WORKING PAPER

Strengthening Data Demand and Use in Three African Countries

Lessons Learned from the Associate Awards in Kenya, South Africa, and Tanzania

September 2018

USAID
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MEASURE Evaluation

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ABBREVIATIONS

AA	associate award
DDU	data demand and use
HIS	health information system
M&E	monitoring and evaluation
MEval-PIMA	MEASURE Evaluation-PIMA
PEPFAR	United States President's Emergency Plan for AIDS Relief
WHO	World Health Organization

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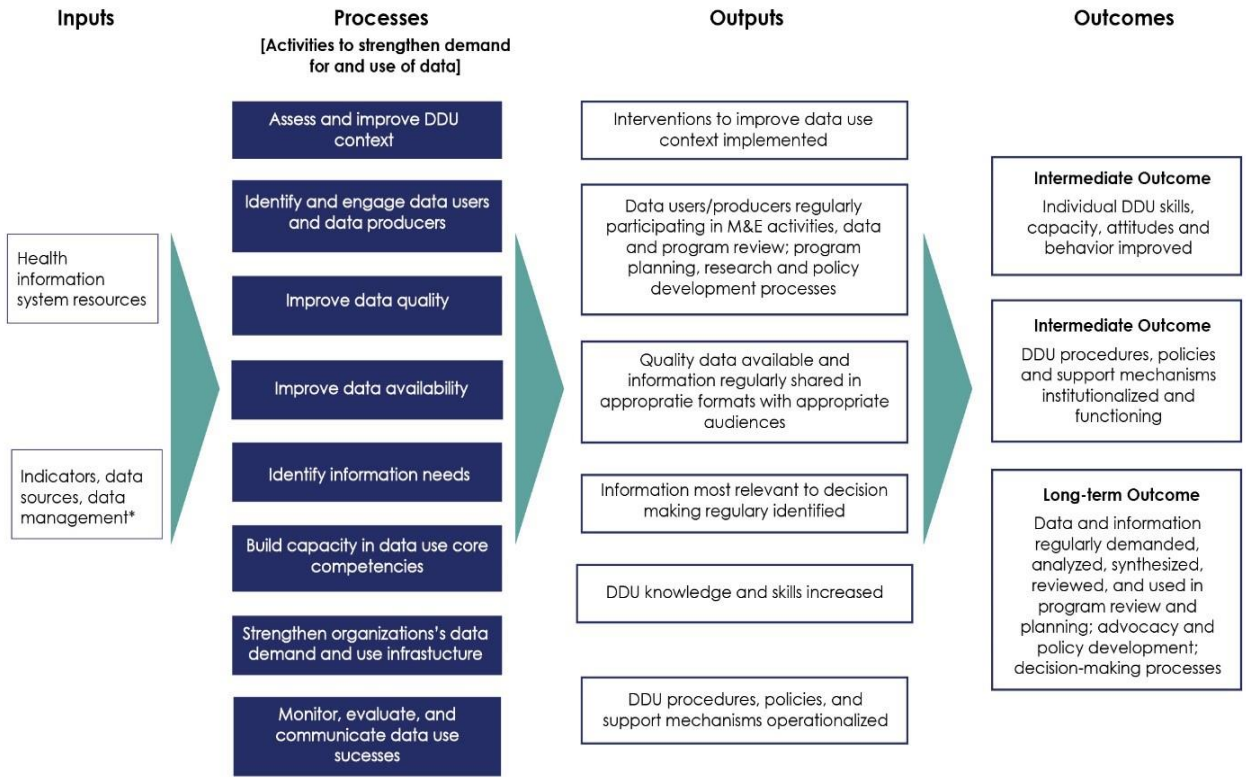
BACKGROUND AND PURPOSE

Health information is one of the six core functions of a strong health system. It informs decision making in other crucial aspects of health system strengthening, including health workforce, health service, and health financing (World Health Organization [WHO], 2007). Significant human and financial resources have been invested globally and nationally in strengthening health information systems (HIS) for the collection of high-quality routine health information to be used at all levels of the health system for decision making for service delivery, ensuring the appropriate supply of medical equipment and drugs, improving health programs, and promoting health equity (WHO, 2010; Hotchkiss, Diana & Forfeit, 2012). MEASURE Evaluation's HIS Strengthening Model identifies high-quality data and the continuous and institutionalized use of information for decision making as the main outputs of a strong HIS (MEASURE Evaluation, 2017). The use of data in a data-informed decision-making process involves acting on data that have been analyzed, synthesized, interpreted, and communicated to the appropriate stakeholders (Foreit, Moreland & LaFond, 2006). The long-term outcomes of the strengthened use of data are improvements in the HIS (e.g., improving data quality to generate usable data) and improvements in health outcomes.

The improved quality, availability, and relevance of data from an HIS do not necessarily lead to an increased use of data in decision making. Often, stakeholders do not effectively use data to inform policy and programmatic decision making, and health systems fail to fully link evidence to decisions that could ultimately improve health outcomes (Hotchkiss, Diana & Foreit, 2012; Harrison & Nutley, 2010). The sustained and institutionalized use of data depends on a wide range of sector-wide HIS strengthening activities that involve many actors in the health system.

To address the challenges with measuring data use, MEASURE Evaluation developed a conceptual framework (Figure 1) to describe the inputs, outcomes, and impact of applying a specific set of activities that address the most proximate technical, organizational, and behavioral barriers to using data (Nutley & Reynolds, 2013). For example, improving data availability has been identified as an important activity area to improve data demand and use (DDU) because decision makers are more likely to use data if they can easily access summarized information most relevant to decision making that is presented in formats that are easily understood. The framework assumes that efforts to improve the use of data will only be successful if implemented as part of larger long-term HIS strengthening activities (e.g., strengthening data infrastructure, building effective data management systems). Eight priority domains or "activity areas" have been identified as the most influential to improve data-informed decision making.

Figure 1. Logic model for strengthening an organization's use of health data in decision making



*Defined as processes by the Health Metrics Network

†The data demand and use approach broadly defines an organization as a division of the ministry of health at the national, state, or district levels; a specific program within the ministry; or a nongovernmental organization or program.

Source: Nutley & Reynolds, 2013

The conceptual framework in Figure 1 has been used to guide the design of interventions to improve data-informed decision making. The interventions were implemented as part of larger HIS strengthening projects in Kenya, South Africa, and Tanzania under MEASURE Evaluation's associate awards. These projects aim to improve the use of data for policy, advocacy, and monitoring of health and social service programs and to strengthen monitoring and evaluation (M&E) systems at national and subnational levels. The projects implemented interventions across the eight domains to strengthen the quality, demand for, and use of routine health information for decision making. The DDU interventions across the three countries were tailored to address different program areas, target audiences, and country objectives.

To understand each associate award's progress to improve data use, MEASURE Evaluation explored facilitators and barriers contributing to the effectiveness of DDU interventions implemented at the subnational level in Kenya, South Africa, and Tanzania. The project established the following objectives:

(1) To describe the results of DDU intervention activities.

(2) To understand the factors that contribute to successful data use in country health information systems.

This report provides an overview of the learning exercise approach and key findings across the three countries. For more detail about the findings for specific DDU activities implemented in each country, please see the reports for Kenya, South Africa, and Tanzania, which are available here: https://www.measureevaluation.org/our-work/data-demand-and-use/associate-awards/.

LEARNING EXERCISE APPROACH

Methods

A summary of the methods used for the learning exercise follows. Additional details are provided in the report on each country. In each country, the subnational regions with the greatest number (intensity) and variety (breadth) of DDU intervention areas were selected. The following sites in each country were selected:

- Kenya: Machakos County
- South Africa: Gauteng Province
- Tanzania: Dodoma and Dar es Salaam regions

Key informant and small group interviews were conducted from April to August 2017 with subnational-level stakeholders in Kenya, South Africa, and Tanzania. We conducted 37 interviews in total: 17 in Kenya (26 respondents), 12 in South Africa (34 respondents), and eight in Tanzania (18 respondents). The informants were purposively selected based on their experience and exposure to MEASURE Evaluation DDU interventions. Both data users (those who use data to develop and improve programs and policies) and data producers (those who design and manage information systems) were selected. Each key informant interview was conducted in English. All interviewees provided verbal informed consent, and interviews were audio recorded using digital recorders. The researcher used a semi-structured interview guide (illustrative example in Appendix A) designed to explore stakeholder views on how the DDU interventions were implemented, to discover the expected and unexpected changes seen because of the interventions, and to capture the contextual factors that may have shaped the uptake and impact of the interventions.

Audio recordings of the interviews were transcribed and analyzed using NVivo 11. An index code book with a priori themes was created prior to data collection. Two independent coders initially coded two to three transcripts to test the reliability of the coding scheme, and identified additional emergent codes and changes to the coding structure. Each subsequent interview was coded by one researcher, and a second researcher reviewed the codes. Both researchers analyzed the data, discussing and agreeing on the most salient themes, facilitators, and barriers.

The design for this study was reviewed by the University of North Carolina Ethics Review Board and the National Institute for Medical Research in Tanzania, which determined that it was exempt from full ethical review.

Program Comparison

Table 1 provides an overview of the implementation areas for the three associate awards.

Table 1. Overview of the MEASURE Evaluation associate awards

Country award period and budget	Objective	Main areas of focus
• Kenya • MEASURE Evaluation PIMA (MEval-PIMA) • October 2012-October 2017 • $35 million	Strengthen capacity of health officials in M&E of health programs and evidence-based decision making at the Ministry of Health's Divisions of Malaria Control, Reproductive Health, Community Health Strategy, Disease Surveillance and Response, Integrated Disease Surveillance and Strategy, and also of county health management teams	M&E: Monitoring and Evaluation Capacity Assessment Tool, needs prioritization, action planning, and targeted technical assistance to develop or revise institutional strategies, build leadership and management, and develop tools and mentoring
• South Africa • MEASURE Evaluation Strategic Information Capacity in South Africa (MEval-SIFSA) • July 2013 – June 2018 • $17.7 million	Enhance the capacity of government officials and implementing partners funded by the United States President's Emergency Plan for AIDS Relief (PEPFAR) to identify data needs, collect and analyze good quality data, and use information for health decision making	• State of the art approaches to M&E, HIS, and data use • Monitoring and evaluation, data analytics plans and data dashboards for the DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe) initiative • Data quality, data analytics, health management information system architecture, mHealth and eHealth, M&E for Mom Connect[1]
• Tanzania • MEASURE Evaluation-Tanzania Associate Award (MEval-TZ) • February 2014–September 2018 • $18.8 million	Improve systems that monitor and evaluate health and social service programs and local capacity to sustain and use the systems for most vulnerable children, malaria, and PEPFAR	Enhanced evidence base: evaluation, monitoring and research; data use to develop policies and guidelines.

[1] MomConnect is an mHealth project in South Africa that delivers targeted health information based on pregnancy stage to pregnant and postpartum women.

Each associate award implemented aspects of the activity areas described in MEASURE Evaluation's DDU logic model (Figure 1). An initial DDU assessment was conducted by each associate award to understand the data use context and facilitate the adaptation of the intervention approach for each country. Table 2 describes the DDU interventions implemented in the selected subnational unit in each country. The number of dots (1 to 3) represents whether the intervention area was a priority for the project's DDU intervention approach (3=high priority and 1= low priority). We may have underrepresented the extent of DDU interventions across the three countries because we do not cover data use interventions implemented at the national level or in other subnational units in each country.

Table 2. DDU intervention approach by MEASURE Evaluation associate awards at the subnational level

	Kenya	Tanzania	South Africa	Description
Assess and improve the data use context	●●	●●●	●●●	In South Africa and Tanzania, assessments of the technical, organizational, and behavioral constraints to data use were conducted with subnational health management teams. In Kenya, an assessment of data use was embedded in a larger M&E capacity assessment, with a smaller number of assessment items for data use compared with other countries.
Identify and engage data users and data producers	●●●	●●●	●●●	In all countries, collaborative data review forums were instituted, engaging data users and data producers in joint data review and interpretation. In Kenya and Tanzania, data users and producers were already part of the existing health management teams, whereas in South Africa, activities were introduced to improve engagement.
Improve data quality		●●●	●	Data quality was not a component of the data use strategy or MEAUSRE Evaluation-PIMA's (MEval-PIMA) project focus in Kenya. In South Africa, a data quality review was conducted in Gauteng province but was not integrated in data use activities. In Tanzania, many efforts were implemented to build the capacity of implementing partners to conduct data quality assurance. This is the subject of a forthcoming report and not covered extensively here.
Improve data availability	●●●	●●	●	In all countries, information products were developed and institutionalized to improve access to and dissemination of summarized data. These included dashboards in DHIS 2 and Microsoft Excel, county health profiles, scorecards, and other products visualizing key performance indicators.

	Kenya	Tanzania	South Africa	Description
Identify information needs	●●	●		This was not an intervention area in South Africa because priority analyses had already been identified. Training was conducted on the *Framework for Linking Data to Action* in Tanzania, and the development of a data use plan in Kenya.
Build capacity in data use core competencies	●●●	●●●	●●●	All associate awards had a substantial focus on capacity building in data analysis, interpretation, and communication through training, technical assistance, and mentoring.
Strengthen the organization's DDU infrastructure	●●●	●	●	Kenya focused on improving strategic documents/plans to include data use and institutionalizing a practice of holding data review meetings. Tanzania and South Africa used a champions approach to build leadership among staff to mentor teams.

As shown in Table 2, each country adapted the DDU interventions and differed in their implementation of activities to strengthen DDU. The interventions were tailored based on specific country needs and context, the priority areas and scope of the project, and funding levels. Each country displayed commitment to the DDU framework by implementing comprehensive DDU interventions, with a large focus on activities to build capacity in core data use competencies, identify and engage data users and data producers, and improve data availability. Across the three associate awards, few activities were implemented in monitoring, evaluating, and communicating the results of DDU interventions. This learning exercise helps respond to this need.

Limitations

We note several limitations of this learning exercise. First, its retrospective nature lends itself to respondent recall bias. In particular, MEASURE Evaluation's DDU support had ended in some of the areas included in the exercise. In the absence of continuous engagement from MEASURE Evaluation, it may have been difficult for interviewees to remember specifics about data use interventions. Second, without regular contact with the health management teams, engaging the districts to participate in key informant interviews was difficult. We may have excluded key personnel who were not available for interviews. Third, in Tanzania, prior to the start of data collection, a large number of staff who did not meet the government's professional credentials requirements resigned due to enforcement of administrative regulations. This greatly decreased the sample size of respondents who had exposure to DDU interventions in that country.

LESSONS LEARNED AND CONSIDERATIONS

Our interviews with respondents yielded important lessons learned for the implementation of data use interventions at the subnational level. Several examples of lessons learned are presented here, with more detailed findings given in each country brief.

Data use interventions are most effective when tailored to specific contexts. All the associate award projects assessed the data use context at the start of their projects. Although each country administered a different assessment tool, the DDU assessment was used by each associate award to understand the technical, organizational, and behavioral barriers specific to each country context and to develop a suite of tailored interventions to address the priority barriers. This initial assessment approach, combined with the DDU framework, built on the existing strengths and opportunities in the health system and resulted in different interventions being emphasized across the countries: for example, a highly tailored capacity building intervention in South Africa; a linkage of training on data use standards with budgeting comprehensive council health plans in Tanzania; and opportunities to develop data-informed, county-specific strategic plans owing to the newly decentralized context in Kenya. As an added benefit, the data use assessment provided an opportunity for teams to understand the value of DDU, identify activities that could be implemented to improve DDU, and become motivated about the need for data use interventions. However, the locally developed data-use improvement plans had limited long-term impact, owing to the lack of support from local leadership to continually monitor their implementation.

A comprehensive, integrated approach to data use is most effective. All associate awards implemented an integrated approach to strengthening data use. Data use interventions were more likely to be effective if they applied and integrated multiple intervention areas. All countries integrated activities to build capacity, engage data users and data producers, and improve data availability. For example, capacity building in data analysis, data mining, and interpretation facilitated the development of information products, which were used to facilitate data review and interpretation at performance review meetings. These mutually reinforcing interventions contributed to the conceptualization of data use as an ongoing driver of program improvement. This likely created a multiplier effect in comparison with the implementation of a single intervention.

Recognize that data use exists on a continuum. The data use activities implemented across the three countries recognized that data use exists on a continuum. Data use assessments and capacity building activities were first implemented to generate appreciation for data-informed decision making. Multiple respondents indicated changes in their motivation and attitudes about data use after attending training sessions. They then applied their new skills to data analysis and visualization, and provided feedback and shared data with their teams. With further support from MEASURE Evaluation, some people committed to further improving data use and advocated with leaders to continue to support data use interventions. The projects also recognized the need to use data to address and improve data quality prior to using the data for program improvement. In Tanzania and South Africa, dedicated time was set aside to ensure that data quality and data management issues were identified and addressed before reviewing the data to understand program performance.

The level of maturity of the HIS impacts data use. Of the three counties, Kenya had the longest deployment of the DHIS 2 (national rollout in 2011), compared with Tanzania (national rollout in 2013), and South Africa (which was still using the non-web-based DHIS version 1.4) Although not a specific research question for this learning exercise, respondents in Kenya could more readily identify concrete instances of data use following data review meetings, indicating the productiveness and quality of data review, interpretation, and action during these forums. In South Africa, pre-performance review meetings

were needed to fully discuss data quality issues before the formal data review meetings on program performance and monitoring. In Tanzania, an information committee met monthly to address and correct data quality issues prior to performance review meetings. We posit that more experience with HIS implementation impacts data quality, the ability of data users to engage with data regularly, and data availability.

Interventions targeting organizational and individual barriers to data use are needed. Many of the data use interventions implemented across the associate awards focused on technical barriers related to capacity building in data use core competencies and on improving data availability. MEASURE Evaluation's data use intervention also recommends implementing activities to address organizational and behavioral barriers. Work is needed to develop innovative interventions focused on organizational and behavioral barriers and understand their impact on data use. In Kenya, the existence of a data-informed health sector strategic plan and an M&E plan were found to be important organizational supports that facilitated the implementation of subsequent DDU interventions. These documents were regularly referenced in the information products developed and at the data review meetings held, reinforcing the value of data-informed strategic documents. It is also important to understand what incentivizes people to use data. Behavioral interventions focused on driving leaders to influence a culture of data use in their organizations could have a sustained impact on modelling and shaping the behaviors of others on their teams.

Engagement of senior leadership is integral to fostering change. Sustained buy-in from leadership is needed to institutionalize DDU. At the subnational level, this includes the top leadership in the health sector (for example, the County Director of Health in Kenya or the District Medical Officer in Tanzania), and key decision makers outside the health sector who control overall priorities and budgets. These leaders can act as change agents by routinely demanding data, advocating for data use improvement activities, and shaping how their teams integrate data in their normal work routines. Senior leaders were engaged in data use activities across the associate awards through pre-planning communication and participation in various data use activities, such as training sessions and data review meetings. Buy-in from leadership was a critical factor for the success of performance review meetings in Kenya and the implementation of local data use improvement activities initiated by champions in South Africa and Tanzania.

Building the leadership and advocacy skills of staff can help promote sustainable data use. Respondents described the importance of advocating with leaders to support local data use improvement activities. Building the leadership and advocacy skills of staff can help raise awareness of the importance of data such that decision makers better understand the link between data use and effective decision making. Improving leadership for data use involves bringing together teams of health workers at each level of the health system to facilitate the practical application of leadership and management skills to identify and overcome barriers to data use. Advocacy skills involve the systematic prioritization of future needs, strategic identification of key actors to support the tackling of those needs, and developing targeted advocacy messages to lobby actors to support the priority needs. Effective leadership and management practices can foster norms to improve attitudes about data and enable personnel to lead data use interventions.

Facilitate the direct application of new data use skills. Capacity building interventions in all three countries focused on the transfer of practical skills related to the day-to-day needs of decision makers. Ensuring that learning exercises and group activities were relevant and included practical real-life examples of data analysis, visualization, and communication motivated trainees to directly apply new data use concepts in their regular work settings. For example, learning exercises on the development of information products during the Communicating Data for Decision Making training in South Africa led

to the production of a reporting template that is now routinely used in district performance review meetings in Sedibeng district. Structuring capacity building activities around institutionalized forums for data review and decision making can also be a means for the practical application of skills. For example, an emphasis on building capacity in data analysis and visualization in Tanzania facilitated the use of data to identify gaps, develop targets, and budget appropriate interventions in comprehensive council health plans.

Follow-up technical assistance and mentoring post-training are needed to support improved data use. All countries reported limited human resources and high staff attrition and turnover. This inhibited team capacity in DDU, impacting the ability to mentor and provide ongoing supportive supervision to staff newly trained in data use. Respondents noted that personnel trained in data use require support and follow-up as they practice and hone skills in their work context, and to shift attitudes about the value of data. There is also a need to plan for continued supervision and diffusion of skills to newly hired staff. A training of trainers or data use champions approach to mentoring staff may be well received, but these efforts require more structure and support to be fully effective. Their impact on incentivizing and training others in the health system on data use is unknown, and the cost-effectiveness of this approach is yet to be determined.

There is increasing demand for data use skills at the health facility level. There is a growing need to build the capacity of health facility staff in DDU, through training, mentoring, and participation in data review meetings. In Kenya, it was reported that these staff can help facilitate data interpretation and identification of priority actions because they are at the forefront of data collection, management, and quality challenges. In Tanzania, it was noted that there is increased demand for skills in data analysis, interpretation, and use at the facility level, because health facility planning and budgeting is being devolved to that level. Moreover, few respondents noted regular feedback and sharing of disaggregated data back to health facilities. Improving feedback on a facility's performance that is tied to actionable plans for improvement can further change attitudes about data use at the facility level.

Data review, interpretation, and action planning meetings are essential interventions. In all countries, meetings that were dedicated to reviewing and providing feedback on data quality, program performance, program achievements and gaps, and discussing appropriate actions for using data for decision making were regarded as effective activities to catalyze data use. These meetings improved data availability and served as a mechanism for improving the engagement of data users and data producers. Respondents in Kenya and South Africa indicated how increased communication during data reviews and pre-performance review meetings helped facilitate transparent data sharing and honest conversations about program performance and improvement, moving from a culture of "blame" to shared responsibility and ownership of data quality and M&E tasks. These meetings also provided a context to interpret the data and discuss solutions to address any programmatic issues that the data revealed. The regular review of data catalyzes future demand for data and can improve attitudes about data use.

Optimally time activities to improve data availability and review to drive demand for data. Timing DDU interventions to affect key decision-making opportunities facilitates further demand for data. For example, developing information products to be used during data review meetings in Kenya, and scheduling performance reviews prior to the development of annual council comprehensive health plans in Tanzania, helped ensure that the data were available and demanded at future decision-making moments. Holding data review meetings prior to annual work planning processes and budget submissions is also critical for both ensuring that these processes are data informed and that further support for data use promotion activities is adequately planned and budgeted for.

Build on existing organizational incentives for data use. Developing data use interventions that position teams to better meet their organizational incentives is a motivating factor for data use. For example, in South Africa, training curricula were accredited with the health professional associations and were used as documentation in a health worker's portfolio of evidence, which measures knowledge and competency for accreditation. In Tanzania, MEASURE Evaluation targeted capacity building and performance review efforts to directly prepare for the development of quality data-informed strategic plans and helped the teams receive high ratings on their council comprehensive health plans, which were further linked to budget allocations for health. This builds motivation and value for data use interventions and facilitates sustained data-informed approaches to planning and budgeting.

Support locally driven solutions to data use barriers. Across the three counties, motivated individuals developed and implemented their own solutions to self-identified data use barriers. Examples range from a district health records and information officer developing wall charts for health facilities in Kenya, the implementation of new processes to validate and check data quality in Tanzania, and the creation of a reporting template to simplify data aggregation and visualization in South Africa. Encouraging locally-driven ideas helps ensure that these solutions are responsive to local challenges and engenders buy-in for the activities from the target population from the outset of the intervention. Ownership and sustainability of these initiatives may also improve because personnel are more committed to advocating for the importance of their DDU activities with their leaders and team members.

There is a need to build mechanisms to ensure the sustainability of data use interventions. Many of the data use interventions implemented relied on project support. In Kenya and South Africa, respondents indicated that some data use activities, such the convening of data review meetings or the development of information products, did not continue or were less frequent after the projects ended. More work needs to be done at the outset to plan for the sustainability of data use practices, such as communicating and advocating for budgets dedicated to the financial, human, and infrastructural resources needed for the implementation of data use activities. It is crucial to further explore ways to promote data use activities, such as training and mentoring teams or the review of selected key monitoring indicators such that they are institutionalized as part of regular day-to-day work responsibilities.

CONCLUSION

MEASURE Evaluation developed a logic model that provides a comprehensive roadmap to design, monitor, and evaluate interventions to improve the demand for and use of data in decision making. This series of reports summarizes the outcomes and lessons learned from applying this comprehensive framework in Kenya, Tanzania, and South Africa. All associate awards implemented data use interventions and demonstrated progress toward developing a culture of data use. Understanding the outcomes of data use interventions illuminates best practices, remaining haps, and replicate successes.

Previous studies noted limited evidence evaluating the effects of data use interventions (Nutley & Reynolds, 2013; MEASURE Evaluation, 2018). This report contributes to the evidence base on comprehensive approaches for improving the use of data in decision making. This report also documents specific factors and conditions that are needed to improve data use, contributing to MEASURE Evaluation's Learning Agenda, which examines what works to strengthen HIS performance (MEASURE Evaluation, 2016).

The country-specific reports describe practical interventions and approaches that have been used to increase the demand for and use of data in decision making. Across the three associate awards, an initial assessment of the DDU context at the beginning of the projects informed the development of tailored DDU activities that emphasized intervention components of the DDU logic model. These interventions were designed to build on existing strengths and opportunities in the health and political systems and emphasize interventions that addressed the priority weaknesses, with buy-in from local champions and leaders. Although factors relating to the local context and project-specific needs influence the demand for and use of data, this learning exercise demonstrated commonalities in the facilitators of and barriers to implementing data use interventions across multiple settings. For example, these cases highlighted examples in which the high engagement of senior leaders, the promotion of local data use innovations, the existence of incentives for data use, and the implementation of integrated, mutually-reinforcing activities helped to facilitate evidence-informed decision making. In key informant interviews, respondents had overwhelmingly positive perceptions of the data use interventions and their benefits, describing changes in attitudes toward the ownership of data and improved motivation to ensure the use of data in decision making. Across the projects, efforts are needed to sustain the engagement and leadership necessary to institutionalize DDU activities across all levels of the health system.

These reports are meant to be shared with country national and subnational governments, programs, and donors designing and implementing DDU interventions, to sustain a culture of decision making that ensures the health system's responsiveness to health needs at all levels. The lessons learned from these approaches can be applied to other settings to increase the demand for and use of information.

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APPENDIX. ILLUSTRATIVE INTERVIEW GUIDE FROM KENYA

Introduction and Information Sheet

My name is [insert name]. I am here on behalf of MEASURE Evaluation. The MEASURE Evaluation PIMA project has worked in this county to strengthen the demand for and use of data. The purpose of this interview is to understand the changes in the county that has resulted due to these interventions, and any factors that impact the effectiveness of the interventions.

You were identified as someone who could help us understand more about how the MEASURE activities have influenced data demand and use in the country health information systems, and the factors that contribute to successful data use. Your participation is very important but is entirely voluntary. If you agree to participate, I will ask you questions about the different activities implemented by MEASURE Evaluation to promote data use and how these MEASURE Associate Award activities have influenced the continuum of data use, ranging from the immediate outputs of the eight activity areas [*show participants the different activity areas*]. Your decision about whether to participate in this study or to answer any specific questions will in no way affect your job or relationship to the project.

We will audio-record the interview, with your permission, so we can be sure to capture everything you said and go back and listen to it to help us understand your answers. Your responses will be treated as confidential, and we will ensure that any statements or comments you make cannot be linked to you as an individual. We will be producing a report that is intended to help MEASURE Evaluation improve the design of data demand and use interventions in the future.

Before you say yes or no to being in this study, we will answer any questions you have. Do you have any questions before we get started? *[Pause & answer all questions.]*

If you have any questions following the interview, you can contact me using the email address provided on this business card [hand out business card]

Documentation of Verbal Consent

Do you want to participate in this Interview?

Individual has consented. ☐

Individual has not consented. ☐

Signature of Person Obtaining Consent: ……..……..

Date: ……..Place: ……

May we audio-tape this interview?

If individual consents, interviewer signs and dates form, and retains a copy.

Individual has consented.

Individual has not consented.

Signature of Person Obtaining Consent:……..……..

Date: ……..Place: ……

Date of Interview		
Time Start/End	**Start**	**End**
Name of Interviewer:		
Title of Respondent		
Number of years in position		
Specialization		
Program		
Level (county, sub-county, facility)		

I would like to ask you a few questions to get started.

1. What are the different type of program decisions made in your county? (probe: *program targeting* [*where to provide services, how to allocate resources], program improvement, program monitoring, policy development or review).*
    a. How are these program decisions made in this county?
    b. (*probe for data that are not mentioned)* Is information used to make decisions?
        i. If yes, explain how it is used. What structures or forums exist to discuss data related to [type of program decision*]? (probe for specific types of meetings/events, such as annual work planning meetings, quarterly review meetings, data quality meetings, etc.). W*hat type of information is used?[2] *[probe for specific data sources – name of the system, information product, or specific study/report]*
        ii. If no, why not? (*probe: data quality, data availability, decision makers don't value data, etc.)*

2. What are some ways in which the MEASURE-PIMA project has supported the use of information in your county? (*probe for precise details about the activity – e.g., for capacity building – topic, type, frequency, etc.)*
    a. What were the changes that resulted from this activity?
    b. Can you provide an example of how [activity mentioned] has improved the use of data for decision making?

We're going to ask you some specific questions about activities that MEASURE has supported.

[2] Information product: analyzed routine health data that are synthesized into a format that clearly communicates understanding of the data; for example, a dashboard, bulletin, technical report, policy brief, profile, or fact sheet.

3. MEASURE Evaluation-PIMA has supported the development and review of **county strategic plans, annual work plans, M&E plans, and other policy** documents.

    a. How have these documents been used in Machakos? *[probe – is the strategic plan referred to during annual workplanning or M&E plan development; are plans referred to during data reviews? Is there monitoring of the progress of plans?]*

    b. How have these policy documents supported the use of data for decision making in Machakos?

    c. In your opinion, do you think that your organization clearly values data-informed decision making? Please explain. *[probe: is data use prioritized by leaders? Are individuals encouraged to use data?]*

    d. What are some of the factors that have influenced the successful implementation of this document?

    e. What are some of the factors that have undermined/hindered the successful implementation of this document?

4. There was a **data use plan** developed in Machakos in 2015 (integrated in the M&E plan). The data use plan summarizes how relevant data will be generated to address priority questions identified by the county. (interviewer to show a copy, target to decision-maker column).

    a. How has the data use plan been used in Machakos? Can you give me an example of a time when you had to refer to the data use plan in your work?

    b. Have data been used to inform the "proposed decisions" outlined in the data use plan?

        i. If yes – how? What decisions were made? Was the decision implemented? What was the outcome/outcomes of the decisions?

        ii. If no – why not? *(probe: barriers to data use – data quality, availability, skills, etc.)*

    c. To what extent has the data use plan facilitated the use of data? *(probe: ability to identify questions of interest, link to data, identify data needs, make recommendations)*

    d. What are some factors that influence the implementation and uptake of the data use plan?

    e. What factors hindered/undermined the implementation and uptake of the data use plan?

5. MEASURE has supported the implementation of **data review meetings and performance review meetings** (include quarterly data review meetings, semi-annual/annual performance reviews, data dialogue days, etc.) at which data are analyzed, interpreted, and discussed to identify actions for improvement.

    a. How many data review meetings did you attend in the last twelve months?

    b. What works best about these meetings? What could be improved? What is the most useful aspect of this meeting?

c. To what extent have the program performance review meetings influenced data use practices? How? Probe for:

   i. Changes in data availability (e.g., multiple sources) and presentation – in what ways? How has this helped decision makers?

   ii. Changes in data interpretation[3] – in what ways? How has this helped decision makers?

   iii. Priority information needs addressed

   iv. Communication between data users and producers

   v. Accountability and development of action plans

d. Can you tell us about a time when a decision was made that was informed by data discussed at a program performance meeting? Was this decision implemented (why, or why not)? What was the outcome of this decision?

   i. If no decisions were made – why has this not moved to a decision? *(probe: lack of descriptive data, lack of ability to interpret data, other competing priorities, etc.)*

e. What are some of the factors that have influenced the successful uptake and impact of the program performance review meetings?

f. What factors hindered/undermined the success of the performance review meetings? *(Probe: what needs to be improved, what are the current challenges?)*

6. MEASURE Evaluation PIMA has worked in different ways to **build capacity in the use of data** in decision making. This includes formal training sessions and workshops, mentoring, coaching, skills building, etc.

   a. Have you been the beneficiary of any capacity building efforts from MEASURE?

      i. If yes, what was this capacity building focused on (M&E, data quality, data use, data mining and analysis, etc.)? What strategies were used (e.g., coaching, mentoring, training) and where did it occur (informal – data review meetings, workplace)?

      ii. If no, go to the next question.

   b. What have been the most practical skills gained from these capacity building activities? Can you think of a time when you have been able to apply the skills gained in your work? How did you apply these skills?

   c. Please describe any efforts you have undertaken to train and mentor your teams internally to build their capacity in these skills. Have your team members been able to apply these skills in their work? How?

[3] Define as: the process of making sense of information that has been analyzed and communicated, and seeking reasons or causes for the findings. Examples include comparing with other time periods or geographical areas, consulting other data sources.

d. What changes have been observed as a result of these activities? *(probe for changes in: individual skills, individual behaviors and attitudes, organizational capacity)*

e. What are some of the factors (positive and negative) that have influenced the uptake and impact of capacity building efforts?

    i. What are some of the factors that have influenced the success of the capacity building efforts?

    ii. What factors hindered/undermined the success of the capacity building efforts?

7. Are there any important MEASURE Evaluation PIMA activities we did not talk about? What changes in data use practices resulted from this activity?

8. Across all the activities we talked about, what activity or groups of activities worked best to strengthen the demand for and use of data? Why?

9. Which activities were least effective? Why?

10. Overall, what kinds of changes in data demand and use, if any, have you observed as result of MEASURE Evaluation PIMA -supported activities in this county?

Probe for changes in:

- Technical and organizational capacity for DDU (existence of strategies, guidelines, plans on data use)
- Individual and team data use skills and behaviors – what specific skills?
- Attitudes about using data – in what ways?
- Discussion and interpretation of data
- Data use culture (the attitudes and behaviors of an organization emphasizing the analysis, interpretation, communication, use, and dissemination of data in decision making)
- Support from leadership regarding use of data. What type of support (encouragement to prioritize using data, new strategies, guidelines, plans on data use)

- Organization's DDU infrastructure (policies and procedures)
- Availability of data and their formats (synthesis and presentation) – in what ways? How has this helped?
- Other practices related to data demand and use
- Any negative changes

11. In your opinion, what are the main barriers to using data for program planning and decision making that your organization faces?

12. If you could invest in three additional ways to improve the use of data in Machakos, what would they be? Why?

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