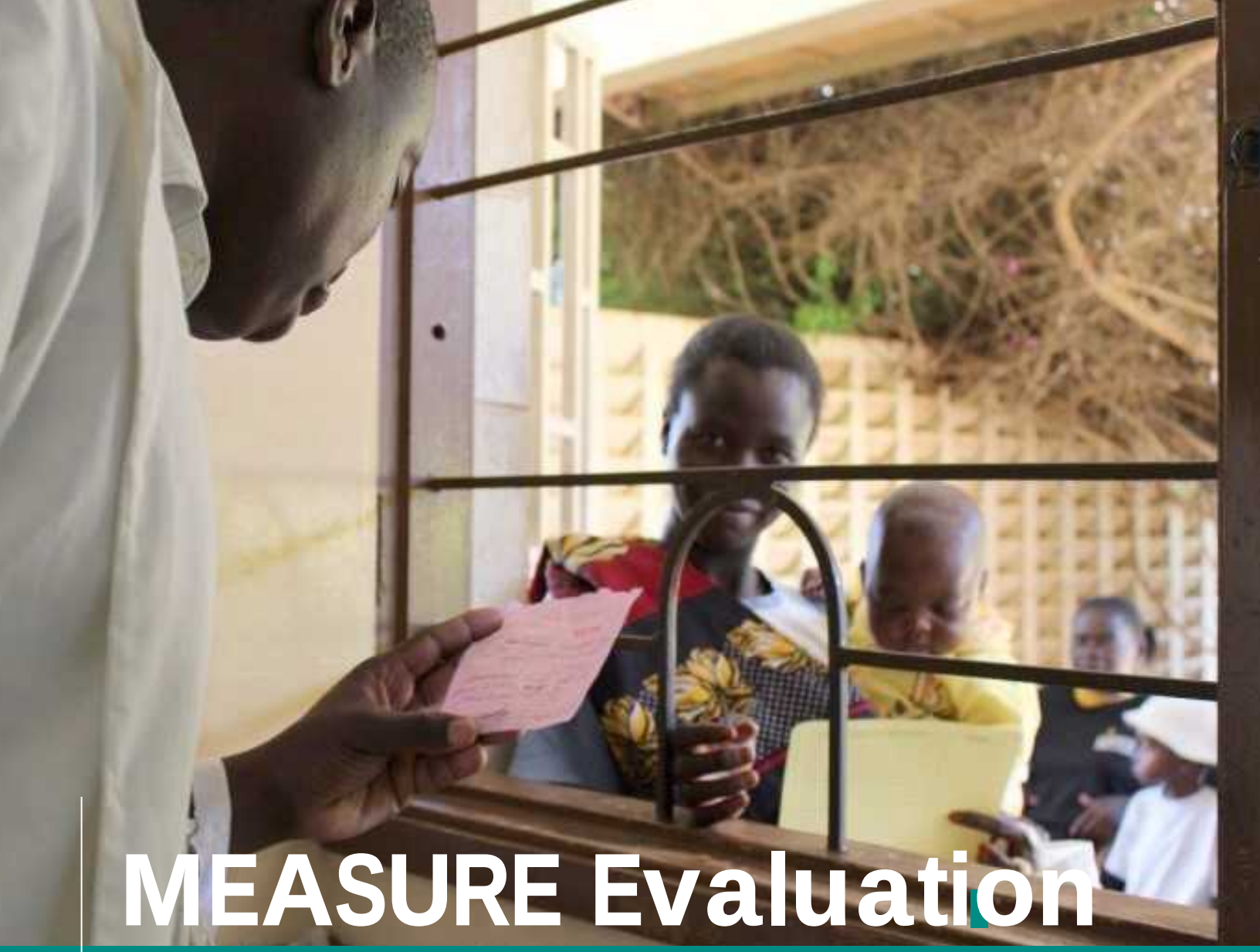

MEASURE Evaluation PIMA

Final Project Report (2012–2017)

January 2018

USAID FROM THE AMERICAN PEOPLE
CDC
U.S. President's Malaria Initiative

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Final Project Report (2012–2017)

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Photo credit: A mother and her child arriving at a Kenya health clinic. Photo by Yvonne Otieno, MEASURE Evaluation PIMA.

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MEASURE Evaluation PIMA

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ABBREVIATIONS

BEmONC	basic emergency and obstetric newborn care
CB	capacity building
CEmONC	comprehensive emergency and obstetric newborn care
CHIS	community health information system
CHMT	community health management team
CHRIO	county health records information officer
CHSU	Community Health Services Unit
CPIMS	child protection information management system
CRO	civil registration officer
CRS	Civil Registration Services
CRVSS	civil registration and vital statistics system
CU	community unit
DCS	Department of Children Services
DDU	data demand and use
DHIS 2	district health information system 2
DSRU	Diseases Surveillance and Response Unit
EmONC	emergency and obstetric newborn care
ERB	ethics review board
HIS	health information system
ICD	International Classification of Disease
IR	intermediate result
MECAT	Monitoring and Evaluation Capacity Assessment Toolkit
MEval–PIMA	MEASURE Evaluation PIMA
M&E	monitoring and evaluation
MOH	Ministry of Health
MCUL	master community unit listing
NMCP	National Malaria Control Programme
NMS	National Malaria Strategy
OCI	organizational capacity index
OLMIS	Orphans and Vulnerable Children Longitudinal Management Information System
OVC	orphans and vulnerable children
PEPFAR	United States President's Emergency Plan for AIDS Relief
PMP	project monitoring plan
RMHSU	Reproductive and Maternal Health Services Unit
RSS	referral system strengthening
TA	technical assistance
TOR	terms of reference
TWG	technical working group
UNAIDS	Joint United Nations Programme for HIV/AIDS
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization

OVERVIEW OF MEASURE EVALUATION PIMA

MEASURE Evaluation PIMA (MEval–PIMA) was a five-year project awarded in October 2012 by the United States Agency for International Development (USAID), with the University of North Carolina at Chapel Hill (UNC) as prime with five partners: ICF; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. The project was an associate award of MEASURE Evaluation Phase III and was designed to "build sustainable M&E capacity for Kenyan health workers and officials to collect and use high-quality data that help inform evidence-based decisions that improve the effectiveness of the Kenyan health system." The project received funding for malaria, population, and maternal and child health. However, funding from the United States President's Emergency Plan for AIDS Relief (PEPFAR) through USAID accounted for the majority received and spent.

MEval–PIMA contributed to the USAID mission in Kenya's implementation framework (2010–2015) and its successor, the Country Development Cooperation Strategy, Objective 2: "health and human capacity improved." It also aligned with the strategic mission of USAID in Kenya to **strengthen health systems for the sustainable delivery of quality services** (Figure 1). At the design stage, the project aimed to:

- Build capacity for monitoring and evaluation (M&E) to identify and respond to information needs at national and subnational levels (Intermediate Result 1)
- Provide quality health information at the national and subnational levels (Intermediate Result 2)
- Build local capacity for meeting the human resources needs of health M&E professionals through long-term education in institutions of higher learning (Intermediate Result 3)

Figure 1. MEASURE Evaluation PIMA Results Framework

At the national level, the programs identified as beneficiaries of project M&E capacity-building efforts were the National Malaria Control Programme (NMCP), the Reproductive and Maternal Health Services Unit (RMHSU), the Diseases Surveillance and Response Unit (DSRU), the Community Health Services Unit (CHSU), and the Civil Registration Service (CRS). By working closely with national government structures such as M&E technical working groups (TWGs) and specific interagency committees, the project aimed to cover all 47 counties through a mix of centrally supported activities—such as tools, standards and guidelines—and specific packages of capacity building and system-strengthening activities in targeted counties. This effort included strengthening referral systems from one health facility to another, community health information systems, and the civil registration and vital statistics system (CRVSS).

Intermediate Result 3 (IR3) on long-term education was meant to produce a critical mass of M&E professionals through training. This work had begun under previous USAID projects (MEASURE Evaluation Phase II and APHIA II Evaluation) with Kenyatta University. MEval–PIMA aimed to scale up training of M&E professionals by adding new institutions in other parts of the country.

STRATEGIC APPROACHES

MEval–PIMA's work implementing activities throughout the project was informed by five strategic approaches:

Integrated and Systemwide Approach: The project stressed integration and a systemwide perspective to reduce duplication of effort and to reach all levels of data collectors and users. Past national-level efforts to improve monitoring and evaluation (M&E) systems and capacity in Kenya have highlighted the need for substantial capacity building for subnational M&E. At all levels of intervention, the project paid attention to systems, organizations, and people—building the capacity of organizations and individuals to perform their functions within systems.

Gender-Sensitive Programming: The importance of a gender perspective in all aspects of program planning, implementation, and M&E is widely recognized for improved health systems and health outcomes. The project strove to integrate gender throughout all activities, emphasizing sex- and age-disaggregated data collection, analysis, and use for gender-sensitive programming and informed decision making. Gender mainstreaming was to be included in M&E trainings to highlight why gender is an important aspect of M&E. The aim was to empower M&E officers and health workers to understand and institutionalize gender throughout the health system, and to incorporate gender in M&E plans and strategies. Maintaining gender as a cross-cutting issue in project activities ensured that the project identified gender disparities in health access, programming, and outcomes—and worked with beneficiaries and stakeholders to investigate and address such issues.

Commitment to Sustainability: The project's approach to country ownership and sustainability emphasized a commitment to work through and with Government of Kenya structures and systems; leverage existing resources and systems within the public and private sectors; and work through sector wide governance structures in health such as M&E TWGs. MEval–PIMA also worked through interagency coordinating committees to ensure long-term prioritization of M&E by health sector policymakers and funders.

Structured Implementation of Proven Organizational Development Model: The project employed an organizational development conceptual model based on a people-centered strategy. The model demystified the capacity-building continuum—leading to improved M&E performance—and helped address core governance issues (engagement, accountability, and transparency) necessary for sustainable gains in M&E systems strengthening. The model draws on adaptive leadership; theories of change and change management; work in emotional intelligence; work in transformational change; leadership and sustainability; and values-based management frameworks, among others.

Emphasis on Data Demand and Use: An overarching objective of the project was to build sustainable M&E capacity to use quality health data for evidence-informed decisions and program planning. A focus on data demand and use (DDU) provided a strong platform for the Kenya Ministry of Health (MOH) to: (1) determine program coverage and effectiveness; (2) direct available resources to health interventions that work; (3) make an evidence-based case for resource allocation; and (4) promote

value for money by demonstrating how the efficient deployment of new resources can be achieved through priority-setting processes based on data.

A mix of changes in government administrative and management structures, results that emerged during project implementation, and contextual changes in the funding environment led to changes in the geographical and technical scope of the project. These included the following:

- In August 2010, Kenya adopted a new constitution that changed the administrative and management structures from a national, centralized system to a devolved system with a national government and 47 county governments. Even though MEval–PIMA was awarded after the new constitution was adopted, it was not until March 2013 that a government was elected under the new constitution. It took time for the county governments to be formed and administrative structures to be put in place—well into Year 2 of the project. Since the project was envisaged to be a national support mechanism, this meant that—first—the project had to have a pragmatic approach to choosing the counties where it would start work. These were based in former provincial headquarters (Garissa, Machakos, Nakuru, Kakamega, Siaya, Kirinyaga, Kilifi, and Nairobi). Second, the project had to engage and re-engage interim structures as they formed, making it hard to gain traction in the counties and impeding the implementation speed for county-based project activities.
- At the beginning of Year 2, it was clear that, given time and resource constraints, it was optimistic to target counties with a package of interventions for a short, intense period, have them "graduate" from this assistance, and then move on to new sets of counties with the same intervention package. Therefore, the need to identify specific beneficiary counties became clearer. For instance, the project started with eight beneficiary counties for referral system strengthening (RSS) in Year 1 and added nine more in Year 2, with the aim of graduating all 17 counties at some point, then moving on to new counties.
- In Year 2, the USAID mission in Kenya went through a process of technical prioritization of its HIV investments. This meant that health RSS and community health information system (CHIS) strengthening received limited funding and interrupted implementation. In addition, capacity-building activities for the DSRU and IR3 on long-term education were defunded. Then in Year 3, USAID Kenya introduced geographic prioritization for its HIV investments, shifting the focus of project activities to counties with a high HIV burden.
- In Year 3, a new technical area on M&E support to the Department of Children Services (DCS) was added, involving the design and rollout of a comprehensive child protection information management system (CPIMS) in 10 counties.

At the end of project, MEval–PIMA was supporting the following national beneficiaries and counties:

- **National**: NMCP, RMHSU, CHSU, CRS, and DCS
- **Counties**: Kisumu, Homa Bay, Migori, Siaya, Kakamega, Nakuru, Murang'a, Machakos, Kilifi, and Nairobi

THEORY OF CHANGE

The MEval–PIMA project was intended to achieve one arching result.[1] It was also designed on the assumption that achieving the following intermediate results (IRs) would contribute to a stronger health system in Kenya:

- IR1: Improved capacity of key national health programs to identify and respond to M&E information needs at national and subnational levels;
- IR2: Improved availability and use of quality health information at national and subnational levels; and
- IR 3: Improved local capacity for meeting the human resources needs of health M&E professionals.

This results package was intended to support the performance of the systems needed to provide necessary, good-quality vital events data, community health information, and referral data to national health programs. It also assumed that the availability of high-quality data from these systems would improve the ability of national programs to better identify their data needs and improve the capacity of health workers in Kenya to make evidence-informed decisions.

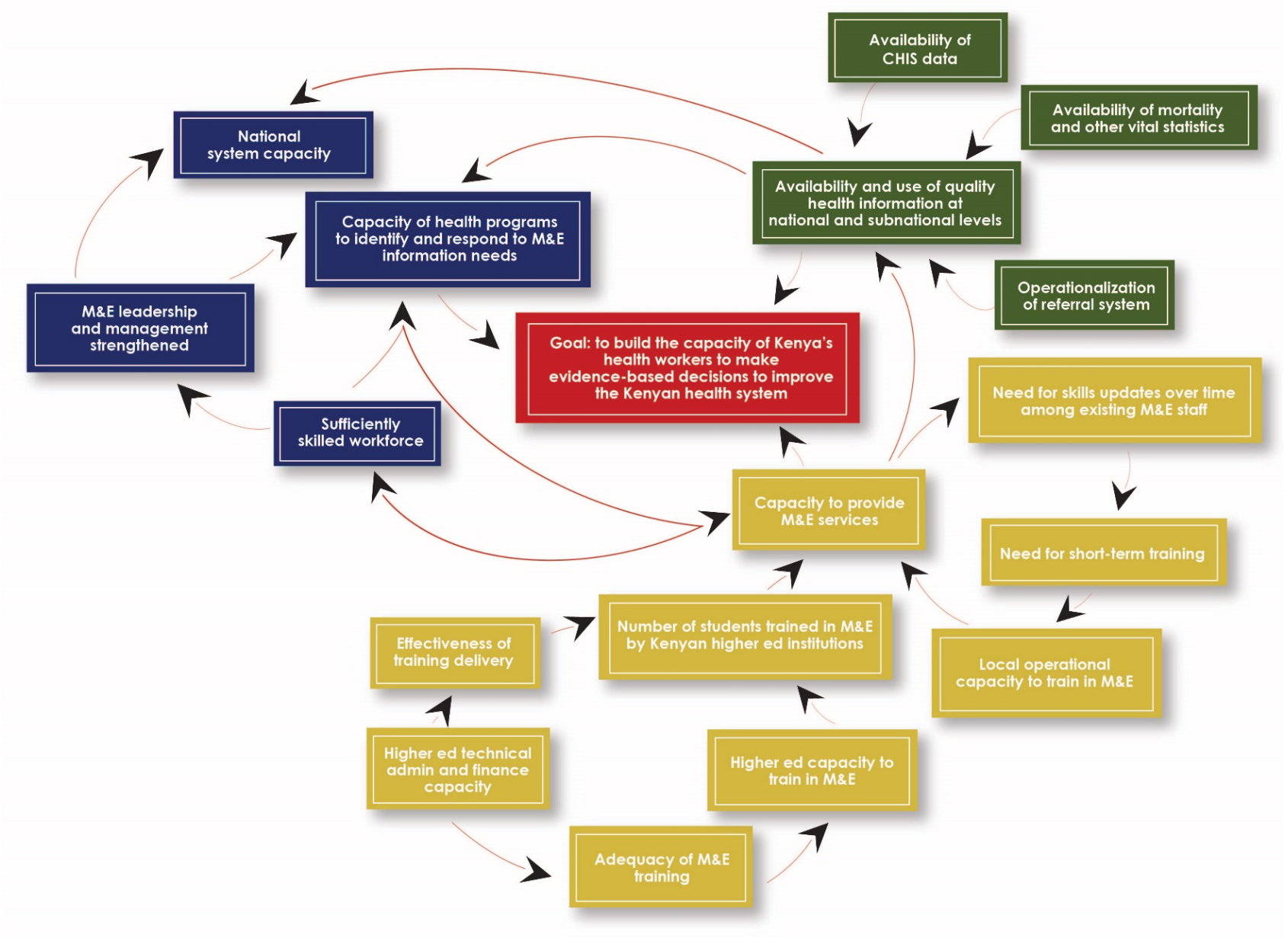
The project also theorized that to sustain the gains made in strengthening capacity in IR1 and IR2, it would also be necessary to improve the capacity of local training and research institutions, including universities, to meet the need for health M&E professionals (IR3). Moreover, the ability of the project to support these result areas would require strengthening the capacity of such institutions—including their program management processes and systems—to lead and manage the M&E system.

At the request of the USAID mission in Kenya, MEval–PIMA supported the strengthening of three key information systems: (1) CRVSS; (2) CHIS; and (3) RSS. These three systems were selected based on demand and the priorities of the MOH, and stemmed from the adoption of the new 2010 Constitution, as well as previous investment by USAID in Kenya to strengthen the national health information system (MOH). Figure 2 illustrates the interconnectedness of this theory along the three IRs.

In Year 3 of the project, USAID/Kenya requested that MEval–PIMA take on additional work—to strengthen the Kenyan CPIMS.

[1] Build sustainable M&E capacity for Kenyan health workers and officials to collect and use high-quality data that help inform evidence-based decisions that improve the effectiveness of the Kenyan health system.

Figure 2. MEval–PIMA's Theory of Change



MEASURE EVALUATION PIMA PROJECT INTERMEDIATE RESULT AREAS

IR1: Improved capacity of key national health programs to identify and respond to M&E information needs at national and subnational levels

IR1 aimed to improve M&E capacity to identify and respond to information needs at national and subnational levels. Work under this IR targeted six national programs: the NMCP, the RMHSU, the DSRU, the CHSU, the CRS within the Ministry of Immigration, and the DCS. At the subnational level, M&E capacity strengthening was focused on the county health management teams (CHMTs) in select counties.

Gaps in M&E capacity in national programs and at the subnational level included: the lack of a policy to support M&E activities, no M&E plans in place, a lack of clearly defined roles and responsibilities, the absence of a mechanism to coordinate partners for M&E, no terms of reference (TORs) for the governance of M&E, and no budgets.

Some capacities did exist: Counties had annual work plans for M&E activities, but often depended on external funding. Most counties had a database for disease surveillance, but use of the information was limited. County databases were linked to national databases for data aggregation, but these were not interoperable and so were not used for decision making.

IR2: Improved availability and use of quality health information at national and subnational levels

The primary goal under IR2 was to improve the function of important information systems to make quality data available and to contribute to strengthening the national HIS in Kenya. Challenges included the absence of systematic and consistent implementation of processes and procedures to ensure clean and complete data for use at each tier of the healthcare system; a lack of tools (guidelines, standards, and data collection forms); the absence of a critical mass of health workers with skills to collect data; and limited demand for and use of information generated by these systems.

IR3: Improved local capacity for meeting the human resources needs of health M&E professionals

One of the critical assumptions underpinning IR3 was that demand for M&E services would increase with implementation of the devolved system of governance. Long-term training was expected to build a foundation of skilled professionals over time. In addition, short-term M&E education was expected to contribute to meeting the short-term training needs of M&E professionals by introducing them to basic concepts, addressing specific in-service training needs, and offering trainings targeted to different types of health professionals. Short-term training could also serve to introduce practicing M&E professionals to emerging areas of M&E specialty and associated new methods and tools—as well as provide refresher training, including for those who had previously benefited from university-based M&E education.

However, in Year 2, the specific support to improving capacity for meeting human resources needs for M&E (IR3) was defunded, following a change in PEPFAR technical priorities.

KEY ACCOMPLISHMENTS

INTERMEDIATE RESULT 1: CAPACITY BUILDING

Efforts to strengthen the health sector monitoring and evaluation (M&E) system in Kenya have often been frustrated by disjointed activities with no coordination framework. Numerous program-specific and disease-based systems operate independently with no sharing of information. As a result, the information needs of the government and the health sector were rarely satisfied. The country needed to develop a unified approach to strengthening the health sector's capacity to monitor and evaluate performance, by addressing the key components of a functional M&E system. The expectation was that a more efficient and unified HIS with effective M&E would contribute to a systematic use of quality data.

To successfully take on this role, health teams required support and capacity building for organizational strengthening and data use at all health system levels. MEval–PIMA believed that capacity building was integral to strengthening health systems for improved health outcomes, and that capacity building needed to address organizational, behavioral and technical aspects.

The project first developed a baseline of current capacity, which revealed several weaknesses, especially at the county level. To address the situation, MEval–PIMA used the following four technical strategies to achieve sustained capacity at national and county levels:

Strengthened organizational capacity to develop and implement policies, plans and strategies for M&E functions: Specific support included development and finalization of policies and plans that provide the structure and focus for M&E activities, M&E plans, standardization of performance reviews and development of annual workplans, development of structured approaches to address gaps identified during performance reviews, and development of institutional development plans.

Strengthened stakeholders' engagement for coordination, partnership, and leveraging of resources: Leveraging stakeholders at the national and county level to strengthen the M&E systems, MEval–PIMA supported the health sector M&E coordination platforms to strengthen advocacy for M&E capacity-building priorities and for additional resources for M&E activities at the national and county level.

Supported use of data for programmatic decision making at county, subcounty, and health facility levels: Target counties were supported to use data to inform decision making at different levels, including the CHMT, subcounty, and facility levels. This support included meetings to review program performance and development of annual work plans; TA to address gaps identified during performance reviews; development and dissemination of information products, including county profiles; and development and dissemination of targeted facility-level dashboards, among others.

Strengthened M&E leadership and competencies: The county departments of health were supported to play a leadership role in the implementation of M&E activities, use of data in decision making, and advocacy for resources to support M&E. MEval–PIMA used various forums to share and disseminate county performance data with the leadership, including stakeholder forums and county leadership forums. To build sustainable M&E capacity for Kenya health workers at the national and subnational levels, the project designed a five-stage approach. MEval–PIMA strengthened M&E capacities by engaging stakeholders, determining the status of capacity, developing plans, implementing a response, and designing a means to measure improvements.

MEval–PIMA **established structures and systems for M&E coordination**—including development of sectoral strategic plans, M&E plans, curricula, and several guidance documents. In addition, TWGs were established, and support was given to steer the M&E agenda at national and county levels. These efforts advanced coordination among stakeholders at each level and between national and county levels.

The project **developed standard tools for assessing M&E capacity and monitoring performance**. An example of these tools is the Monitoring and Evaluation Capacity Assessment Toolkit (MECAT), which was used to assess M&E capacity in 17 counties and six national programs. The MECAT captured several dimensions of capacity—organizational, technical, and

behavioral—and illustrated county capacity using an organizational capacity index (OCI). The tool has subsequently been published for use by programs worldwide.

With this evidence in hand, the project's strategic approach stressed **integration and a systemwide perspective to reduce duplication of effort and to reach all levels of data collectors and users**. The baseline capacity assessments provided a powerful and effective platform for preliminary engagement and joint planning with partners to prioritize interventions at national and county levels. Specific areas of support were promoting a culture of data use, strengthening governance structures to spearhead M&E activities, and M&E skills building: training on M&E fundamentals and building the capacity of the MOH's senior staff for M&E leadership.

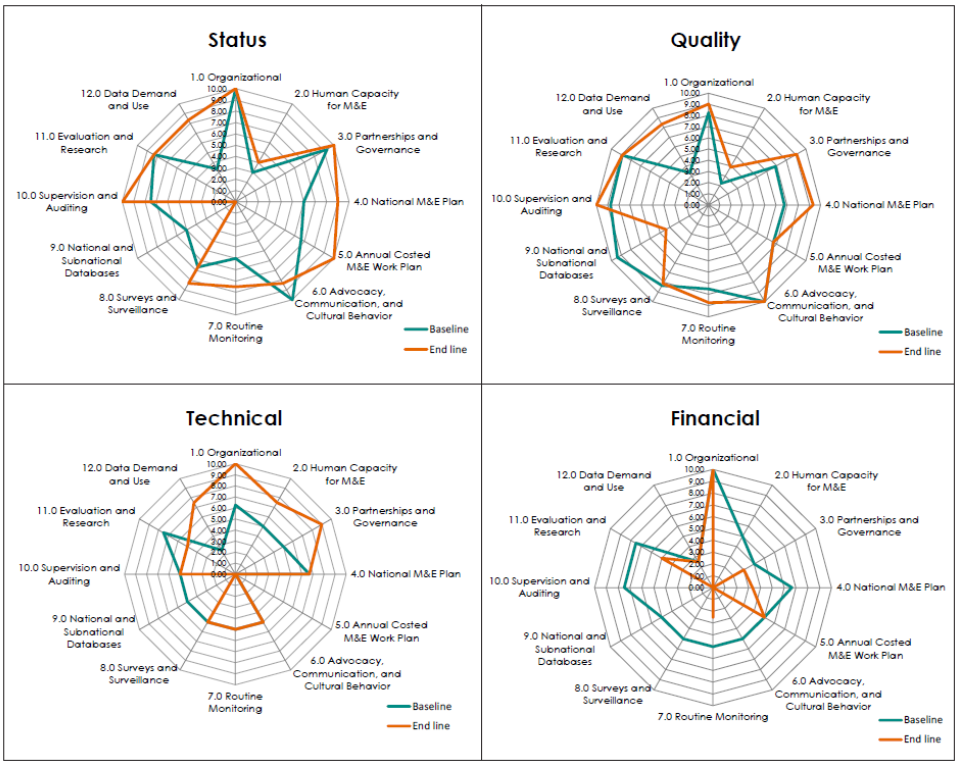
In 2017, MEval–PIMA used the MECAT to conduct end line assessments to detail accomplishments resulting from these activities.

The MECAT allowed for quantifiable measurement—for the first time in Kenya—of capacity in the counties and organizations. It has also contributed to thought leadership on capacity building:

- It uses standard definitions of 12 areas of a fully functioning M&E system, thereby contributing to a common language on the topic.
- It updated the widely used *12 components M&E Strengthening Tool*[2] and added three additional components to the existing status component: quality of M&E, technical skills, and financial autonomy.
- Specific to Kenya, the MECAT recognized a limited CHMT capacity for planning, coordinating, and using health data, which informed project support to improve CHMT capacity to identify and respond to information needs to support site-level service delivery.

[2] Joint United Nations Programme for HIV/AIDS (UNAIDS) (2010). 12 Components of M&E System Strengthening Tool. Retrieved from http://www.unaids.org/sites/default/files/sub_landing/files/2_MERG_Strengthening_Tool_12_Components_ME_System.pdf

Figure 3. Improvement in M&E capacity in most capacity areas at the NMCP



Measured functionality of systems, as well as facility readiness. The MECAT tool has contributed to an understanding of M&E capacity and facilitated an effective approach to address capacity issues—with the innovation of having an objective point of view to guide strategy and enable real measurement of effectiveness. It has provided a systematic means to address capacity, and is now being adapted to other contexts. Its proven effectiveness to measure progress and chart interventions is an important project legacy.

MEval–PIMA also made significant achievements in efforts aimed at promoting data demand and use. Innovative approaches to package and present data to different users were developed. Some of these included the development of the *Malaria Surveillance Bulletin*, which has been fully adopted by the NMCP, and is produced regularly with internal technical and financial support. Health profiles were developed and used at the county level to describe key performance issues in accordance with county performance outcome measures for the health sector.

The strategic plans and other structures for M&E coordination developed through the project have been instrumental in a shift in the use of data for decision making at national and county levels. The most significant contribution was to create ownership of the M&E capacity-building activities, especially at the Division of Health Informatics, Monitoring and Evaluation at the national MOH. The target programs included the NMCP, RMHSU, CHSU, and the CHMTs in the recipient counties.

The malaria surveillance curriculum developed with MEval–PIMA support was adopted by the World Health Organization (WHO) and the Global Fund to Fight AIDS, Tuberculosis and Malaria, and helped standardize the NMCP approach to surveillance. This curriculum harmonized and promoted the use of routine malaria data for program M&E and improved program performance.

As part of project efforts to strengthen the CHIS to collect quality data, MEval–PIMA developed a tool for assessing the functionality of the community unit (CU). The tool was administered in 32 CUs drawn from eight counties in Kenya. Findings were used to develop a CU functionality index, a document listing a range of interventions required to build the capacity of CUs to generate, use, and report community-level data as envisaged by the national HIS.

A final set of tools developed through the MEval–PIMA project is now used to assess the readiness of health facilities to offer both basic and comprehensive emergency and obstetric and newborn care (BEmONC and CEmONC). The suite of tools used for the BEmONC and CEmONC assessments have since been compiled into a toolkit which has been used widely in Kenya by partners and United Nations bodies supporting reproductive and maternal health services in Kenya.

INTERMEDIATE RESULT 2: WORK ON INFORMATION SYSTEMS

From 2012–2017, the project's scope of work was to support information systems for programming funded primarily by PEPFAR. These were the RSS, the CRVSS, a CPIMS, an ongoing orphans and vulnerable children (OVC) longitudinal management information system (OLMIS), and CHIS.

Achievements in information systems strengthening, accomplished in close collaboration with health services at all levels, are heartening. To name a few:

- A national child protection information management infrastructure is now deployed in 10 MEval–PIMA target counties and, in those counties, service directories assist the referral process from one health facility to another to help coordinate care for HIV clients and achieve 90-90-90 targets.[3]
- Improved death and cause-of-death reporting has been enhanced by its integration of patient-level reporting in DHIS 2. CRS has developed three sequential annual vital statistics reports (2013, 2014, and 2015).
- The CHIS's six community health data collection tools were revised and piloted in several counties, and 582 community health workers were trained to use the revised tools. MEval–PIMA developed the methods for assessing system functionality and applied these methods to the CHIS. Five counties developed performance improvement plans for the CHIS—specifically to improve data quality and use of data. Those counties continue to work with partners to advocate institutionalization of community health approaches. For CHIS, five counties have developed performance improvement plans for data quality and use of data, and are working with partners to advocate institutionalization of community health approaches.

[3] By 2020, 90 percent of all people living with HIV will know their HIV status; 90 percent of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; 90 percent of all people receiving antiretroviral therapy will have viral suppression. See http://www.unaids.org/en/resources/documents/2017/90-90-90

CHILD PROTECTION INFORMATION MANAGEMENT SYSTEM

Since 2007, Kenya had struggled to develop a functioning child protection information management system to track, report, and manage child protection issues. The project set out to identify priority information needs for the DCS and its stakeholders at national and subnational levels with a view toward simplifying the amount of data to be captured, modify data collection tools, strengthen the DCS data flow and reporting structures, develop a hybrid electronic system for case management and data aggregation, and develop a sustainability plan that included capacity building for staff and guidelines for data quality and data demand and use.

In parallel with this activity, MEval–PIMA also supported the rollout of OLMIS to collect data on children and households affected by HIV, receiving United States Government (USG) support. These data are crucial components for successful planning of programs. A chief accomplishment was the successful incorporation of USG reports and migration of selected data sets from OLMIS into the CPIMS so that the country would be left with one comprehensive child protection information management system—CPIMS Version 2.0.

Today, the CPIMS can capture data on children needing protection wherever they are in Kenya. The system manages children's cases over time and can produce reports useful for planning, implementation, and M&E of child protection programs and services. MEval–PIMA supported system roll out in 11 counties in Kenya and supported DCS in finalizing all of the necessary guidance documents so that DCS and other key development partners such as UNICEF can further roll out the system. The Kenyan Government is rolling out the system in 16 additional counties, and working with UNICEF, World Vision Kenya, and others to support the widespread adoption of CPIMS. MEval–PIMA formally handed over the CPIMS system to DCS, the USAID funded projects Health IT – run by the University of Nairobi, and the Tupima County Project in September 2017.

CIVIL REGISTRATION SYSTEMS

A functioning CRVSS records births and deaths in a country and establishes the population denominator that informs all assessments of morbidity and mortality trends, effectiveness of health service delivery, and resource allocation.

In Kenya, about two-thirds of births were recorded, lower than WHO's recommended minimum of 80 percent. Cause-of-death reporting was limited because of a lack of training on certifying and coding deaths; this posed an obstacle to obtaining mortality information that could be used at all levels of the health system—both as the best indicator of the impact of health interventions and as guidance for setting priorities. There was an absence of demand for vital statistics data at all levels and within Kenyan government institutions. Further, existing mortality reports were not stored in a functional national database and had no direct link to the HIS.

MEval–PIMA worked in 12 target counties, a number later reduced to 10. It conducted trainings of trainers for counties and supported rollout of the International Classification of Disease (ICD) guidelines through orientation of health managers and training of health workers in almost 100 health facilities. It revised the D1 (facility-based) and D2 (community) national death notification forms to include more specific categories for causes of death. It also supported the orientation of health managers and training for health records and information officers in ICD coding and DHIS 2.

The project conducted training in data management and analysis, targeting the CRS statistics team. The project facilitated modifications to improve data access and security in the digital CRVSS, and supported its rollout in target civil registration sites through support for Internet connectivity and training of staff to administer the system.

A community-based registration system is meant to augment national civil registration and vital statistics data-gathering. It is supervised by the local chief. For lay reporting of vital statistics to be reliable, chiefs and assistant chiefs need to understand the principles of verbal autopsy, so they can interview relatives of the deceased to record cause of death. MEval–PIMA helped CRS train chiefs and assistant chiefs on birth and death registration and guidelines for birth reporting in special cases, such as children born to single mothers. MEval–PIMA supported dissemination of job aids to strengthen this capacity.

REFERRAL SYSTEM STRENGTHENING

Challenges in the country's systems for referring clients from one healthcare provider to another were a lack of standard tools to communicate and document referrals, poor coordination and linkages within and between facilities, noncompliance with referrals, weak referral monitoring systems, and inadequate referral infrastructure and financing. MEval–PIMA advocated forming a referral systems TWG to address coordination and policies. Through this group, the health sector referral strategy and implementation guidelines were developed. This included data collection tools and a training curriculum for managing referrals, performance monitoring and improvements on data use, and coordination among facilities and care providers. The project oriented 2,084 health workers to managing an effective referral system.

In Year 4, the project focus shifted to supporting HIV referrals and linkages, away from the initial sector-wide approach the project began with.

The project also worked with national stakeholders to implement an assessment in target counties to see how the referral system operates among facilities and between communities and facilities. Assessment findings were used to develop a referral strengthening plan. MEval–PIMA finalized and disseminated HIV/AIDS referral directories to all 10 target counties and captured referral points for other primary care services.

COMMUNITY HEALTH INFORMATION SYSTEMS

High-functioning CHIS are the primary source for the evidence of disease burden and contribute to improving basic healthcare services to communities. These systems can measure and evaluate care at the community level, such as antenatal care, newborn care, nutrition, breastfeeding, delivery by trained midwives, and family planning. The systems should produce good-quality information for decision making by all health stakeholders. At the outset of the project, the plan was to develop centers of excellence among community health units in eight target counties (Nairobi, Nakuru, Kakamega, Siaya, Kilifi, Machakos, Garissa, and Kirinyaga). Centers of excellence would serve as models for other CUs.

In Year 2, MEval–PIMA support achieved harmonization of the master community unit listing (MCUL) and facility linkages in DHIS 2, use of revised tools, increased reporting, and enhanced skills in data analysis, including triangulation of community and facility data in five target counties.

MEval–PIMA participated in a community health workshop to review the measurement of the functioning of community health units and to develop a data dashboard of indicators for monitoring their performance. Participants at the workshop developed a concept note for an evaluation of the community health strategy to review indicators, financing options, and expected outcomes on institutionalizing community health at the county level. Some of the gaps identified were that the CUs lacked community focal persons and health records and information officers at subcounty levels. Health assistants lacked knowledge about the data and the system. Additionally, reporting tools were not standardized, which led to simultaneous use of both old and new tools, and an insufficient number of tools. These challenges affected the quality of the data reported to DHIS 2. MEval–PIMA, stakeholders, implementing partners, and county health officials jointly developed strategies to improve data quality and committed to action plans.

In Years 3–5, MEval–PIMA's support for CHIS was adjusted from developing centers of excellence within communities to national-level support for technical coordination of CHIS activities overall. By Year 4, however, the national-level support for CHIS coordination had been narrowed to support for CHIS improvement in only five counties. Even with the narrowed focus, the project always engaging with stakeholders, and developed a purposeful mix of solutions—software, hardware, infrastructure, mentoring, training, and monitoring—to upgrade and institutionalize methods that leave Kenya better positioned to know its health issues; to devise strategies to address them; and to manage the work required to improve the health of its citizens.

GENDER

MEASURE Evaluation PIMA worked to integrate gender throughout all activities, emphasizing sex- and age-disaggregated data collection, analysis, and use for gender-sensitive programming and informed decision making.

At the beginning of the project, MEval–PIMA staff received training on gender mainstreaming, and carried out gender assessments for the NMCP. Trainings in DDU also emphasized gender sensitivity.

Apart from the initial effort at gender mainstreaming, the project did not map specific gender-mainstreaming activities, and progress in this domain was not monitored in the project monitoring plan (PMP).

MEASURING GENDER

A baseline assessment of M&E capacity in Kenya used the MECAT tool, which was modified to include a thirteenth module to ensure gender measurements were mainstreamed in capacity assessment and strengthening. This was seen to be especially important in project technical assistance (TA) for the NMCP, the RMHSU, the CHSU, and the CRD and CRS. The MECAT tool also included group discussion on gender. It asked participants questions such as:

- Is there an M&E champion who can advocate for gender in analysis, reporting, and use of sex-disaggregated and gender-sensitive data?
- Does the M&E training include any sessions on gender in M&E?
- Are there activities for gender-based analysis in M&E plans?
- Is gender analysis and reporting included in data analysis and presentation guidelines?
- Do programs value attention to gender equity?
- Can staff collect, process, and analyze sex-disaggregated and gender-sensitive data to analyze potential gender differences in health access, use, or quality?

In Year 3, MEval–PIMA supported the NMCP to hold the second Kenya National Malaria Forum (October 2014), and provided TA for review and publication of the quarterly *Malaria Surveillance Bulletin*. The project also provided TA for the mid-term review of the National Malaria Strategy (NMS) (2009–2017) and its M&E plan, ensuring that gender issues were addressed—with special attention to including gender M&E to aid in a successful Global Fund proposal. Strengths of the malaria strategy were inclusion of a gender and human rights section and an emphasis on the vulnerability of pregnant women, which is a crucial gender component that the NMS addresses, with intermittent preventive treatment as a key strategy.

Also, in Year 3, the project helped facilitate a gender training for all activity leads and follow-up consultations with a gender specialist from the USAID-funded MEASURE Evaluation project. A project mid-term review that year revealed the need for additional capacity building around gender and advocacy, and such capacity building was then included in Year 4 training and TA. A gender-awareness survey was conducted among staff to identify specific gaps and capacity-building approaches to address the identified need. Further, MEval–PIMA's gender specialist worked with activity leads in fine-tuning the Year 4 work plan and identified concrete opportunities to promote gender mainstreaming in project implementation at the national and county levels.

MEval–PIMA collaborated with MEASURE Evaluation, Phase IV, on an assessment of the availability and use of sex and age disaggregation in Kenya's HIS. The assessment included key informant interviews with national HIV and HIS staff, and stakeholders to explore barriers and facilitators to achieving sex- and age-disaggregated data; this resulted in a recommendation to increase the inclusion of disaggregated data. Findings were disseminated in December 2016. In addition, the National AIDS Control Council invited MEval–PIMA and MEASURE Evaluation to present at one of its monthly webinars.

MEval–PIMA and MEASURE Evaluation also were invited to take part in the MOH's Health M&E Unit indicator review meeting in June 2016 to provide technical feedback to the Gender Mainstreaming and Health Rights Unit on newly proposed gender indicators. The project TA was meant to increase the feasibility and measurability of indicators, with suggestions of using standardized indicators developed by MEASURE Evaluation.

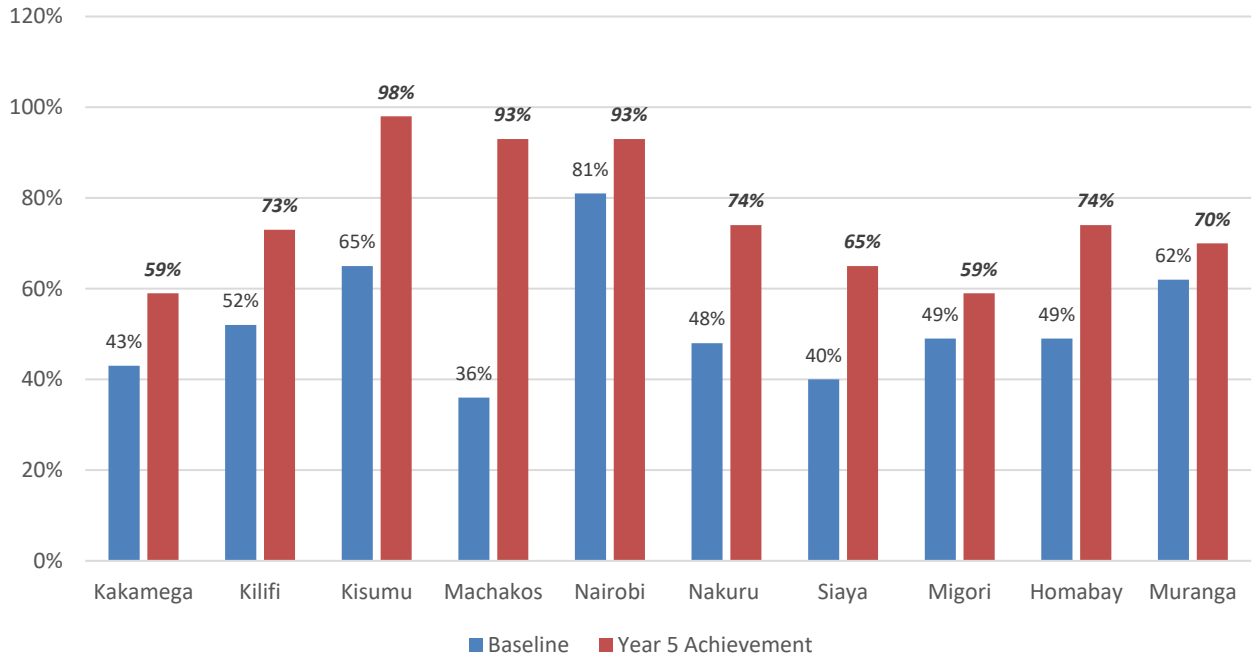
MEval–PIMA continued to highlight gender as a cross-cutting area throughout the remainder of project planning and implementation, integrating gender into activities, emphasizing sex- and age-disaggregated data collection, analysis, and use for gender-sensitive programming and informed decision making. However, results were mixed. Interview participants did not associate MEval–PIMA with gender mainstreaming and were surprised it was a project focus. And yet, programs supported by MEval–PIMA, such as at the NMCP, were seen to be gender-aware because of project activities.

The sex- and age-disaggregated HIS assessment also found that although facility data are disaggregated by sex, the DHIS 2 software platform in Kenya—particularly non-HIV data—is aggregated. It was suggested that MEval–PIMA could advocate adjusting the DHIS 2 to ensure that sex disaggregation of collected data is maintained.

PERFORMANCE MONITORING PLAN DATA: SELECTED INDICATORS

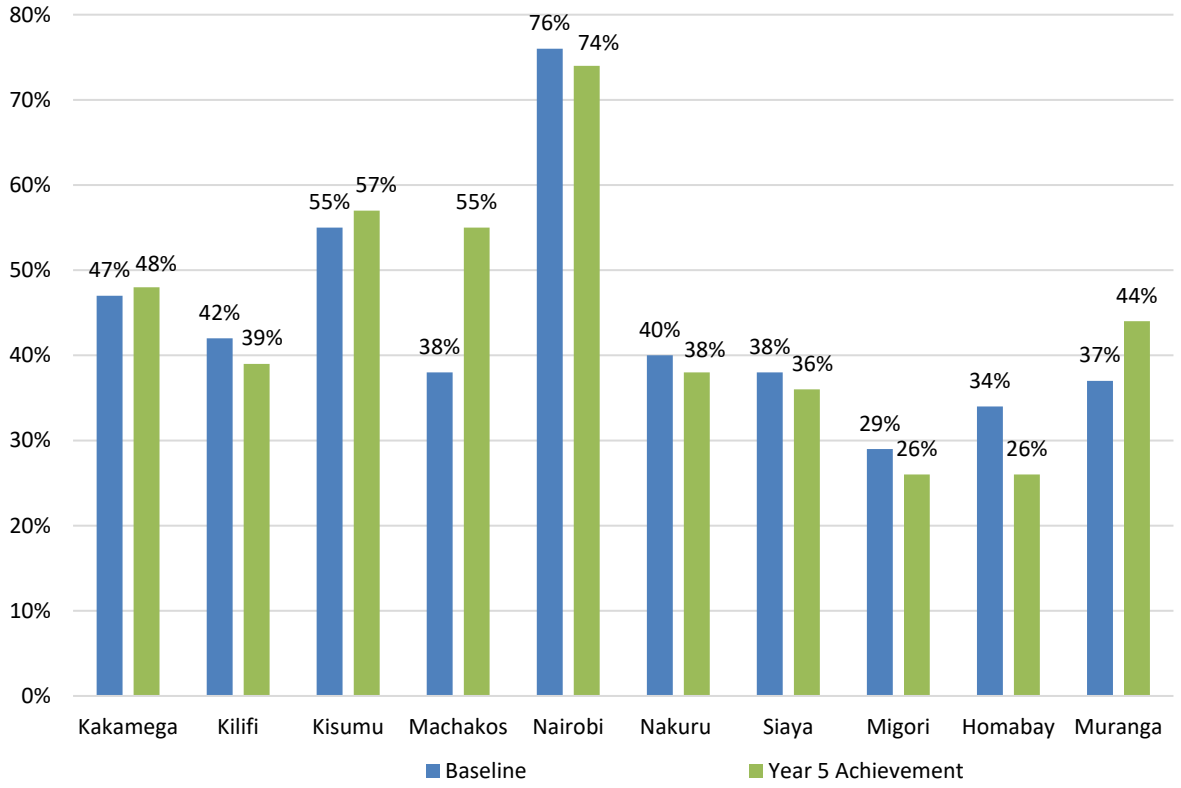
MEval–PIMA results outline the achievements and expectations of the project across the different intermediate results and towards the overall project goal. MEval–PIMA further developed an M&E plan that describes the process and implementation strategy to collect, analyze, and use data to track the progress of project activities. The following indicators demonstrate both output- and outcome-level achievements.

Figure 4. Birth registration coverage rates in 10 Kenyan counties in 2012 and 2017 (by percent)



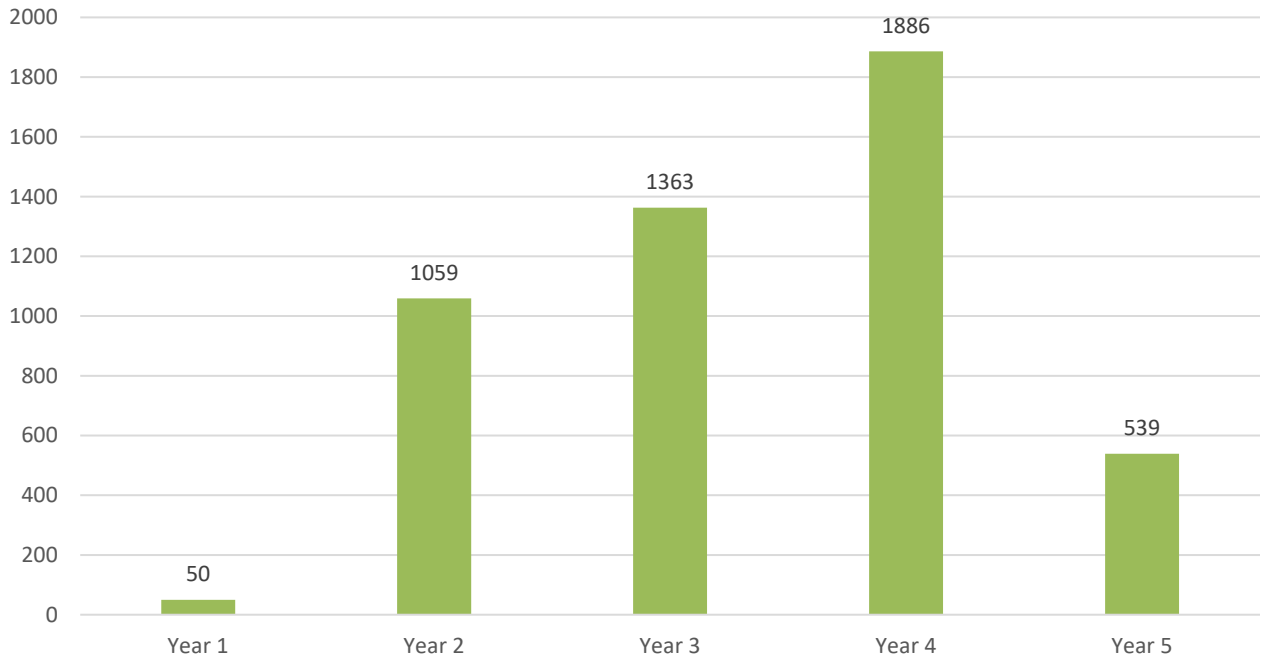
The effectiveness of the integrated civil registration system and interventions put in place contributed to increased birth registration coverage from Year 1 to Year 5 (2012 to 2017). The activities conducted to achieve this improvement were maternal and child health and community strategies for event registration, training of local registration agents, and monitoring of data collection, and reporting. This outcome indicator demonstrates MEval PIMA's inputs to strengthen civil registration and vital events. Kisumu, Nairobi, and Machakos had the highest coverage (above 90 percent) among the targeted counties. Kakamega and Migori had low birth registration coverage rates (below 60 percent). Nonetheless, the registration of births in all target counties improved from the baseline.

Figure 5. Death registration coverage rates in counties in Kenya (by percent) in 2012 and 2017



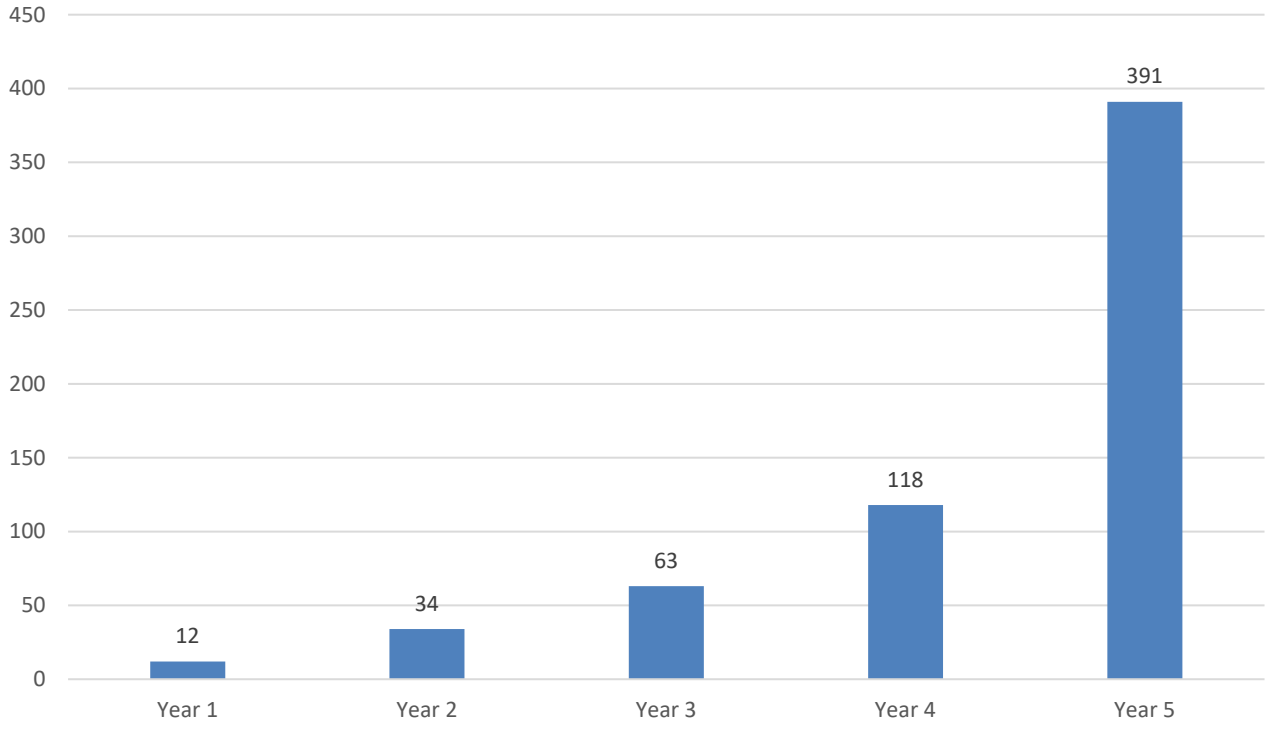
Death registration coverage showed mixed achievement from 2012 to 2017. Four of the ten counties—Kakamega, Kisumu, Machakos, and Murang'a—saw an increase in death registration rates. The remaining counties saw declines in the death registration rates. Possible reasons for this decline include delays in the submission of completed registration forms from the local registration agents to the civil registration officer (CRO) and weak accountability mechanisms between the local registration agents and the CROs, perhaps pointing to intervention areas that merit consideration for future support.

Figure 6. Number of people trained, mentored, or provided with technical assistance in target programs (2012–2017)



Training and mentorship provided during the life of the project reflected the scale and pace of implementation. As expected, in Years 1 and 5 the least number of people were trained and mentored, and Year 4 was the peak year for training. Training and mentorship varied across program areas, with most training being for national programs and RSS. The trainings within the national programs mainly focused on data analysis, management, and surveillance. The majority of RSS training was focused on the rollout of the RSS curriculum to the counties.

Figure 7. Number of information products disseminated to stakeholders (2012–2017)

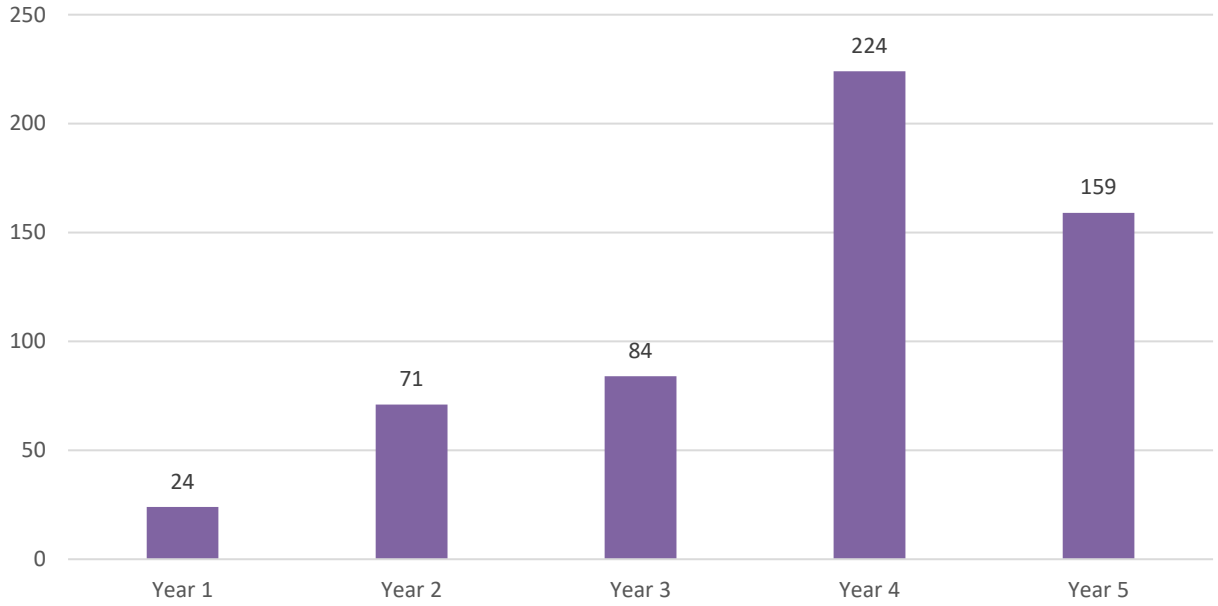


The number information products disseminated to stakeholders demonstrates the extent to which information products developed by MEval–PIMA were available to stakeholders for use to enhance evidence-based decision making. The technical documents produced and disseminated to the stakeholders increased as project implementation progressed. The information products included bulletins, scorecards, technical reports, policy briefs, guidelines, fact sheets, M&E plans, strategic plans, profiles, press releases, supplements, journal articles, abstracts, infographics, and posters.

In Year 3, dissemination of information products on the MEval–PIMA website—a subsection of the MEASURE Evaluation website[4]—began. Since then 22,999 unique visitors have made a total of 115,628 visits to the MEval–PIMA website (https://www.measureevaluation.org/pima, as of September 2017). The most downloaded document was the *Health Sector Referral Strategy* and the second-most popular document was the *Gender and Malaria in Kenya* report.

[4] http://www.measureevaluation.org

Figure 8. Instances of data use for decision making by targeted programs (2012–2017)



This indicator demonstrates the outcomes of MEval–PIMA's efforts to increase data use within the program areas the project supported. There was a change in collection procedures towards the end of Year 3 which streamlined data use documentation. As expected, most instances of data use were recorded at the county level.

LESSONS LEARNED

MEval–PIMA staff, partners, and stakeholders learned a number of important lessons during the implementation of the project and by collaborating to achieve shared public health goals.

Embracing a systems approach to M&E capacity building in resource-limited settings is critical. Strengthening capacity of the CHMTs often required investments to establish key pillars of a sustainable M&E system—the development of policies and strategies, data collection tools, stakeholder coordination mechanisms, and training and skills development. Similar requirements existed at the national level, where the absence of fundamental elements of M&E capacity often affected the delivery of core M&E support envisaged under the project. We learned—or reaffirmed—that systems thinking is essential, because M&E components exist in a complex interplay, affecting each other with unexpected outcomes. The success of a systems approach to M&E capacity building requires strong coordination among partners to leverage technical and financial resources and to avoid duplication of effort, especially in an environment of scarce resources.

Start with a coalition of those ready to engage in M&E capacity building. The pace of work to build sustainable M&E capacity is determined by whether there are functional structures to support demand for and use of data in decision making. MEval–PIMA delivered a standard package of support while addressing the M&E gaps revealed in the baseline assessments. Yet, the pace of implementing capacity-building interventions was mainly influenced by the existence of structures for coordinating partner efforts in strengthening M&E systems. For instance, the NMCP and the CHSU—which exhibited a faster uptake of capacity-building interventions compared to other health departments—had these structures in place. We observed a similar trend at the county level, where CHMTs had a vibrant M&E TWG, well-coordinated partnerships, and the support of the leadership. They were early M&E adopters.

The process for initiating M&E capacity building is as important as the interventions themselves. Knowing the problems and the interests of the national MOH programs and the counties at the onset of their strategic planning processes helped MEval–PIMA establish itself as a credible partner. The participatory approach to capacity building—from conduct of baseline assessments, agreements on action planning and joint determination of key priorities for investment—gave the program traction. This was particularly important in gaining trust and support of the MOH beneficiaries at the national and county levels.

Alignment of interventions with national and county strategic thinking and planning is critical to successful interventions. The project was engaged with the national and county level to jointly plan for strategic capacity building, informed by the findings from baseline assessments. This offered an excellent opportunity for the project and the beneficiaries to identify key stakeholders, map their roles, and determine the types of engagements needed to achieve joint objectives.

CHALLENGES

Several challenges encountered during the MEval–PIMA project affected its implementation.

The health sector in Kenya underwent significant change at political and structural levels during the life of the project. Project start-up coincided with rollout of devolution in Kenya, a period characterized by unclear roles for the national and county government for planning and delivery of healthcare services in the county. During this period, the transition authority was responsible for interim health structures, especially at the county level, which were later overtaken by the CHMTs. The delays and frequent turnover among key county personnel delayed the initiation of capacity building interventions. The confusion over roles and responsibilities between national and county governments continued over the life of the project, leading to incessant changes in the terms and conditions of engagement between the two levels of government.

The shift in PEPFAR's technical and geographical priorities at the mid-point of the project necessitated changes in MEval–PIMA's focus and approach. These changes interrupted the project's direction and momentum and introduced lengthy start-up processes, such as the establishment of benchmarks, stakeholder engagement and re-engagement, negotiated exits from previously supported programs and counties, and initiation of relationships with new ones. In addition, the change in direction affected the project theory of change: An entire result area, human capacity, and a target information system, CHIS, were defunded. Ideally, a functional CHIS was theorized to be the bedrock that anchors the national HIS and improved human capacity was to underpin improved systems. Support for revising CHIS tools, pre-testing, printing, and training of health workers on the use of the new tools was discontinued before the new tools were customized in DHIS 2. This affected not only the availability of data but also the use of data for decision making, especially at the national level.

Emerging needs required agility to embrace new challenges. The introduction of new areas of work (e.g., redesign and rollout of a comprehensive CPIMS in the third year of the project), posed both a challenge and an opportunity. As the rest of project activities were approaching close-out, MEval–PIMA was expected to deliver peak performance in a new area. Despite this challenge, the project successfully contributed to the consolidation and harmonization of processes to capture, track, and report national child protection data.

SUSTAINABILITY

Achieving sustainable systems means that they can operate with a high standard of reliability and withstand shocks and adapt to a changing environment—independent of ongoing TA. Helping to achieve sustainability for a program or system requires purposeful planning and strategic inputs.

Over the five years of MEval–PIMA, the project embraced an approach to capacity building that was informed by the four principles of sustainability:

1. *County and national leadership with broad stakeholder engagement*. The newly formed M&E Unit in the MOH Division of HIS, M&E and Research was one of the conduits for the project's engagement with M&E stakeholders. The M&E Unit and its TWGs engaged a broad group of stakeholders—including donors, regional actors, communities, NGOs, civil society, and faith-based organizations. Through these TWGs, a new generation of M&E tools was created. These included registers, monthly summary forms, PowerPoint templates for data review, and more. Importantly, MEval–PIMA was part of a multi-partner technical group that trained county health information records officers from all 47 counties to use these tools. These tools are still being used today.
2. *Institutionalization and routinization*. MEval–PIMA contributed to the institutionalization of strategic planning, annual work plans, and annual performance reviews at the national and county levels—actions taken on by the government and incorporated as their own processes or tools. The project was also instrumental in the routinization of data reviews and processes at the county level, where data users and producers review program performance—routinely using indicators that measure the quality of the HIS (e.g., routine program indicators, timeliness of reporting, and accuracy of data)—and then make decisions to strengthen the HIS and program delivery. Production of information products such as the *Malaria Surveillance Bulletin* is now a standard part of information generation and dissemination activities undertaken by the NMCP. The CPIMS, through still at a nascent stage, has allowed the DCS to recalibrate its business processes to conform to the data needs identified and being tracked by stakeholders.
3. *Process and direction*. MEval–PIMA and other stakeholders were focused on "establish[ing] a functional, robust, effective and efficient health information system."[5] To achieve the overall project goal of building sustainable M&E capacity among Kenyan health officials at national and subnational levels, MEval–PIMA worked with national and county-level stakeholders to improve M&E tools, products, and processes. These participatory tasks, focused on improving systems, allowed for feedback through different coordinating mechanisms at the national level and data review meetings at the county level, both of which are ongoing.
4. *Resource mobilization and management*. The M&E unit and the M&E functions at the county level carried out by the county health records information officers (CHRIOs) are funded by the government. In each of the counties, these CHRIOs coordinate and manage M&E processes to ensure that quality data are collected and are being used to improve the HIS and health outcomes. The M&E unit at the MOH works closely with other health area programs to coordinate stakeholders towards the same end. MEval–PIMA assisted with providing the tools, processes, and products they use, and trained the CHRIOs to use them. For example, the *M&E Institutionalization Guidelines* are now being used as the normative guide for defining roles and responsibilities for health M&E in the sector.

[5] Republic of Kenya (2009). Health Sector Strategic Plan for Health Information Systems 2009–2014. Nairobi, Kenya

CONCLUSIONS

- MEASURE Evaluation PIMA achieved its main purpose of building sustainable M&E capacity at national and county levels with both individuals and organizational units benefiting from the project's interventions.
- Capacity for monitoring and evaluation improved for national programs and county beneficiaries.
- The project introduced standard, tools, guidelines, approaches and metrics that have improved the understanding of monitoring and evaluation in Kenya, documented the status and quality of M&E interventions and improved the quality of training in various technical areas of focus for the project.
- The project contributed significantly to the culture of data use at national and county levels through training, data reviews, and performance reviews.
- Despite heavy investment, further support is required, especially at county level to sustain gains made in institutionalizing M&E processes and practices
- Important changes occurred during the implementation of the project, such as the devolution of health responsibilities to the counties, the technical and geographic prioritization of USAID HIV investments in Kenya, and the addition of new technical areas mid-project—all of which have had an impact on the project geographical and technical scope and results.

KEY RECOMMENDATIONS

- Future M&E capacity projects should be focused in scope and geography. MEval–PIMA was expected to implement an eclectic mix of M&E activities—that is, many interventions, in many places, with many stakeholders. The effect of the project's support could have been more pronounced with a more limited scope.
- Strategic partner coordination is essential at the national and county levels, especially in a context of many support partners and weak county coordination structures.
- Future associate awards should benefit from the learning and experience of the global project.
- More investment in critical non-routine information is required to complement investment in routine information systems.

AT A GLANCE: MEASURE EVALUATION PIMA ACCOMPLISHMENTS

1. Over the life of the project, 5,511 individuals were trained in the fundamentals of M&E, data analysis and management, data use, malaria surveillance, ICD 10 coding and certification, and in referral system strengthening at national and county levels.

2. M&E capacity within the National Malaria Control Programme improved by 16 percentage points, in the Reproductive and Maternal Health Services Unit by 27 percentage points, and in Siaya and Kakamega counties by 15 and 12 percentage points, respectively.

3. MEval–PIMA's referral guidelines and strategy, referral curriculum, ICD 10 guidelines, and referral training curriculum have been used extensively in Kenya by other stakeholders, including the World Health Organization.

4. From July 1, 2014-June 30, 2017, the MEval–PIMA website was visited more than 115,000 times.

5. Numerous significant documents were produced by MEval–PIMA:
    a. 14 issues of the *Malaria Surveillance Bulletin*
    b. 9 county profiles
    c. 10 strategic plans (1 national; 9 county)
    d. 8 M&E plans (1 national; 7 county)
    e. 9 annual reports
    f. 17 RMNCH scorecards (3 national; 14 county)
    g. 4 curricula

6. 23 M&E TWGs were formed (3 national; 20 county)

ANNEX 1. LIST OF MEVAL–PIMA DELIVERABLES (YEAR 1–YEAR 5)

YEAR 1, QUARTERS 1–2

1. Capacity Building Assessment Protocol for IRB Approval
2. Data Systems Assessment Protocol for IRB Approval
3. CRVS National Review
4. Approved Year 1 Work Plan
5. Approved Project PMP
6. Risk Scenario Plans
7. Presentations to Stakeholders about the MEASURE Evaluation PIMA Project Associate Award

YEAR 1, QUARTER 3

1. Organizational M&E Capacity Assessment Tool
2. Self-Assessment M&E Capacity Assessment Tool
3. National-Level Key Informant Interview Tools for Program Staff and Stakeholders
4. CHIS Baseline Assessment Tools (CU profile and Focus Group Discussion Guides)
5. RSS Baseline Assessment Tools (Referrals Assessment Tools, Focus Group Discussion Guide, Key Informant Interview, Data Quality Assessment, and Data Abstraction Tool)
6. Centers of Excellence Database
7. RSS Database

YEAR 1, QUARTER 4

1. Draft Division of Malaria Control M&E Capacity Baseline Assessment Report
2. Draft Division of Reproductive Health M&E Capacity Baseline Assessment Report
3. Draft Division of Community Health Services M&E Capacity Baseline Assessment Report
4. Draft Civil Registration Department M&E Capacity Baseline Assessment Report
5. Draft Division of Disease Surveillance and Response M&E Capacity Baseline Assessment Report
6. Revised CHIS Tools
7. Revised CHIS Guidelines
8. mHealth Concept Paper
9. National CHIS M&E Framework
10. Draft CHIS Functionality Baseline Assessment Report
11. Draft RSS Functionality Baseline Assessment Report
12. Civil Registration Department Strategic Plan (including an M&E framework)

YEAR 2, QUARTER 1

1. Subcontract with Moi University
2. Kenyatta University Faculty Workshop on Institutional Capacity Building
3. *Malaria Surveillance Bulletin:* Issue 6, September 2013
4. Malaria Surveillance Curriculum Package

YEAR 2, QUARTER 2

1. Malaria Control Unit M&E Capacity Building Action Plan
2. Civil Registration Department's Data Use Plan
3. DSRU M&E Capacity Building Investment Plan
4. Draft Kenyatta University School of Public Health Institutional Capacity Building Plan
5. *Malaria Surveillance Bulletin:* Issue 7, December 2013

YEAR 2, QUARTER 3

1. Division of Family Health/Reproductive and Maternal Health Services Unit: 2011 Status and Performance Report
2. Baseline Capacity Assessment Report on M&E Function in the Division of Community Health Services
3. Division of Disease Surveillance and Response Report on the Baseline Assessment of Capacity for Monitoring and Evaluation
4. M&E Fundamentals Training: A Report of the Training Workshop for County-Level Ministry of Health and Civil Registration Staff (February–March 2014)
5. MEval–PIMA Project/MEASURE Evaluation Phase III Kenya Associate Award Data Demand and Use Strategy
6. MEval–PIMA Data Use Tracking Tool
7. *Malaria Surveillance Bulletin:* Issue 8, March 2014

YEAR 2, QUARTER 4

1. National M&E TWG meetings on M&E, Family Planning, and Maternal Health
2. Capacity Building for Improved County Family Planning Programs in Kenya: A Report on a National Collaborative Training Program to Support County Health Management Teams for Improved Data Management and Reporting
3. WHO Multi-Country Maternal and Newborn Health Survey Report
4. Kenya RMNCH Scorecard Development Report
5. DSRU Staff Induction Manual
6. DSRU Systems Gap Analysis Report
7. M&E TWGs within 15 Target Counties
8. 31 CU Profiles
9. Eight CU Functionality Improvement Plans

10. Structured Learning Visits Report on Best Practices in CHIS
11. Kenya Health Sector Referral Strategy
12. Kenya Health Sector Referral Implementation Guidelines
13. Training of local agents in Garissa County
14. Training of local agents in Nairobi County
15. One national and 15 subnational CRVS stakeholder groups
16. Proposal for Adoption of Self-Interactive ICD-10 Training
17. Kenya Annual Vital Statistics Report 2013
18. Road map for verbal autopsy implementation
19. Report: County Civil Registration and Vital Statistics Stakeholder Forums–Strengthening Civil Registration Systems at the County Level
20. Moi University Institutional Capacity Building Plan
21. Moi University School of Public Health Master of Public Health M&E Curriculum
22. *Malaria Surveillance Bulletin:* Issue 9, June 2014

YEAR 3, QUARTER 1

1. The 2nd Kenya National Malaria Forum Abstract Report
2. Implementation Plan for MEval–PIMA support of Reproductive Health/Family Planning Capacity Building for Data Reviews
3. Civil Registration Services Annual Vital Statistics Report 2013
4. Nakuru Support Supervision Tool Pilot Activity Report
5. Nakuru Civil Registration and Vital Statistics TWG Meeting, February 2014
6. Strategic Plans for Garissa, Taita Taveta, and Nyeri Counties
7. CRVSS Offline Batch Mode Scope of Work
8. Strengthening Civil Registration and Vital Statistics Monitoring and Evaluation Systems
9. *Malaria Surveillance Bulletin:* Issue 10, September 2014

YEAR 3, QUARTER 2

1. *Malaria Surveillance Bulletin:* Issue 11, December 2014
2. Kenya National Malaria Indicator Survey Protocol, 2015
3. Gender and Malaria in Kenya: January 2015 Final Report
4. RMHSU Annual Report 2012/2014
5. Data Management Analysis using Stata: A Report of a Training Workshop for Staff of the CRS, Kenya, 2014
6. Civil Registration Services: A Guide for Support Supervision
7. Ministry of Interior and Coordination of National Government Civil Registration Services M&E plan 2013–2017
8. Civil Registration Services Training Manual Data Management and Analysis Using STATA—October 2014
9. Civil Registration Services Training Curriculum Data Management and Analysis Using STATA—October 2014
10. DDU Plan and Data Review Report Template

YEAR 3, QUARTER 3

1. The Kenya National Health and Leadership Congress 2015 Report: Transforming Healthcare in a Devolved System'
2. The 2nd Kenya National Malaria Forum Report
3. Baseline Assessment of Monitoring and Evaluation Capacities in 17 Counties in Kenya, April 17, 2015
4. Revised M&E Fundamentals Training DDU Module
5. DCS CPIMS Upgrading Stakeholders' Workshop Report
6. DCS CPIMS Data Flow and Reporting Structure Workshop Report
7. DCS CPIMS Review, May 2015

YEAR 3, QUARTER 4

1. Building Capacity in Malaria Monitoring and Evaluation, Report on the Malaria Surveillance Training in Endemic Counties, Kenya (Phase I)
2. Scope of Work: Implementation of the Kenya Impact Evaluation, 2015
3. Kenya Malaria M&E Plan 2009–2018, Revised
4. Annual Malaria Report July 2013–June 2014
5. Kisumu County *Malaria Surveillance Bulletin:* Issue 1, June 2015
6. Kisumu County *Malaria Surveillance Bulletin:* Issue 2, September 2015
7. EmONC/MCH Facility Assessment Tools and Reports
8. RMNCH County Scorecards
9. Maternal and Perinatal Death Surveillance and Response: Revised National Operational Guidelines, 2015
10. Health Facility Readiness to Provide Emergency Obstetric and Newborn Care in Kenya: Results of an assessment of 13 Kenyan counties with high maternal mortality, Kenya 2014
11. Abstract: Empowering County-Level Health Managers with Family Planning Data Management for Decision Making in Kenya's New Devolved Healthcare System: International Conference on Family Planning, Indonesia
12. Abstract: Using Cell Phones and Tablets to Implement the Maternal, Perinatal Deaths Surveillance and Response Audit: Global Maternal Newborn Health Conference, Mexico, 2015
13. Kenya RMNCH Scorecard Training
14. Poster: EmONC County Profile Kitui County
15. Poster: EmONC County Profile Meru County
16. Poster: EmONC County Profile Kisumu and Migori County
17. Poster: EmONC County Profile Busia County
18. Poster: EmONC County Profile Baringo County
19. Poster: EmONC County Profile Mombasa County
20. Poster: EmONC County Profile Tharaka and Nithi County
21. RMNCH Scorecard Success Story: Tracking maternal and newborn health interventions in Kenya
22. MEASURE Evaluation PIMA Activity Update Issue 3, September 2015—World Contraception Day 2015
23. Kenya Vital Statistics Report, 2014
24. DCS CPIMS Upgrade Phase II Stakeholder Mapping, Analysis and Engagement Plan
25. The Electronic Civil Registration and Vital Statistics System Assessment Report

26. CRVSS Training Manual
27. ICD-10 Training in Select Counties in Kenya: A report of ICD-10 health workers training supported by MEASURE Evaluation PIMA
28. CRS Training Manual: Training in Data Management, Interpretation and Use for Civil Registration Officers
29. Training on Excel Data Management, Data Interpretation and Use: Training Report
30. Kenya Data Exchange Technical Assistance Findings and Recommendations Final Report

YEAR 4, QUARTER 1

1. Report: Evaluating the Impact of the Scale-up of Malaria Interventions in Kenya, 2003–2014 Evaluation Protocol, 2015
2. County M&E Stakeholders' Inventories for 17 Counties
3. DCS Sustainability Plan for the CPIMS
4. OLMIS Transition Plan

YEAR 4, QUARTER 2

1. News Paper Article: Are Health Facilities Ready to Provide Emergency Obstetric and Newborn Care?
2. Nyeri County Department of Health Monitoring and Evaluation Plan
3. Machakos County Department of Health Monitoring and Evaluation Plan
4. DCS ICT Capacity and Infrastructure Assessment Report
5. DCS CPIMS County Rollout Guide 2016
6. DCS CPIMS ICT Inventory for Nakuru, Siaya, and Nairobi Counties
7. OLMIS New Staff List
8. Best Practices in Strengthening Community Health Information Systems
9. Referral Network Analysis for Improved HIV Care in Homa Bay County, Kenya Final Report
10. MEASURE Evaluation PIMA Monitoring and Evaluation Plan—Revised March 2016

YEAR 4, QUARTER 3

1. Kenya Malaria Indicator Survey 2015 Report
2. RMHSU County Family Planning Activity reports
3. MEASURE Evaluation PIMA Newsletter June 2016
4. Health Facility EmONC/Maternal Newborn Child Health Assessment Tool 2016
5. MPDSR Maternal Death Notification Form
6. MPDSR Maternal Death Review Form
7. MPDSR Perinatal Death Notification Form
8. MPDSR Perinatal Death Review Form
9. MPDSR Verbal Autopsy
10. Migori County Maternal and Newborn Health Scorecard
11. Kisumu County Maternal and Newborn Health Scorecard

12. Kakamega County Department of Health Monitoring and Evaluation Plan
13. County Government of Kakamega Department of Health Profile
14. Machakos County Health Sector Profile
15. Migori County Health Sector Profile
16. Nakuru County Health Sector Profile
17. Kisumu County *Malaria Bulletin*
18. Report: Approach to Support Data Review Forums for Ministry of Health and Civil Registration Services programs
19. Data Demand and Use Learning Exercise Key Informant Interview Guide
20. DDU Action Plan Tool
21. DDU Learning Exercise Desk Review Tool
22. DDU Activity Checklist
23. DCS Report on the Baseline Assessment of Capacity to Undertake Monitoring and Evaluation Functions
24. OLMIS Partner Support Report Log
25. Kenya Health Referral Systems: National Orientation Package for Health Providers

YEAR 4, QUARTER 4

1. Building Capacity in Malaria Surveillance: Report on Health Workers' Training on Surveillance in Vihiga and Siaya Counties
2. *Malaria Surveillance Bulletin:* Issue 14, September 2015
3. *Malaria Surveillance Bulletin:* Issue 15, December 2016
4. *Malaria Surveillance Bulletin:* Issue 16, March 2016
5. *Malaria Surveillance Bulletin:* Issue 17, June 2016
6. Bungoma County *Malaria Bulletin:* Issue 1, September 2016
7. Vihiga County *Malaria Bulletin* Issue 1, September 2016
8. Department of Health Services Siaya Monitoring and Evaluation Plan
9. County Government of Migori Department of Health Services Monitoring and Evaluation Plan
10. Department of Health and Promotion of Health Investments Kisumu County Monitoring and Evaluation Plan
11. Stakeholder Forum to Streamline DDU into M&E Activities
12. Data Analysis, Presentation, and Interpretation Job Aid for Kenyan Health Workers
13. CPIMS End User Manual
14. Ministry of East African Community, Labour, and Social Protection State Department for Social Protection DCS 2016–2017 Annual Work Plan
15. CPIMS Phase Implementation Site Visit Report
16. CPIMS A report of Training of End-Users in the Pilot Counties of Nairobi, Nakuru, and Siaya
17. CPIMS Monthly Activity Summary
18. DCS Child Protection Annual Report (2013–2015)
19. DCS ICT Inventory Report for Seven Counties (Migori, Homa Bay, Kisumu, Kakamega, Machakos, Murang'a, and Kilifi)
20. MOH Kenya Standards and Guidelines for Mobile Health Systems
21. Homa Bay County HIV Services Directory
22. HIV Referrals and Linkage into Care: 1 Day Orientation Curriculum for Health Workers: Facilitators Guide

23. HIV Referrals and Linkage into Care: 1 Day Orientation Curriculum for Health Workers: Participant's Manual
24. HIV Referrals and Linkage into Care Training of County Resource Persons Report
25. Homa Bay County HIV Services Directory
26. Kakamega County HIV Services Directory
27. Kilifi County HIV Services Directory
28. Kisumu County HIV Services Directory
29. Migori County HIV Services Directory
30. Murang'a County HIV Referral Directory of Services for Antiretroviral Therapy (ART) and Prevention of Mother to Child Transmission (PMTCT) Sites
31. Nakuru County HIV Services Directory
32. Siaya County HIV Services Directory
33. Assistant Chiefs' Guide to Civil Registration Services Job Aid
34. Poster: Registration of Births by a Health Worker in a Health Facility
35. Poster: Registration of Deaths by a Health Worker in a Health Facility

YEAR 5, QUARTER 1

1. EmONC County and Sub County Profiles Poster: Health Facilities' Readiness to Provide EmONC Services
2. OLMIS Training Manual
3. OLMIS User Guide
4. Status of CHIS in Select Counties Shared in Stakeholder Forums: A Report of CHIS Rapid Assessment HIV Referrals and Linkage into Care Training of County Resource Persons Report

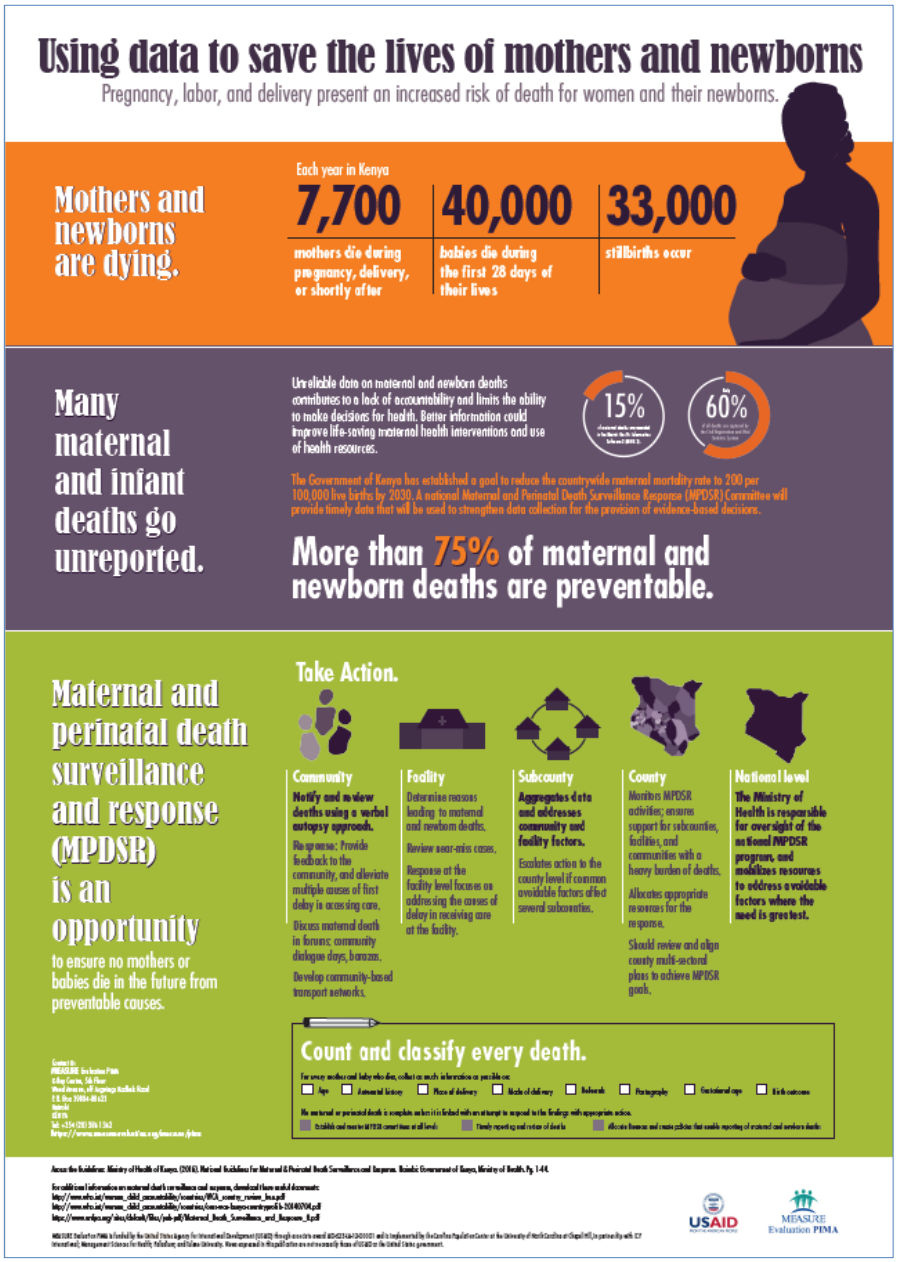
YEAR 5, QUARTER 2

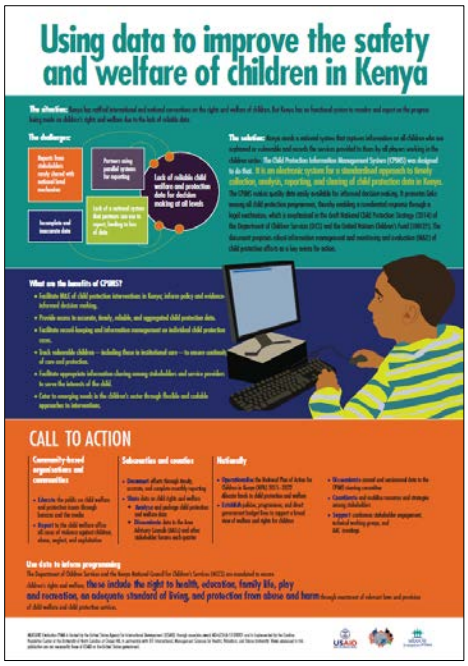
1. Malaria Surveillance: Report on Continuous Medical Education of Health Workers
2. Final PMI Impact Evaluation Report
3. Poster: Partnerships and Strategic Information for Improved Basic Emergency Obstetric and Newborn Care in 16 Counties with High Maternal Mortality in Kenya
4. DCS ICT Capacity and Infrastructure Assessment Report
5. OLMIS Rapid Assessment Partner Performance Analysis Report
6. OVC Data Quality Assurance Checklist
7. Kenya Vital Statistics Report, 2015
8. CRVS County Stakeholders' Forum Report, 2016

YEAR 5, QUARTER 3

1. *Malaria Surveillance Bulletin:* Issue 18, September 2016
2. *Malaria Surveillance Bulletin:* Issue 19, December 2016
3. MPDSR Implementation Report
4. EmONC Evaluation Report
5. Setting New Goals for Family Planning in Kenya: Building on Decades of Progress in Contraceptive Use (Report)
6. Migori County Reproductive, Maternal, and Newborn Health Scorecard, January–March 2017
7. Reproductive and Maternal Health Services Unit Monitoring and Evaluation Capacity: End Line Assessment Report
8. Akala Hospital Dashboard
9. OLMIS Implementation Process Report, April 2017
10. Updated OLMIS Programming and Software
11. SOP/Checklist for Data Quality Assurance and Performance Review of OVC Services
12. OLMIS Support Log Status Report
13. OLMIS System Assessment Report
14. Updated OLMIS Software
15. Updated OLMIS System Documentation
16. Performance of HIV Referrals and Linkage into Care in 10 RSS Target Counties, February 2017
    Summary of Facility-Based HIV Referral and Linkage Continuous Medical Education Sessions
17. Referral System Strengthening Performance Monitoring Plan Data Interpretation
18. ICD-10 Training of Health Workers in Select Counties in Kenya
19. Training of Assistant Chiefs in Civil Registration—Kakamega County
20. Training of Assistant Chiefs in Civil Registration—Kisumu County
21. Malaria Data Review Report
22. County Health Profiles in Nine Target Counties
    a. Homa Bay: Strengthening the Health Information System for Evidence-Informed Decision Making
    b. Kakamega: Strengthening the Health Information System for Evidence-Informed Decision Making
    c. Kilifi: Strengthening the Health Information System for Evidence-Informed Decision Making
    d. Kisumu: Strengthening the Health Information System for Evidence-Informed Decision Making
    e. Machakos: Strengthening the Health Information System for Evidence-Informed Decision Making
    f. Migori: Strengthening the Health Information System for Evidence-Informed Decision Making
    g. Murang'a: Strengthening the Health Information System for Evidence-Informed Decision Making
    h. Nakuru: Strengthening the Health Information System for Evidence-Informed Decision Making
    i. Siaya: Strengthening the Health Information System for Evidence-Informed Decision Making
23. Report on Kisumu County Health Sector Strategic Plan Review
24. HIV Client Referral SOPs
25. Documentation of Lessons Learned
26. County Capacity Building Technical Guides
27. National Malaria Control Programme Monitoring and Evaluation Capacity: End Line Assessment Report
28. Surveillance Data Review Meetings in Malaria-Endemic Counties in Kenya (Report)
29. CPIMS Version 2
30. CPIMS Installation Package and Source Code
31. CPIMS Sustainability Plan
32. CPIMS Training Materials
33. At the Click of a Button: Information System Strengthening in Kenya
34. A Notch Above: Streamlining Capacity Building for M&E in Kenya
35. Baked into Our Work: Approaches for Sustainable Capacity Building in Kenya'
36. Report of the Kenya Health Data Collaborative: Resource Mapping for Health Information and Monitoring and Evaluation Systems
37. MEASURE Evaluation PIMA: Final Project Report (2012–2017)

ANNEX 2. SELECTED INFOGRAPHICS





ANNEX 3. RESEARCH FINDINGS FROM A SPECIAL STUDY

ORGANIZATIONAL NETWORK ANALYSIS OF REFERRALS AMONG HIV SERVICES IN HOMA BAY COUNTY

Homa Bay County on Lake Victoria has the highest HIV prevalence in Kenya, more than 25 percent of the population living with the virus. Despite the substantial benefits of antiretroviral therapy (ART) in reducing mortality and onward HIV transmission and disease burden, 44 percent of 54,000 HIV-positive adults and 83 percent of 17,000 HIV-positive children in the county need but do not receive ART.[6] This figure is significantly below the national average of 81 percent of HIV-positive adults receiving ART and 38 percent for children.

The sheer numbers of people who need ART is an obvious reason for this deficit in treating HIV, but other significant contributors are weak HIV testing and linkage to care and treatment. Improving access to treatment is an important part of getting to the global goal to reach 90-90-90 targets by 2020. The need is for HIV-positive people in Homa Bay to be linked—through referrals—to treatment and social support services. However, this is complicated because people living with HIV have many clinical, nutritional, and social needs, all of which can seldom be met by a single provider.

Providers typically focus on their own services and not the comprehensive needs of the clients. This is often reflected in a lack of coordination among care providers. But in fact, patient care is better when providers are networked and aware of appropriate services at other facilities and refer patients to them.

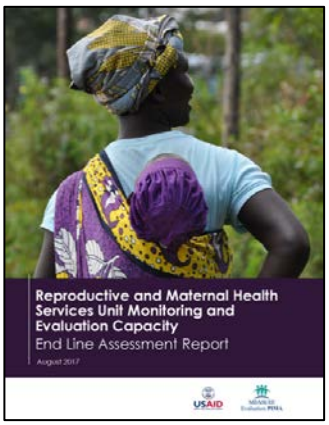
One way to measure and, it is hoped, increase collaboration among providers is organizational network analysis, a research method useful in examining complex issues. MEASURE Evaluation PIMA used the method in Homa Bay and identified 56 organizations providing some aspect of HIV care, investigating if they worked together to cover the comprehensive needs of those they serve.

We paid special attention to whether providers referred clients tested for HIV to organizations that offer ART and found that referral connections were rare. Thirteen organizations made no referrals at all and five facilities tested people for HIV but didn't refer them to places that provide treatment. When the 56 organizations were told of these results, they wanted to create better connections and to form a collaborative network to provide a full range of HIV services. The organizational network analysis clearly showed that Homa Bay had an opportunity to improve HIV care simply by making better use of the services already available. No new services were needed.

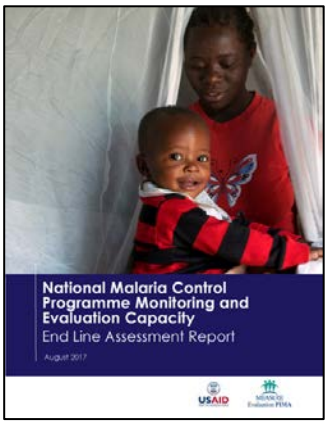
Post-research, MEASURE Evaluation also offered suggestions for improving linkages to care. At the highest level, policy interventions could be needed—for example, those laid out in the country's RSS strategy, the RSS guidelines, and additional funding for public facilities. Other solutions may be low-cost and network-oriented: such as creating service directories distributed to all facilities and organizations, developing good rapport among facilities, and better procedures for tracking clients to ensure they get the care they need.

[6] Kenyan National AIDS Control Council. (2012). HIV and AIDS profile – Homa Bay County. Nairobi, Kenya: NACC.

ANNEX 4. SELECTED PUBLICATIONS

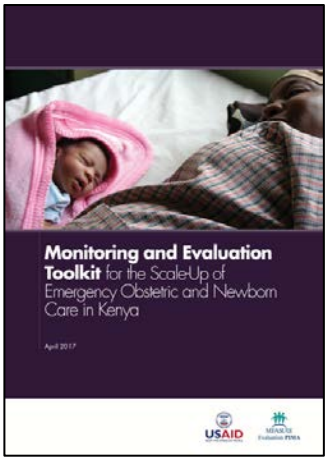


Reproductive and Maternal Health Services Unit Monitoring and Evaluation Capacity: End Line Assessment Report

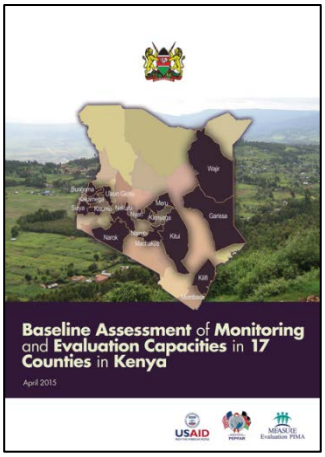


National Malaria Control Programme Monitoring and Evaluation Capacity: End Line Assessment Report

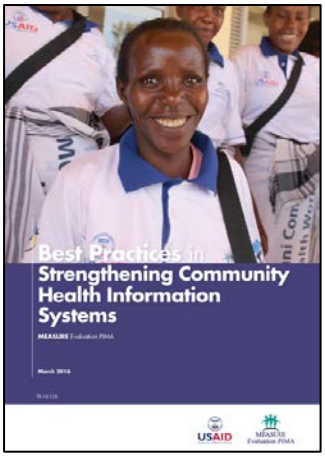
Availability and Quality of Emergency Obstetrical and Newborn Care Services in Kenya



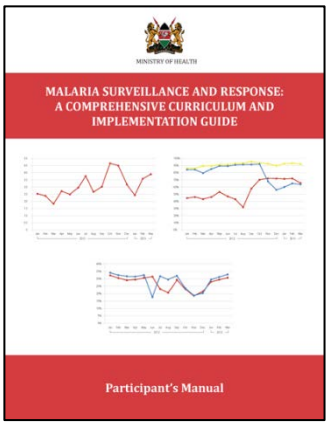
Monitoring and Evaluation Toolkit for the Scale-Up of Emergency Obstetric and Newborn Care (EmONC) in Kenya



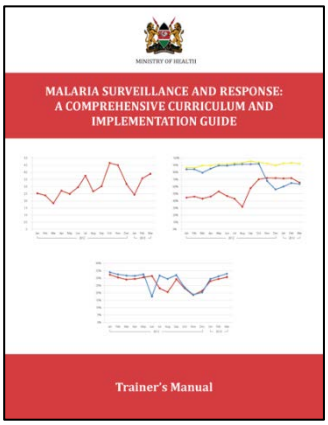
Baseline Assessment of Monitoring and Evaluation Capacities in 17 Counties in Kenya



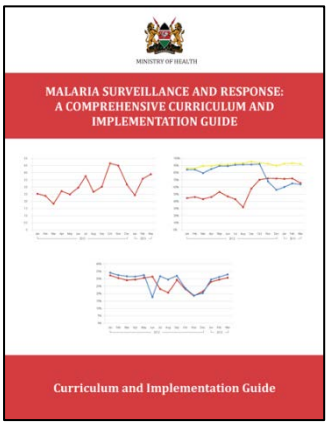
Best Practices in Strengthening Community Health Information Systems



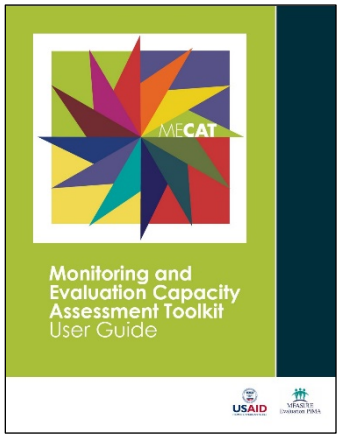
Malaria Surveillance Participant's Guide/Manual



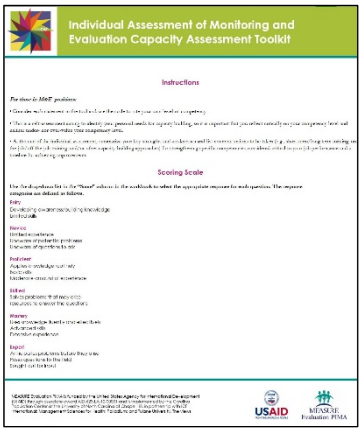
Malaria Surveillance Trainer's Guide/Manual



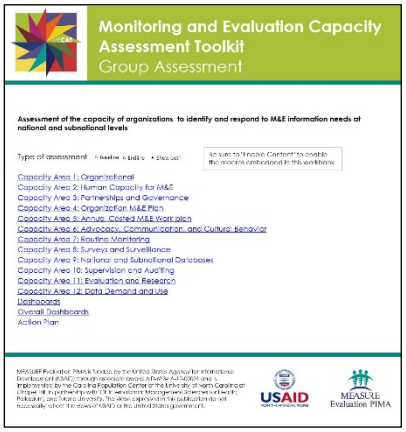
Malaria Surveillance Curriculum and Implementation Guide



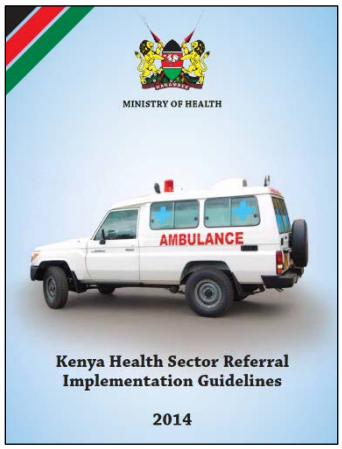
Monitoring and Evaluation Capacity Assessment Toolkit User Guide (MECAT)



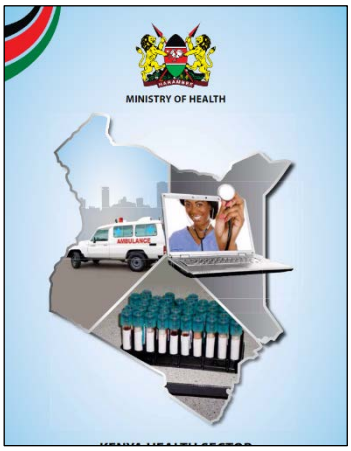
MECAT: Individual Assessment



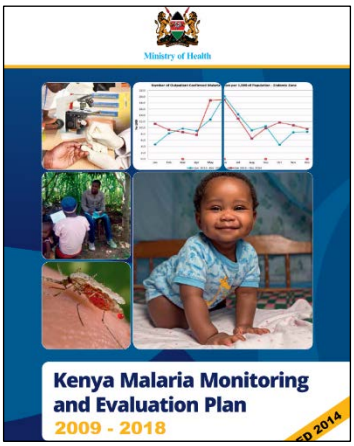
MECAT: Group Assessment



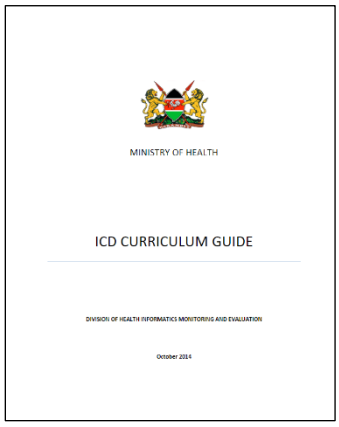
Kenya Health Sector Referrals Implementation Guidelines



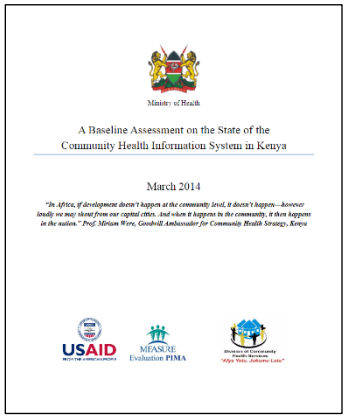
Kenya Health Sector Referrals Strategy



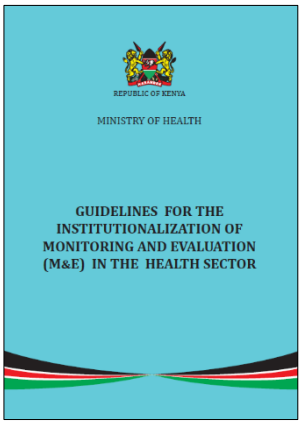
Kenya Malaria M&E Plan



ICD Curriculum Guide



A Baseline Assessment on the State of the Community Health Information System in Kenya



Guidelines for the Institutionalization of Monitoring and Evaluation (M&E) in the Health Sector

[At the Click of a Button: Information System Strengthening in Kenya]

[Baked into Our Work: Approaches for Sustainable Capacity Building in Kenya]

[A Notch Above: Streamlining Capacity Building for M&E in Kenya]

Malaria Surveillance Curriculum Package

- Malaria Surveillance Curriculum and Implementation Guide
- Malaria Surveillance Trainer's Guide/Manual
- Malaria Surveillance Participant's Guide/Manual
- Kenya Malaria M&E Plan

MECAT Toolkit

- User Guide
- Individual Assessment Tool
- Group Assessment Tool

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