Bridging the gaps in Mali's disease surveillance system

BAMAKO, Mali—The outbreak of Ebola Virus Disease (EVD) in West Africa in 2014 exposed the weaknesses of disease surveillance systems in resource-limited countries and highlighted the need for better coordination of disease surveillance at the global level. Unprepared to respond to the EVD epidemic, Guinea, Liberia and Sierra Leone were the most affected countries, with over 11,000 lives lost. The epidemic eventually spread to Mali, a neighboring country to Guinea, and resulted in eight cases and an additional six deaths. A number of factors—including poor coordination, insufficient human resources, limited access to information technology, and inadequate data tools—continue to challenge the disease surveillance system in Mali. These result in poor data quality and timeliness for informed decision making in health.

MEASURE Evaluation has been supporting the national malaria control program (NMCP) and the Direction National de la Santé (DNS) in strengthening routine health information systems. In order to strengthen Mali's disease surveillance system and respond to threats to public health, the Global Health Security Agenda (GHSA), through a grant from the United States Agency for International Development (USAID) and technical support from MEASURE Evaluation, supported the DNS to implement a situational analysis of its disease surveillance system. The objectives were to assess system performance, identify weaknesses in the system, and develop an action plan for addressing gaps in the system. This was part of an effort to create a robust and resilient surveillance system capable of generating quality and timely data for decision making regarding disease prevention and timely response to disease outbreaks and epidemics.

In 2016, MEASURE Evaluation supported the DNS to develop the situational analysis protocol, with input from national and international disease stakeholders interested in strengthening disease surveillance system in Mali, including the World Health Organization, the U.S. Centers for Disease Control and Prevention, and International Medical Corps. At first, the objective was to conduct the situational analysis of the EVD surveillance system in four regions near Guinea's borders. In order to produce a more representative data of the national disease surveillance system, however, the analysis was expanded to six other regions and covered additional diseases under epidemic surveillance such as yellow fever, meningitis, cholera, and measles. Information was gathered on key functions of a disease surveillance system, including organization of the system, coordination of surveillance activities, case notification and confirmation, data collection, transmission and analysis, resources (personnel and equipment), and training and supervision.

A clinic worker records visitors to a clinic in Mali.

Based on the results from the situational analysis, the team made recommendations, which were integrated into an action plan that served as a key resource for the development of DNS's new disease surveillance strategy. In addition, an integrated disease surveillance and response (IDSR) guide was updated with recommendations from the situational analysis. For example, a surveillance module for community health workers was developed and incorporated into the revised IDSR guide.

The team also recommended that disease surveillance data collection forms be revised, so these were adapted to better capture surveillance information on other hemorrhagic fever diseases (Lassa fever), in addition to EVD, acute flaccid paralysis, and measles. These data collection forms were pilot-tested by MEASURE Evaluation and final versions were integrated in the revised IDSR guide.

MEASURE will continue to support DNS in strengthening its surveillance system by adjusting the District Health Information Software (DHIS 2) platform to address changes made to the data collection tools, and to customize the new and revised data collection forms in DHIS 2.

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. FS-17-216

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