Data Use for Decision Making: Barriers and Successes

Session Date: Saturday, November 4

Session Time: 9:00am – 12:00pm

Session Location: Severn I

Session Description: It is essential that NTD data are used strategically to monitor progress towards targets, prioritize resources and efforts, and inform key programmatic decisions such as stopping MDA treatment. However, NTD programs often do not effectively use data to address districts and sub-districts with low coverage or poor impact assessment outcomes. This is due typically to: lack of trust in the data that are being reported, ineffective feedback loops, lack of decision-maker ready information, absence of regular in-country data review practices, weak technical M&E competency in some countries. The presentations included in this workshop highlight potential innovations—yet to be replicated in other settings—to address these issues, as well as gaps that need to be addressed through innovative approaches, in order to accelerate the use of data for decision-making.

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KEY DISCUSSION POINTS

- In addition to coverage surveys and DQAs, data triangulation can be another tool to measure data quality, such as comparing the number of drugs administered and remaining in stock to the number of persons treated. This can help increase the confidence in reported treatment data or identify where there are issues with reporting, including at sub-district levels. *One OR question related to this is what additional tools can we equip CDDs and sub-district level staff with to ensure high quality data are reported?*
- Though mobile technologies can be powerful tools, in areas where they are not feasible or are cost prohibitive, it is possible to leverage more hybrid systems of paper and phone calls or SMS messages to an operator to report data more frequently. *An interesting OR question might be to compare the relative benefit of both modalities. One might suspect the passive nature of collecting data electronically has more benefit. However, a hybrid system will have lower cost and will encourage a daily review and discussion between two individuals on a daily basis.*
- Aggregating data at sub-district levels, such as the health center, can lead to greater ownership of the data, increased community involvement and tailoring of strategies to increase coverage. *Greater access to locally relevant data could be an important driver of use. However, there are other constraints that might not be addressed by access to information such as analytic capacity, change management in using data, and a local desire for information.*

- Where feasible, large scale electronic reporting systems built to be housed in the MOH such as that of the Philippines can be used to provide instantaneous reporting, and may in future be expanded to cover other diseases beyond PCT-NTDs. However, the challenge for the NTD community is in leveraging systems and resources of the national health information system for NTD programs. Donor funding for new databases or data collection tools, even those driven locally, might not have the long term funding needed to be sustained.

KNOWLEDGE GAPS IDENTIFIED

- What denominators should be used to calculate coverage? This has long been identified as a problem, however, this is a shared issue with other community based programs. The NTD community should engage with other disease programs to understand their approach to both population and redistricting.
- Under what circumstances can real-time daily data reporting alone result in improved coverage? This would be an interesting area for research. Issues to assess include the demand for data, the opportunity cost for adding another activity, and other assessments of the benefits and challenges.
- How do large-scale electronic MDA data reporting systems, which presumably can give daily access to information during the MDA, impact data quality, coverage, and decision making?

RECOMMENDED NEXT STEPS

- Assessment of the data and technology capacity and demand for data at the sub-national level. Is there a desire for data at sub-national level?
- Can partners support data collection, storage, and use by leveraging existing national systems vs building new centralized platforms? Available systems, cost, sustainability, ownership, capacity are all elements to explore
- Collaboration with other disease programs to address shared challenges
- Can hybrid systems (paper to phone call or SMS to a human operator) provide additional benefits over a mobile/cloud based system or a fully paper system?

How can we increase the trust in reported NTD data? Katie Zoerhoff, RTI International

Decision making in NTD programs is often informed by reported coverage: what proportion of the population has received medicine in a mass drug administration (MDA). However, the quality of this reported data is not always known, which can lead to lack of trust in the data or potentially making decisions based on faulty data. Post-MDA coverage surveys can be used to assess the quality of data by comparing reported coverage values to the coverage measured by coverage surveys, and data quality assessments (DQAs) can assist national programs to identify the strengths and weaknesses of their routine reporting system.

More often than not, coverage surveys implemented in 11 countries from the African and Americas regions found that data were good enough for decision-making. Coverage surveys implemented in two countries in the Asia region found more frequent over reporting. The DQAs implemented to date have identified particular pitfalls which may jeopardize accurate data collection, including a lack of knowledge around when to submit coverage data, and limited implementation of review and feedback mechanisms which would enable people to catch low quality data early when it could still be corrected. National NTD programs should synthesize data from multiple coverage surveys and DQA assessments when interpreting their data, in order to prioritize where and how to strengthen data quality.

Using data in real time during an MDA in Senegal to facilitate effective feedback and drive action, Dr. Mawo Fall, RTI International, Dr. Mamadou Ndiaye, MOH Senegal

In 2013-2015 many districts in Senegal faced persistent challenges with achieving adequate coverage in their MDAs to combat LF. They therefore developed a new intervention package to leverage strengths and improve on weaknesses. This package focused on participatory micro- and central-level planning and social mobilization. It also increased the budget, the ratio of CDDs to community members and the number of distribution days. Finally, real-time daily data reporting and action were strengthened to help measure and understand where coverage targets were not being met and re-deploy resources to help struggling heath posts and districts achieve coverage targets.

Paper records of data disaggregated by gender and village were kept by the CDDs who provided them to a community supervisor, who in turn provided aggregated data to a health post by hand. At that point the health posts would compile the data and report it to the district level, usually via a phone call. At the district level, a committee entered the data into an excel template which included heat maps to visually identify which health posts may be in need of additional resources or a change in distribution strategy. This excel document was then sent by email to the regional centers, who then conveyed their data to the national program via email as well. In order to best utilize the data collected, daily debriefings were performed to identify health posts which were not meeting their goals and ensure that corrective action was taken. Corrective action included strengthened sensitization, increasing the number of CDDs, changing the distribution strategy, increasing supervision, and calling higher-level MOH staff to sensitize about the need to reach the objectives.

This methodology was effective and allowed for real-time actions to be taken during the MDA so that most districts reached effective coverage. Some challenges that needed to be addressed include: In some districts, the distances between some villages and health posts made delivery of paper forms infeasible and limited internet access impaired other levels of reporting. The overall new package, including increasing the number of days and CDDs, also led to an increased budget. Lastly, in order for daily reporting and use to be successful, the staff at all levels needs to have the capacity to act on the data.

Using Health Center Level LF MDA Data to Improve District Performance, Herty Herjati, RTI International

In order to achieve its goal of reaching TAS 3 in all districts by 2025, the ENVISION project in Indonesia has taken a new approach to its MDAs, emphasizing health-centers rather than districts to prioritize limited resources for improving coverage. This approach was taken to address prior shortcomings such as inaccurate reported coverage, and frustration by districts at being judged on coverage using population estimates defined by the national level. Additionally, focusing on the health center level allowed greater focus on the community level to prioritize low performing areas and find local solutions.

In order to improve coverage, visual tools were generated to facilitate feedback and inform discussion at the Annual Review Meeting. These visuals included coverage trends and listed the "priority health centers"—those who did not achieve effective coverage. Using these visuals, meeting participants were much more active than in previous years in discussions about the reasons for low coverage and to find solutions. One cross-cutting solution identified was to implement supervision visits in all priority health centers as well as 20% of the other health centers in the district. Other district-level interventions were implemented as a result of the discussion suggestions, including companies distributing LF MDA in the workplace, religious leaders promoting drugs as Halal, involving village midwives to facilitate registration and mop up, and distributing drugs at primary through high schools. As a result of these combined initiatives, median reported coverage in

priority health centers improved by 19 percentage points between 2015 and 2016, while median coverage in the non-supervised health centers remained stable at 85%.

Health System strengthening: using mHealth technologies to improve real-time data reporting, management and use during mass drug administration in the Philippines Neglected Tropical Diseases - Management Information System, Zaixing Zhang, WPRO

The Philippine NTD Program has streamlined in recent years, but has faced challenges in data reporting and quality. In particular, paper based system were implemented within the dual treatment systems (through the health and education departments). Additionally, 5 levels of reporting with 4-5 steps at each level caused a lag in reporting of about 3 months and made real-time reporting impossible. Therefore, a new electronic management information system (MIS), which is part of the country's health system, has been implemented to enable e-collection, submission and real-time monitoring which enables prompt action and correction.

The new system allows health personnel at the Baranguay level to create a masterlist of all the individuals in the reporting unit and generate reports on who received treatment. Though individual names are visible only at the community level, aggregation of the data to higher levels of administration is automatic. Additionally, forms to allow reporting of survey data and Adverse Events are incorporated in the same system, as are automatically generated mop-up reports. Data reporting can occur via SMS or the mobile site which also has an offline component so that if internet is not available at the moment the data can be recorded and uploaded later when internet is available.

A system assessment was performed and it was found that while satisfaction was generally higher among community distributors than school based users (>74%). This difference appears to be related to the fact that schools do not see MDA as their core responsibility whereas it is for health centers. Based on the success and acceptability of the pilot of this software, the Philippines intend to scale up this system to implement it in many areas, and expand the systems content to include zoonotic diseases and other NTDs.