CHALLENGE

Mass Drug Administration (MDA) can effectively reduce the prevalence of neglected tropical diseases (NTDs). However, when people do not receive or take the treatment offered, coverage is low and the impact is limited. Repeating MDA to boost coverage rates requires additional time and money.

In Senegal, challenges such as long distances between remote villages, rural areas, and health posts can delay the communication of treatment data, with no chance for follow up during MDA.

Consequently, an integrated solution is needed to create a rapid communication and data sharing system that will refine programmatic strategy during MDA rollout.
According to Dr. Mawo Fall, Resident Program Advisor for the USAID-funded ENVISION project in Senegal, by using real-time data “we can see where the problem is—which district is not reaching its target or which target post isn’t achieving sufficient coverage. This information is analyzed on a daily basis.”

Officials can quickly recognize “where we need action and can change the strategy” during MDA.

WHY USE REAL-TIME DATA?

According to Dr. Mawo Fall, Resident Program Advisor for the USAID-funded ENVISION project in Senegal, by using real-time data “we can see where the problem is—which district is not reaching its target or which target post isn’t achieving sufficient coverage. This information is analyzed on a daily basis.”

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While each component of an improved MDA strategy played a role in the intervention’s success, real-time data reporting and follow-up action was the catalyst for success, as officials can quickly recognize “where we need action, and can change the strategy.”
Collecting and Applying Real-Time Data

The success of the real-time data reporting and follow-up action protocol can be credited to collaboration across five organizational units: the village, the health post, the district, the region, and the NTD Program central office. These units work closely to capture, synthesize, and analyze daily data trends. Based on the results, they formulate and operationalize strategies to address areas where target coverage rates are not being met (Figure 1).

Figure 1. Real-Time Data Pathway, by Organizational Unit

1. Community drug distributors treat the population and record treatments on tally sheets. Data are compiled in a printed report at the end of the day and carried by workers to the health post.

2. The health post agent or nurse compiles the data for all the villages and then the data are hand carried by staff to the district or reported via telephone.

3. The district NTD focal person enters the health-post data into a district-level spreadsheet, synthesizing all health posts. The spreadsheet automatically color codes the data, showing where coverage target rates are not being met.

4. The district health team conducts a daily debriefing to assess MDA activities and provides next-day recommendations to health posts that did not meet coverage target rates. Feedback is provided via telephone or in person.

5. The regional NTD focal person enters district-level coverage data into a region-level spreadsheet, synthesizing all districts. The spreadsheet automatically color codes the data, showing where coverage target rates are not being met.

6. The regional health team conducts a daily debriefing to assess MDA activities and provides next-day recommendations to districts that did not meet coverage target rates. Feedback is provided via telephone or in person.

7. Central-level MOH staff receive data from the regional team and are dispatched to assigned zones during MDA.

8. Central-level MOH staff communicate with implementing partner about underperforming districts and emphasize the need for increased effort, such as providing more resources, improving planning, or increasing awareness, which are other key components of the intervention. Central-level and implementing partner staff may spend more time in zones where coverage target rates are not achieved.
Using Real-Time Data for Corrective Action

During Senegal’s MDA, regional-level and district-level debriefings are held each day. Teams discuss health posts and districts that are not meeting their coverage target goals and decide what corrective action is needed to increase these rates.

Corrective action can include:

- **Increasing awareness of MDA** among the target population, such as providing more town criers and/or adjusting community messaging.
- **Enhancing access to MDA** by increasing the number of community drug distributors.
- **Changing distribution strategy**, such as from health posts to door-to-door distribution of drugs.
- **Increasing supervision of MDA activities** to ensure staff accountability and follow-through of drug distribution.

**RESULTS**

Real-time data reporting and follow-up action resulted in all of Senegal’s USAID-supported districts attaining at least 65% coverage rates for LF treatment in 2016 and 2017. Because all districts reached the desired coverage goal, extra rounds of MDA were not needed, saving both time and money. By using this intervention successfully, Senegal is closer to eliminating LF as a public health problem.

**WHAT YOU CAN DO**

To implement real-time data reporting using ENVISION resources, visit [www.ntdenvision.org](http://www.ntdenvision.org):

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This publication was made possible thanks to funding from the US Agency for International Development (USAID) and the ENVISION project led by RTI International under cooperative agreement No. AID-OAA-A-11-00048. For more information, go to [www.NTDenvision.org](http://www.NTDenvision.org). The author’s views expressed in this publication do not necessarily reflect the views of USAID or the United States Government.