan, Joint Secretary, Education, Govt. of Eihar
5. Shri Rajnish Kumar Singh, Administrative Officer -SHSB, Govt. of Bihar
6. Dr. Bipin, Assistant Director Filaria Control Program, Govt. of Bhar
7. Dr. Surendra Kumar, SPO-SHSB-Deworm Program
8. Shri Uday Uwawal Kumar, SPO-BEPC
9. Dr. Rajesh Pandey, MD, State Coordinator NTD, WHO
10. Dr. R.N.Dwivedi, State Prograrn Manager, NHM
11. Shri Pranay Kumar, State Team Leader, ASHA
12. Ms. Priya Jha, Country Director, Evidence Action- Dewarm the World Initiative, New Delli
13. Mr. Dipankar Mukherjee, State Program manager-Bihar, Evidence Action-Deworm the Woeld Initiabive

## Agenda:

1. Shane findings from Round 4 of the School based Deworming program under the NDD jmplemented in Feb 2015.
2 Planning for implementation of mass deworming program in Bihar.
3 Share findings and recommendations from the STH prevalence survey done by Evidence Action-Deworm the World Initistive.
2. Defining the role of different departments.

5 Follow up on key activities following the MOU ( inclusion of Pre-school age children, out of school children, PIP and allocation of financial resources to initiate planning)

The meating was held on $12^{\text {th }}$ August, 2015 in the Office of the ED, SHSB at 11 am.

## Introduction:

Country Director, Evidence Action, started the meating with a power point presentation to brief participants on the findings from the School based Deworming (SBD)round-4 implemented in Feb 2015 , and take key discussions for planning the next round. She also shared the STH prevalence mapping results. The survey was conducted in Jan- Feb 2015 and the report with recommendations have been shared in June to the State Government. Key findings were shared at the meeting for the larger group.

Key points that were discussed at the meeting, and decisions taken are mentioned as below:


## A) Revised MoU with the government of Bihar:

Highlights from the MoL signed in May, 2015 was shared. The MOU was revised and renewed for upto 2018 , with inclusion of a new stakeholder - Department of Women and Child Development for expanding the program to cover preschool age children.

The MCU ale alsarly definod the roica and reaponaililities of all stakelfuluens, with mesh as the Nodal body to coordinate the program planning and implementation in the state. (MOU attached as Annexure - 1)

## B) STH (Soil Transmitted Helminthes) Prevalence Survey:

Findings from the STH prevalence survey were shared including sharing of the process that adopted to complete the survey. Evidence Action shared details of the sampling, methodology for testing. Epidemiology, field and parasitology partners, and WHO recommendation on conducting
 deworming program. The following recommendations were highlighted from the survey findings:

- There has been significant difference in prevalence of STH from the previous survey
 some effects on STH prevalence in Bihar. It was noted that the prevalence may have fallen further with greater program coverage and regular implementation of the LF MDA. Therefore, it was important that Bihar strengthen the biannual deworming strategy to ensure greater coverage and more regular biannual deworming te further reduce the prevalence and reduce reinfection.

2 The Deworming program to devise strategies to increase coverage through inclusion of preschool children, children attending private schools, and greater efforts to reach out of school children.
> To decrease reinfection rates other strategies such as reducing open defecation, improved hygiene and sanitation also need to be actively promoted.

7 The Executive Director (ED). SHS Bihar also asked for more information on the epidemiological data that showed significant variation on the prevalence across the date, and asked for reasons for the same. Deworm the World, will coordinate with the National Institute for Epidemiology for the details and will share with the ED.

## C) Strategy to include Preschool children:

- It was noted that NDD (National Deworming Day) guidelines from the Government of India recommended the inclusion of preschool age children between 1-5 years in deworming. While Bihar has never included this age group in previous rounds, there was commitment through the new MOU to include the preschool age children at the Angarvadi centers and engapamant of the icons rimportment whet regard is the alary discussion following point was decided:

$>$ ED SHSB asked ICDS to nominate a nodal person to lead deworming efforts in the state and be the point of contact for all future coordination meetings. A letter to the effect to be taken out soon was directed by the chairperson of the meeting.

7 The drug requirement for this age group will be undertaken by the health department. The ROP for the year 2015-16 has been received by the state and all approvals for drugs are received. Immediate coordination needs to be initiated between SHSB and ICDS to finalize the drug requirement, and next steps for procurement have to be initiated. Challenges within the state government for procurement were raised, and was decided that those need to be resolved, or alternate steps need to be taken to ensure ICDS has the drugs available to deworm the preschool age children.

## <compat>ᄂ) Dews pming out of school children:

- In order to increase coverage, lower prevalence, reduce risk of reinfection, and increase impact, it was important to reach out-ot-school children. While progress has been made
- over tho provioua rounds to cover these ciniluien as per lala avallatie, greater erfults needed to be made to reach this at-risk group.
> The ED, SHSB suggested that students who are not regular to school, or do not attend school though enrolled, the HMs through the school enrollment list and child profile can instruct the teachers to reach out to the community' parents and mobilize all children are atleast present on NDD.

2. Adding to the discussion, the SPO BEPC noted that there is "Bal Mani" fIst available in every school which might be used for mobilizing children for NDD, which Was approved by the ED SHSB and directed to finalize the strategy to operationalize the same.
E) Inclusion of Private school children:
3. The NDD guidelines from the Government of India recommend inclusion of private school children in the Deworming Program. Deworm the World Team shared that the children who are in the private schools should not be missed as the chances of reinfecilun lisuedses in ute cruinnuity wite an at risk are not oewormad; therefore not a single child should be missed. SPO BEPC noted that the BEPC now have the list of such schools that are affiliated and registered.

- ED SHSB approved the inclusion of private school children in the next deworming round and advised BEPC to give the updated list of all private schools in every district. He advised the issue of letters to these schools ensuring their school children presence on National Deworming Day- NDD at the centers. A detailed strategy needs to be worked out on the same and shared with all stakeholders.

- ED SHSB asked his officials to get information on the foxed rate contracts to allow for procurement of drugs at BMSICL for preschool children. He said that for the program io happen in Feb 2016, the government will have to start the process immediately.


## J) Program Management:

- It was also decided by the ED, SHSB that engagement at divisional level meetings are important to ensure active involvement of the district level officials. ED SHSB suggested to held Divisional Commissioner meetings participated by DMs, BEOs, MOICs, CDPOs. ED SHSB agreed to send letters to all Divisional Commissioners to organize/coordinate divisional level meetings as to facilitate the better convergence between Health Education and ICDS departments at their level. This will help the government officials to coordinate, support and assign roles of departmental head to ensure that the IEC materials, drugs and reports are generated on time and each district and divisional officer take responsibility of the same. The meeting with the Divisienal Commissioners can be initiated by the Deworm the World Team.
$\frac{a}{2}$
ED SHSB advised in inwolving ASHA for non-enrolled and out of school children. At the discussion it was mentioned that since ASHA is a worker who receives incentives, the PIP has confirmed the inclusion of incentives to mobilize the same. This will largely support the mobilization efforts for increased coverage during the Deworming Day.
- ED SHSB suggested involving CRCCs (Cluster Resource Center Coordinators) in the program, since they played a key role in the blocks. Therefore they might be incorporated in operational tasks for deworming instead of depending on the BEOs alone.
> Deworm the World Initiative shared the idea of "Deworming wall" at schools where dewormed children could write their names on the poster pasted on the school wall. That will raise interest in the children and the event will gain momentum. ED SHSB approved on the idea as it would increase coverage of the program.
- ED SHSB also approved that the nodal officer of the concerned departments would need to meet further at short intervals to discuss specific plans and strategies and keep the ED and other senior officials of all Departments informed.


## The meeting was adjourned thanking all present.

## Sincerely Yours

sd/-
(Jitendra Srivastava)

## Executive Director


Patna, Dated:-......4|9].15.....
Copy To:

1. Shri R.K.Mahajan, IAS, Principal Secretary, Department of Education, Govt. of Bihar

# Annexure C.2: Meeting Minutes of State Steering Committee Meeting Dated December 16, 2015 

## STEERING COMMITTEE MEETING (SCM) MINUTES

DATE: December 16, 2015

## Participants:

1. Sri Jitendea Srivastava, IAS, Executive Director, Stste Health Society, Bihar
2. Sri Sashi Bhuasan Kumar, IAS, Director ICDS, Bihar
3. Sri Rajnish Kumar Singh, AO, SHS Bihar
4. Smt. Anita Kumari, Assistamt Director ICDS, Govt of Bihar
5. Dr. Surendra Kumar, SPO-Deworm Program, SHS Bihar, Govt of Bihar

Sri Uday Kumar Ujiwal, SRP-BEPC
Sri Pranay Kumar, State Team Leader, ASHA
8. Mr. Jeffery Holden Brown, CEO, Evidence Action.
9. Ms Priya Jha, Country Director, Evidence Action - Deworm the World Initiative
10. Mr Dipankar Mukherjee, State Program Manager-Bi har, Evisence Action-Deworm the World Initiative
11. Representatives from Evidence Action- Deworm the World Initimive.

## Agenda:

The agenda of the meeting was to update the stakeholders with the progress made post SCM on August 12, 2015 for the preparations for upcoming "National Deworming Day 2016" in the state. The meeting
 and implernentation of the state wide NDD 2016.

The meeting was held on December 16, 2015 in the office of Executive Director-SHS Bihar at 09:00 AM

## Introduction:

Country Director, Evidence Action, started the meeting with a power point presentation to brief the participants on the key achievements of the NDD 2015 and the preparations for the upcoming National Deworming Day (NDD) in February 2016. The discussion were aligned with reference to the National Deworming Day - 2016 Operational guidelines issued by Ministry of Health and Family Welfare, Gol along with the key decisions taken in the Steering Committee: Meeting hold on Aagust 12, 2015 ander chair of Evecutive Director, State Health Society Bihar.

Objective and targets for the National Deworming Day, 2016 (Reund -5)

- National Deworming Day 2016 will target all children in the age group of 1-19 years, including children enrolled in govenmment and government abded schools, out-of-school children and preschool-age children through angowadt centers.
* Inclusion of central affiliated schools ie, 45 Kendrive Vidhyalayer and 39 Navordoya Viahbaiaya in the state of Bihar.
* In reference to the decision taken in Steering Committee meeting, program plans to expand reach to private schools in four districts i.e Muxaffarpur, Paschim Champaran, Pumia sand Begusarai.
* Greater ownership at distriet level towards the program with regular review of program preparedness through District Coordination Committee Meeting
* Align integrated distribution of program resources like drugs, IEC and handouts with training for greater reach to schools and amgamwadr centers.
- Incrensing coverage of all out of school children and awganivalif through active engagement of ASHAs and ANM in the state


Key points that were discussed at the meeting and decisions taken are mentioned as below:

1. Finalization of denominators for NDD 2016

- Country Director, Evidence Action stated that fixing the denominators in the following categories: Children enrolled in government and government aided schools, children enrolled in private schooks, Out -of-scbool, preschool registered in soggownads and not registered, are Gucial su that the urgets for the prograin aife well dehmed to have accurate coverage reported. To this ED-SHSB asked the Department of Social Welfare and Education to communicate on the denominators by December 21, 2015 so that the required finalization can take place.
- Director - MCDS enquired about the target preschool age population for Anganwands in the state of Bibar, To this the Assistant Director- ICDS stated that the targets have been arrived at by using the census 2011 data, to ensure all no chitd is left treaved in the soming round.

2. Inter-deparmental coordination between stakeholders

- ED-SHSB stated that considering the approaching timelises for NDD 2016, regular meetings with all stakeholder departments are crucial and fised Nodal officer meeting from concemed departitent on every Monday at $04: 00 \mathrm{pm}$ under the chairman ship of ED-SHSB.
- ED-SHSB decided that an state level coordination meeting will be organixed under the chairmanship of Principal Secmetary (PS)-Health en Beevenber 21, 2015 with the partuel departments for better coordination and timely decision making at the state levet.

3. On drug procurement for preschool age children. ED-SHSB stared that all the districts have been instructed for short term tender for procurement of Albendazole 400 Mg tablets. This arrangencent has been made to ensure drug availabelity for the target population, in case state docs not take plase in time. This is erfical to the program for preschool age children who have not received deworming other than LF program.
4. ED-SHSB directed the representative from Edocation to coordinate for figures on private school in the state. He stuted that for NDD 2016 the state would pilot the program in four districts i.e Muzaffarpur, Paschim Champaran, Parnia and Begusarai based oe STH prevalence for the upcoming NDD 2016, However for next round the state will targer all the private schoels in Bihar.
5. ED-SHSB stated that the IEC printing for the state of Bihar will be initisted with immediate effect and no further delays should take place at any level.
6. ED-SHSB stated that the interdepartmental coordination and communication should take place on priority busis so that drugs and IEC availability is ensured an every level.
7. For inclusion of Kenibiba Vidhywlayu (KV) and Navodigu Vidpolaya (NV) in the NDD 2016, ED-SHSB stated that the letter in this regard has been shared with the and a separate meeting will be called with the state representatives of KV and NV to ensure participation in the trainings and NDD round 2016.
8. ED-SHSB stated that a bodal person for deworming at district level from Deportment of Health, District Immunization Officer (DIO) will be appointed to ensure effective interdepartmental coordination for program roll cut, A letier to this effect would be issued by SHSB.
9. ED-SHSB directed that the letter of communication with the districts for organizing the Dietrict Coordination Committee (DCC) Meetings under chair of District Magistrate should begin imnsediately, SPO-Child Health agreed for sharing the letter with immediate effect.
10. ED-SHSB stated that joint monitoring at the district level by the govermment department should be taken for NDD 2016.
11. Country Director. Evidence Action shared that the drug buniding plan for school based deworming has been shared with the department. SPO-Child Health updated that the letter communication for further movement will be initiated with the drug store at Patna. ED-SHSB stamed that the bundling plan should be shared at earliest and also the concerned distriet Civil Surgeons should also be intimated about the integrated distribution.

12. Country Director, Evidence Action - Deworm the world lnitiative mentioned the importance of ASHA in mobilaing col-of-school children and the incentive plan m approved by the Goverument of India. ED. SHSB directed the ASHA Team Leader to provide the contact data base at earliest so that the required training reinforcement messages coald be sent to all ASHA Inclusion of deworming content on regalar ASHA training modules should also be explored.
13. ED-SHSB proposed that the Department of Healhh would facilitate for a provision of two panchayat in every block to be declared as a "Model panchayat" that will aim for IOW\% coverage in the upcoming NDD 2016. Similar provisions sould be explored for awarding top five performing distrist with CM 's, Governor's shiveld,
14. ED-SHSB directed frequent review with districts on a regalar basis would be initiated through Video Confcrence (VC) in participation of dieterist wffirials of sencerned department incloding Civil Surgeon to assess prepsrations for Nation Deworming Day 2016.

The meeting was adjourned thanking all present.

(Jitendra Srivastava) Executive Director State Health Society, Bihar

## Copy to,

1. Principal Secretary, Health, Bilhar
2. Principal Secretary, Education, Bihar
3. Secretary, Social Welfare, Bihar
4. State Project Director, BEP
5. Administrative Officer, SHS Bihar
6. Assistant Director, Filaria Control Programme, Bihar

7 Aveialant Director, ICDS. Bihar
8. Sute Co-ordinmor, NTD, WHO
9. State Prograrse Manager, NHM, SHS Bihar
10. Team Leader, ARC, SHS Bilhar
11. Country Director, Evidence Action - Deworm the World Initiative
12. Suue Progran Manager-Dihar, Evidence Setion Damorm the Werla Initiastive

## Annexure C.3: Letter from SHSB to WCD and Department of Education for sharing Operation Plan NDD 2016

## राज्य स्वास्थ्य समिति, बिहार (0) <br> An IS0 3001:2008 Certifled Agency <br> 1

Jitendra Srivastava, I.A.S.
Executive Director
Letter No. SHSB/G.A./1393/2015/........2............
To,

1. State Project Director, Bihar Education Project Council
2. Director, Integrated Child Development Services, Bihar

Patna, Date: ../6.../12/2015
Sub: Sharing the Operational Plan for the implementation of National Deworming Day (NDD) February 2016.

## Dear Sir/Madam,

As you are aware that State Health Society, Bihar in coordination with Bihar Education Project Council and Integrated Child Development Services has agreed to conduct the NDD in February 2016.
2. We are now very close to the dates of NDD and it's crucial that the important decisions pertaining to training, drug bundling, IEC printing, monitoring and reporting mechanisms are well in place before the round.
3. In this regard State Health Society, Bihar in coordination with Evidence Action-Deworm the World Initiative has developed the Operational Plan for implementation of NDD 2016.
4. The operational plan contains the required timelines for important activities so that a tract of the activities are taken into consideration and also important decisions for successful implementation is taken on time.
5. I would request you to go through the Operational plan and align the activities accordingly.

(Jitendra Srivastava)
Encl: Operational Plan for Round 5 (February 2016).

# Annexure C.4: Joint Guideline issued for NDD February 2016 with signature from Principle Secretary of Health, Education and WCD 

## बिहार सरकार


सेवा में,

1. सभी जिला पदाबिकारी, बिहार।

समी सिबिल सर्जन-सह-सदस्य सचिव, जिला स्वास्य्य समिति, बिहार ।
3. सभी जिला सिर्षा पद्धािकाजी, निहार किम्ता योजना परिषद्।
4. समी जिला कार्यक्रन पदाचिकारी, समेकित बाल विकास सेवाए, बिहार।

पटना, दिनांक 23/12/2015 विषय: 10 फरवरी 2016 में 1 से 19 वर्षीय बच्यों में कृमिमुकित्ति हेतु 38 जिलों में राष्ट्रीय कृमिमुकित

दिवस का आयोजन किये जाने के संबंध में।
संदर्गः राष्ट्रीय कृमिमुक्ति दिबस के संबंध में भारत सरकार द्वारा जारी पत्रांक्र. Z28020/237/2013CH, दिनांक 11 दिसंम्बर 2015 ।
महाशया/महाशय.
उपर्युक्त विशयांतर्गत्त उल्लेखित है कि घम्टों में कृमि संक्रमण: व्यक्तिगत अस्वच्छता तथा संककित/ दूष्वित मिह्धी के संपर्क से संक्रमण होता हैं। कुमि संक्रमण से बच्चों की जाहीं एक ओर चारीशिक एवं बीद्यिक विकास्ता बाटित छोती है वहीं दूसरी ओर उनके पोषण सार एवं हिमोग्तोविन स्तर पर भी दूल्यमाब पहता हैं। अतः 1 से 19 वर्थीय बच्चो का कृनिनाशन करना, विल्य स्वास्थ क्षंगठन द्वारा अनुसंमित एक साह्य आपारित रणनीति हैं।

इसी तारतम्य में राज्य में राष्ट्रीय क्मिमुमुक्ति दिवस का आयोजन भारत सरकार के दिशा निर्देशानुसार एक निश्यित दिवस पर (Fix Day Approach) 10 पार्यरी 2016 को 38 जिलों के सरखाशी स्कुल, केन्द्रीय विद्यालय, नवोदय
 माख्यम से 1 से 19 वर्थांय बच्चों का कृनिनाशन कि्या जायेगे जिस हेतु भाखत सरकार के उबत सदर्भित पत्र के माव्यम से वाद्ट्रीय कूनिमुकित दिवस का आयोजन 10 फरवरी 2016 एव मोप-अप दिवस 15 फरवती 2016 को किये जाने हैत निदेश्रित किया गया है।
राष्ट्रीय बृमिमुक्ति दिवस का उद्देश्य :-सभी जिलों के सरकारी स्वूल केन्द्रीव वियालब् नवोदय विदालय, निजी कूत (वार जिले- बेगुसराय, गुजप्कत्रुर पूनिया तथा पश्चिमी चन्पारण) एवं आंगनवाड़ी केन्दों के माध्यम से समस्त 1 सें 19 वर्षीय बच्द्यों को कृमिनाशन हैंतु एल्बेण्डाजोल की गोली की प्रदायमी तुनिश्रित्त करना जिससे बच्चों के संपूर्ण ख्वारध्य-पोषण सर्त, आयरन की कमी की रोक्षान से बौन्किक विकास में सुधार हो सके।
राष्ट्रीय कृमिभुक्ति दिवस के आयोजन के संबच में निर्देशित किया जाता है कि :

- राप्ट्रीय क्निमुक्ति दिवस (National Deworming Day-NOD) का समारोहभूर्वक शुमारंभ विशिष्ट एव गणनान्य व्यक्ति/बिला कलेक्टर द्वाशा दिनांक 10 फरखरी 2018 को स्रुनिश्वित किया जाये। कार्यकम का क्रियान्वयन स्वास्रय. शिक्षा विगाग एवं समेकित बाल विकास सेवायें के समन्वय से किया जायेगा।
- 10 फरवरी 2016 को आयोजित राष्ट्रीय कृमिमुवित दिवस पर 1 से 19 वर्बीय बच्चों को निम्नानुसार बुराक दी

| आयु वर्ग | एलबेन्दाजोल की सुराक | सेवा प्रदाता |
| :---: | :---: | :---: |
| 1 से 2 वर्षाय बच्ये | आघी गोली (वर कर पानी के साय) | अगनवाडी कार्यकत |
| 2 से 6 वर्षीच बच्च | पूरी 1 गोली (चूर कर पानी के साथ) | आंगनदार्डी कायक्ता |
| 6 से 19 वर्षयय क्कूल में पंजीकूत बच्चे | पूरी 1 गोली (चयाकर पानी के साध) | शिशक्षक |
| रकूल नही जाने वाले 6 से 19 वर्षाय बच्चे | पूरी 1 गोली (च्वाकर पानी के सार्थ) | आगनबाड़ी कार्यकता |

- दिनांक 10 फरवरी 2016 को समस्त सरकारी रकूल, केन्द्रीय विद्यालय, नवोदय विघ्घलय, निज़ी स्कल (चार जिलेबेगुसराय मुजप्क्रपर पूरिंया तथा पश्चिमी वम्पारण) के माव्यम से 5 से 19 वर्षीय बालक एवं बलिकाओं को कृमिनाशन हेतु एल्बेम्डाजोल (Chewable. 400 mg ) की 1 गोली का सेवन, शिलिक की उपस्थिति में सुनिश्चित किया जाये।
- समी 1 से 6 वर्षीय बच्चों तथा स्कूल नहीं जाने वाले समस्त 6 से 19 वर्षीच बालक एवं बालिकाओं को आगनवाड़ी केन्द्धों में एल्बेण्डजोल की गोली उपरोक्त तालिकानुसाश सेवन कराया जाये।
- NDD kit के अंतर्मत निम्न सामगियायाँ हैं-

1. 1 Hoarding:flex/district
2. 1 Banner/PHC

3- 4 Docket/district (2/beaith, $1 / \cos \& 1 /$ Educatian)
4. 6 Mini checklist (2/health, $2 / \operatorname{CDS}$ \& $2 /$ Education)

## NDD kit school \& AWC

1- Albendazole Drug
2. 2 Posters for school

3- 2 Posters for Angarmadi
4. 1 Handout for school (Reporting form Handout में संलग्न है)

5- 1 Handout far Anganwadi (Reporting Form Handout में संलग्न है)
6- 1 ASHA loaflet
7. 1 ASHA Reporting form

8- Community handbill - 1000 each block (आशा द्वारा सामुदाय में वितरित किया जायेगा 1 )

## स्वास्य विशाग की मूमिका :-

- विदित हो कि जिला प्रतिक्षण पदाचिकारी को राम्ट्रीय कृमिमुक्ति कार्यक्म 良तु नोडल पदाधिकारी नामित किचा गया है हससे संबधित निर्देश राज्य स्वार्य समिति, बिहार का पत्रांक SHSB/GA/1393/2015/8361, दिनांक $21 / 12 / 2015$ द्वारा दिया जा चुका है । जिनके द्वारा राष्ट्रीय कृमिभुक्ति कर्यक्मम से संबंधित निम्न गतिकिधियो को सुनिश्चित किया जाना है ।
- एल्बेण्डाओोल गोलियां निशशुल्क प्रदान की जा रही है । जिसके 1 जार में 200 गोलियाँ है इसे जिलों की आवश्यकता अनुसार एलबेन्डाजॉल गोलियों की बंडलिंग राज्य स्तर पर की गयी है। जिलेवार सरकारी स्कूल, केन्द्रीय क्वियालये नवोदय विद्यालय, निजी रकूल (चार जिले- बेगुसराय, मुजप्फसुर, पूर्णिचा तथा परियमी छस्पारण) एवं आंगनवाड़ी केन्द्धों में बच्वों की संख्या के मान से एल्ब्रेण्डाजोल गोलियों की अनुमानित जिलों में आदश्यकता अनुसार की विवरणी अनुलग्नक-क संलग्न है।
- राष्ट्रीय कृमिमुक्ति दिधस एवं मोंप अप है पर कियर्मिग कार्यक्रम को सम्पन्न करने हेतु जिला तथा प्रखण्ड स्तरीय समन्यय समिति की प्रथम बैठक माह दिसंबर 2015 में एवं द्वितीय बैठक जनवरी 2016 के अंतिम सप्ताह में आयोजित कराना सुनिश्चित करेगे। इस हेतु कार्यक्रम संबंधी NDD kit की उपलक्षता, जिला स्तरीय शुभारंम प्रतिकूल घटनाओं से संबंचित तैयारी सुनिश्वित करें। हत संबंधित निदेश राज्य स्तर से निर्वंत किज्या जा चुका है ।

| $\begin{aligned} & \text { क्र } \\ & \text { सं० } \end{aligned}$ | स्तर | विदरण | निर्धारित समय-सीमा | जिम्मेवार |
| :---: | :---: | :---: | :---: | :---: |
| 1 | जिला सतर पर | National Deworming Day Kit - <br> - प्रखण्डबार एलबेन्छाॅॉल गोलियों की हंत्रलिग जिलों को उपलब्ध करायी ज्ञा रही है जिसे प्रत्येक प्रखण्ड पर उपलबता न्तुनिश्चित करायें। <br> - प्रसार-प्रचार एवं प्रशिक्षण सामग्रियों हहोर्डिंगबैनर पोस्टर, आशा लिपटलेट, आशा रिपोटिंग प्रपत्र एवं घेकलिस्ट, हैप्डबिल) की यवस्था हेत् समी जिलो को उपलज्ध करायी | $\begin{aligned} & 10 \text { जनवरी } \\ & 2016 \text { तक } \end{aligned}$ | जिला स्वास्थ्य समिति |


|  |  | जा रही है । जिसे अपन स्तर से बहलिंग कर प्रत्येक प्रखण्ड पर उपलथता सुनिश्वित करायें। <br> खरी COPOMOIC/BHMDEOIDPOXEOVBRPI Teacher-Kendriya vidayals, Nevodaya Vidayela जिला स्तरीय खाश्या, आइ०सी०डी०एस० के अबिकारियों को एन.ठी.डी के संबंध में प्रशिक्षण तथा नेशनल डीवर्मिंग हे किट का बितरण करना । जिला वार प्रशिक्षण तिथी संलग्न (अनुलग्नक-ख)। | 01 से 10 जनवरी 2016 | प्रशिक्षण स्थलजिला स्वास्थ्य समिति द्वारा नियांशित किया जाना। शिक्षा स्वास्य तथा आइ. सी.डी एस विभाग अपने संबंचित जिला स्तहीय प्रतिभानियों को भाग लेना सुनिश्वित करायेंगे । |
| :---: | :---: | :---: | :---: | :---: |
| 2 | $\begin{aligned} & \text { प्रखण्ड } \\ & \text { स्तर पर } \end{aligned}$ | BEO/BRP द्वारा स्कूल के प्रधानाचार्य/शिश्रको का प्रशिक्षण (वयनित थार जिले के निजी स्कल के प्रधानाधार्य / शिक्षकों का प्रशिक्षण प्रखाण्ड स्तर पर) | 15 से 31 जनवरी 2016 | शिक्षा विभाग |
|  |  | आशा/आंगनवार्जी कार्यक्ताओं / ए.एन.एम. का उन्मुख्बीकरण | 15 से 31 जनवरी 2016 | स्वाश्य्य तथा आइ. ती.डी.एस विभाग |
| 3 | समस्त स्तर पर | नेशनल द्रीवानग त्रे का शुभारम-जिला पदाबिकारी के स्तर अशवा छनके उपरिथति में कराया जाना । | 10 फरवरी 2016 | $\begin{aligned} & \text { जिता स्वास्थ्य } \\ & \text { समिति } \end{aligned}$ |
|  |  | मॉप-अप डे | 15 फरवरी 2016 |  |
| 4 | सिपोटिंग प्रणाली | - आंगनवाड़ी. ए.एन एम. को रिपोर्टिंग फार्म जमा करेंगी । <br> - शिक्षक/हेड मास्टर, CRC को रिपोटिंग कार्म जमा करेंगे । | $19 \text { फरवरी }$ $2018$ | स्वास्थ्य शिक्षा तथा आइड़ी. ड़ी.एस विभाग |
|  |  | - एएन.एम प्रभारी चिकिनसा पदाहिकारी को रिपोटिंग फार्म जना करेंगी । <br> - CRC, BEO को रिपोर्टिग फार्म जमा करेंगे । <br> - निजी स्कूल (चार जिले के लिए लागू) अपना रिपोर्ट BEO को जना करेंगे । | $26 \text { फरवरी }$ $2016$ |  |
|  |  | - BEO, DEOMPO को रिपोर्ट जमा करेंगे। <br> - केन्द्रीय विछ्यालय एवं नवोदय विचालय अपना रिपोर्ट DEO/DPO को जना करेंगे। <br> - प्रभारी चिकित्सा पदाधिकारी सिविल सर्जन को च्चिपोर्ट जमा करेंगे। | $\begin{aligned} & 10 \text { मार्च } \\ & 2016 \end{aligned}$ | स्वास्थ्य तथा शिक्षा विमाग |
|  |  | - DEOVPO, सिविल सजन को स्रिोर्ट जमा करेंगे। <br> - सिदिल सर्जन, स्वास्थ्य तष्षा शिक्षा से प्राप्त रिपोर्ट को संकलित कर राज्य स्वास्थ्य समिति, बिहार को रिपोर्ट जमा करेंगे । | १) मार्द 2016 |  |

उपरोक्त तालिका में उल्लेखित रिपोटिंग प्रणाली के अनुसार ससमय सूनिश्वित किया जाय ।
7. औगनवाड़ी केन्द्र रजिस्टर (पोषक क्षेत्र के अंतर्गत उपलख्य सनी बच्यों) और आशा रिपोर्टिंग प्रपत्र में गोली खिलाने के वाद्र $\sqrt{ }$ का निशान लगाना।
8. मोप-अप दिवस्स पर छूटे बच्चों को गोली खिलाना एवं औगनवाड़ी केन्द्र रजिस्टर (पोषक क्षेत्र के अंतर्गत उपलब्ध सभी बच्चों) और आशा रिपोटिंग प्रपत्र में दो $\checkmark \checkmark$ का निशान लगाना।
9. जो बच्चे बीमार हैं या कोई दवा ले रहे हैं उन्हें एल्बष्छाजोल गोली का सेवन नहीं कराया जाए।
10. बच्चों में डिवर्मिग की दवाई के साईंक इफेक्ट बहुत कम होते है। कृमि संक्रमण की अधिकता के कारण कुछ मामूली दुष्र्रमाव जैसे- चक्कर आना, जी मचलाना. सरदर्६. उत्टी दस्त, थकान जैसा अनुमद होने की सभावना हो सकती है। ये कुछ समय में अपने आप ठीक हो जाते है।
11. किसी भी प्रकार के दुष्रमाद की स्थिति मे बच्चे को खुते एवं छायादार स्थान पर लिटाया जाये तथा साफ स्वछ पेयकज दिया जाये।
12. आंगनवाड़ी यह सुनिश्चित करेंगे कि राष्ट्रीय कृमिमुक्ति दिनस तथा मॉप-अप दिवस से पहले आशा/ए.एन. एम./RBSK/प्रभारी चिकित्सा पदाधिकारी/बी.एम क का दूरभाष ने एकल में रखोंगे ताकि गरीर प्रतिक्ल सकण होने पर सपर्क सूवी में दर्ज ग्राम की आशा/एएन एम,/RBSK/प्रभारी चिकित्सा पदाधिकारी/बी.एग
 नजदीवी स्वास्थ्य केन्द्ध पर पंहुचाया जाये।
13. दिनांक 15 पारवरी, 2016 को समस्त छूटे हुए बह्यों को मोंप अप है पर एल्बेप्डाजौल गोली का सेंवन कराया जाये।
14. 19 फरवरी 2016 को औंगनवाड़ी अपना रिपोर्ट ए.एन्न एम. को उपलब्य कराना सुनिश्चित करेगी ।
15. जिन पंचायतों में शत-प्रतिशत अच्कादन होता है, उक्त पंबायत के सभी प्रथानाव्यापक, समी आँयनवाड्डी सेविका/सहायिका CRC प्रमारी एवं महिला पर्यवेक्षिका को जिला स्तर पर जिला पदाचिकारी द्वारा पुरस्कृत किया जायेगा एवं उन पंचायतों को "NDD-आदर्श" पंचायत धोषित किया जायेगा । इसका वहन जिला स्वार्य्य समिति करेगी ।

प्रयास किया जाय कि न्यूनतम हर प्रखण्ड में कम-से-कम 2 पंचायतों को इस अभियान में "NDD-आदर्श" पंचायत घोषित किया जा सके ।

प्रमंदल स्तर पर सर्वोच्च प्रदर्शन करने वाले जिलों को एवं राज्य स्तर पर उत्कृष्ट कार्य करने वाले 5 जिलों को राज्य स्वास्थ्य समिति, बिहार द्वारा अलग से पुरस्कृत किया जायेगा । इसके तहत उन जिलों के जिला पदाधिकारी, सिविल सर्जन, जिला प्रतिरक्ण पदाधिकरी, जिला शिक्षा पदाधिकारी, जिला कार्यक्रम पदाधिकारी-आइ.सी.ही.एस एवं जिता कार्यक्तम पदाधिकारी-एस.एस.ए पुरस्कृत किये जायेंगे ।

सर्वोंच्च प्रदर्शन करने में 80 प्रतिशत अधिभार जिले के कुल अच्छादन प्रतिशत को दिया जागेगा पृनं 20 प्रतिशात गचिमाए "NOD-आ आदर्शै पंखायतों की संख्या पर निर्भर रहेगा ।

10 फरवरी 2016 को आदर्श व्यवस्था के अंतर्गत राष्ट्रीय कृमिमुक्ति कार्यक्रम संचालित करने की क्पा की जाय ।

संलग्न : यथोकत ।


छा० घर्मेन्द्र सिंह गंगयार
प्रधान सचिव.
शिस्षा विमाग
बिह्ञार सरकार

Qryund
आर. के. महाजन, प्रघान सचिव, स्वास्थ्य, विभाग बिहार सरकार

# Annexure C.5: Letter Issued From SHSB to District Magistrate for Private School Engagement 



Jitendra Srivastava, I.A.S.
Executive Director
L. No. SHSB/GA/1393/2015/..........9.!

To,
District Magistrates,
Dist: Begusarai, Paschim Champaran, Muzaffarpur and Purnia
Patna, Date: :.7.../12/2015
Sub: Involvement of Private Schools in districts of Begusarai, Paschim Champaran, Muzaffarpur and Purnia in the National Deworming Day (NDD) program February 2016.

Dear Sir,
The National Deworming Day (NDD) was launched by the Child Health Division of the Ministry of Health and Family Welfare, Government of India, in February 2015. It is a fixed day approach to intensify efforts towards control of Soil Transmitted Helminths (STHs) among children in India. Evidence shows that mass deworming leads to significant improvement in outcomes related to education, career choice, earnings and long-term well-being of children. The state of Bihar is carrying out the Bihar Mass deworming program since 2011.
2. Coverage of all school age children is important so as to ensure that children lead healthier and worm free lives. The NDD guidelines prepared by Ministry of Health and Family Welfare, Government of India also recommends that private schools are included in the February 2016 round so that large number of children can benefit from the program.
3. We are sharing the list of Private schools based on DISE 2014-15 data that are to be covered in the NDD 2016.
4. It would be very kind of you if information is circulated to the concerned schools for participation and timely reporting in the deworming program in February 2016. This will help us communicate the training dates and receiving of IEC material and drugs from the concerned Block Education office on time.
5. The exact details of the program would be communicated to you in third week of December 2015. We look forward to cooperation from your end.


# Annexure C.6: Letter issued from SHSB for conducting District Coordination Committee Meeting 

## रज्य स्वास्थ्य समिति, बिहार <br> As 150 9001:2008 Certified Agency

जितेन्द्र श्रीवास्तव भा.प.से
कार्यपालक निदेशक
पत्राक:-SHSB/GA/ $1393 / 2015 / 8.361$
सेवा में.
स्याभी जिला पदाधिकारी.
विहार
विषय : विघालय आधारित हिवर्मिच कार्यक्रम का पोचवां करण दिनाक 10 फरवरी, 2016 (ङिवर्मिंग छे) एवं दिनांक 15 फरबरी, 2015 (मोप अप हे) हैतु जिला तथा पखण्ट स्तरीय समन्वय रालित की बैवक आयोंचित करने के सबक्ष में।

$$
\text { पटना, दिनांक : . } 21 / 12 / 2015
$$

महाराया/महाशय,
उपर्वृक्त विषयक कहना है कि राष्ट्रीय कृयिगुक्ति कायंक्रम के लहत राज्य स्वरज्य समिति, विलत, हिहार

 दिनाक 15 फरसरी, 2016 (वाँप जप है) को प्रस्ताकित है। इक्ष कार्यकन को संतर्गत केन्दीय विद्यालय नवोदय विधालय. सरछारी एव वर्यनित जार जिते यधा हेगुसचया, पूर्णिया, मुजपफरपुर एवं पचिचमी चम्करण के गैर- तरकारी रफनी हच्यों को अलबेडाजोल ( 400 mg ) की गोती खितन जानी है।

उक्त के संदर्थ में निदेशित करना है कि दिवर्विंग कार्यकम हैतु जिता प्रतिरसण पदारिकारी को जिला स्तरीय नौहल पदाविकारी नामित किसा जाता है। उक्त राट्ट्रीय बृमिमुणित दिवस्त एवं मौँ अप डे पर खिसर्मिग कार्यकम को सम्पन्न करने हैंतु जिला तथा मखण्ड स्तरीय सनच्यय समिति की प्रथन बैठक माह दिसंबर 2015 में एवं फ़ितीय बैत्क जनवरी 2016 के अतिम सम्बाह में आयोजित कराना सुनिश्वित करोग, क्षिसमे शिक्षा, स्वास्र्या एवं समेकित बात द्विकास सेवार्, Evidence Action Deworm the world Initiatwe एवं अन्च विभाग के प्रतिनिधि गी सभ्भिलित हों तथा उक्त बेउक में लिये गये निर्णयों का बनुपातन में कृत कार्रवाई तथा बैतक कार्यवाई प्रतितेदन जिला स्तरीय प्रतिभागियों राज्य स्वाश्थय समितित विजार, एटना कतो spochildhesith Dr.mail.com पर एवं Evisence Action Deworm the world initiative के जिला एवं क्षेत्रीय समचय को उपलब् कराना सुनिर्चित करोगे।


# Annexure D．1：Drug testing for WHO albendazole received under the Global drug donation program 

）．Surendra Kumar
Chief Medical Officer－cum－ State Programme Officer

Child Health

卷 राज्य स्वास्थय समिति，विहार（6）

पत्रांक : SHSB/G.A./1393/2015/..195.......

सेवा में
श्री महेश कुमार सिंह वरीय वैज्ञानिक सहायक। प्रमारी सरकारी विश्लेषक，बिहार द्रग कंट्रोल लैबोरेटरी，
अगम कुं，पटना－07
पटना．दिनांक：Z2．8．．／01／2016
विषय：अगायी National Deworming Day हैतु फाइलेरिया नियंत्रण इकाई सो प्राप्त Albendazole tablet की गुणवत्ता जाँच करने के संनँध में।
प्रसंगः अर्थीक्षक．राज्य स्वास्थ्य भण्दार，गुलजाखाग．पटना का पत्रांक 71．दिनाँक 08／01／2016। महाशय，

उपर्युवत विपय के सदर्भ में कहना है कि अधीक्षक，राज्य स्वाए्य भष्झार，गुलजाखयाग，पटना को अगले राउण्ड फुरवरी， 2016 में क्रियान्वित किये जाने हेत Abendazole tablet फाइलेरिया नियत्रण इकाईं，पटना से प्राप्त है，जिसका गुणवत्ता जीच हेत राज्य स्वास्थ्य भण्डार से Abendazole tabbet की बैच्चवार 200 टैचलेट का पंकेट उपलब करा दिया गया है，जिसका विवरण निम्न है：


अवः उक्त उत्लेखित सभी 48 बैचों में उपलय्य टैबलेट का Expiray Date एवं गुणवत्ता जाँच कर प्रतिदेदन अवोहस्ताकरी को उपलब्य कराना सुनिश्चित करें ।

उपरोबत दवाओं का उपयोग सरकारी कार्य के लिए किया जाना है अलः इस हेतु कोई शुब्क देच गही है।


Annexure D.2: Guidelines for Adverse Event Management Protocols issued to districts


## वर्ष 2016

राष्ट्रीय कमि मुवित दिवस कार्यक्तम के अंतार्गत प्रतिक्षूल घटनाओं का प्रवंधन

यह निदंश्रिका युनियादी तीर पर सामुहिक औधधि प्रदायमी $(M O A)$ के दौरान साद्यानी तथा सुख्धा हेतु विश्व
 नियंक्जण कार्यक्मम में प्रयोग భी खाने वाली कृमि निपंत्रण दवाई (altendazole-400me) कारगर, सुरक्षित और बच्वों में कृमि के क्लाज में ग्रयोग के लिए विश्य स्वास्ख्य संमाणन तथी खार्थय और परिवार कल्युण मंत्रालय भास्त सरकार द्वारा स्वीक्त है । दुनिपा मर में लालों बच्चों का क्रमि का व्यापक अनुभ्व पुष्टि करला है कि इस घवाई से बहुत मामूली. हल्के और दोडे समद रहने वाले सांद इफैयह वा क्यी कमार ह्रग त्रिवशन एोत है और ये आमतीर पर कीज़ो दो मारे जाने से सबधित झोती है ।

अधिक मात्रा में कृनि संत्रामण से कु घच्वों में इल्का पेट दर्द, तबकाई, उल्य, दस्त और ष्कान जैरो आम लक्षग रिपोर्ट किए गए है। थे गमीर्र लक्षण नही़ है तथ आमतर पर क्रनके खिए किसी इ्लाज की जस्सरत्त नही होती है। किसी भी साजद में कृसि मुपित दिवहा पर एबवर्री हवेट (AE) या सीवियर एङ्वर्स इवेंट (SAE) को खोभालने के लिए स्वास्थ्य विभाग हिका दिभाग सौ़ संनेक्तित बान विकास सेवाई (ICDS) के यीच अच्ती साझेदारी होनी अनिवार्य है। एबवर्व इवेट प्रोटॉकौल के प्रवधन में इन तीनों दिभागो की प्रमुख जिम्मेदारितों और पमिका निम्नलिखित है।


11. Tak Mangesium Hydroxida + almuninium Hydraxide ( $500 \mathrm{mg}+250 \mathrm{mg}$ ) Suspenstion $(625 \mathrm{mg}+312 \mathrm{mg} / 5 \mathrm{ml})$
iII. Tab.Chlorpheniramine Maleater ( 4 mg )
IV. Tab. Cetrizibe $(10 \mathrm{mg})$
V. Tab. Dicyclomine ( 10 mg )
V. Tab. Domperidone (10V20 mg) Susp, Domperidone ( $1 \mathrm{mf} / \mathrm{ml}$ )

VIL Tab. paracetamol ( $250 / 500 \mathrm{mg}$.$) syp. paracetamol (125 \mathrm{mg} / 5 \mathrm{ml})$
 प्रमररजसी रेखपसस टीम का गहन छोना है। जिसके सदृस्य प्रनारी विकित्सा पदाधिकारी, नरं, एएनएम. होगे। इस एमरजेन्ती रिस्पर्स होग में RBSK और AYOSH विक्रित्सकों की साहोड़ारी ले। इस हीन को एखदर्म इवैट प्रोटॉकौल के बारे में मासिक सेवक में चर्धा या उन्दुखीकरण किया जाना है।
3. प्रश्या सतर पर एनुलेस (RASK-108/102) सेताये की उपलब्बता सुलिश्चित करें ।
4. प्रल्येक प्रसुण्ड के प्रभारी चिकित्रा पदातिकारी, चिकिस्का पदाधिकारी, एएन. एन. के महत्वपूर्ण फोन नग्बरों की सूबी बनायें (संलग्नक-1)। यह सुनिश्चित करें कि फोन नम्बर ब्लोंक शिछा विभाग को प्राज है त्रशि वह इनहें सकूल प्रध्यानःध्याएकों तक पहुचा मायें। $\operatorname{CDS}$ विमाग के $\operatorname{CDPO}$ और LaCy


Annexure E: Sample of Poster and Banner



Photos of IEC Materials from Field, Miking, Prabhat Pheris, Etc.
Miking in school in Begusarai


Hoarding Display


Miking in Khaimur district



District launch at West Champaran


Annexure F.1 : Training Photo of Sample District and Block and SMS District Level Training in Begusarai


Block level training


Sample of flipchart and Handout

| विहार | राष्ट्रीय कृमि मुक्ति दिवस | आंगनबादी कार्वक्तां के <br> लिए किलपवार्ट |
| :---: | :---: | :---: |



## प्रशिक्षक के लिए निर्देश

- यह फ्लिपचार्ट पढ़कर और प्रशिक्षक के नोट्स विस्तारपूर्वक समझकर प्रशिक्षण सत्र की पहले से तैयारी करें।
- प्रशिक्षण शुरू होने से पहले, आंगनवाड़ी कार्यकर्ता को हैंडआउट बांट दें। सुनिश्चित करें कि प्रशिक्षण के समय हैंडआउट को भी समझाएँ।
- प्रशिक्षण में हैंडआउट के साथ जुड़े रिपोटिंग फॉर्म और गाईडलाइंस विस्तार में समझाएं।
- आपको फ्लिपचार्ट में दी गई 10 महत्वपूर्ण जानकारी प्रशिक्षण में ज़रूर शामिल करनी है। इनमें से कोई भी जानकारी न छोडें। इस फ्लिपचार्ट प्रशिक्षार्थी (पार्टिसेपंट) के लिए एक चित्र और प्रशिक्षक
 के लिए नोट्र दिए गए हैं।
- प्रशिक्षण बातचीत के माध्यम से करें, और सुनिश्चित करें कि प्रशिक्षार्थी (पार्टिसेपेंट) सीख रहें हैं।


Handout for School


Handout Anganwadi Worker


Training reinforcement messages
12:23PM
AD-BHRGOV
State Health Society, Bihar
2-9 15:58
10 Feb से पहले स्कूल न जाने वाले बच्चों की सूची
रांगवाड्य सेविका को दें।
10 Feb से पह्य समिति, बिहार स्कूल न जाने वाले बच्चों की सूची
राज्य स्वास्थ्य समिति, बिहार
2-15 18:42

| Deworming day ki anganwadi report |
| :--- |
| anganwadi se 19 February tak le kar |
| ANM ko dein. ASHA report ki ek copy bhi |
| ANM ko dein. |
| State Health Society, Bihar |

SMS plan for Health, WCD and Education for NDD 2016

| Schedule Day (Preferably morning time) | Themel Key Messag | Messages |  | Intended Audience (Hinglish SMS are preferred by district and block level officials while ANM, ASHA ASHA sahoyginis prefer Hindi SMS to be sent) | Total number <br> of <br> functionaries |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hinglish Message (160 character limit) | Hinaf" messages (70 character limit) |  |  |
| 5-Jan | Dates of National Deworming Day and Mop Up Day | National Deworming Day 10 Feb aur Mop up Day 15 Feb ko hai. Sabhi 1-19 varshke bacchon ko deworming dawa school, angaw adi me khilayi iaegi. Kripya poori tayari rakhe | 10 Feb डिवर्मंग के पे इच्यो बो आांगनवाडीज्खूल में डिखानिंग दका जिलषाय | Distriet(CMHO,DPM,DIO Block(BMO,BPM,BCM): ANM+ASHA | 121716 |
| Training schedule reinforcement Messages |  |  |  |  |  |
| 5-Jan | To reinforce <br> training dates and <br> preparations for <br> National <br> Deworming Day | Dhyan dein: National Deworming Day kitraining 06-01-2016 se 10-01-2016 tak hai. Training zarur attend kare, tayyari rakhein | डिवर्मिंग ट्रेनिंग 06-01-2016 से 10-01-2016 तल है। लवरय उपश्धित रहें व तैयारी रलें | District: CMHOs, DPM, DII + (BMO,BPM,BCM, etc) | 1716 |

## Annexure F.2: Training Quality Assessment Findings

Quality Assurance for Training
To assess the quality of training imparted at all levels and knowledge gain post trainings, training monitoring assessment and pre-post tests were conducted with support from Evidence Action filed based teams in Bihar. Training quality assessment was conducted across all district level trainings and sampled block level trainings which were attended by district coordinators to ensure that key messages on deworming are shared during training. Pre-post analysis of knowledge gain during district level trainings was conducted across all districts and findings are explained below in the report. Based on the analysis of results for district level pre-post trainings and other criteria like absence of blocks in district level trainings, sampled block level trainings were selected for pre-post assessment

| Participant's Description |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | TOTAL | PRE | POST | COMMON |
| STATE | PARTICIPANTS | PARTICIPANTS | PARTICIPANTS | BOTHAPA |
| BIHAR | 596 | 358 | 518 | $\mathbf{2 8 0}$ |

*The findings have been derived for participants present during pre and post test administration

## Key Findings

1. Around $40 \%$ participants were not aware about the correct way to administer the Albendazole tablet 1-2 years children.
2. Participants were relatively less aware about side effects of Albendazole
3. $14 \%$ of participants were not aware about the recording /reporting the information of dewormed children on National Deworming Day. Similarly, around $20 \%$ of the participants were not aware about the recording/reporting the information of dewormed children on Mop-Up Day.
4. Further, around $35 \%$ and $32 \%$ of the participants were not aware about correct procedure to report the data of dewormed children in the anganwadi and School reporting form.
5. Further, around $36 \%$ of the participants were not aware about correct procedure to report the data of dewormed children in the anganwadi/School reporting form.
6. Around $23 \%$ and $26 \%$ participants were not aware about correct submission date of reporting form to MO- PHC/BEO and Civil surgeon/DEO.
7. Around 39 \% of the participants were not aware correct submission date of District common reporting form by DEO to Civil Surgeon officer and $63 \%$ were not aware of correct submission date to State Nodal Officer.
8. Around 39 \% of the participants were not aware correct submission date of District common reporting form by DEO to Civil Surgeon officer and $63 \%$ were not aware of correct submission date to State Nodal Officer.

Annexure G: Drug Administration Photo from Field on NDD and Mop- Up Day



## Annexure H.1: Letter Issued by SHSB for Monitoring

## राज्य स्वास्थ्य समिति, बिहार की

## An ISO 9001:2008 Certified Agency

## पत्रांक : SHSB/..Misc.../2.r././.../................ 777

सेवा में,
सभी सिविल सर्जन-सह-सदस्य सचिव, जिला स्वास्थ्य समिति, बिहार ।

पटना, दिनांक:....3.3/02/2016
विषयः दिनांक 10 फरवरी 2016 को राष्ट्रीय कृमि मुक्ति दिवस एवं दिनांक 15 फरवरी 2016 को मॉप-अप दिवस के दौरान निरीक्षणोपरांत प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंगः संयुक्त हस्ताक्षरित रा०स्वा०स० पत्रांक: SHB/Misc./28/10/Part-2/8449, दिनांक 23/12/2015

## महाशया / महाशय,

उपर्युक्त विषयक एवं प्रासंगिक पत्र के संदर्भ में आप अवगत हैं कि दिनांक 10 फरवरी 2016 को राष्ट्रीय कृमिमुक्ति दिवस एवं 15 फरवरी 2016 को मॉप-अप दिवस सभी जिलों में आयोजित किया जाना है । इस हेतु राज्य, जिला, प्रखण्ड, स्कूल तथा आँगनवाड़ी केन्द्र स्तर तक की सभी तैयारियाँ लगभग पूरी हो चुकी है। कृपया उपरोक्त प्रासंगिक पत्र का अवलोकन किया जाय, जिसमें "स्वास्थ्य की भूमिका" शीर्षक के अंतर्गत उल्लेखित किया गया है कि राष्ट्रीय कृमि मुक्ति दिवस एवं मॉप-अप दिवस के दिन तीनों विभागों के तीन सदस्यीय जिला टास्क फोर्स द्वारा कार्यक्रम का निरीक्षण किया जाना है ।

अतः सुलभ संदर्भ हेतु निरीक्षण प्रपत्र संलग्न करते हुए अनुरोध है कि सभी जिला टास्क फोर्स सदस्य सरकारी स्कूल/निजी स्कूल/आँगनवाड़ी केन्द्र का निरीक्षण कर उक्त निरीक्षण प्रपत्र को भरेंगे । तत्पश्चात् भरे गये निरीक्षण प्रपत्र को दिनांक 17.02.2016 तक राज्य स्वास्थ्य समिति, बिहार के ईमेल spochildhealth@gmail.com पर भेजना सुनिश्चित करें, ताकि राज्य स्तर पर संकलन किया जा सके ।

कृपया इसे प्राथमिकता दी जाये ।

विश्वासभाजन

(डा० कुमार पुरूषोत्तम सिंह निराला) प्रभारी राज्य कार्यक्रम पदाधिकारी

शिशु स्वास्थ्य

# राज्य स्वास्थ्य समिति, बिहार तो <br> An ISO 9001:2008 Certified Agency 

## पत्रांक : SHSB/.Misc/....s/(10)/P................

सेवा में,
सभी सिविल सर्जन-सह-सदस्य सचिव,
जिला स्वास्थ्य समिति, बिहार ।
पटना, दिनांक: $\qquad$ /02/2016
विषयः दिनांक 10 फरवरी 2016 को राष्ट्रीय कृमि मुक्ति दिवस एवं दिनांक 15 फरवरी 2016 को मॉप-अप दिवस के दौरान निरीक्षणोपरांत प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंगः संयुक्त हस्ताक्षरित रा०स्वा०स० पत्रांकः SHB/Misc./28/10/Part-2/8449, दिनांक 23/12/2015
महाशया / महाशय.
उपर्युक्त विषयक एवं प्रासंगिक पत्र के संदर्भ में आप अवगत हैं कि दिनांक 10 फरवरी 2016 को राष्ट्रीय कृमिमुक्ति दिवस एवं 15 फरवरी 2016 को मॉप-अप दिवस सभी जिलों में आयोजित किया जाना है । इस हेतु राज्य, जिला, प्रखण्ड, स्कूल तथा आँगनवाड़ी केन्द्र स्तर तक की सभी तैयारियाँ लगभग पूरी हो चुकी है। कृपया उपरोक्त प्रासंगिक पत्र का अवलोकन किया जाय, जिसमें "स्वास्थ्य की भूमिका" शीर्षक के अंतर्गत उल्लेखित किया गया है कि राष्ट्रीय कृमि मुक्ति दिवस एवं मॉप-अप दिवस के दिन तीनों विभागों के तीन सदस्यीय जिला टास्क फोर्स द्वारा कार्यक्रम का निरीक्षण किया जाना है ।

अतः सुलभ संदर्भ हेतु निरीक्षण प्रपत्र संलग्न करते हुए अनुरोध है कि सभी जिला टास्क फोर्स सदस्य सरकारी स्कूल/निजी स्कूल/आँगनवाड़ी केन्द्र का निरीक्षण कर उक्त निरीक्षण प्रपत्र को भरेंगे । तत्पश्चात् भरे गये निरीक्षण प्रपत्र को दिनांक 17.02.2016 तक राज्य स्वाश्य समिति, बिहार के ईमेल spochildhealth@gmail.com पर भेजना सुनिश्चित करें, ताकि राज्य स्तर पर संकलन किया जा सके ।

कृपया इसे प्राथमिकता दी जाये ।

## विश्वासभाजन

ह0 / -
(डा० कुमार पुरूषोत्तम सिंह निराला)
अनुलग्नक: निरीक्षण प्रपत्र ।
ज्ञापांक:....77.
पटना, दिनांक $03 / 02 / 2016$
प्रतिलिपिः कार्यपालक निदेशक कोषांग, राज्य स्वास्थ्य समिति, बिहार को कृपया सूचनार्थ ।
प्रतिलिपि: सभी जिला पदाधिकारी, बिहार को सूचनार्थ प्रेषित ।
प्रतिलिपिः राज्य परियोजना निदेशक, बिहार शिक्षा परियोजना परिषद् को सूचनार्थ एवं आवश्यक कार्यार्थ प्रेषित।
प्रतिलिपिः निदेशक, समेकित बाल विकास सेवाएँ विभाग को सूचनार्थ एवं कार्यार्थ प्रेषित।
प्रतिलिपिः सहायक निदेशक, समेकित बाल विकास सेवाएँ विभाग को सूचनार्थ एवं आवश्यक कायार्थ प्रेषित।
प्रतिलिपिः सभी क्षेत्रीय अपर निदेशक, स्वास्थ्य सेवाएँ बिहार को सूचनार्थ एवं आवश्यक कायार्थ प्रेषित।
प्रतिलिपिः राज्य कार्यक्रम प्रबंधक, Evidence Action-Deworm the World Initative, Patna, Bihar को सूचनार्थ एवं आवश्यक कार्यार्थ प्रेषित ।


# Annexure H.2: Submission of Monitoring Visit Data by GoB to GoI, MoHFW 

-------- Forwarded message --------
From: Dr Surendra Kumar <spochildhealth@gmail. com>
Date: Sat, Apr 16, 2016 at 6:09 PM
Subject: Re: Reminder: NDD 2016 report
To: Sila Deb [drsiladeb@gmail.com](mailto:drsiladeb@gmail.com)
Cc: sahil_chopra005@yahoo.com

Dear Madam
Please find the attached coverage report in the prescribed format for National Deworming Day (NDD) 2016.
Also find the attached data set for NDD Monitoring checklist for the monitoring visits conducted by Evidence Action during National Deworming Day and Mop Up day.
The data set for visits by government departments at the district level will be shared shortly.
The state is very thankful you and your team for the support resulting in a very successful NDD in Bihar.

Annexure I: Tele-Calling Indicators for Tracking Conducted During NDD February 2016


| During Deworming |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calls on NDD |  |  | Calls between NDC and MUD |  |  | Calls on Mub |  |  |
| School and Anganwadi |  |  | School and Anganwadi |  |  | School and Anganwadi |  |  |
| 10-Feb-16 |  |  | February 11 to February 142016 |  |  | 15-Feb-16 |  |  |
| 10-Feb-16 |  |  | February 11 to February 142016 |  |  | 15-Feb-16 |  |  |
| People called | Department | Total no of calls | People called | Department | Total no of calls | People called | $\begin{array}{\|l\|} \hline \text { Departm } \\ \text { ent } \end{array}$ | Total no of calls |
| CS | Health | 16 | Gout Schools | Education | 232 | CS | Health | 38 |
| HM | Education | 197 | Put schools | Education | 159 | DIO | Health | 10 |
| AW W | ICDS | 110 | KVINV | Education | 97 | HM | Educatio | 114 |
|  |  |  | AWW | ICDS | 297 | AW'W | ICDS | 114 |
|  |  |  |  |  |  | DPO | ICDS | 28 |
|  |  |  |  |  |  |  |  |  |


| After Deworming |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coverage reporting |  |  |  |  |  |  |  |  |
| Schoolf. ${ }^{\text {a }}$ ganwadi Level |  |  | Block level |  |  | District Level |  |  |
| Feb 16 to February 25 |  |  | February 26 to March 10 |  |  | March 11 to March 17 |  |  |
| Feb 16 to February 25 |  |  | February 26 to March 10 |  |  |  |  |  |
| People called | Department | Total no of calls | Officials called | Department | Total no of calls | Officials called | Department | Total no of calls |
| HM-Gout | Education | 283 | MOIC | Health | 343 | CS | Health | 124 |
| HM-PVT | Education | 429 | BHM | Health | 560 | DEO | Education | 142 |
| HM-KV/NV | Education | 82 | ANM | Health | 579 | DPO-ICDS | ICDS | 38 |
| $\mathrm{AW}^{\prime}$ | ICDS | 264 | BEO | Education | 515 | DIO | Health | 142 |
|  |  |  | CRCC | Education | 459 |  |  |  |
|  |  |  |  |  |  |  |  |  |

## Annexure J: Key Results from Independent Monitoring

Annexure 1: Analysis for Process Monitoring (School/Anganwadi)
Table: 1 Interview with headmaster/headmistress/principal and Anganwadi workers

| Indicators | School |  | Anganwadi |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | N | N | \% |
| Type of School |  |  |  |  |
| Govt./Govt. Aided schools | 95.5 | 252 | NA | NA |
| Private Schools | 4.6 | 12 | NA | NA |
| Respondent of the section |  |  |  |  |
| Headmaster/Principal | 77.7 | 205 | NA | NA |
| Vice principal | 8.7 | 23 | NA | NA |
| Nodal Teacher | 8.3 | 22 | NA | NA |
| Any other teacher | 5.3 | 14 | NA | NA |
| Category of school |  |  |  |  |
| Primary( 1 to 5) | 51.5 | 136 | NA | NA |
| Primary with upper primary(1 to 8) | 38.6 | 102 | NA | NA |
| Primary with upper primary and secondary(1 to 10) | 2.3 | 6 | NA | NA |
| Primary with upper primary secondary and higher secondary(1 to 12) | 0. 8 | 2 | NA | NA |
| Upper primary only(6 to 8) | 1.1 | 3 | NA | NA |
| Upper primary with secondary and higher secondary(6 to 12) | 0.0 | o | NA | NA |
| upper primary with secondary(6 to 10) | 1.5 | 4 | NA | NA |
| Secondary only (9 to 10) | 2.3 | 6 | NA | NA |
| Secondary with higher secondary(9 to 12) | 1.1 | 3 | NA | NA |
| Higher Secondary only or Jr. college(11 to 12) | o. 8 | 2 | NA | NA |
| Did teacher/ Anganwadi worker attended training in last 2 months | 81.4 | 215 | 77.5 | 200 |
| Did trained teacher provide training to other teachers |  |  |  |  |
| Yes, trained all other teachers | 77.2 | 166 | NA | NA |
| Yes, trained some other teachers | 12.6 | 27 | NA | NA |
| No, did not train other teachers | 7.9 | 17 | NA | NA |
| Don't know /don't remember | 2.3 | 5 | NA | NA |
| Reason for not attending official training |  |  |  |  |
| Location was too far away | 4.1 | 2 | 9.8 | 5 |
| Did not know the date/timings | 49.0 | 24 | 60.8 | 31 |
| Busy in other official work | 4.1 | 2 | 0.0 | O |
| Attended deworming training in the past | 12.2 | 6 | 5.9 | 3 |
| Not Necessary | 8.2 | 4 | 7.8 | 4 |
| Source of information about recent round of deworming program |  |  |  |  |
| Departmental communication | 62.1 | 164 | 47.3 | 122 |
| Television | 8.7 | 23 | 7.8 | 20 |
| Radio | 3.0 | 8 | 2.7 | 7 |
| Newspaper | 14.8 | 39 | 6.2 | 16 |


| Banner | 10.6 | 28 | 7.8 | 20 |
| :---: | :---: | :---: | :---: | :---: |
| SMS | 34.1 | 90 | 26.0 | 67 |
| Training | 38.3 | 101 | 32.9 | 85 |
| Other school/teacher and Lady Supervisor | 3.8 | 10 | 24.0 | 62 |
| Awareness about the ways a child can get worm infection | 84.1 | 222 | NA | NA |
| Different ways that children can get worm infected |  |  |  |  |
| Having foods without washing hands | 89.2 | 198 | 79.8 | 206 |
| Not washing hands after using toilets | 77.5 | 172 | 68.6 | 177 |
| Not using sanitary latrine | 48.6 | 108 | 45.7 | 118 |
| Moving in bare feet | 62.6 | 139 | 51.6 | 133 |
| Consume vegetables and fruits without washing | 55.4 | 123 | 49.2 | 127 |
| Having long and dirty nails | 50.0 | 111 | 46.1 | 119 |
| Receive SMS about the deworming program | 64.4 | 170 | 55.8 | 144 |
| Preference to receive the SMS |  |  |  |  |
| Morning | 28.4 | 75 | 28.7 | 74 |
| Afternoon | 12.9 | 34 | 8.1 | 21 |
| Evening | 10.2 | 27 | 10.1 | 26 |
| Any time | 45.8 | 121 | 45.7 | 118 |
| Do not prefer the SMS | 5.3 | 14 | 9.3 | 24 |
| Having integrated distribution( Tables, Poster/Banner, handouts/reporting, adverse event reporting form) in training | 37.2 | 98 | 39.1 | 101 |
| Visibility over the Deworming Day Poster/Banner is posted |  |  | 72.0 | 138 |
| Clearly posted/visible to all | 70.9 | 148 |  |  |
| Hidden in a room/partially visible. | 11.3 | 19 | 10.0 | 20 |
| Not posted/ not visible | 17.7 | 36 | 18.0 | 35 |
| Awareness about to whom to submit the completed School(CRC)/Anganwadi Reporting(ANM) | 63.2 | 167 | 68.0 | 175 |
| Retain a copy of the School/Anganwadi Reporting Form at the school after submitting one copy | 15.1 | 40 | 79.0 | 203 |
| Teachers/Anganwadi who think any adverse event can occur after taking the deworming tablets | 34.8 | 92 | 25.0 | 64 |
| Possible adverse events could be reported by children after taking the tablets |  |  |  |  |
| Mild abdominal pain | 60.9 | 56 | 71.9 | 46 |
| Nausea | 55.4 | 51 | 54.7 | 35 |
| Vomiting | 69.6 | 64 | 79.7 | 51 |
| Diarrhea | 17.4 | 16 | 10.9 | 7 |
| Fatigue | 17.4 | 16 | 12.5 | 8 |
| Other, specify | 12.0 | 11 | 4.7 | 3 |
| Response in case a child complains of mild stomach ache, nausea, vomiting, and diarrhea after taking the tablets, |  |  |  |  |
| Make the child lie down in open and shady place | 79.9 | 211 | 80.2 | 207 |
| Give ORS/ water | 24.6 | 65 | 24.4 | 63 |
| Observe the child at least for 2 hours in the school | 36.4 | 96 | 34.9 | 90 |

Response in case the child continues to report symptoms of stomach ache, vomiting, diarrhea, etc. even after a few hours

| Call PHC or emergency number | 69.7 | 184 | 63.6 | 164 |
| :--- | :---: | :---: | :---: | :---: |
| Take the child to the hospital /call doctor to school | 51.5 | 136 | 50.8 | 131 |
| Don't know / don't remember | 3.8 | 10 | 0.8 | 2 |
| Other, specify | 1.9 | 5 | 0.8 | 2 |
| Deworming activity going in your school/Anganwadi <br> today |  |  |  |  |
| Yes, getting now | 74.2 | 196 | 88.7 | 229 |
| Yes, after few hours | 12.5 | 33 | 0.0 | 0 |
| No, will not administer today | 13.3 | 35 | 11.3 | 29 |

Table: 2 Integrated Distribution of Drugs and IEC material

| Items Received in <br> training | Schools |  |  | Anganwadi |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Received | Verified | Received in <br> training | Received | Verified | Received in <br> training |
| Tablets | 91.3 | 79.3 | 60.2 | 92.2 | 76.9 | 62.6 |
| Poster/Banner | 76.9 | 73.4 | 60.1 | 74.8 | 72 | 62.7 |
| Handouts/ <br> Reporting form | 65.5 | 72.8 | 56.6 | 64.3 | 72.3 | 62.7 |

Note:-The sample size for items received in schools and anganwadis were 263 and 250 respectively *The denominator for verified is the number of particular item received

Table3: Observation of deworming activity in the class/Anganwadi

| Indicators | School (145)* |  | Anganwadi(171)* |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\%$ | N | $\%$ | N |
| Deworming activity is taking place in the <br> llass/Anganwadi | 61.2 | 145 | 74.7 | 171 |
| Teachers/Anganwadi worker giving any health education <br> related to deworming |  |  |  |  |
| Yes | 84.1 | 122 | 79.5 | 136 |
| Could not observe as I reached late | 0.7 | 1 | 0.6 | 1 |
| What are being included by the teacher/ Anganwadi <br> worker as a part of health education to children |  |  |  |  |
| Harmful effects of worms | 58.2 | 71 | 54.4 | 74 |
| How worms get transmitted | 59.0 | 72 | 55.1 | 75 |
| Benefits of deworming | 55.7 | 68 | 54.4 | 74 |
| Methods of worm infection prevention | 38.5 | 47 | 44.1 | 60 |
| Teacher/ Anganwadi worker were asking the children if <br> they are sick/under medication before giving the tablet | 89.7 | 130 | 83.6 | 143 |


| What teacher/ Anganwadi worker did ,If there was any <br> sick child in the class room |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Gave Albendazole tablet to the child | 16.9 | 22 | 16.8 | 24 |
| Did not give the Albendazole tablet to the child | 83.1 | 108 | 83.2 | 119 |
| Students/children are told to chew the tablet before <br> swallowing it | 93.8 | 136 | 93.0 | 159 |
| Deworming tablets were distributed by |  |  |  |  |
| Teacher/headmaster | 93.8 | 136 | 0.0 | 0 |
| Anganwadi worker | NA | NA | 92.4 | 158 |
| Asha/ANM | 0.7 | 1 | 7.6 | 13 |
| Students | 4.1 | 6 | 0.0 | 0 |
| Teacher/ Anganwadi worker asking students to take <br> Albendazole tablets in the class/ Anganwadi only | 99.3 | 144 | 94.7 | 162 |
| Teachers/ Anganwadi worker following the protocol of <br> putting single tick $\checkmark$ (deworming day) or double tick $\checkmark \checkmark$ <br> (mop-up day) on each child's name/roll no. in the | 75.9 | 110 | 77.8 | 133 |
| attendance register after giving them the deworming |  |  |  |  |
| tablet |  |  |  |  |

*Deworming activity was observed by monitors in 145 schools and 171 anganwadis

Table: 4 Interview with school teacher

| Indicators | $\%$ | N |
| :--- | :---: | :---: |
| Attended any official training for deworming program in the past 2 <br> months | 64.0 | 169 |
| Received training for deworming |  |  |
| At official level training | 60.4 | 102 |
| By Headmaster/ teacher | 35.5 | 60 |
| Others (specify) | 4.1 | 7 |
| Awareness about the ways a child can get worm infection | 78.4 | 207 |
| Different ways that children can get worm infected | 92.3 | 191 |
| Having foods without washing hands | 76.3 | 158 |
| Not washing hands after using toilets |  |  |


| Not using sanitary latrine | 51.2 | 106 |
| :---: | :---: | :---: |
| Moving in bare feet | 66.2 | 137 |
| Consume vegetables and fruits without washing | 51.2 | 106 |
| Having long and dirty nails | 45.9 | 95 |
| Awareness about prescribed dose of albendazole |  |  |
| One | 95.5 | 252 |
| More than one | 3.0 | 8 |
| Less than one | 1.5 | 4 |
| Teachers who think any adverse event can occur after taking the deworming tablets | 36.0 | 95 |
| Possible adverse events could be reported by children after taking the tablets |  |  |
| Mild abdominal pain | 81.1 | 77 |
| Nausea | 61.1 | 58 |
| Vomiting | 73.7 | 70 |
| Diarrhea | 16.8 | 16 |
| Fatigue | 21.1 | 20 |
| In case a child complains of mild stomach ache ,nausea, vomiting, and diarrhea after taking the tablets, Your response should be |  |  |
| Make the child lie down in open and shady place | 81.4 | 215 |
| Give ORS/ water | 31.8 | 84 |
| Observe the child at least for 2 hours in the school | 33.3 | 88 |
| If the child continues to report symptoms of stomach ache, vomiting, diarrhea, etc. even after a few hours, Your response should be |  |  |
| Call PHC or emergency number | 71.2 | 188 |
| Take the child to the hospital /call doctor to school | 47.3 | 125 |

Table: 5 Interview with school child

| Indicators | $\%$ | N |
| :--- | :---: | :---: |
| Child got a white tablet in school today | 95.2 | 218 |
| Child was feeling sick before taking the tablet in the school today | 8.3 | 18 |
| Child got tablet by |  |  |
| By Teacher / headmaster | 96.8 | 211 |
| By ASHA/ANM | 0.5 | 1 |
| By Other student | 1.8 | 4 |
| Other | 0.5 | 1 |
| Child consume tablet | 98.6 | 215 |
| Reason to not consume tablet |  |  |
| Was feeling sick | 33.3 | 1 |
| I'm afraid of taking the tablet | 0.0 | 0 |
| Parents told me not to have it | 66.7 | 2 |
| Don't have worms so don't need it | 0.0 | 0 |


| Did not like the taste | 0.0 | 0 |
| :--- | :---: | :---: |
| Had difficulty swallowing | 0.0 | 0 |
| Taking home | 0.0 | 0 |
| Other, specify | 0.0 | 0 |
| Awareness of child that, how to consume the tablet |  |  |
| Chewed tablet before swallowing | 89.0 | 193 |
| Swallowed tablet directly | 11.0 | 25 |
| Other, specify | 0.0 | 0 |
| Awareness of child that, why tablet is provided |  |  |
| Deworming | 79.4 | 173 |
| Any other answer(unrelated to deworming) | 4.1 | 9 |
| Don't know /don't remember | 16.5 | 36 |
| Source of information about deworming activity |  |  |
| Teacher / school | 93.9 | 170 |
| Television | 5.0 | 9 |
| Radio | 1.7 | 3 |
| Newspaper | 5.5 | 10 |
| Poster/Banner | 22.7 | 41 |
| Parents/siblings | 7.7 | 14 |

Annexure 2: Analysis for Coverage Validation (School/Anganwadi)
Table 1: Findings from School/Anganwadi Coverage Validation data

| Table:1 Coverage Validation Indicators | School |  | Anganwadi |  |
| :--- | :---: | :---: | :---: | :---: |
| Indicators | $\%$ | N | $\%$ | N |
| Responses from the headmasters/principals/Anganwadi <br> interviewed |  |  |  |  |
| Attended training for deworming program | 85.7 | 347 | 81.9 | 307 |
| For schools/Anganwadi that didn't attend training, reasons <br> were: |  |  |  |  |
| Location of training was far away | 11.1 | 6 | 19 | 12 |
| Was not aware of the date/ timing of training | 61.1 | 33 | 54 | 34 |
| Busy in other official work | 1.9 | 1 | 6.3 | 4 |
| Attended deworming training in the past | 9.3 | 5 | 1.6 | 1 |
| Not necessary | 13 | 7 | 7.9 | 5 |
| Other reasons | 24.1 | 13 | 17.5 | 11 |
| Schools/Anganwadis observed deworming | 93.1 | 377 | 95.7 | 359 |
| Schools/Anganwadis received the followings |  |  |  |  |
| Tablets | 96.3 | 390 | 98.1 | 368 |
| Poster | 75.8 | 307 | 81.6 | 306 |
| Handouts/Reporting form | 73.3 | 297 | 74.4 | 279 |


| Others | 5.9 | 24 | 7.7 | 29 |
| :--- | :---: | :---: | :---: | :---: |
| Received SMS about deworming program | 62.7 | 254 | 56.3 | 211 |
| Schools/Anganwadis had the sufficient drugs for deworming | 85.7 | 323 | 90.7 | 323 |
| Schools/Anganwadis where copy of school reporting form was <br> available | 61.2 | 231 | 55.1 | 200 |
| For schools/Anganwadis that didn't have copy of school <br> reporting form, reasons were: |  |  |  |  |
| Did not received | 23.29 | 34 | 18.87 | 30 |
| Submitted to ANM | 30.14 | 44 | 61.64 | 98 |
| Unable to locate | 15.07 | 22 | 7.55 | 12 |
| Others* | 31.51 | 46 | 11.95 | 19 |
| Anganwadis having list of out of school(6-19) children | NA | NA | 42.6 | 153 |
| Anganwadis having list of non-registered(1-5) children | NA | NA | 45.7 | 164 |

## Table: 2 School Coverage Validation Indicators

| Indicators | $\%$ |
| :--- | :---: |
| Schools where all the classes followed the correct recording protocol | 62.1 |
| Schools where one or more of the classes followed the correct recording <br> protocol | 66.6 |
| Schools where none of the classes followed the correct reporting protocol | 33.4 |
| Schools where one or more of the classes followed other recording protocol | 16.2 |
| Schools where no reporting protocol was followed | 17.5 |
| State level verification factor | 0.763 |
| State inflation rate (which measures the extent to which the recording in school <br> reporting forms exceeds records at schools) | 30.92 |
| Attendance on Deworming Day | 69.7 |
| Attendance on mop-up day | 58.4 |
| Children who attended on both Deworming Day and mop-up day | 54.5 |
| Maximum attendance of children on Deworming Day and mop-Up Day <br> according to the CV data | 73.6 |
| Schools had surplus storage of drugs after deworming | 43.2 |
| Schools had complete school reporting form | 97.5 |
| Schools reported serious adverse event after taking the medicine | 3.4 |
| Average number of adverse events reported per school | 0.1 |
| State level inflation rate among trained schools (which measures how much the <br> coverage reported in reporting forms exceeded school records in registers for <br> schools that received training) | 29.8 |
| State level inflation rate among untrained schools (which measures how much <br> coverage reported in reporting forms exceeded school records in registers for <br> schools that were not trained) | 69.8 |
| School level inflation rate for schools that followed the correct recording <br> protocol (measures how much coverage reported in reporting forms exceeded | 25.3 |

school records in registers, for schools that were following recording protocols, i.e., ticking).

Table: 3 Interview of children during Coverage validation

| Indicators | $\%$ |
| :--- | :---: |
| Children received Deworming tablets | 95.9 |
| Supervised Administration of tablets | 91.3 |
| Children consumed tablet | 94.6 |
| Way child consumed the tablet |  |
| Chewed tablet before swallowing | 90.7 |
| Swallowed tablet directly | 9.3 |

Table: 4 Anganwadi Coverage Validation Indicators

| Indicators | $\%$ |
| :--- | :---: |
| Anganwadi that followed recording protocol | 90.5 |
| State level verification factor for Registered children(1-5 years) | 0.74 |
| State level verification factor for non- registered children(1-5 years) | 0.77 |
| State level verification factor for out of school children(6-19 years) | 0.69 |
| State inflation rate (1-5 years) | 34.6 |
| inflation rate for non- registered children (1-5 years) | 28.9 |
| State inflation rate for out of school children(6-19 years) | 43.9 |


[^0]:    ${ }^{1}$ Based on the data submitted by Government of Bihar to Ministry of Health and Family Welfare, Government of India dated May 2, 2016
    ${ }^{2}$ Assam, Bihar, Chhattisgarh, Dadra and Nagar Haveli, Haryana, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Tamil Nadu, and Tripura
    ${ }^{3}$ PaschimChamparan, Begusarai, Purnia, Muzaffarpurwhichwere selected based on STH prevalence data indicating high prevalence

[^1]:    4 "Helminth control in school-age children- A guide for managers of control programmes": WHO, 2011
    ${ }^{5} \mathrm{http}: / /$ www.povertyactionlab.org/publication/deworming-best-buy-development
    ${ }^{6} \mathrm{http}: / /$ journals.plos.org/plosntds/article?id=10.1371/journal.pntd.oooo223\#pntd-o000223-go03
    ${ }^{7}$ 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.
    ${ }^{8}$ 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

[^2]:    ${ }^{9}$ http://www.nrhmhp.gov.in/sites/default/files/files/Iron\%2oplus\%2oinitiative\%2ofor\%206\%20months\%20-5\%20years.pdf ${ }^{10}$ STH prevalence across Bihar of $67.5 \%$,
    ${ }^{11}$ "Helminth Control in School-age Children, A guide for managers of Control Programmes". Second Edition, 2011, World Health Organization.
    ${ }^{12}$ The second of mass deworming treatment has been 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.

[^3]:    ${ }^{13}$ Integrated distribution of NDD kits including deworming drugs, banner/poster and handout, reporting forms, to the teachers/anganwadi workers at the training only.
    ${ }^{14}$ Assam, Bihar, Chhattisgarh, Dadra and Nagar Haveli, Delhi, Haryana, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Tamil Nadu, and Tripura
    ${ }^{15}$ Four categories of target populations were agreed, for standard use across all states (e.g., enrolled in government schools, enrolled in private schools, registered in AWCs, or out-of-school/non-registered). This enables comparison of coverage across states.

[^4]:    ${ }^{16} \mathrm{http}: / / \mathrm{nrhm}$. gov.in/nrhm-components/rmnch-a/child-health-immunization/national-deworming-day-2016.html

[^5]:    ${ }^{17}$ http://164.100.130.11:8091/
    ${ }^{18}$ Out of 38 DCCM, 30 DCCM were conducted in the presence of District Magistrate, and in remaining 8 districts, DCCM were conducted in presence of Civil Surgeon.

[^6]:    ${ }^{19}$ Based on DISE data for 2013-14
    ${ }^{20}$ LF program uses drugs supplied by WHO
    ${ }^{21}$ Updated data of enrolment figures from BEPC for school-age and RBSK data for preschool-age children from SHSB
    22 Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early identification and early intervention for children from birth to 18 years to cover 4 'D's viz. Defects at birth, Deficiencies, Diseases, Development delays including disability.

[^7]:    ${ }^{23}$ NDD coverage report submitted by state to GOI.

[^8]:    ${ }^{24}$ The low performing districts were identified on the basis of NDD 2015 process monitoring and coverage validation findings under taken by Evidence Action
    ${ }^{25}{ }_{2}$ blocks from each of the 8 selected districts were identified on the basis of preliminary finding from district level training monitoring and pre-post-test during NDD 2016 district level training

[^9]:    ${ }^{26}$ Probability proportional to size sampling (PPS) selected blocks in Madhya Pradesh, 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.

[^10]:    ${ }^{27}$ Integrated distribution of NDD kits including deworming drugs, banner/poster and handout, reporting forms, to the teachers/anganwadi workers at the training only.

[^11]:    ${ }^{28}$ Sufficient drugs is defined here as availability of drugs in accordance with the total number of children enrolled in the school.

[^12]:    ${ }^{29}$ Correct recording protocols refers that all classes/registers of schools and anganwadis have single or double ticks.
    ${ }^{30}$ Not all classes followed the recording protocol.

[^13]:    

