# Study on Tele-calling for National Deworming Day Monitoring in Haryana (February 2019)


***By***

***Vasundra Kapoor***


*Dissertation submitted in partial fulfillment of the requirements of the degree*
*MBA Health and Hospital Management*

*Academic year, 2017-2019*


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INSTITUTE OF HEALTH MANAGEMENT RESEARCH
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This is to certify that **Dr Vasundra Kapoor**, Student of MBA Hospital and Health Management, The IIHMR University, Jaipur has undergone internship training at **Evidence Action from February to May, 2019.**

The candidate has successfully carried out the study designated to her during internship training and her approach to the study was sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

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The certificate is awarded to

**Dr. Vasundra Kapoor**
In recognition of having successfully completed her
Internship in

**National Program Team**

And has successfully completed her Dissertation on

**Tele-calling for National Deworming Day Monitoring February 2019 in Haryana**

**between 4 February 2019 to 3 May 2019**

She comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning.

We wish her all the best for future endeavors.

Dated: 14 May 2019

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**CERTIFICATE BY SCHOLAR**

This is to certify that the dissertation titled **Telecalling for National Deworming Day Monitoring in Haryana (February 2019)** and submitted by **Dr. Vasundra Kapoor** Enrollment No.:**0689** under the supervision of **Dr. Nutan P Jain** for award of MBA in Hospital and Health Management in Health and Hospitals of the University carried out during the period from **February 2019 to May 2019** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Kapoor

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Dr Vasundra Kapoor

## LIST OF ABBREVIATIONS

ASHA- Accredited Social Health Activist

AWW- Anganwadi workers

BPM- Block Program Manager

DCs- District coordinators

DEO- District Education Officer

DPM- District Program Manager

GoI -Government of India

M&E – Monitoring and Evaluation

MoHFW - Ministry of Health and Family Welfare

MO- Medical officers

MoU -Memorandum of Understanding

MUD- Mop-up day

NDD - National Deworming Day

NHM - National Health Mission

RCs- Regional coordinators

SCCM- State Coordination Committee Meeting

STH – Soil transmitted Helminthes

TCs- Tele-callers

UT - Union Territories

WHO - World Health Organization

WCD- Department of Women and Child Development

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# A Study on Tele-calling for National Deworming Day Monitoring in Haryana (February 2019)


## ABSTARCT

**Background**

National Deworming Day (NDD) was initiated by Ministry of Health and Family Welfare, Government of India to reduce the burden and prevalence of soil-transmitted helminths in children aged 1-19 years in India. Government of Haryana with support from Evidence Action implemented a comprehensive school and anganwadi based deworming program in February 2019 with collaborative efforts led by National Health Mission (NHM), Department of Education, and Department of Women and Child Development (WCD). For ensuring the quality of program delivery and technical assistance to NDD, Evidence Action has set in place a robust Monitoring and Evaluation (M&E) system to measure effectiveness in achieving intended program results. Tele calling is an integral part of M&E strategy that facilitates preparedness and process monitoring on key NDD components to identify gaps for timely corrective action at the ground level through regular updates for effective implementation of NDD program.

**Objectives:**

The objectives of the study were: (i) to understand the NDD operational guidelines and NDD monitoring process; (ii) to understand the process of tele-calling monitoring during NDD February 2019 in Haryana; and (iii) to identify strengths and weaknesses of tele-calling monitoring under NDD.

**Methodology:**

An observational descriptive study was conducted in Haryana at three levels: district, block and below. Desk review of existing documents/presentations on tele-calling was done along with daily updates of tele-calling NDD Haryana February 2019. Tools used where observational checklist, review checklist, preparatory checklist and monitoring forms. SWOT analysis of tele-calling was conducted.

**Results:**

Of 28,886 telecalls, 65% were successful (68% district, 65% block and 65% below). An increase of 11% points was observed in February 2019 round as compared to August 2018 round.

**Conclusion:**

The study concludes tele-calling is a simple and easy tool for monitoring and taking quick decisions to plan, implement and monitor the NDD rounds.



**Key words:** National de-worming day, tele-calling, monitoring

## INTRODUCTION

Soil transmitted helminths (or STH) are a group of intestinal parasites that disproportionately affect children around the world in terms of both burden of infection as well as consequences of infection. These parasites are classified as Neglected Tropical Diseases, due to their high levels of endemicity in developing countries, and particularly affecting the poor and marginalized within these countries. Over 400 million children are estimated to be affected by STH infections. (1)

Over 400 million children are estimated to be affected by STH infections. A further 120 million school age children are at risk of infection and require treatment. These infections make children unwell, and affect their physical and mental development, limiting a child's ability to attend and perform well at school. (2)
WHO estimates that 241 million children of ages of 1 to 14 are at risk of parasitic intestinal worms are in India. (3)

In areas where parasitic worms are endemic, administrative safe, effective deworming drugs to children at schools is a development "best buy "due to its impact on education and economic outcomes and low cost. Mass deworming lead to significant improvements in outcomes related to education, career choice, earnings and long term well-being. Rigorous research shows significant gain from school-based deworming program on children health, access to education and livelihoods. (4)

The anganwadi and school-based approach for mass deworming provides an easy way to reach number of children in target age group through existing infrastructure rather than creating new channel of implementation.(5)

A fixed day approach mass anganwadi and school based deworming has the potential to ensure maximum coverage. A fixed single day approach will (6)

- Motivate States/UTs to prioritize deworming within current ICDS and school health programs

- Increase public awareness around deworming with standardized campaign messages across the country
- Increase coverage of target beneficiaries (preschool and school age children)
- Establish structures to easily track and respond to any cases of adverse events
- Ensure quality and consistency of coverage reporting.

National Deworming Day was launched on February 10, 2015**,** the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) as part of National Health Mission (NHM) in 11 states/Union Territories (UT), including Assam, Bihar, Chhattisgarh, Dadra and Nagar Haveli, Haryana, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Tamil Nadu, and Tripura. After the unprecedented coverage of NDD with national level coverage of 89 million children, the MoHFW mandated the observation of the NDD at pan-India level from February 2016. [7]

**Deworming goals:**

- World Health Organization (WHO) global target is to eliminate morbidity due to STH in children by 2020.
- This goal will be achieved by regularly treating at least 75% of the children in endemic areas.[8]

Global Goal

- The objective of NDD in India is to deworm all preschool and school-age children between the ages of 1-19 years through the platform of government/ government aided and private schools and *anganwadi* centers in order to improve overall health, nutritional status, access to education and quality of life. [9]

India Goal

---

**Target beneficiaries:**

- All children in the age group of 1-19 years.
- The target age group includes:
  - Children enrolled in all government and government-aided schools
  - Children registered in private schools & anganwadi centers

- Unregistered and out-of-school children in anganwadis and schools, respectively.

National Deworming Day was become the largest deworming program in the world [10] over the years. The target and coverage has grown across various rounds of NDD.

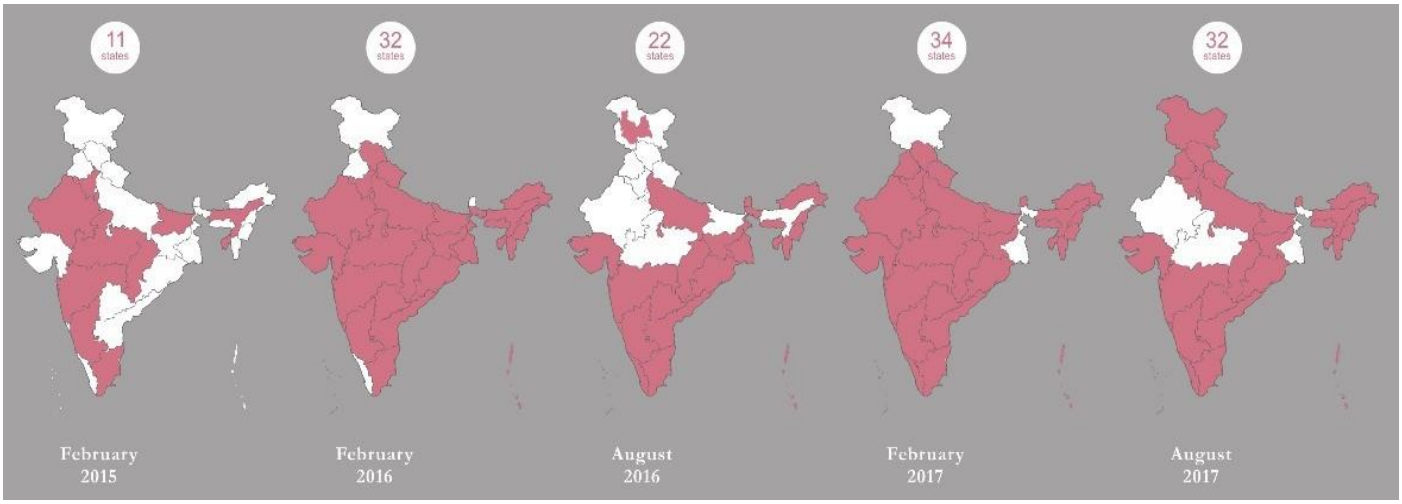



Figure 1.1: Trend in number of states participating in various rounds of NDD

| Round | Feb 2015 | Feb 2016 | Aug 2016 | Feb 2017 | Aug 2017 | Feb 2018 | Aug 2018 |
|---|---|---|---|---|---|---|---|
| Target (in crores) | 10.31 | 20.47 | 14 | 29.96 | 25.5 | 29.4 | 24.9 |
| Coverage (in crores) | 8.9 | 17.8 | 11.96 | 26 | 22.8 | 26.6 | 22.6 |

Table 1.1: Target and Coverage in various rounds of NDD [11]

**Technical assistance by Evidence Action**

The India Program- Evidence Action work with the national and state governments to strengthen and scale-up the pre-school and school-based deworming program to target all children aged 1-19 years.

The Centre piece is the National Deworming Day.

Objective- To deworm all preschool and schools including government, government aided and private schools on a single-fixed day approach (10 February and 10 August each year).

Evidence Action currently provides technical assistance in 11 states out of 36 states and union territories, this is approximately 50% of the total population. The states are namely- Bihar, Rajasthan, Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Telangana, Tripura, Jharkhand, Uttarakhand and Haryana.

Areas of support to National Deworming Day by Evidence Action-

i. Policy and advocacy:

Evidence Action worked closely with the state government to set targets for the NDD rounds, planning and preparing for coordination committee meetings, and working to enhance

stakeholder coordination. These meetings covered the state's operational plans for each NDD round, including details on the roles of stakeholder departments and key components such as the NDD dates, number of districts and timelines for all critical program activities.

ii. Drug management and coordination:

Continued advocacy efforts with the state health department to build local capacity for the timely procurement of drugs for NDD. In preparation for the three NDD rounds, Evidence Action facilitated a last-minute request from the state for WHO donated drugs due to state procurement challenges. With timely intervention and coordination, drug supply requirements were met prior to the deworming day.

iii. Training and capacity building:

Evidence Action supported state in dissemination of bulk SMSs to reinforce key NDD messages imparted during NDD trainings.

iv. Community mobilization and sensitization:

- Evidence Action provides the customized NDD IEC resource kit to the state governments. The IEC tool kit includes the NDD training and awareness material to be disseminated to the district, block and below block functionaries and further developing integrated distribution of drugs and print materials at block level trainings.
- For enhanced community awareness and sensitization among the stakeholder departments, Evidence Action supported the state government in finalization of the social media plan and utilization of the social media platforms like Facebook and twitter.

v. Program management and planning

Setting up of office and recruiting and onboarding the four membered state based team and Regional Coordinators. State base team includes a State Program Manager, State Program Coordinator (Community Mobilization and Training), State Program Coordinator (M&E and Documentation) and a Finance and Administration Associate. We mobilized team members from national office at Delhi and other state programs to assist with program and bring learning to a new office and team.

vi. Monitoring and Evaluation:

Evidence Action with due approvals from the state government, conducts various monitoring and evaluation activities during each NDD round.

**NDD February 2019 round**

The objective of NDD February 2019 is to deworm all children between the age of 1-19 year through all government, private schools and anganwadi centers across the state. This will aim to keep the prevalence and intensity of STH consistently low and contribute to improvements in their overall health, nutritional status, access to education and quality of life. [12]

The specific objectives are as below [13]:

- ✓ To achieve universal covering of all targeted population of 1- 19 years children.
- ✓ To strengthen engagement with all private schools and out-of-school children to implement a high coverage program
- ✓ To strengthen inter-departmental and intra-departmental convergence within stakeholder departments to maximize reach to schools and anganwadis for increased coverage and effective implementation of program
- ✓ To strengthen community awareness and mobilization of children, especially out-of-school and unregistered children through active engagement of ASHA in the state
- ✓ To strengthen integrated distribution cascade in trainings of for better coverage
- ✓ To include learnings from previous rounds and build on gaps to improve the forthcoming round.

**Haryana National Deworming Day**

- Based on national-level STH mapping efforts and WHO treatment guidelines, the GoI issued a notification to states in May 2017 recommending the appropriate treatment frequency based on STH prevalence data. The state of Haryana is required to conduct a biannual NDD round due to high STH prevalence of 46% as per the prevalence survey conducted by National Centre for Disease Control (NCDC), Delhi in September, 2015. [14]
- Evidence Action signed a Memorandum of Understanding (MOU) with the Department of Health and Family Welfare, Government of Haryana, on March 13, 2018 to strengthen the implementation of the anganwadi (pre-school) and school-

based mass deworming program under the National Deworming Day (NDD). Comprehensive technical assistance was provided to the state government in implementation of the school and anganwadi-based National Deworming day in the August 2018 and February 2019 rounds.

- The state implemented NDD February 2019 on February 8, 2019 followed up by mop-up day on February 14, 2019 in 15 districts with joint efforts of Departments of Health, Women and Child Development (ICDS) and Department of Elementary and Secondary Education with technical assistance from Evidence Action. The February 2019 round of NDD was conducted in two phases in February and then April-May due to delayed drug availability.

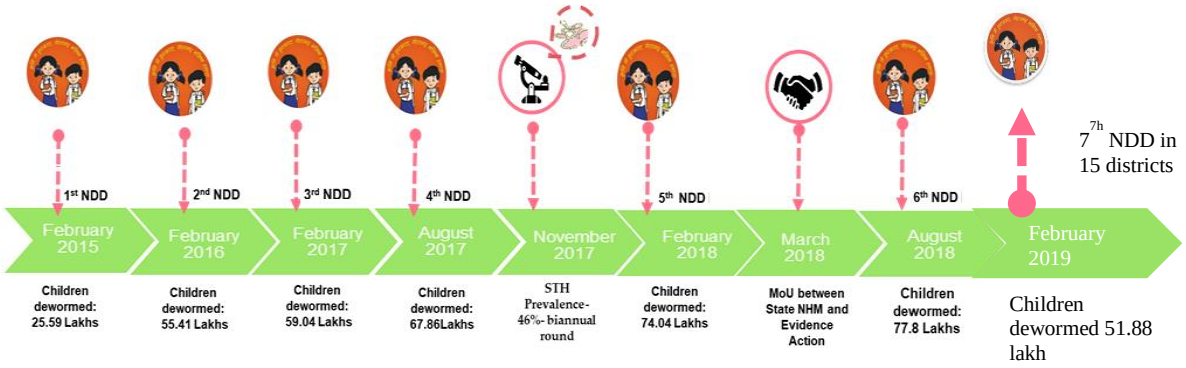



Figure 1.4: Roadmap of NDD Haryana

| NDD Feb 2019 round Timelines | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | Dec-18 | | | | Jan-19 | | | | Feb-19 | | | | Mar-19 | | | |
| | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 |
| State Steering Committee Meeting (SCCM) | | | | | | | | | | | | | | | | |
| District Coordination Committee Meeting (DCCM) | | | | | | | | | | | | | | | | |
| Drug estimation and procurement | | | | | | | | | | | | | | | | |
| Drug distribution at distrit level | | | | | | | | | | | | | | | | |
| Drug distribution at block level & Integrated distribution of drugs and IEC material | | | | | | | | | | | | | | | | |
| Training cascade | | | | | | | | | | | | | | | | |
| Short term hire support for NDD from Evidence Action | | | | | | | | | | | | | | | | |
| Awareness and communication moblization activities | | | | | | | | | | | | | | | | |
| Monitoring, Evaluation and Reporting | | | | | | | | | | | | | | | | |

Figure 1.5: Haryana NDD Feb 2019 round timelines

## OBJECTIVES OF THE STUDY

i. To understand the NDD operational guidelines and NDD monitoring process ;
ii. To understand the process of tele-calling monitoring during NDD February 2019 in Haryana; and
iii. To identify strengths and weaknesses of tele-calling monitoring under NDD.

## LITERATURE REVIEW

Study title-Improving fatigue and depression in individuals with multiple sclerosis using telephone-administered physical activity counseling. [15] (2016)
Authors-Turner, A. P., Hartoonian, Sloan, Benich, Kivlahan, D. R., Hughes, C.Haselkorn, J. K.

The objective of the study is to evaluate the impact of a physical activity intervention consisting of telephone counseling with home-based monitoring to improve fatigue and depression in individuals with multiple sclerosis. A single-blind randomized controlled trial was conducted with 64 individuals with multiple sclerosis received either telephone counseling (N = 31), or self-directed physical activity education (N = 33). The education condition consisted of advice to increase physical activity and a DVD with examples of in-home exercises for multiple physical ability levels. The telephone counseling condition included as well as mailed graphic feedback, 6 telephone counseling sessions using principles of motivational interviewing, and telehealth home monitoring to track progress on physical activity goals. The findings showed that telephonic counselling participants reported significantly reduced fatigue, reduced depression and increased physical activity relative to self-educated participants. The study concluded by stating that telephone-based counseling with home monitoring is a promising modality to improve physical activity and treat fatigue and depression. [16]

Study title- Do automated calls with nurse follow-up improve self-care and glycemic control among vulnerable patients with diabetes? [17] (2000)
Authors - John D Piette, MorrisWeinberger, Stephen J McPhee, Connie A Mah

The objective was to evaluate the effect of automated telephone assessment and self-care education calls with nurse follow-up on the management of diabetes. 280 English or Spanish-speaking adults with diabetes who were using hypoglycemic medications were part of the study. Patients were randomly assigned to usual care or to receive an intervention that consisted of usual care plus bi-weekly automated assessment and self-care education calls with telephone follow-up by a nurse educator. Outcomes measured at 12 months included survey-reported self-care, perceived glycemic control, and symptoms, as well as glycosylated hemoglobin and serum glucose levels. Follow up of 248 patients showed that intervention patients reported more frequent glucose monitoring, foot inspection, and weight monitoring, and fewer problems with medication adherence. The study concluded by stating that automated calls with telephone nurse follow-up was be an effective strategy for improving self-care behavior and glycemic control, and for decreasing symptoms among vulnerable patients with diabetes.[18]

Study title- A telecommunications system for monitoring and counseling patients with hypertension. Impact on medication adherence and blood pressure control. [19] (2000)

Authors- Robert H. Friedman, Lewis E. Kazis, Alan Jette, Mary Beth Smith, John Stollerman, Jeanne Torgerson, Kathleen Carey

The study was done to evaluate the effect of automated telephone patient monitoring and counseling on patient adherence to antihypertensive medications and on blood pressure control. A randomized controlled trial was conducted in which 267 patients who were >or= 60 years of age, on antihypertensive medication, with a systolic blood pressure of >or= 160 mm Hg and/or a diastolic blood pressure of >or= 90 mm Hg. The study compared subjects who received usual medical care with those who used a computer-controlled telephone system in addition to their usual medical care during a period of 6 months. There was mean decrease in diastolic blood pressure by 5.2 mm Hg in users as compared to 0.8 mm Hg in controls. The study concluded by stating weekly use of an automated telephone system improved medication adherence and blood pressure control in hypertension patients. This system can be used to monitor patients with hypertension or with other chronic diseases, and is likely to improve health outcomes and reduce health services utilization and costs. [20]

**RATIONALE**

Tele calling is an integral part of M&E that facilitates preparedness and process monitoring

on key NDD components. Its role is to identify gaps for timely corrective action at the ground level through regular updates for effective implementation of NDD program.

This study is proposed to understand and review the tele-calling tool of Evidence Action for the monitoring of NDD in Haryana.

## OPERATIONAL DEFINITIONS

- Deworming-It is defined as the delivery of safety-tested, single dose, oral anthelminthic drugs for the reduction of both the subtle and the overt morbidity that accompanies worm infections. [21]
- Anthelminthic- A medicine used to kill helminths (worms) and facilitate their expulsion from the human body. The anthelminthic most commonly used to treat intestinal worm infections in children are the benzimidazoles (albendazole and mebendazole).
- Soil-transmitted helminths- Soil transmitted helminths (STH) is a sub group within group of helminths infection. The main species that infect people are the round worm (Ascarislumbricoides), the whipworm (Trichuristrichiura) and the hookworms (Necatoramericanus and Ancylostomaduodenale). [22]
- National Deworming Day – National Deworming Day is an initiative of Ministry of Health and Family Welfare, Government of India to make every child under the age of 1 to 19 years in the country worm free through a fixed day approach.

## METHODOLOGY

- **Study design**: Observational Descriptive study
  Observational Descriptive Study is used to describe a situation or process by finding answers to what, where, when, who, why and how without any interaction with study participants.
- **Setting of study**: 15 NDD implementing districts, Haryana for February 2019 round.
- **Study period:** Three months (4$^{th}$ February 2019 - 3$^{rd}$ May 2019)
- **Study respondents:** Government officials in Department of Health (District Program Manager, Block Program Manager, Medical officers, Senior Medical Officer),

Department of Education (District Education Officer, Block Education Officer) & department of Women and Child Development (WCD- program officer, CDPO). At below block level calls are made to ASHAs, Anganwadi workers, Principals and Teachers.

- **Sampling and sample size-**

  Automated Tele-calling platform is used. Calls start from District level which are implementing NDD. Then blocks within the implementing districts are called. Below Block level in order to ensure maximum geographic coverage, random selection of contacts with each are selected through tele-calling platform. Number which are called earlier below block are not called back.

- **Methods of Data Collection**

  i. Studying of Core Documents- In order to have better understanding about National Deworming Day, Documents like NDD operational guidelines 2016, guideline for preventive chemotherapy to control soil transmitted helminths infections in at-risk population groups (WHO), Monitoring an Evaluation strategy for National Deworming Day, Haryana Operational plan NDD February 2019, guidelines for tele-calling and presentations from Program Review Meeting and Orientation packages for tele-callers in Haryana for February 2019 round.

  ii. Field visits to schools and anganwadi centers- Preparatory and monitoring visits to schools and anganwadi centers were made for process monitoring.

  Preparatory visits were done prior to NDD. Purpose of the visit is to assess the status of drugs, IEC, reporting form two days before NDD.

  Monitoring visits were done on NDD. Purpose of these visits is to know whether NDD was done or not, Provision of deworming at school and AWCs.

| Preparatory Visits | Monitoring Visits |
|---|---|
| • Prior to NDD<br>• To check the status of drugs, IEC, Reporting forms. | • On NDD<br>• To know whether NDD was done or not, Provision of deworming at schools & AWCs. |

- 20 Preparatory visits to block Rewari and Khol, District Rewari for two days were done prior to NDD round. 10 visits on each day to schools and anganwadi centers.
- Preparatory checklists was used that address indicators like awareness about NDD dates, availability of drug & IEC, reporting forms.
- 10 Monitoring visits were done on the day of NDD to Bawal block, district Rewari.
- Monitoring checklist was used that address indicators like NDD done or not, provision of deworming at schools and anganwadi centers.

iii. Close support to Evidence Action team towards technical assistance support in program monitoring- Worked in close coordination with Program team at national office towards program monitoring and facilitate corrective action mainly around NDD, during NDD.

Attended District coordinator reorientation meeting in Haryana NDD February 2019 round which provide an inside of Haryana NDD program

iv. Tele-calling daily updates- Daily updates of tele-calling which are shared by Evidence Action state team with all the three major stakeholder departments- Health, Education and Women & child development for NDD February 2019 were studied in order to better understanding.

v. Tele- calling portal- Evidence Action has developed an automated tele-calling platform. Evidence Action state team (State Program Coordinator- M&E) during the tenure of tele-calling assigns tasks to tele-callers through this platform. Tele-callers through this portal gets logged in, get the list of people that are called for program update, complied response sheet is generated for the day.

- **Study Tools**

i. Observational Checklist – To give structure to this study an observational checklist was used a help in answering to 5 W's and 1 H (what, when, why, where, whom and how) are answered for understanding about NDD guidelines and monitoring process.

ii. Review checklist- It helps us in reviewing the tele-calling tool in reference with program objectives, steps, key stakeholders and their roles.

iii. Preparatory checklist-It is a tool used by Evidence Action during the preparatory visits of the round to analyze the level of preparedness for National Deworming Day.

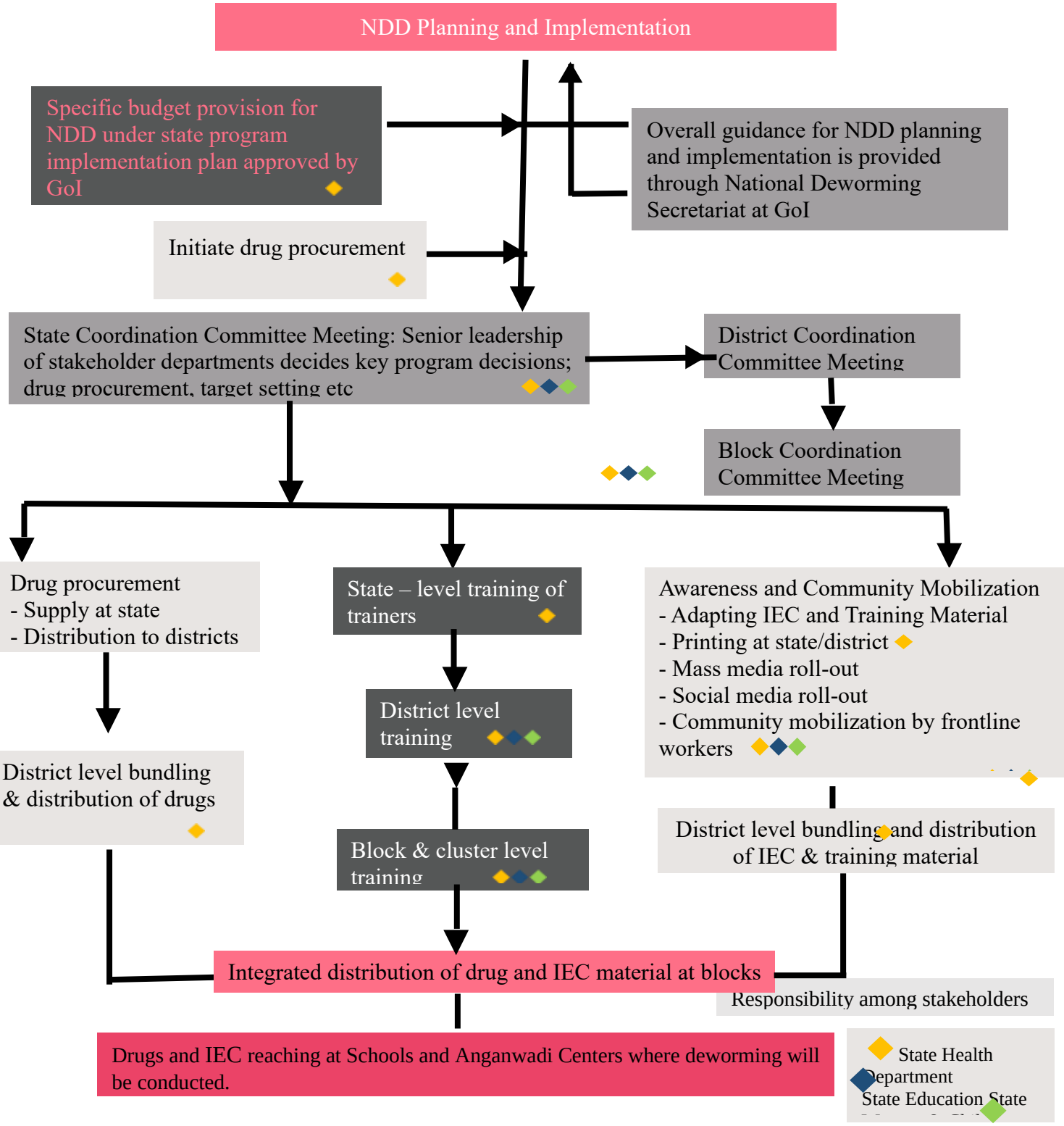
iv. Monitoring checklist –Evidence Action has developed a monitoring form for monitoring on NDD/MUD that is done by both government officials and Evidence Action team. The tool is divided into following component—NDD observation, training aspects, community awareness and IEC material.

.

## RESULTS

Through NDD operational guidelines, steps involved in NDD planning and implementation along with responsibility of stakeholder involved are as follows:

Figure 1.2: Flowchart NDD planning and Implementation activities



- Monitoring and Evaluation of National Deworming Day Program

For ensuring the quality of program delivery and technical assistance to NDD, Evidence Action has set in place a robust Monitoring and Evaluation (M&E) system to measure effectiveness in achieving intended program results. M&E is a critical component of the Evidence Action technical assistance to the Government program at both national and state level, which helps to track progress and facilitate timely decision making for program improvements and strengthening.

Understanding program reach and quality is central to a successful deworming intervention. To achieve this, Evidence Action supports the design and implementation of a robust monitoring and evaluation strategy for the Ministry of Health and Family Welfare's school and anganwadi based deworming program through:

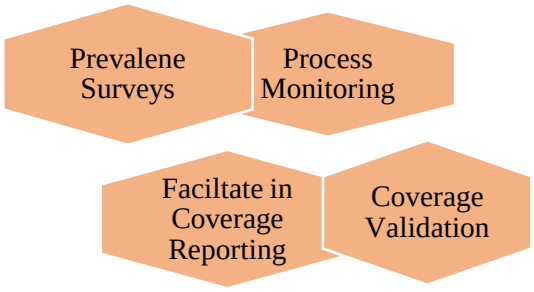



Figure 1.6: Components of M&E

i. Prevalence Surveys- To measure the worm load to determine the treatment frequency.
ii. Process monitoring- Process monitoring, which measures inputs and outputs to assess program implementation, occurs prior to, during, and after deworming day.
iii. Coverage Validation- Coverage Validation is an ex-post check of the accuracy of the reporting data and coverage estimates by the state government through interviews with anganwadi workers, headmasters and students in school and by checking records and reporting forms from the NDD.
iv. Coverage Reporting- Development and technical guidance on automated reporting via NDD application.

Process Monitoring- It helps to assess the quality of program implementation in schools and anganwadis and further understand the quality of treatment coverage data reported by the state Governments after the NDD. It is done through Tele-calling and process monitoring by Independent survey agencies in around 200 schools and anganwadis in NDD rounds.

- About Tele-Calling

State team finalize tele-calling plan two weeks before the initiation of tele-calling. Tele-calling is done according to the round specific time:

Figure 1.8: Phases of NDD

To ensure effective implementation of the program, it is important to constantly monitor and supervise program components at all levels. A viable option in this regard is tele-calling, which has the potential to generate detailed, real time program updates and can be used to rectify problems before they can escalate. Evidence Actions appoints tele-callers in some states to support the NDD round. These tele-callers work closely with district coordinators and locks to gather updates on program components at all levels, including drug supply, training status, IEC, adverse event management and coverage reporting. Information thus gathered is compiled in tracking sheets and shared with nodal officers of all the three stakeholder departments-Health, Education, Women and Child Development to take timely corrective action as well as build and update contact data base of all functionaries.

Regular sharing of information with stakeholder departments is done through emails as program update. If required action is not happening, the state team member takes a hard copy to the SNO in the department so that appropriate action can take place.
During the initial rounds of NDD, manual tele-calling was done. Manual tele-calling

was a time consuming and tedious exercise. The results were compiled manually that took time which lead to delayed sharing like 11.30 PM at night of information with government officials. From these learnings, NDD tele-calling has evolved from manual to automated tele-calling.

Automated tele-calling has made the process simpler and time efficient. With this, regular updates are shared with government in the morning so as to escalate the preferred corrective measure.

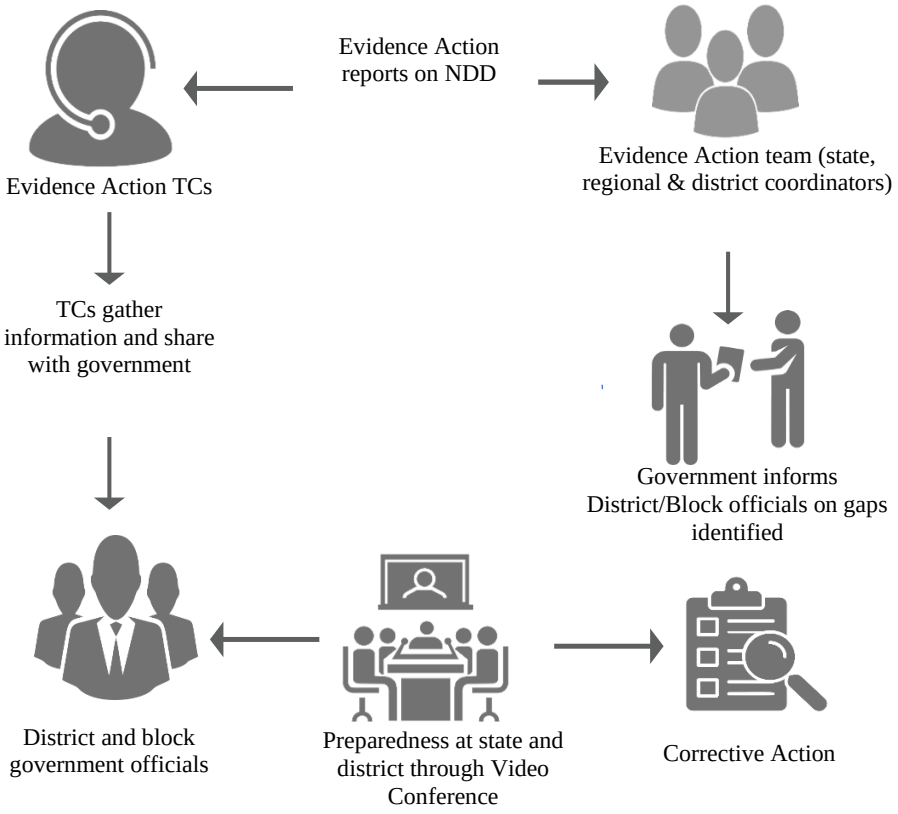



Figure 1.7: Tele-calling-Information flow between Evidence Action team and state, district and block level officials

For Haryana, five tele-callers were hired by Evidence Action who worked from Haryana State office in collaboration with the state team. Throughout the round, calls are made at various levels to track the program components like drugs, IEC, training were tracked daily with key decision maker in NHM to monitor progress and take the necessary corrective action. District coordinators and Regional Coordinators which are hired by Evidence Action facilitate the entire process by sharing daily updates on the deliverables that helps in taking timely action.

Tele-calling starts at 9.30 am sharp to 5.30 pm.

- Between 9.30 to 10.30 am: Calls to DCs and RCs should be made to check their presence in field and to assign daily activities as per program priorities.
- Between 10.30 am to 4 pm : Calls to government officials and functionaries as per proposed plan for the day
- Between 4 to 5.30 pm: Calls to DCs and RCs to assess progress on the assigned activities for the day.

DCs and TCs are short term employees that hired during the NDD round whereas RCs are full time employee of Evidence Action.

TCs are hired once the date of the NDD round is finalized with the state government in SCCM.

- Role of Tele-callers:

Tele-callers are hired during NDD round for period of 3 months-

• Are the voice of EA who gather status updates on program areas at all levels- drugs supply, training status, IEC, adverse event management and coverage reporting.

• Compile information in tracking sheet for reference of state officials.

• Disseminate gaps in NDD program implementation and convey to block officials to allow them undertake corrective actions

• Internally share status update each day with Regional and District Coordinator, to support for corrective action in field

• Build updated database of all officials and functionaries

• Escalating need for corrective actions to state team and coordinate for remedial measures.

- Coordination between RC/DC/TC for corrective action:

Evidence Action state team coordinates with regional and district coordinators & tele-callers for effective implementation of NDD.

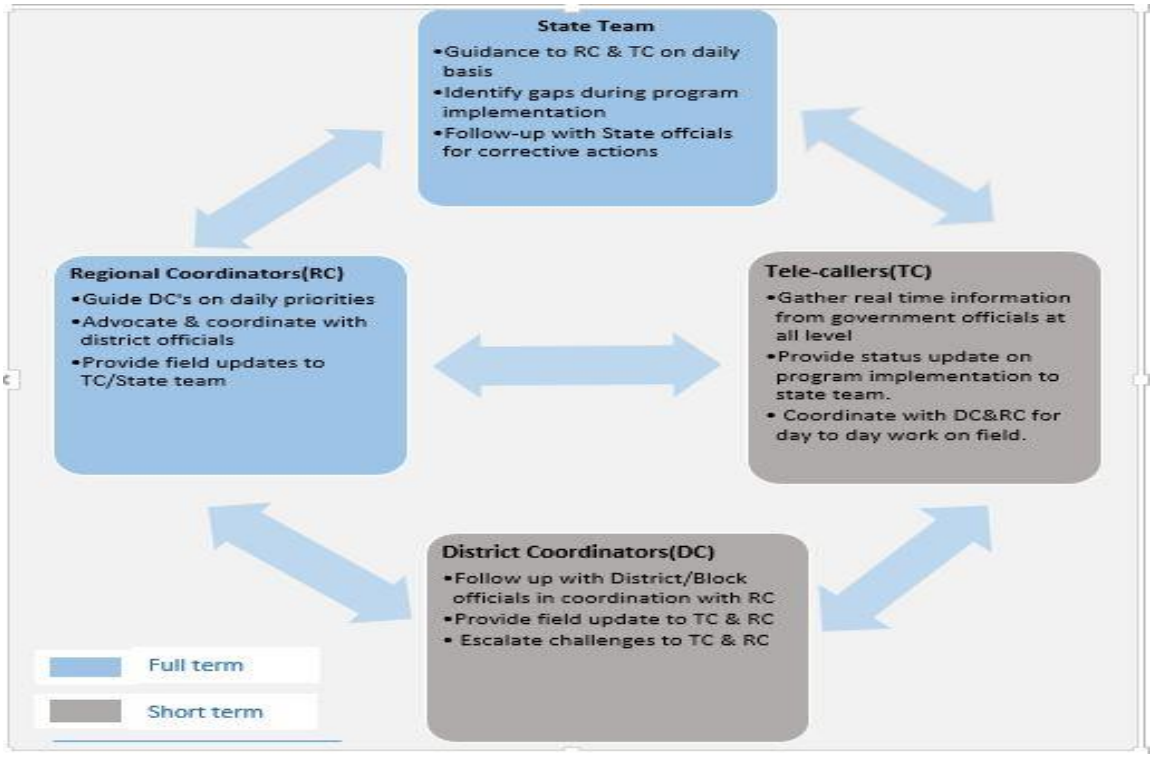



Figure 1.9: Flow of information between State team, Regional Coordinators, District Coordinators, and Tele-Callers

- Pre-NDD: Preparations of NDD

Calls are made at different levels in hierarchy according to the activities planned in operational plan for status update on various components-

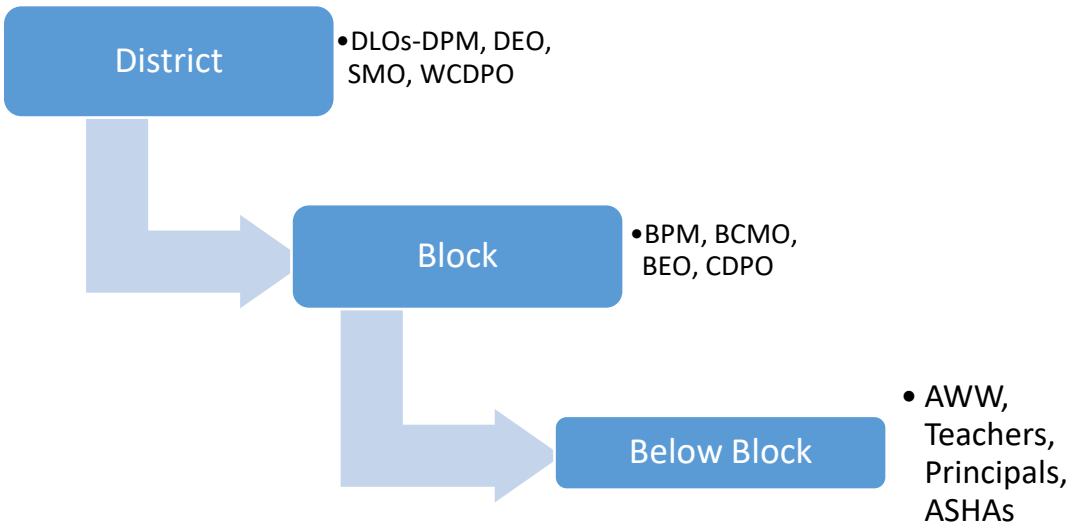



Figure 1.10: Stakeholders across the levels

- At district level, Call to district level are need based not advised on daily basis. District Program Manager (DPM) - Health, District Education Officer (DEO) /DSWO –Education/ICDS; are contacted to check the status of district coordination committee meetings done, participation of stakeholders; Video conferencing; district training; printing of IEC material.

Along with these activities, program components like drug and IEC situation are monitored through NDD preparatory tele-calling. Questions about drug and IEC include-

- ✓ Whether the drugs and IEC been received for this round
- ✓ Received drug is sufficient according to bundling plan
- ✓ Is it being sent to block level
- ✓ Any gaps faced
- ✓ Any corrective action done to overcome gap faced

- At block level, Block Program Manager (BPM)/CDPO/Block Education Officer (BEO)- are similarly asked about
  - ✓ Attended training or not
  - ✓ Status of block level training

- ✓ Number of people attended training
- ✓ Integrated distribution taking place or not

➢ Below block level- calls are made to Anganwadi Workers (AWW), Principal, Accredited Social Health Activist (ASHA)

- ✓ Attended training or not
- ✓ Receive NDD kit or not
- ✓ ASHA submitted out of school children list to AWW
- ✓ Received reporting format or not

All this not only helps in identification of gaps but also helps in consistency checks as calls are made from the district to below block level.

- During NDD

On NDD-Generally calls made to below block to AWW, Principal and teachers to track actual action happening at ground level on NDD

- ✓ Deworming (NDD) conducted in your school/Anganwadi center (AWC)
- ✓ If no, then what is the reason
- ✓ Was albendazole drug available in adequate quantity on NDD
- ✓ Is Handouts and reporting form available
- ✓ Received any deworming related SMS
- ✓ How many students enrolled in your school
- ✓ How many students attended NDD

Post NDD, Pre MUD and on MUD

Calls are made to below block level functionaries. Similar points covered on NDD are asked till the mop-up day is done at the state.

- Post MUD

The major activity after the MUD is coverage reporting, drug recall and program costing. The process of work flow is reversed i.e. bottom to top; coverage reporting forms are filled by AWWs, school teachers and collected by auxiliary nurse midwife (ANMs) submitted at block level. The information is compiled at the block level and shared with the district. Data entry and correction is only possible at block level then shared to district. At district, a complied sheet of entire blocks is made and data approval is done, then shared with state.

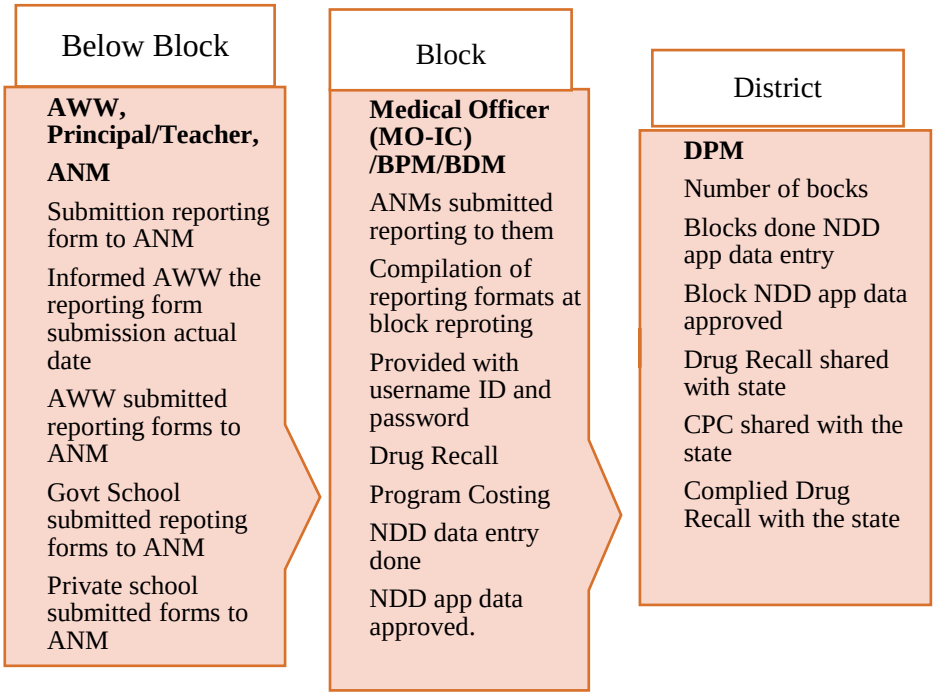



Figure 1.11: Post NDD Tele-calling Stakeholders and their deliverables

- SWOT analysis

Closely observed tele-calling process during NDD and post NDD to identify the strengths and weakness of the tele-calling process.

**Strengths**

- Broader reach as large pool of data is available.
- Easy and Simple method
- Helps in effective implementation of NDD program as it identifies the gaps where corrective action is needed.
- Helps in process monitoring and preparedness monitoring.
- Regular updates during the NDD round with NHM-MD helps in appraisal of NDD activities.
- Following up on the deliverable as per the tele-calling plan.

**Weakness**

- Not having an updated database of the various stakeholders.
- Response rate is a challenge in select settings.

**Opportunities**

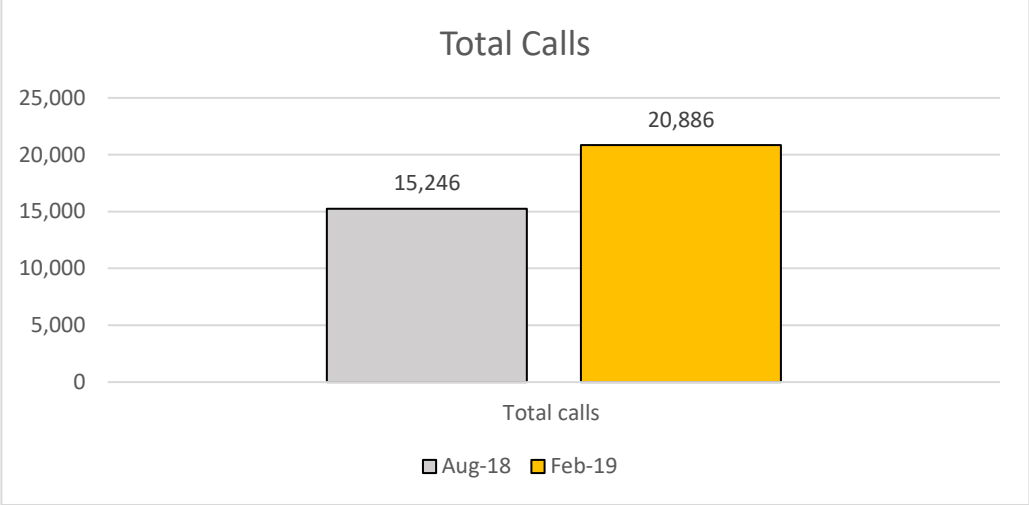
- Helps in improvising and facilitation required according to the situation on the ground.
- Helps in foreseeing the gaps and take necessary action ahead of time.
- Building rapport with stakeholders of the program.
- Leveraging with other programs like in other states.
- Integrating with exiting platforms in government.
- Scope of development- making tele-calling more robust like auto dialing, pop-up reminders.

**Threat**

- Largely dependent on technology and internet connectivity which is an issue faced in some states.

**Tele-calling status of Haryana NDD February 2019**

Total number of calls made in NDD February 2019 round were 20,886 where as in August 2018 round were made 15,246 by the tele-caller.

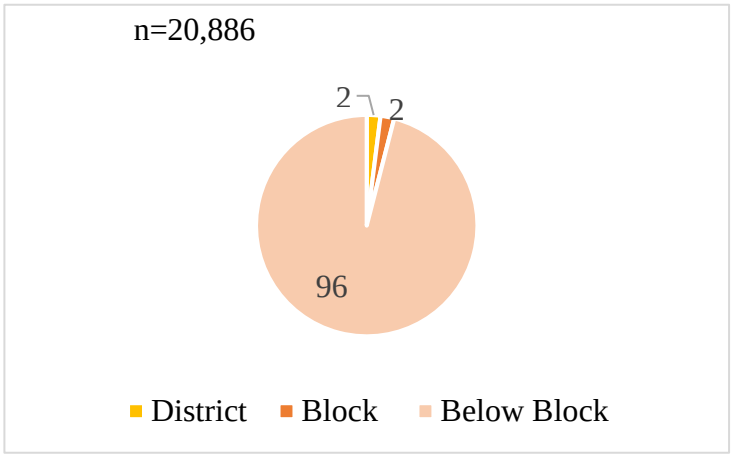



Graph 2: Total calls made in NDD August 2018 and February 2019 round

- Successful/unsuccessful calls-

The analysis of Evidence Action data relating to tele-calling showed that 20,886 calls were made to the stakeholders of NDD in February 2019 round in Haryana, out of which 64.7% calls were successful in comparison to 53.7% in August 2018 round. This indicates an increase of 11% between two rounds.

- Percentage Distribution of calls completed by levels-



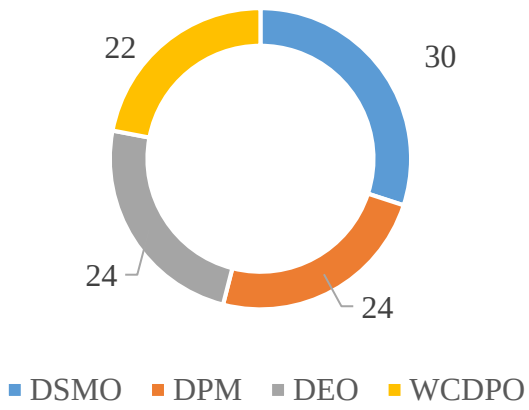

Graph 3: Percentage Distribution of calls completed by levels

Out of 20,866 calls made in NDD February 2019 round, calls at district level were 435, bock level were 300 and below block level were 20,151.

- Distribution of calls among the stakeholders at various levels-

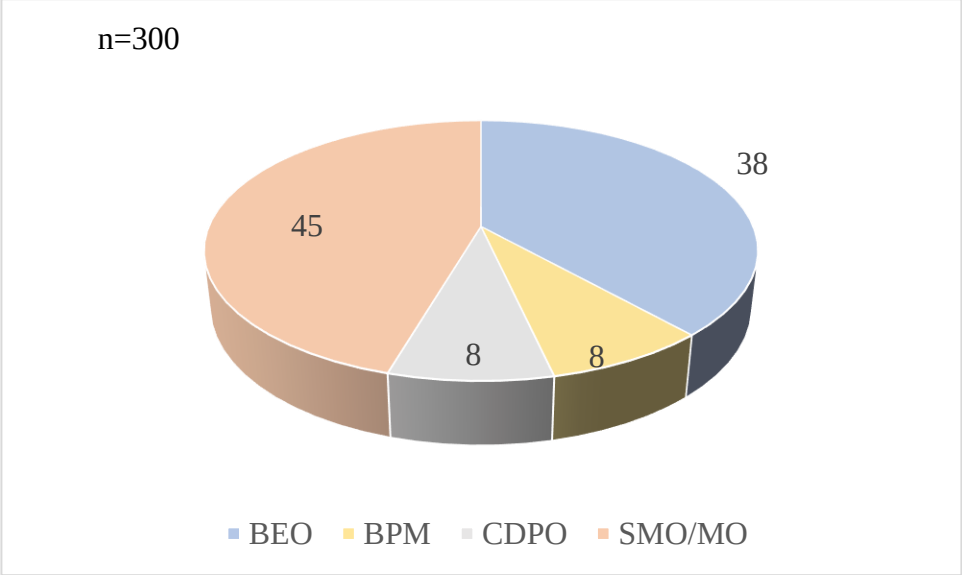
At District level- Out of the total 435 calls completed at district,

Graph 4: Percentage distribution of calls by district officials (n=435)



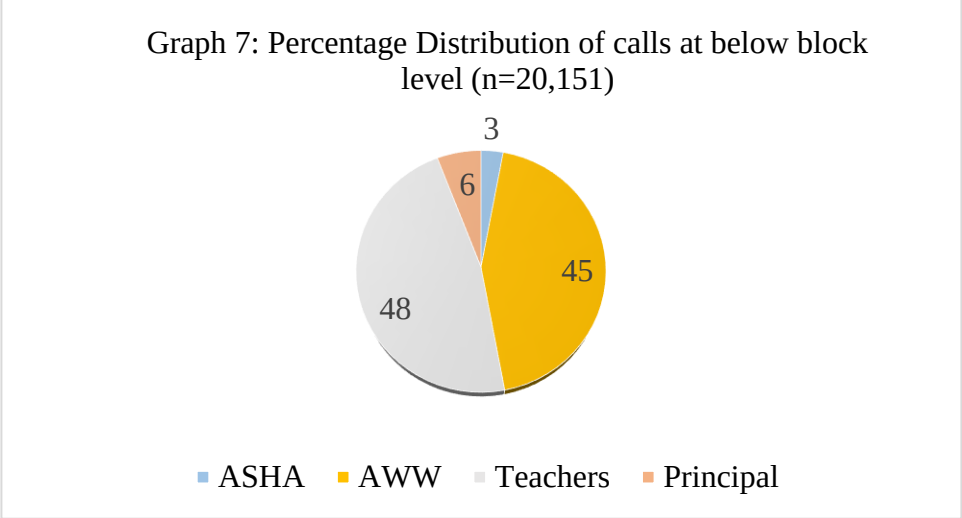

Calls at district level were made to the three major stakeholders- Department of Health (202), Education (130) and Women and Child Development (97) through DSMO/DPM , DEO and WCDPO respectively. Nearly one-third calls were made to senior medical officer while about one-forth callas were made to each of the other stakehoder namley DPM, DEO, and WCDPO at the district level.

At block level- Out of the total 300 calls completed at district, all three stakeholders were involved like in district. About 45 percent calls were made to senior medical officer / medical officer followed by 38 per cent calls were made to BEO. Eight per cent each calls were made to BPM and CDPO (Graph 5).




Graph 5: Percentage Distribution of calls completed by levels Stakeholder at block levels

At below block – Calls were made to ASHA (685), Anganwadi workers (9165), Teachers (9720), Principal (1312) are connected in the round.




- Efficiency analysis of calls connected-
  a) Percentage of successful calls was calculated for both August 2018 and February 2019 round. Percentage of successful calls in NDD August 2018 was 53.7% and in February 2019 was 64.2% which shows an increase from 11% from previous round.
  b) Average time taken by tele-caller per success calls as calculated for NDD

February 2019 round, total time taken in Successful calls (in secs)/ Total number of successful calls made came out to be 64 seconds.

c) Calls success rate at levels-Percentage of calls successful at district in NDD Feb 2019 was 68.5%, block was 65.5% and below block was 64.5%.

## ETHICAL CONSIDERATION

No names of the government officials have been used.

Tele-calling plan has been approved by the state government.

Clause on Evidence Action, government data sharing:

There was no specific data collected for this dissertation. The data / information included here is part of the larger technical assistance efforts of Evidence Action for Government of Haryana. All rights in and to any information / data in writing or other readable form above, belongs to Evidence Action represented through it's in country technical assistance partner Pramanit Karya India Private Limited (PKIPL). It is part of MoU signed with the state government and should be used only for the purpose of this dissertation and is not be disseminated without approvals from PKIPL

## DISCUSSION

Tele-calling has been used as tool for treatment of disease like multiple sclerosis which helped in reducing depression and fatigue, as stated in study by Turner et al. The interventions made can be monitored through tele-calling which resulted in fewer medication adherence problems as stated in study by John et al. These studies concluded by stating tele-calling used for monitoring is an effective tool helped in improving the outcome. Similarly, tele–calling when used as monitoring tool of public health program can help us in better implementation.

Evidence Action facilitates in drafting of state specific operational plan which encompasses the activities taking place in round with timelines. It further incorporates the roles and responsibility of stakeholder departments which helps in systematic implementation of NDD. Further success of any program largely depends on robust monitoring and evaluation strategy that helps in achieving the intended result.

Tele-calling ensures effective implementation of NDD program by assessing the preparedness of key components involved and in process monitoring. It provides with an opportunity to improvise according to the ground reality. Daily sharing of updates with key stakeholder departments- Health, Education & Women and Child development has helped in escalating the process and improving the program coverage.

Tele-calling has helped the program to gauge more visibility among the stakeholders as well as it serves as a platform to ensure appropriate and timely corrective action.

Data analysis shows that calls were made to stakeholders in Health, Education, and WCD to get an update on program component as per the NDD phase for over a period of 41 days in Haryana NDD February 2019.Daily tele-calling updates were shared with Haryana NHM which helped in filling gaps that occur during implementation and facilitate a timely corrective action.

Number of calls made in the round are significant as all the key stakeholder departments at all levels are called to get an update on deliverable. This is also an opportunity to iterate for the required deliverable at that specific phase of NDD round which helps in enforcing a better output.

As it is evident from the round analysis, an increase in number of calls in Haryana from the previous round by 11% shows that Haryana deworming program is growing and gaining cooperation from the stakeholders. Number of calls made in the February 2019 round are significant as all the key stakeholder departments at all levels- districts (435), block (300) and below block (20,000) were made to get an update on deliverables. Stakeholder across all departments like health (DPM, DSMO, and ASHA), education (DEO, school teachers, principals) and WCD (WCDPO, LS, AWW) were connected. Call success rate at district and block level is approximately 70%, there is a lot of potential that needs to be tapped in order to improve program coverage. Percentage call at below block level is highest 96% (20,151 out of 20,886) whereas at district and block level is approximately 4%.

**Recommendation**- Tele-calling is a simple tool that can be easily scaled up and made more robust by automated dialing, pop-up reminders as there is always a scope of development.

**Way forward**- In order to instutionalise tele-calling efforts, tele-calling unit of the state can be integrated with existing platform of the state NHM- like 104 help line in Haryana for better channelization of resources and management by leveraging with state government programs like in some states.

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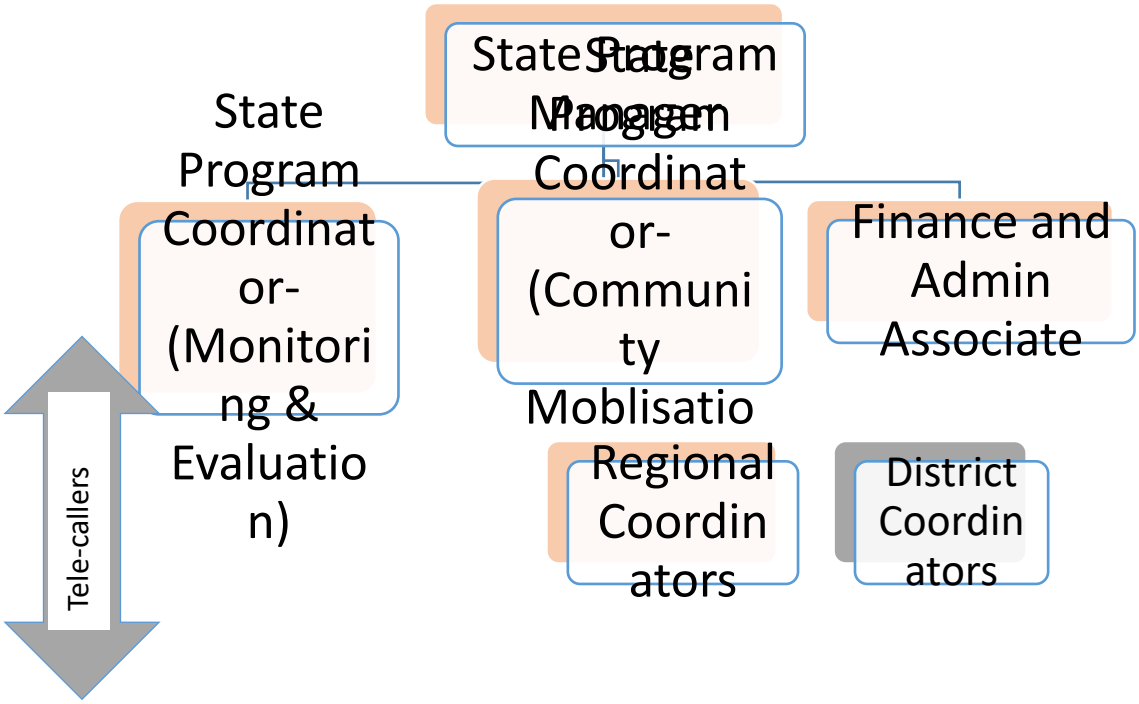
## ANNEXURES

Annexure 1-

**State Team Organogram-**




Tele-callers (TCs), District coordinators (DCs) and Regional coordinators (RCs) work with state team for program implementation.

Short term hires- TCs and DCs

Annexure 2-

**Observational Checklist**

**A.** Planning –thinking through Who, Where, When, How and What.

i. Type of observational study- Structured observational study; in order to have better

understanding the tele-calling tool used in NDD led to an observational study that is candid.

ii. Activities assessed- Tele-calling daily updates,
Tele-calling sheets,
Tele-calling portal

iii. Time- Three months i.e. February to May. Although the period of the study is for three months but tele-calling began in mid-December for the NDD round.

iv. Worked in close support to Evidence Action team towards technical assistance support in program monitoring.

**B.** Implementing- Have I

i. Eased into observation situation

ii. Prepared myself to accept a range of sensory inputs- all my senses and intuition to gather data.

iii. Looked for saturation – tried to ensure my observation no longer yield new knowledge before ending the process.

**C.** Recording-

Recorded my observations as soon as possible.

**D.** Reviewing-

i. Reviewed the entire process

ii. Reviewed my observation record

iii. Confirmed with program team associates to triangulate my observational data.

**E.** Refining-

i. Kept reviewing and refining

ii. Considered major issues

**F.** Managing and Analyzing

i. Organized my data

ii. Analyze my data – through checklists.

Annexure 3-

**Review checklist-**

| Activity | Calls made | Response | Query | Response |
|---|---|---|---|---|
| Preparation of NDD | DPM | Successful/Failed | Preparation of NDD | Yes/No |
| | DEO/DSWO | Successful/Failed | Drug stock and availability | Yes/No |
| | BPM/BEO/CDPO | Successful/Failed | IEC stock | Yes/No |
| | Principal | Successful/Failed | District Level training | Yes/No |
| | AWW/ASHA | Successful/Failed | Block level training for teachers/AWW | Yes/No |
| | MOIC | Successful/Failed | | |
| During NDD | | | NDD program implemented in school /AWC | Yes/No |
| | | | Reasons for not conducting NDD | Yes/No |
| | Principal/Teacher | Successful/Failed | Received suffiecient IEC material | Yes/No |
| | AWW | Successful/Failed | Received suffiecient albandazole tablets | Yes/No |
| | | | Received reporting form | Yes/No |
| | | | Any adverse event reported | Yes/No |
| Post NDD | DPM | Successful/Failed | Submission of completed reporting forms | Yes/No |
| | DEO/DSWO | Successful/Failed | Compilation of block level data | Yes/No |
| | BPM/BEO/CDPO | Successful/Failed | Approval of data | Yes/No |
| | Principal | Successful/Failed | Login details received | Yes/No |
| | AWW | Successful/Failed | Received drug recall form | Yes/No |
| | ASHA | Successful/Failed | | Yes/No |
| | MOIC | Successful/Failed | | |
| | CDPO/BEO | Successful/Failed | | |
| | Principal/Teacher | Successful/Failed | | |
| | ANM | Successful/Failed | | |