Story 3: Creating Long-Term Solutions for Real-Time Surveillance and Reporting

The Challenge
Without access to high-quality, real-time surveillance, it is difficult for health authorities and front-line workers to rapidly identify potential health threats and mobilize resources. In Guinea, the lack of an effective disease reporting system caused devastating delays in detecting and responding to the emergence of Ebola. While many useful reporting tools and data management platforms were introduced during the Ebola response, they led to an abundance of separate parallel systems rather than an integrated, comprehensive nationalized system. Further, many of these systems were too expensive or complicated to maintain.

The Solution
Building on the lessons learned during the Ebola epidemic, the Government of Guinea proposed a strategy to revise and relaunch its health system. This included a long-term strategy for building a comprehensive national electronic database for disease surveillance. The DHIS2 provides a flexible, robust, and well-supported platform that has been successfully implemented in similar low-resource environments.
RTI’s Story

In support of Guinea’s health information and surveillance systems strengthening activities, RTI partnered with the Ministry of Health (MOH), Centers for Disease Control (CDC), World Health Organization (WHO) and other partners to adapt an electronic information system for surveillance of high-priority epidemic-prone diseases. It was adapted as a subsystem within DHIS2, which supports the national routine health information system. As an open-source platform, DHIS2 is a low-cost, flexible, well-supported tool that has been adopted by countries around the world. It can easily integrate data from other sources, such as laboratory systems, and includes a wide variety of tools for data visualization, management, and analysis. Case reports can be entered in real-time and immediately accessed by authorized users.

As part of the long-term strategy to strengthen health information systems in Guinea, RTI first helped launch and support implementation of DHIS2 for routine surveillance. RTI collaborated with the MOH and other partners to raise awareness of DHIS2 and minimize the use of parallel systems. RTI has been one of the leading organizations collaborating with MOH and its partners, to plan for and implement the DHIS2 platform. RTI assisted with piloting DHIS2 for routine health information (monthly health reports) in Conakry and the Kindia district.

The routine health information system lays the foundation for using DHIS2 for surveillance and enables Guinea to make maximum use of its resources. Using an integrated approach to combine surveillance data with the national Health Management Information Systems (HMIS) platform, RTI is maximizing resources, reducing burden on personnel, and promoting the harmonization of data and analysis across systems. Users will be able to compare reported disease totals from routine and surveillance information systems in the DHIS2, and through this process strengthen data quality and eventually reduce parallel, redundant reporting. RTI is helping to build a team of people within the MOH with expertise to maintain the system over time, using a system that is widely supported and open-source.

Through a series of meetings and workshops, RTI has engaged surveillance stakeholders in discussions of what data should be included, how it flows, who is responsible, and which indicators and data elements to feature in reports and dashboards. Participants increased their understanding of the system and became invested in its success. With successful implementation, Guinea will be one of few countries that have successfully integrated case-based surveillance directly into its DHIS2 system, and will be able to share lessons learned with other countries. The importance of the system was highlighted in a national news report: http://guineenews.org/sante-bientot-une-plateforme-electronique-pour-surveiller-les-maladies-a-potentiels-epidemiologiques/.

RTI supports the MOH to lead the process of implementation by working hand in hand with MOH personnel to plan for and conduct trainings, supervision, and maintenance. To increase sustainability, the Guinea MOH selected people from across the organization to serve as the DHIS2 technical team and undergo the mentoring and training necessary to provide expertise for the long term. RTI will continue to support Agence National de Sécurité Sanitaire (ANSS) in the development, updating and distribution of surveillance standard operating procedures and guidelines as well as IDSR training activities. By working collaboratively with the MOH to implement the DHIS2, RTI is building the capacity of MOH personnel to use and maintain the system and creating a large pool of human resources to help sustain the system into the future.

RTI’s Tafsir Diallo assists a participant during a DHIS2 pilot training in Conakry (Photo credit: RTI International)