

Terms of Reference:
Process Monitoring and Coverage Evaluation of School-Based Deworming
Islamabad Capital Territory, Pakistan

1. Background

The World Health Organization (WHO) estimates that over 1.5 billion people are infected globally with soil-transmitted helminths (STH), with 835 million children in need of treatment. A national STH prevalence survey conducted in 2016 found that over 16 million school-age children (5-15 years) in Pakistan are at risk of STH and require regular treatment, with an estimated 570,000 at-risk school-age children in Islamabad Capital Territory (ICT).

The WHO's recommended strategy is to control morbidity caused by STH infections through mass treatment of at-risk populations using safe and effective deworming medicines. At-risk populations defined by WHO are the following groups living in areas where prevalence of STH exceeds 20% in the population group: young children (12-23 months of age); preschool children (24-59 months of age); school-age children (5-14 years of age); non-pregnant adolescent girls (10-19 years of age); non-pregnant women of reproductive age (15-49 years of age)¹. However, due to logistical and pharmaceutical limitations, national deworming programs and donors have focused primarily on mass treatment of school-age children as they typically have the highest intensity of worm infection of any age group. Use of the school infrastructure to administer drugs for deworming is one of the simplest, most cost-effective approaches to treating large numbers of school-age children (SAC).

The school-based deworming program is led by the Federal Ministry of Planning, Development & Reform (M/o PD&R) with key participation from stakeholders, namely the Federal Ministry of National Health Services Regulations & Coordination (M/o NHSR&C), Ministry of Federal Education & Professional Training (M/o FE&PT), and Office of the Chief Commissioner. A technical assistance (TA) partnership, including Interactive Research and Development (IRD), Indus Health Network and Evidence Action, provides comprehensive technical assistance to the government to initiate, plan, implement and monitor the school-based deworming program.

The first MDA will be conducted in ICT the first week of December 2018. Teachers will be trained to administer deworming medicine - one tablet of mebendazole 500mg per child – to all school-age children (i.e. enrolled and non-enrolled children). Those not enrolled in school will be mobilized and encouraged to visit the nearest school where deworming tablets will be provided to them.

The school-based deworming program's monitoring and evaluation (M&E) strategy includes:

- process monitoring,
- performance monitoring, and
- impact monitoring

¹ Preventive chemotherapy to control soil-transmitted helminth infections in at-risk population groups. World Health Organization (2017). <http://apps.who.int/iris/bitstream/handle/10665/258983/9789241550116-eng.pdf?sequence=1>

M&E of the school-based deworming program is critical to track whether the program components are carried out to plan and follow national and global guidelines and protocols (i.e. process monitoring), to evaluate MDA effectiveness through treatment coverage (i.e. performance monitoring), and to assess impact on disease intensity and prevalence (i.e. impact monitoring).

This TOR focuses on process and performance monitoring conducted by a third party through independent monitoring and coverage evaluation surveys.

Process monitoring aims to provide an objective, unbiased evaluation and measurement of the program's inputs and outputs to monitor the program's quality and success of its processes. It also provides important lessons regarding adherence to the protocol and plan set out during program design, and informs strategic changes needed in current and/or future MDAs.

Measured inputs include:

- Quality of the training cascade
- Timely and accurate distribution of materials (IEC and training materials) and drugs
- Effective community mobilization and sensitization

Measured outputs consist of:

- Government official and teacher level of knowledge and preparedness to conduct MDA
- Community awareness prior to MDA
- Quality of implementation of MDA in schools according to (WHO) protocol
- Accurate and complete reporting of individual treatment
- Supervision of children immediately following treatment, including management of potential side effects or Severe Adverse Effects (SAE)

Performance monitoring aims to provide an unbiased evaluation of MDA effectiveness through conducting randomized coverage evaluation surveys. Where validated coverage rate is defined as:

$$\frac{\text{Total number of interviewed individuals that ingested the target drug}}{\text{Total number of interviewed individuals}} * 100 \%$$

Validated coverage rate is then compared to reported treatment coverage within the same administrative unit or area to measure reliability of reports.

The technical assistance partners are seeking a survey agency to provide and train independent monitors to carry out process and performance monitoring activities within ICT prior to, during and shortly after deworming day in schools. Firms interested and able to provide the required technical and logistical support for this study are invited to submit a proposal which addresses the scope of work described in this document.

2. Deworming Implementation Strategy

For the deworming program to achieve significant impact in reducing the prevalence of STH, the program needs to treat >75% of the all SAC (enrolled and non-enrolled) in each at-risk zone targeted for deworming. To reach this target, several implementation activities are undertaken to make the actual deworming day exercise a success. This includes but is not limited to: quality training of government officials and teachers; timely and accurate distribution of drugs and other materials used during deworming; effective community mobilization and sensitization; accurate and complete reporting of individual treatments; and vigilant supervision of children immediately following treatment, including management of potential side effects or Severe Adverse Effects (SAE). The key stages involved in planning and implementing the deworming campaign are shown in figure 1.



Figure 1: Key stages involved in planning and implementing a school-based deworming campaign. Reporting of data is a core component of monitoring and evaluation (M&E), but M&E will be employed throughout the various stages of the implementation strategy to ensure progress towards goals and inform programmatic decisions.

Training and distribution of drugs and materials will happen in a forward cascade model from the central level (ICT level) down to the lowest level (school). At each level of the cascade, the relevant government officials will be engaged, leveraging the existing ‘sector/resource centers’ as training venues and distributing training materials and drugs.

Deworming will be implemented in schools in two phases: (i) the main deworming day will be implemented over a 1-to-2-day period targeting all school-age children (enrolled and non-enrolled); and (ii) a ‘mop-up’ day will be implemented a 3-7 days later, targeting children who could not receive deworming medication on the main deworming day.

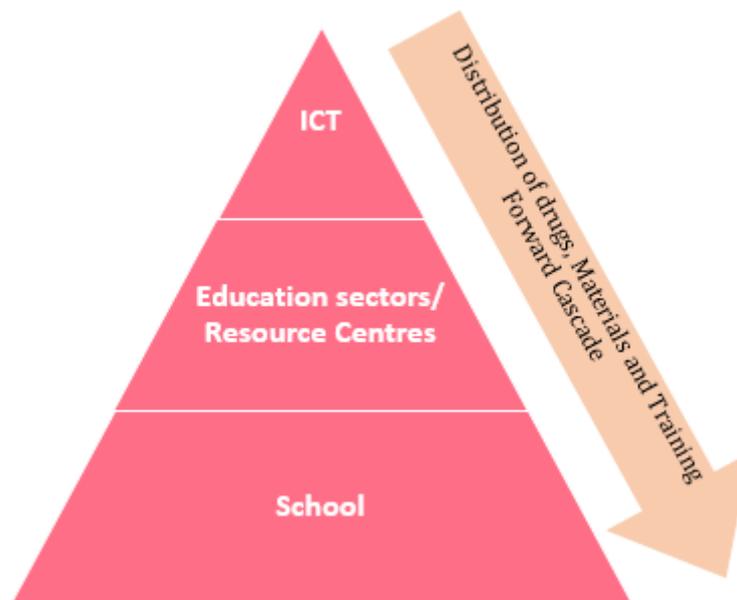


Figure 2: Depiction of the training cascade for ICT

3. Process & Performance Monitoring Objectives

The main objectives of independent monitoring are:

- 1) **To ascertain whether implementation activities happened according to the protocol and as planned:** In this endeavor, a sample of activities (trainings and actual deworming in schools) will be observed and recorded by independent monitors using provided surveys.
- 2) **To ascertain whether distribution channels of drug and other material were effective and timely:** The independent monitors will verify the availability of drugs and materials at each

level of implementation against what was initially intended, to measure the effectiveness of the distribution channels that have been put in place.

- 3) **To ascertain whether essential knowledge was passed and understood during the training cascade:** The independent monitors will conduct surveys selecting several training participants/ teachers to interview to determine their knowledge pre and post-training. This will measure the effectiveness of the training cascade model in essential knowledge transfer.
- 4) **To validate treatment coverage through conducting randomized coverage evaluation surveys:** Though the government stakeholders will collect treatment data which together with census data will be used to calculate reported treatment coverage within a certain school catchment area or zone, it is important that the reported treatment coverage is validated. Thus, the independent monitors will conduct coverage evaluation surveys after deworming to validate the reported treatment coverage.
- 5) **To assess the effectiveness of the community mobilization strategies implemented.** The independent monitor will also conduct surveys with the community to assess community awareness of deworming as well as effectiveness of the different mobilization approaches.

As part of the technical assistance that is offered to the ICT deworming program, we are seeking services of an external and independent monitoring firm that will carry out data collection in line with the outlined program monitoring objectives above. The firm should **NOT** be affiliated to any of implementing bodies (i.e. Ministry of Planning, Development and Reform, Ministry of National Health Services, Regulations and Coordination, Federal Directorate of Education, Metropolitan Corporation Islamabad/Capital Development Authority and Health Department ICT Administration). The specific tasks to be undertaken by the independent monitoring firm are highlighted in the scope of work below.

4. Scope of Work

To achieve the above objectives, the independent monitoring firm will be required to undertake specific activities highlighted below.

4.1 Monitor training of teachers – Teacher Training (TT)

Evidence Action and IRD will provide training to Master Trainer (MT's) who will subsequently provide training to school teachers who will be responsible for administering deworming tablets at schools. At least one representative teacher from all schools in ICT will be trained. Approximately 15 training teacher training sessions in total will be held across ICT, with a representative number of 14 randomly selected training sessions to be monitored across all zones. During this monitoring, an independent monitor will sit in the training and observe as the training is conducted and complete a survey to indicate number of teachers present for training, training topic coverage, availability of required materials during training, as well as the quality of delivery of the training. In addition to observing the training, the monitor will conduct interviews with a number of participants before and after the survey to help the program gauge participants' level of knowledge of deworming before training and knowledge gained after the training. The teacher training sessions will be leveraged as an efficient mechanism for providing teachers with all the materials they will need for deworming at their respective schools; as such the monitor will observe availability of sufficient material and appropriate distribution at the Teacher Training events.

4.2 Observe deworming as it happens on the deworming day (DD)

On deworming day, a sample of 59 schools will be visited to observe the preparedness, organization and implementation of deworming. The monitors will interview the head teachers/principals to understand how the schools have prepared for and organized the deworming exercise; observe one random class as deworming tablets are being administered to the targeted population; as well as monitor the recording of treatment numbers in the necessary form. During the deworming day observation, the monitors will also conduct KAP (knowledge, attitudes, and practices) survey or interviews with recipients, key participants (i.e. parents present at school on deworming day), teachers administering deworming drugs, and health practitioners offering support to teachers or children who are being treated.

In readiness for deworming, schools and other officials involved in the deworming program are expected to conduct community mobilization and sensitization. After observing the deworming day at school, the monitor will randomly visit three locations per school catchment area conducting a total of 177 community/household interviews and record their awareness of the deworming program and willingness to take/send their children to be treated on deworming day.

4.3 Conduct post-deworming day Coverage Evaluation Survey (CES)

After the deworming and mop up day has been conducted, an independent coverage evaluation survey (CES) using an adapted version of the WHO CES tool will be carried out in the communities surrounding the schools to estimate actual coverage. The results of the CES will be compared to the reported treatment data and treatment coverage which is subject to errors during the recording and data aggregation process from the school level to the central level. This data analysis will be a measure of data validity and overall success of the MDA.

The TA partners will adapt the CES protocol from the WHO guidance found at the link below and provide the CES protocol to the selected firm ahead of the independent monitor and supervisor training. <https://www.ntdsupport.org/resources/coverage-survey-builder-coverage-evaluations>

The coverage evaluation survey design produces an equal probability sample of the survey population and is derived from the “modified segment design”. In two implementation units or in this case for ICT, 2 selected zones (one designated as urban and one rural), 30 subunits (i.e. sectors, villages) will be randomly selected per zone (for a total of 60 subunits), 1 segment of ~50 households will be randomly selected per subunit, in which 18-30 households will be surveyed. The protocol itself will detail the way in which the subunits are randomly selected and segmented into approximately the same size in households. Once segmented, one segment is selected at random and then a fixed proportion of the households are selected for the survey interview.

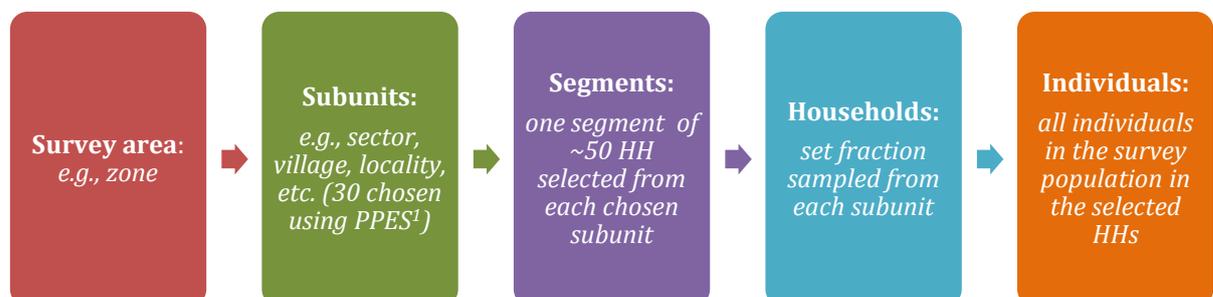


Figure 3: WHO CES “modified segment design”

In this survey, the monitor will conduct short interviews with a representative number of children (both enrolled and non-enrolled) and record if they were given the opportunity to take the drug and the reasons they did not take the drug.

4.4 Quality Control

To ensure that the monitoring is implemented effectively, a few quality control measures will be put in place:

1. Criteria for selection of monitors and supervisors must be strictly adhered to (See Section 6)
2. 15% of monitoring activities would be supervised by the IM firm
3. All duly signed and stamped School Confirmation Forms (as provided by the TA partners) from all schools where monitoring took place must be returned at the end of the IM process. The absence of form(s) will be interpreted to mean monitoring did not take place in the affected school(s).
4. Backcheck survey (i.e. Confirming that monitors visited the school through calling the headteacher or visiting the school in person) will be conducted in 10% of the schools where monitoring took place.

All monitoring will be absolutely random and unannounced, i.e. the firm will not disclose before hand of their intention to visit a school or training for monitoring purposes. However during the MT and TT, the implementing partners and ICT authorities will inform teachers and master trainers that staff from the monitoring firm might visit the training or schools for monitoring purposes and that master trainers and teachers should give the monitors the necessary support. During the visits, the monitors will make sure they carry their work and national Identification card.

PLEASE NOTE: The independent monitoring firm will not interfere with any aspect of the implementation except in cases where such action might undermine the ethical nature of the program or when cause harm to program participants (e.g. cases where more than one tablet is being given to children, where under-age pupils are being given drugs, or in cases of severe adverse effect). Instruction and protocol for this will be provided in the training of monitors and supervisors.

Table 1 below provides a summary of all activities and tentative sample sizes to guide in budgeting when developing a proposal.

Table 1. List of activities to monitor and sample sizes with approximate # of days for each activity

Activities	Total # of Activities	Sample sizes	Specific monitoring activities	Approximate # of Days
Teacher Training	15 training	14 training	- IM observes the training - IM conducts pre and post survey with 6 trainees per training	1
Deworming day	411 schools	59 Schools, 177 Households	- IM observe deworming day activities - IM conducts survey with deworming team (teachers and head teachers), parents who have brought their children for deworming, health practitioners offering support to teachers or children who are being treated. - Conduct community/household interview at 3 multiple locations per school.	1
Coverage Evaluation Surveys	2 Implementation units	60 segments	- IM conducts surveys with 18-30 household per Segment and 30 segments per implementation unit (for a total of 60)	2-3 days

NOTE: The figures in this table might change after obtaining more accurate numbers of activities. Should these figures change, a new SOW will be drafted upon which the final budget will be based on.

The firm will be involved in the processes before, during, and after school-based deworming days. After signing the agreement with ICT deworming program, the technical partners will:

- i. Develop all the necessary data collection tools and do the translation into local language
- ii. Train the IM firm on all aspects of the program and monitoring for the ICT deworming program, how to conduct independent monitoring and CES, how to use the surveys/tools and how to use the selected data collection platform as needed
- iii. Develop, share and train the IM firm on all data collection protocol as necessary
- iv. Determine and select sample sizes sufficient to gather data that will inform program decision

While the technical partners will lead the process determining the sample size and selecting the samples of schools and training to be visited, the IM firm will handle all the logistics of:

- i. Hiring the required human resource to undertake the data collection
- ii. Ensuring the hired monitors are trained and, in a position, to carry out data collection
- iii. Obtaining the necessary permission for the hired monitors to carry out data collection in the required admin territory/province
- iv. All selected activities are monitored and data collected.
- v. Conducting quality assessments or quality checks during data collection.
- vi. Ensure that all data collected is present in electronic format and in the specified server/repository

After the IM firm completes data collection and entry of data into electronic format, the partners will:

- I. Clean the data collected and entered by the IM firm
- II. Conduct data analysis of the process monitoring data
- III. Write a report explaining the quality of implementation from the data and area of improvement.

After the IM firm completes data collection and entry of data into electronic format, the IM firm will:

- I. Write a field report highlighting the challenges and other events that happened in the field that are important to bring to the attention of the implementers as well as organizations that offer technical assistance to the implementers. In specific, the report should include a:
 - a. Description of how monitors were recruited and trained;
 - b. Description of how monitoring was implemented and managed;
 - c. Reports of any problems, if any, encountered in the field
 - d. Recommendations for future monitoring of this nature
 - e. Lessons learned

5. Methods of Data Collection

The methods of data collection will be decided following the selection of the independent monitoring firm. As of now, data collection could be paper-based or electronic, depending on sensitivities in the field as well as the capacity and resources of the selected firm.

6. Deliverables

The independent firm will submit the following within the agreed timelines with Evidence Action and IRD (see Section 7 for dates):

- I. All process and performance data collected from each of the three main monitoring activities as outlined in Table 1 and placed in an electronic format or in a specified server/repository, as well as the stamped School Confirmation Forms.
- II. Field report

7. Professional Qualification

To undertake the above tasks, we are seeking services of an external and independent firm has strong experience in conducting data collection of large-scale health/public health programs while putting in place strong data quality checks. The firm must have demonstrated the ability to deliver high-quality data and experience working in ICT. Experience in liaising and coordinating with authorities in health and education authorities ministries is important. Experience of working with private schools authorities, associations and directly with private schools along with Deeni Madaris/religious schools, their associations and relevant government departments will be an added advantage. The firm should be in a position to hire monitors and supervisors who are highly qualified to undertake data collection in ICT. Experience in collecting data electronically will be of value.

The required qualifications for the **supervisors** are:

1. A minimum of a BSc from biological science or social science background from a recognized university. University post-graduate students are an advantage.

2. Familiar with the geographical, religious and cultural backgrounds of the ICT.
3. Fluent in the local language
4. Experience leading a team of data collectors
5. Experience in carrying out data quality checks
6. Good communication skills
7. Previous experience in survey work and carrying out questionnaire-based surveys
8. One year of experience in community work relative to public health programs
9. Attend full training for independent monitors and pass post-training test
10. Willing to travel to select training workshops training workshops, schools and communities
11. Available for the entire duration of the assigned monitoring exercises

The hired **monitors** must possess the following minimum requirement:

1. A minimum of a BSc from biological science or social science background from a recognized university.
2. Familiar with the geographical, religious and cultural backgrounds of ICT.
3. Fluent in the local language
4. Previous experience in survey work and carrying out questionnaire-based surveys
5. Experience in community work relative to public health programs
6. Attend full training for independent monitors and pass post-training test
7. Willing to travel to select training workshops, schools and communities
8. Available for the entire duration of the assigned monitoring exercises

In your proposal, please demonstrate how your firm meets the above requirement and professional qualification.

8. Work plan

Upon contract signature, the firm will begin the process of recruiting the field personnel and obtaining the necessary permissions for them to conduct their monitoring duties – **all approvals and permissions must be obtained prior to field work commencing.**

Training of all supervisors and monitors must be completed no later than **Nov 09, 2018.**

Monitoring of the teacher training sessions will take place during the week of **November 12, 2018.**

Monitoring of the mass drug administration will take place on **December 3, 2018.**

Coverage evaluation surveys will be conducted by **December 10, 2018.**

All process and performance data collected from each of the three main monitoring activities as outlined in Table 1 and placed in an electronic format or in a specified server/repository, as well as final field report by **December 28, 2018.**

9. Quote Submission Requirements

Prospective bidders will ensure the following are included in their proposals:

- Summary of previous experience of conducting field-based surveys in (i) ICT and/or (ii) other provinces/territories of Pakistan
- Summary of prior experience of key personnel

- Detailed logistical plan explaining how the monitoring will be implemented, including the number of monitors to be recruited and how they will be trained and mobilized
- Description of quality control measures that will be implemented
- Detailed and itemized budget, **clearly showing a breakdown of the costs**, including:
 - costs associated with training of personnel
 - costs associated with field work: travel; per diems; allowances etc.
 - costs associated with management of project
 - costs associated with reporting
 - any other costs required for completion of the scope of work such as taxes etc.

Proposals need to be submitted **in English** by **Wednesday November 3, 2018 at 5pm**. Both a hard copy and soft copy (pdf version) are required. Hard copy of the proposal can be sent to Interactive Research and Development, Office No. 320, 3rd Floor, Regus, Emirates Tower, F-7 Markaz, Islamabad, while the soft copy of the proposal can be emailed to Mr. Waleed Rabbani (waleed.rabbani@ird.global) and Mr. Faizan Ahemd (faizan.ahmed@ird.global). Any questions about this proposal request should be addressed in writing, in English, to Waleed Rabbani and Faizan Ahmed at the above specified email.

Only the selected firm will be notified by IRD.