

# Integration of the MDA Module into ESPEN Collect



**Expanded Special Project for Elimination of Neglected  
Tropical diseases**

Technical Report – April 2026



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The integration of the MDA Module into ESPEN Collect represents a strategic shift from fragmented data management to a harmonized digital ecosystem. By providing standardized tools for treatment tracking, logistics, and pharmacovigilance, this module empowers national NTD programmes to monitor Mass Drug Administration campaigns in real-time. This transition ensures higher data quality, immediate operational responsiveness, and stronger national ownership of health intelligence.



# 1. Context

ESPEN Collect is already used by many national NTD programmes to support digital data collection for surveys, supervision, and monitoring activities. Currently, ESPEN Collect only supports mapping surveys, impact surveys, and coverage surveys. There is a need for support for MDA campaigns in countries within the African region that lack data collection tools. These campaigns are central to the elimination of Neglected Tropical Diseases. Until recently, MDA monitoring was often done using paper tools or fragmented digital solutions. This situation created several challenges:

- Delayed access to results
- Risk of data entry errors
- Difficulty tracking medicine stocks
- Weak visibility on side events
- Limited supervision follow-up
- Limited national ownership of campaign data

For this reason, ESPEN Collect expanded its scope to include a standard digital MDA module. The objective was not only to digitize reporting but also to support countries with a complete monitoring system that works during all stages of the campaign. Digital monitoring improves the quality and availability of campaign information. Programme managers can follow activities while the campaign is still ongoing. This allows for faster decisions when challenges appear in the field.

Real-time monitoring is especially important for:

- Tracking treatment coverage
- Identifying stock shortages early
- Monitoring supervision activities
- Detecting side events quickly

Through this integration, ESPEN Collect now supports the full operational cycle of NTD interventions, from mapping to treatment monitoring and supervision activities.

# 2. Key Benefits of the MDA Module

The deployment of this standardized digital module offers several critical advantages over traditional paper-based or ad-hoc digital systems:

## Operational Agility

Real-time dashboards allow programme managers to identify low-coverage areas or stock shortages while the campaign is still active, enabling immediate corrective actions.

## Enhanced Safety Oversight

Integrated pharmacovigilance tools bridge the gap between community-level treatment and national safety monitoring, ensuring that every side event is documented and managed promptly.

## Data Integrity and Standardization

By using WHO-aligned standardized forms, the module reduces human error in data entry and ensures that indicators are consistent across different districts and countries.

## Resource Optimization

Digital logistics tracking prevents both medicine wastage and stock-outs, ensuring that supplies are redistributed where they are most needed.

## 3. Objective of the MDA Module

The MDA module was developed to support countries during the preparation, implementation, supervision, and monitoring of Mass Drug Administration campaigns. The module provides a structured system to collect reliable operational data directly from the field using mobile devices.

More specifically, the module allows programmes to:

### **Track medicine distribution**

The system records treatment delivery. This helps programmes monitor progress during the campaign and estimate coverage in real time.

### **Monitor side events**

The module includes tools to report side effects after treatment. This improves pharmacovigilance and supports safer campaign implementation.

### **Monitor supervision activities**

Supervisors can record their field observations using dedicated digital forms. This improves accountability and supports quality assurance.

### **Monitor logistics**

The module captures information related to medicine availability and stock management. This helps detect shortages early and supports redistribution when needed.

### **Measure treatment coverage**

Coverage indicators are automatically calculated from collected data. Programme managers can monitor performance at community, district, and national levels.

### **Strengthen pharmacovigilance**

The system allows structured reporting of medicine use and side reactions. This improves documentation and supports coordination with national safety authorities. Together, these features support stronger campaign monitoring and better decision-making during implementation.

## 4. Structure of the MDA Module

The MDA module is designed as a complete operational package within ESPEN Collect. It includes data collection tools, dashboards, and training materials. The structure of the module is based on three main components:

### 4.1 Standard digital forms

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The module includes six standardized electronic forms developed according to WHO monitoring needs and country programme workflows.

These forms support:

- Location registration

- Participant registration
- Medicine distribution tracking
- Medicine use and side event reporting
- Supervision at health facility level
- Supervision at district level

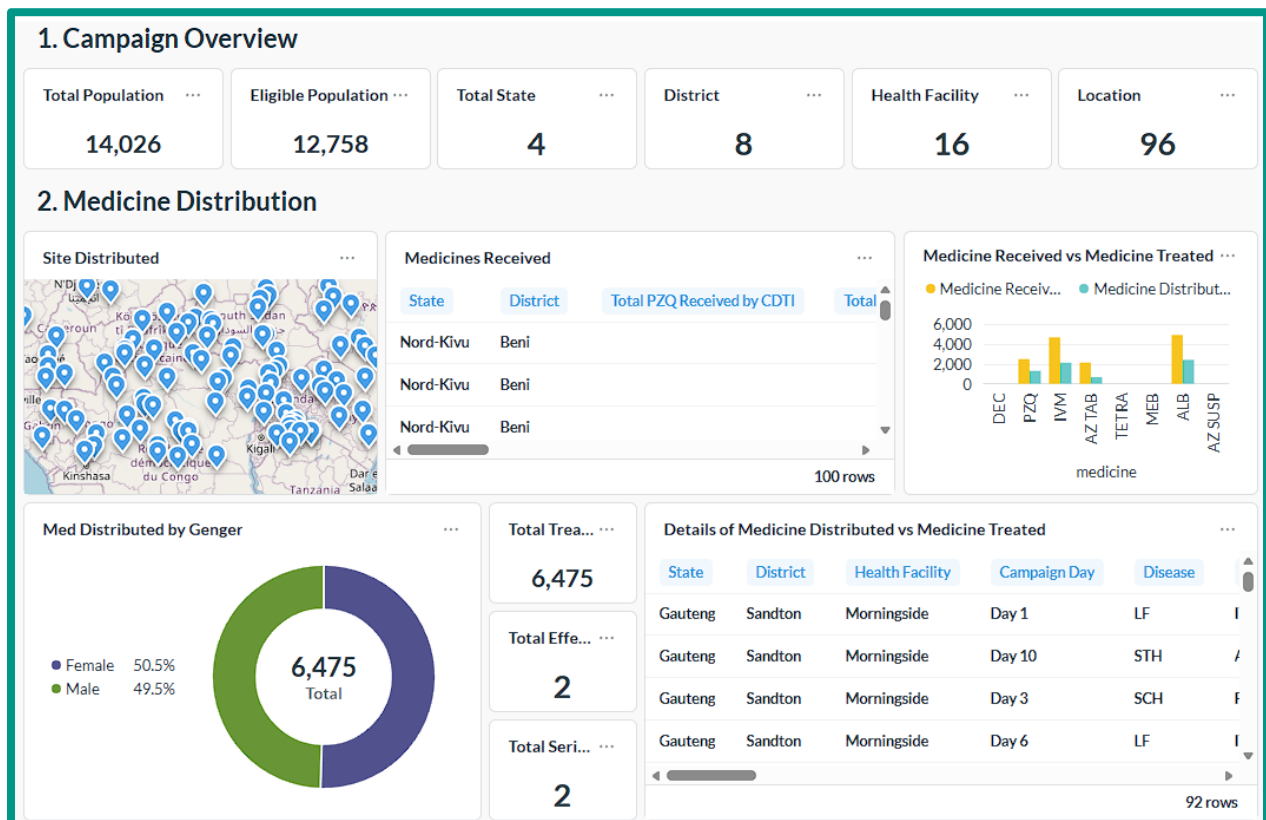
The forms follow a harmonized structure. This allows countries to adapt them when necessary while maintaining indicator consistency.

## 4.2 Dashboards

ESPEN Collect includes dedicated dashboards linked to the MDA forms. These dashboards allow programme teams to:

- Monitor coverage during campaigns
- Follow medicine stock levels
- Review supervision indicators
- Monitor adverse event reports

Dashboards are accessible to national teams and partners based on defined access roles. They support real-time monitoring and faster operational decisions.



## 4.3 Training package

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The module is supported by a complete ESPEN Collect training package, which is centrally available on the ESPEN Portal <https://espen.afro.who.int/tools-resources/documents>

This package includes:

- Training presentations
- Implementation guidance
- Troubleshooting guide
- Practical exercises for users

The objective of this package is to support rapid adoption by national programmes and ensure correct use during campaigns.

## 5. Description of the Integrated Forms

The MDA module includes six standardized digital forms. These forms support the collection of operational data during different stages of the campaign. Together, they provide a complete monitoring system from preparation to supervision and safety follow-up.

Each form captures specific information needed for programme management and decision-making.

### 6.1 Location Form

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The Location Form is used to register the geographical structure where the campaign takes place. This form allows programmes to:

- Define implementation areas
- Register health facilities
- Validate health facility coverage zones
- Support accurate reporting by location
- Ensure correct linkage between treatment data and administrative levels.

Accurate location data is essential for calculating treatment coverage correctly. It also improves the reliability of dashboards and maps. The form helps standardize location information across all campaign datasets.

### 6.2 Participant Form

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The Participant Form captures basic information about individuals who are eligible for treatment. Its main purpose is to:

- Register participants during treatment activities
- Support tracking of treated populations
- Allow age and gender disaggregation
- Improve monitoring of population groups reached during the campaign

This form supports more precise coverage estimation compared to aggregated reporting methods. It also helps programmes identify groups that may be missed during the campaign.

### 6.3 Medicine Treatment Form

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The Medicine Treatment Form records the medicines distributed during the campaign. This form allows programmes to:

- Document medicines administered to each participant
- Monitor treatment progress during campaign implementation
- Verify dosage consistency
- Support calculation of treatment indicators
- Strengthen transparency in medicine distribution

This form is central for monitoring operational performance during the campaign. It supports both real-time tracking and post-campaign analysis.

## 6.4 Medicine Use and Case Management Form

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The Medicine Use and Case Management Form supports monitoring of medicine safety and case follow-up after treatment. This form allows programmes to:

- Report side events after medicine administration
- Document symptoms observed after treatment
- Record management actions taken by health staff
- Support coordination with pharmacovigilance systems
- Improve documentation of safety monitoring activities

This form plays an important role in strengthening trust in campaign implementation. It also supports safe treatment delivery at community level.

This form provides programme managers with a higher-level operational view of campaign implementation. It also strengthens communication between administrative levels during the campaign period.

Together, these six forms create a structured digital monitoring system that supports planning, implementation, supervision, and safety monitoring of MDA campaigns. Detailed technical descriptions of variables and indicators included in each form are provided in the annexes of this report.

## 6.5 Supervision Form – Health Facility Level

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The Health Facility Supervision Form supports monitoring of campaign implementation at facility level. Supervisors use this form to:

- Verify medicine availability
- Assess readiness of health staff
- Monitor reporting practices
- Check data quality procedures
- Evaluate implementation challenges
- Document corrective actions taken during supervision visits

This form strengthens accountability during campaign implementation. It also supports continuous improvement through structured feedback from supervisors.

## 6.6 Supervision Form – District Level

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The District Supervision Form supports monitoring of campaign coordination at district level. District supervisors use this form to:

- Monitor campaign progress across health facilities
- Assess logistics coordination
- Verify reporting completeness
- Review supervision coverage
- Identify operational bottlenecks
- Support coordination between district teams and national programme managers

## 7. Conclusion

The integration of the MDA module into ESPEN Collect completes the digital intervention cycle for Neglected Tropical Diseases. By providing a single platform for mapping, implementation, and supervision, ESPEN Collect now offers a comprehensive solution for national programmes seeking to eliminate NTDs.

The success of this digital transition depends on the systematic adoption of the training package and the consistent use of the dashboards by decision-makers. Moving forward, the focus will remain on supporting countries in the African region to scale up these tools, ensuring that reliable data drives every stage of the journey toward NTD elimination.