



How to Respond When NTD Survey Results Show that More Mass Drug Administration (MDA) is Needed

CONTEXT

To achieve lymphatic filariasis (LF) or trachoma elimination, the World Health Organization (WHO) recommends conducting several rounds of MDA, followed by disease-specific prevalence surveys (see sidebar). If a national program fails to meet criteria for stopping MDA, WHO encourages programs to investigate why prevalence persists above the elimination threshold and how to improve their next round(s) of MDA. Using lessons learned from a variety of countries when elimination thresholds were not attained, WHO and other partners have created tools to assist investigations.

This brief outlines ENVISION's process for using these tools to investigate disease-specific survey outcomes when they do not meet the elimination threshold, to learn and adapt appropriately.

LF Surveys: [Job Aid](#)
Pre-transmission Assessment Survey (pre-TAS)
Transmission Assessment Survey (TAS)

Trachoma Surveys: [Job Aid](#)
Trachoma Impact Survey (TIS)
Trachoma Surveillance Survey (TSS)

CHALLENGE

Disease-specific prevalence surveys fail to reach their targets for many reasons, including environmental, epidemiologic, and social variables. Some common issues involve:

- ◆ Quality of survey implementation
- ◆ Epidemiologic characteristics that influence disease transmission:
 - High baseline prevalence
 - Low access to water or sanitation facilities for hygiene and/or sanitation purposes for trachoma
 - Vector characteristics (e.g., species, density) for LF
- ◆ Quality of MDA implementation despite effective reported MDA coverage:
 - Insufficient MDA coverage at a subdistrict level
 - Untreated populations due to systematic non-compliance, exclusion, or migration
 - Low compliance due to social norms
 - Inaccuracies of routinely reported treatment data or of population estimates

TECHNICAL APPROACH

The following approach illustrates ENVISION's process for working with countries to determine appropriate actions after disease-specific prevalence surveys do not reach the expected target. All tools can be accessed via the [NTD Toolbox](#).

	MDA The last required round of MDA before conducting a pre-TAS, TAS, or TIS.
Months 1–6	Waiting Period Required waiting period between MDA and disease-specific prevalence survey.
Month 7	Survey Survey conducted does not meet the required threshold to stop MDA. Tools Disease-Specific Assessments for LF Job Aid Disease-Specific Assessments for Trachoma Job Aid WHO TAS Training Modules Design Parameters for Population-Based Trachoma Prevalence Survey Improving TAS Outcomes Checklist Set: Checklist 1 Training System for Trachoma Prevalence Surveys Improving TAS Outcomes Checklist Set: Checklist 2
Month 8	Desk Review Investigation begins with an assessment of the survey implementation. Ensure the sampling was appropriate, ensure the diagnostic tests were used appropriately, and review evaluation unit design. Review survey results to evaluate clustering of positives through maps. Use existing data to assess epidemiologic characteristics that influence disease transmission. Potential data sources include baseline mapping surveys; LF vector data; water, sanitation, and hygiene indications; etc. Use existing data to assess effectiveness of MDA. Potential data sources include quantitative information on historical MDA coverage that should be compiled and reviewed at the subdistrict level, if possible. Other data from coverage surveys, data quality assessments, baseline and mid-term sentinel and spot-check sites, prior pre-TAS/TAS/TIS/TSS, should also be compiled and reviewed. Tools Improving TAS Outcomes Checklist Set: Checklist 3 Trachoma DSA Checklist Job Aid LF Subdistrict Data Collection Tool
Months 8–10	Field Investigation Collect new data to determine how to improve the effectiveness of the next MDA. Qualitative data collection is often needed to evaluate the knowledge, attitudes, and practices of communities, drug distributors, and supervisors. Tools Improving TAS Outcomes Checklist Set: Checklist 4 Trachoma DSA Template
Months 9–11	Plan Next MDA Use historical and new data from desk review and field investigation to adapt MDA. Common strategies to adapt MDA include: <ul style="list-style-type: none">• Revising social mobilization messages to speak to the major reasons why people do not participate in MDA,• Changing timing of MDA to ensure most people are available,• Improving training of drug distributors and supervisors, and• Prioritizing subdistricts or non-compliant groups for targeted intervention. Tools MDA Preferred Practices Job Aid IEC Social Mobilization Toolkit
Month 12	Conduct Next MDA Conduct MDA using directly observed therapy. Strengthen supervision during MDA. Tools Supervisor's Coverage Tool Supportive Supervision Checklist
Months 13–14	After MDA Conduct a coverage evaluation survey to determine if reported coverage is accurate and reasons for non-compliance. Evaluate the MDA to see if adaptations were implemented as planned and if they had the intended effects. Tools Coverage Survey Resource Package
Months 15–24+	After MDA Incorporate learning from the MDA and coverage evaluation survey to adapt subsequent MDA(s). Share lessons learned with other districts/countries.

LESSONS LEARNED: BENIN CASE STUDY

In May 2018, the Benin Ministry of Health (MOH) conducted a TAS failure investigation in an evaluation unit that failed TAS1 using WHO's Improving TAS Outcomes Checklists for Program Managers.

They first confirmed that the evaluation unit was eligible and the TAS was implemented correctly. The Benin MOH and ENVISION team then interviewed key informants at district, health center, and community levels in areas around the schools with clusters of positives in the three districts. They collected data for the Failed TAS1 Response checklist and filled in the multi-year, subdistrict MDA coverage form. The teams also reviewed a selection of community drug distributor (CDD) registers and coverage reports. While no substantial differences in subdistrict coverage were found, the following table shows the major findings and subsequent adaptations made to the MDA.

 INVESTIGATION FINDING	 MDA ADAPPTIONS
Clustering of positives in five schools	<ul style="list-style-type: none"> • Since each of the schools enrolled children from several different villages, adaptations to MDA were made throughout the four districts to ensure better coverage throughout the EU
Prolonged absences of residents in some subdistricts	<ul style="list-style-type: none"> • Changed MDA timing from May/June to February when less migration occurs, based on community input
Inconsistent adherence to directly observed treatment (DOT)	<ul style="list-style-type: none"> • Refresher training of CDDs focused on DOT and treating absentees • Supportive supervision using new standardized checklists by health zone, subdistrict, and district personnel • Supervision in evenings when CDDs are working
Some areas on borders of districts get missed	<ul style="list-style-type: none"> • Advocacy to village chiefs to ensure selection of CDDs from their own communities and that CDDs cover entire villages • CDDs drew coverage maps during training to ensure all areas were assigned
Slight differences between reported and observed data in some villages	<ul style="list-style-type: none"> • Cross-checking of register data supervised by nurses and central-level teams • Independent monitoring to provide daily feedback on coverage

Results of the MDA in February 2019 showed reported coverage increased from 83 to 86%, with coverage surveys confirming levels of 72 to 77% in two districts. The new timing of MDA seemed to improve participation: the coverage surveys found that absenteeism decreased as the reason for non-participation in MDA from previous years. However, there was still a gap in community knowledge of MDA. Only 43 to 54% of people were aware of MDA before the CDD arrived at their houses. Given this, the national program will continue the process of improving MDA, focusing on training town criers in all districts to deliver correct messages, recruiting RedCross Volunteers for community education and mobilization, continuing advocacy with village chiefs, and determining how to ensure absentees can be treated at a later date.





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WHAT YOU CAN DO

As soon as there is a failure, investigate the most likely cause(s) using the technical approach steps outlined above. Reach out to WHO, other experts, operational research partners, and implementing partners for support as needed.

Adapt the MDA to incorporate lessons learned from the investigation. During and after the MDA, check to see if the adaptations were implemented as planned and if the MDA had the expected outcomes in terms of coverage among target populations and quality of reporting, for example.

Once you have completed your investigation, coverage surveys, and MDA implementation, share what you learned with other districts facing similar issues and other national programs to facilitate learning and adapting globally.

To explore more ENVISION resources for DSA failure investigation, visit the NTD Toolbox at www.ntdtoolbox.org.

[Access DSA Investigation Resources](#)

SOURCES

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