Strengthening Civil Registration and Vital Statistics in Kenya

The strategic objective of the United States Agency for International Development (USAID)-funded MEASURE Evaluation PIMA (MEval-PIMA) was to build sustainable monitoring and evaluation (M&E) capacity for Kenya's overall healthcare system, by using evidence-based decision making to improve the system's effectiveness. MEval-PIMA sought to do this through four main intermediary results. The objectives were to increase the availability of high-quality health information at the national and subnational levels, improve the capacity of Kenya's health information system (HIS) to make those data available to decision makers, and strengthen the national HIS. The initial assessments of the HIS found these three major challenges to achieving these objectives:

Photo courtesy of MEASURE Evaluation PIMA

- Absence of systematic and consistent implementation of processes and procedures to ensure clean and complete data at each tier of the healthcare system

- Lack of tools, including guidelines, standards, and data collection forms

- Limited demand for and use of information generated by these systems

MEval-PIMA set out to address these challenges and improve Kenya's HIS, by supporting four information systems: the community health information system (CHIS), the child protection information management system (CPIMS), the civil registration and vital statistics system (CRVSS), and the referral system (through referral system strengthening [RSS]).

This brief focuses on the CRVSS strengthening efforts and performance. The text box summarizes MEval-PIMA's interventions and key accomplishments related to the other three systems.

The contributions of individual interventions undertaken to strengthen the CRVSS are mapped to MEASURE Evaluation's Health Information System Strengthening Model, shown in Figure 1. This mapping puts the contributions in the larger context of improving the performance of an HIS.

MEval-PIMA's Contributions to Three Information Systems in Kenya

Community Health Information System

- Harmonized tools and a master community unit listing and facility linkages in DHIS 2

- Identified gaps in community unit information systems

- Developed solutions for upgrading software, hardware, infrastructure, mentoring, training, and monitoring, and institutionalized methods

- Transformed eight communities into centers of excellence, all of which achieved at least 50 percent improved functionality

Child Protection Information Management System

- Created a set of minimum data requirements for an information system to track children

- Rolled out CPIMS to 11 counties with guidance documents

Referral System Strengthening

- Developed guidelines for the health sector referral strategy and implementation

- Developed data collection tools for managing referrals, monitoring performance, and improving data use, and wrote a training curriculum

- Oriented 2,084 health workers on an effective referral system

- Assessed targeted counties and developed a referral strengthening plan

Figure 1. MEval-PIMA interventions to strengthen CRVSS
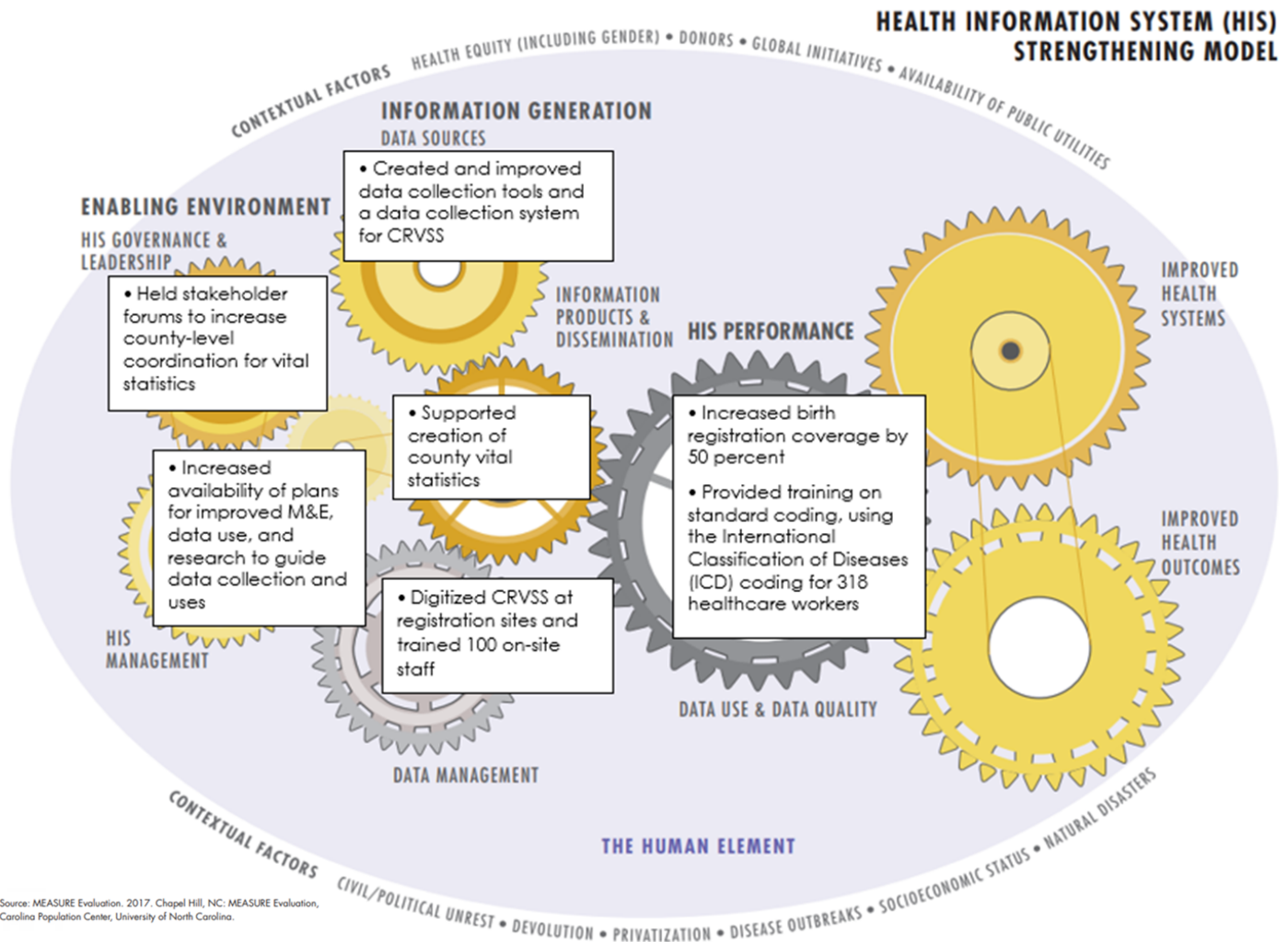
Source: MEASURE Evaluation. 2017. Chapel Hill, NC: MEASURE Evaluation, Carolina Population Center, University of North Carolina.

MEval-PIMA first performed a baseline assessment of the current CRVSS system, and then created and implemented interventions to address the challenges identified. At the conclusion of the interventions, MEval-PIMA conducted a performance evaluation to quantify the progress made. MEval-PIMA provided CRVSS support in 10 counties: Homa Bay, Kakmega, Kilifi, Kisumu, Machakos, Migori, Murang'a, Nairobi, Nakuru, and Siaya.

Baseline Assessment

The baseline CRVSS assessment identified several needs, such as gaps in the CRVSS paper-based system and the electronic system, which was still in testing mode; security gaps; inadequate reporting of births and deaths; the need for international classification of diseases (ICD) training, to improve reporting on cause of death; and irregular and poor-quality facility-level information on vital statistics from the civil registration office.

Interventions

MEval-PIMA then developed the following interventions to address the needs identified in the assessment:

- With Kenya's Civil Registration Services (CRS), created an M&E plan as a companion to the strategy to monitor and evaluate progress in the CRVSS

- Trained staff on the electronic CRVSS and implemented it at six registration sites: Bondo, Kakamega, Machakos, Nairobi County civil registration office, Nakuru, and Siaya. Five sites were able to capture the data; however, the sixth had connectivity problems.

- Trained 100 CRS on-site staff to use the CRVSS

- Improved birth and death registration coverage rates through activities to achieve the following results:

º Improve maternal and child health and community strategies for event registration, training of local registration agents, and monitoring of data collection and reporting

º Participated in a pilot test of a verbal autopsy toolkit in Homa Bay County, where community health workers documented deaths in their assigned areas in the previous six months, which were then reported to the community health extension worker for the completion of the verbal autopsy tool

• Trained 318 health workers from 104 health facilities on the process of facility-level certification and ICD coding

• Developed the Kenya Vital Statistics Report, with improved content and use of a template for publications

Performance

After MEval-PIMA completed the interventions, an end line assessment was conducted to quantify performance.

A comparison of baseline and end line data revealed an average increase for birth registrations in the 10 counties, from 48 percent in 2012 to 76 percent in 2015 (shown in Figure 2). The increase could have been affected by an increase in notifications of unregistered births by free maternal health and maternal and child health clinics. The 10 counties achieved mixed results for increasing death registration. The overall death coverage rate was 45 percent from 2012–2015, shown in Figure 3. Four counties had an increase in death registrations, but six had a decrease, because of delayed submissions and weak accountability systems between local registration agents and civil registration officers.

Figure 2. Birth registration coverage rates in 10 Kenyan counties in 2012 and 2017
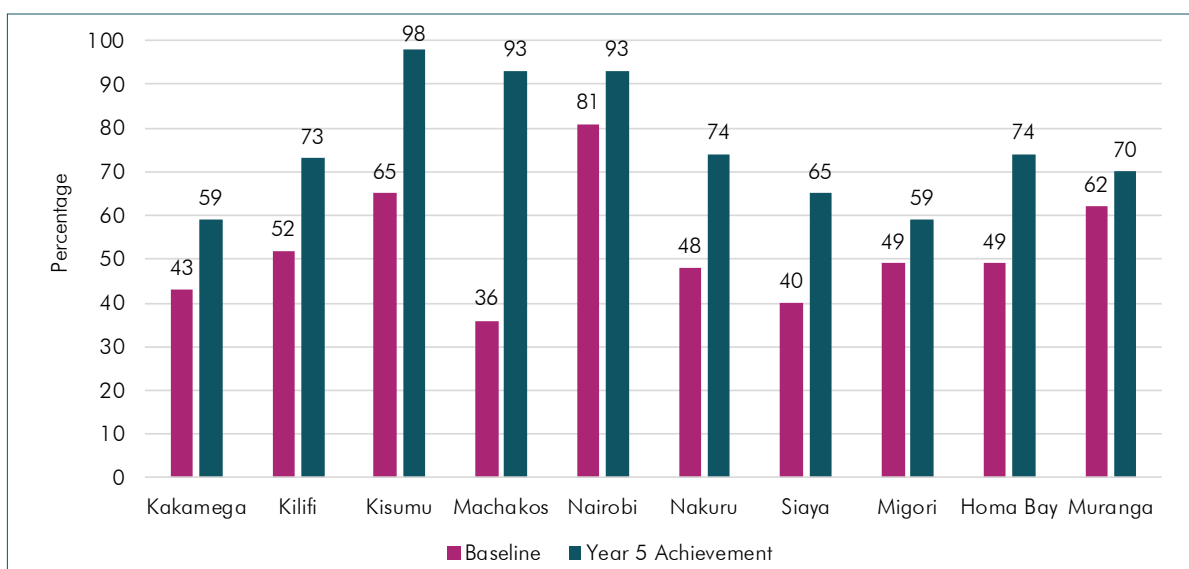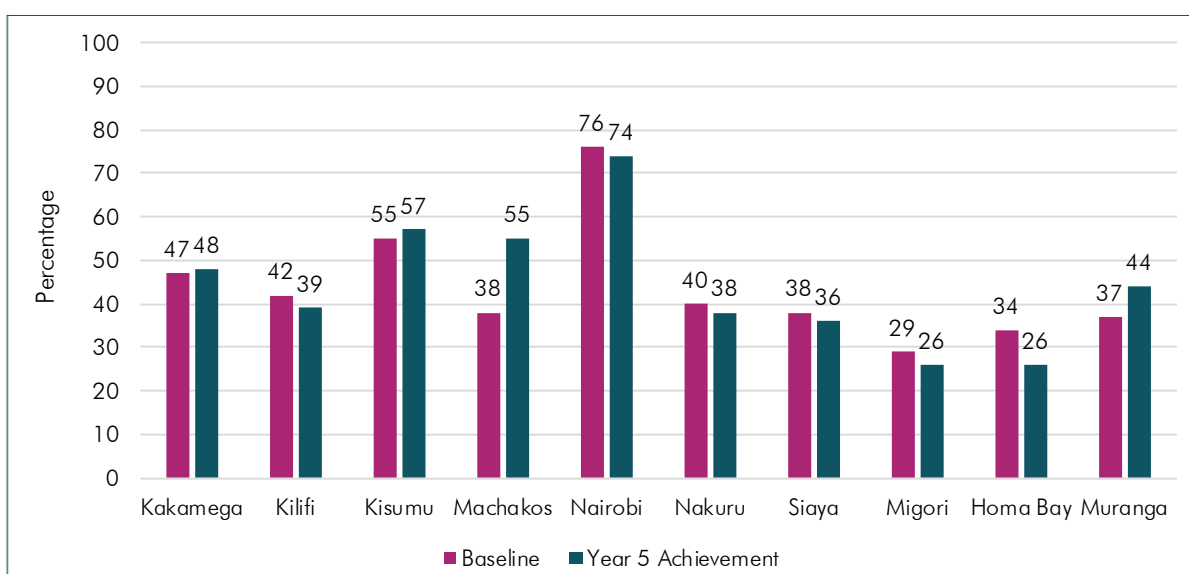

Figure 3. Death registration coverage rates in 10 Kenyan counties in 2012 and 2017

The verbal autopsy tool showed promising results after community health volunteers were incorporated in the civil registration process. MEval-PIMA provided guidance to incorporate community systems in CRVSS, by training local chiefs in birth registration, death registration, and disseminating job aids to local chiefs and health workers.

ICD training resulted in better availability of facility-level cause of death information that is now monitored and evaluated by the ministry of health (MOH). In the baseline year (2011), reporting was received from 46 facilities on 9,497 deaths, but most reports came from a few concentrated facilities. By the last full year with data recorded (2015–2016), reporting was received from 154 facilities on 23,211 deaths with assigned ICD codes.

By 2015, county vital statistics briefs were available to inform the County Integrated Development Plans, evaluate MOH programs, update the country's voter register, and inform research by the Kenya Institute for Public Policy Research and Analysis and university students.
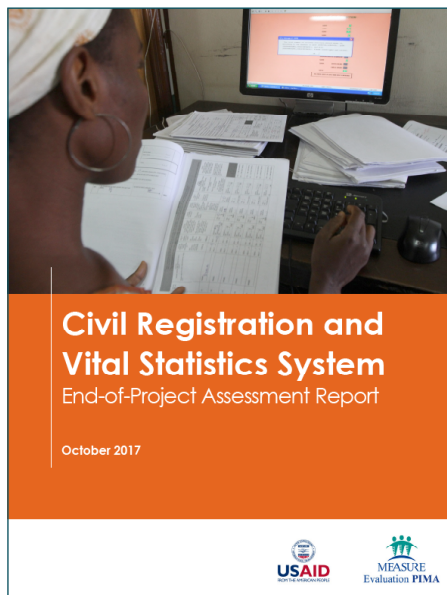
Conclusion

MEval-PIMA's efforts in Kenya had a positive impact on the CRVSS. With support to implement systems and guide efforts to sustain these systems, CRVSS data are improving and becoming more reliable. The availability of vital statistics and dissemination to larger audiences is informing decision making at county and national levels. Those achievements can provide a foundation for development of data quality assurance procedures, strengthened death information reporting, and accessibility on an international level.
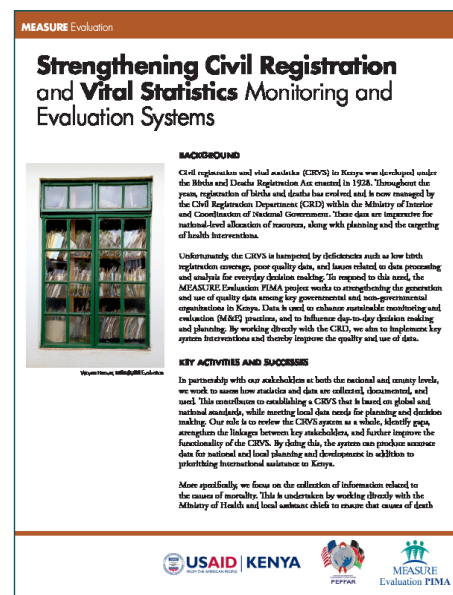
MEval-PIMA Documents Related to CRVSS
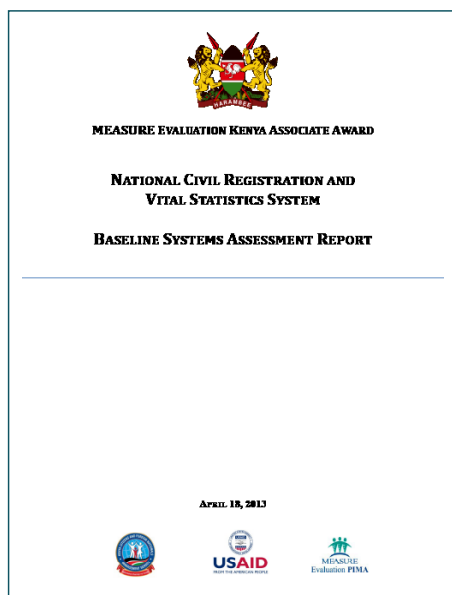
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