

## **Monitoring and Evaluation of a Multi-country Surveillance System: Severe Typhoid in Africa Programme (SETA)**

Ondari D. Mogeni<sup>1</sup>, Ligia Maria Cruz Espinoza<sup>1</sup>, Osei Isaac<sup>3</sup>, Raphaël Rakotozandrindrainy<sup>2</sup>, Owusu Ellis<sup>3</sup>, Se Eun Park<sup>1</sup>, Florian Marks<sup>1</sup>

<sup>1</sup>*International Vaccine Institute, Republic of Korea*, <sup>2</sup>*University of Antananarivo, Madagascar*, <sup>3</sup>*Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana*

**Background:** The Severe Typhoid in Africa Programme (SETA) is a standardized, multi-country, surveillance network with the purpose of estimating the burden and severity of invasive salmonellosis. Monitoring and evaluation (M&E) of the surveillance network/system is important for data quality and comparability across sites; however, there is limited published evidence on the best approaches and strategies to implement adequate M&E for communicable disease, multi-country, standardized surveillance studies, such as SETA. We present the process to develop the M&E plan for SETA and the lessons learnt during the pilot testing of the plan.

**Methods:** Different steps were undertaken to develop the SETA M&E plan. First, the key elements and data flow through the surveillance system were ascertained and described. Second, the core activities and minimum standards required for the project to meet its main deliverables were identified and put on a list. Third, using the two pieces of information mentioned above, a compilation of monthly monitoring data, indicators, targets associated with indicators and thresholds for actions were developed. Fourth, systematic field monitoring assessment visits were scheduled, and tools to report information on a monthly basis and during the monitoring visits were drafted. Lastly, pilot testing of the M&E strategies and documents took place at two of the six SETA countries. During the field visits, the M&E plan was presented and discussed with the principal investigator and his/her team. Concerns and challenges that could be faced by the local team to implement some of the required study procedures were expressed and addressed at the start of the visits. The core activities and minimum standards listed were observed and documented.

**Results:** Two main lessons were learnt. First, each site organized the logistics to implement the study standard procedures differently. This resulted in a variety of approaches that needed to be registered and documented. Second, not all study procedures scheduled to be assessed could be observed. This was due to absence of patients at the recruitment healthcare facilities at the moment of the visit, and follow-up visits scheduled outside of the time period of the visit.

**Conclusion:** The logistics and organization to implement the study standard procedures may vary across SETA sites. An M&E plan that can leverage the unique strategies or approaches of each site to implement the surveillance system will help to ensure data quality, comparability, and good performance across sites.