# Assessing Barriers to Data Demand and Use in the Health Sector
## A Toolkit

August 2018

USAID
FROM THE AMERICAN PEOPLE

MEASURE
Evaluation

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# ABBREVIATIONS

ANC     antenatal clinic

DDU     data demand and use

HIS     health information system(s)

ITN     insect-treated net

IPTp     intermittent preventive treatment in pregnancy

MEval     MEASURE Evaluation

# PURPOSE OF ASSESSMENT

Evidence-informed decision making is essential for ensuring efficient and high quality health services, supportive policies, and improved outcomes. Global commitments to improve health systems and outcomes have led to better monitoring and evaluation (M&E) and health information systems (HIS), thus providing improved data to use for decision making.

Overall, the relationship of improved information, increased demand for data, and continued use of data constitutes a cycle that leads to improved health programs and policies. Improving data demand and use (DDU) is necessary to improve the effectiveness and sustainability of a health system.

Data use refers to a process where data are reviewed to:
- Create or revise a program or strategic plan
- Develop or revise a policy
- Advocate for a policy or program
- Allocate resources
- Review or monitor program performance
- Manage client care

The data use process includes three components:
- Decision makers: both data users (program managers, facility managers, and policy makers) and data producers (M&E officers, information and records officers, and data clerks)
- Data from multiple sources (such as routine data, survey data, and research data)
- Decision-making forums (such as performance review meetings, annual work planning, and policy reviews, and policy creation sessions)

Data use goes beyond completing data reporting forms at the various levels of a national HIS and the passive dissemination of reports and information products. The best decisions are made when data are used and considered to answer a question that is linked to a specific program, policy, or client care action.

Despite the increased commitment to base decisions on data, many organizations struggle to institutionalize and sustain a culture of data use. MEASURE Evaluation (MEval) developed this suite of tools to help data users, producers, and policy makers understand the barriers that impede widespread data use in the health sector and develop action plans to address them.

# DESCRIPTION OF ASSESSMENT

This document is a collection of four assessment tools designed to:
- Identify existing barriers and constraints to data use
- Identify factors that facilitate data use
- Help design and prioritize an action plan to address these barriers and constraints to data use

The four tools are:
- Semi-Structured Interview Guide
- Self-Assessment Survey
- Group Assessment Tool
- Site Visit Checklist

The first three tools can be applied at the national, subnational, and organizational levels, or in some combination of the three levels. The Site Visit Checklist is meant to be applied at the health facility level.

## Data Use Intervention Areas

Each of the tools is designed to address the following eight areas that MEval has identified as key interventions to strengthen data demand and use (Nutley & Reynolds, 2013; Foreit, Moreland, & LaFond, 2006):
- Assess and improve the data use context.
- Identify and engage data users and data producers.
- Improve data quality.
- Improve data availability.
- Identify information needs.
- Build capacity in data use core competencies.
- Strengthen the organization's DDU infrastructure.
- Monitor, evaluate, and communicate data use successes.

The interventions are intended to be used with other efforts to strengthen HIS and M&E structures. The eight intervention areas have been identified through MEval's experience and are supported by the literature as activities that strengthen the use of health information in decision making. Successful data use interventions ultimately will help organizations improve their skills, capacity, attitudes, and behavior towards data use. Moreover, the use of these tools will institutionalize data use procedures, policies, and support mechanisms for data use. Regular analysis, synthesis, review, and use of data in program monitoring and planning, advocacy and policy development, and decision-making processes will lead to an institutionalized culture of data use.

## Identifying Barriers and Constraints to Data Use

These assessment tools look at organizational, behavioral, and technical constraints to data use. The three constraint areas are adapted from the Performance of Routine Information Systems Management (PRISM) framework (Aqil, Lippeveld, & Hozumi, 2009), and explained here:

- **Organizational constraints** relate to the absence or weakness of organizational context that supports data collection, availability, and use, such as clear roles and responsibilities related to data use; operating procedures, guidelines, and tools that support data use; and adequate financial support for data use.
- **Behavioral constraints** relate to poor attitudes towards the decision-making process, such as attitudes towards data and information, motivation to use data in the decision-making process, and incentives and disincentives to using data to make decisions.
- **Technical constraints** refer to the technical aspects of data use, such as data collection, reporting, and analysis, human capacity (in terms of numbers and skill sets), and the existence of M&E infrastructure and quality data.

Understanding data use barriers (and types of barriers) will help in the development of action plans and recommendations for overcoming those barriers.

## Assessment Implementation

The assessment tools are designed to be used during an all-day training workshop. The goal is to give various respondents who wish to be involved in an assessment the opportunity to meet as a group to practice using the necessary tools. The first step in planning the workshop is to identify appropriate respondents for a good mix of data users and data producers from different organizations, sectors, and geographic locations. (See the Tools section of this document for guidance about selection.)

Depending on the nature of the assessment, participants may be selected from different regions of a country, departments of an organization, or levels of the health system.

Depending on the range of respondents desired and the flexibility of the budget, multiple workshops can be arranged, or the length of the workshop can be extended, to account for a larger group. For example, for an assessment of a malaria program conducted with national- and provincial-level respondents from three separate provinces, two workshops were scheduled: one for national participants and participants from the province closest to the capital, and another for the two other provinces that were far from the capital city.

The venue should accommodate individual and group work. During the workshop, all participants should be involved in using and completing both the Self-Assessment Survey and Group Assessment Tool. If time permits, the Semi-Structured Interview Guide could be administered to select participants (if there is a separate space for this), or, the interviews could be done outside of the workshop schedule (allowing about one hour per interview); potential interviewees should always be identified in advance so interviews can be scheduled. The Site-Visit Checklist is designed to be used on site at a health facility, which should be identified in advance so visits can be scheduled with the facility management team.

The assessment workshop also should have at least two facilitators, with the actual number based on the number of participants and how they will be grouped during the workshop. For example large groups will need to be broken into two smaller subgroups, each one requiring a facilitator.

The workshop should be planned with sufficient advance time for training facilitators and interviewers on using the tools and qualitative methods. Additional information on qualitative methods is available in another MEval training toolkit available online (MEASURE Evaluation, No Year), cited on our References page. Facilitators are especially important for the group assessment tool exercise. They will help lead the conversation and consensus building around decisions and will also take notes and facilitate group discussion after the tool implementation is completed.

More detailed information on conducting the interviews and implementing the other tools as part of the workshop can be found in the Tools section of this document.

## Adaptability of the Assessment

Throughout this document, we will show an example of one version of the assessment, focusing on its use in a national and subnational malaria program. All of these tools can be adapted to suit the needs of the organization being assessed, in terms of content area, type of organization, or level of the health system.

# TOOLS

Here is a brief summary of the tools, followed by more in-depth information on each one in the subsequent sections.

- **Semi-Structured Interview Guide.** This tool contains 15 open-ended questions that cover the eight data use interventions. These themes make up MEval's DDU conceptual framework, which describes the "specific interventions that can improve the demand for and use of data from all health information systems" The conceptual framework "demonstrates how information systems improve the other health system building blocks [and] outlines the underlying assumptions and activities that are necessary to achieve the desired outcome of increased data-informed decision making" (Nutley, 2013).
- **Self-Assessment Survey.** This tool looks mostly at the technical and behavioral determinants of data use. Questions address the perceived skills of data users and producers in data-use core competencies, and respondents' perceived notions of organizational capacity in the workplace. The survey probes these competencies with a short test that demonstrates the respondent's actual skills. Survey results will identify concrete areas that need to be addressed to build the technical capacity of the respondent's organization.
- **Group Assessment Tool**. This tool includes questions about the organizational determinants of data use, specifically the existence of data-use guidance documents, the regular use and communication of information in decision making, and the existence of supportive supervision and feedback.
- **Site-Visit Checklist.** This tool provides additional evidence to support the Group Assessment Tool findings. Interviewers use the checklist to confirm whether the guidelines, procedures, and information products mentioned in the group assessment are present in health facilities. The checklist can also be used to validate the quality of these items.

Together these four tools provide a complete picture of the eight components of the data use conceptual framework, and the three determinants of data use from PRISM. This enhances understanding of the data-use context of an organization, and the barriers and facilitators that may determine whether a culture of using data in the decision-making process can be institutionalized.

## Semi-Structured Interview Guide

### Description of Tool

The Semi-Structured Interview Guide is a qualitative survey containing 15 questions. The questionnaire can be modified to meet specific needs by adding or subtracting questions as necessary. The questionnaire is broken up into the following five topic areas:
- Decisions
- Assessing data demand and use
- Data availability and data quality
- Capacity in data use
- Communicating data

Respondents are instructed to answer each question to the best of their ability based on their experiences working in the organization.

## Intended Audience

The interview guide should be administered to a wide range of respondents representing both data users and data producers. Data users are program managers, facility managers, and other high-level decision makers who use data to make decisions. Data producers are involved in the collection and analysis of data, such as data clerks, facility level staff, M&E officers, and health records officers. Having both data users and data producers complete these questions provides the information needed to get a full picture of how data use works, from point of collection through decision making. Often data user and data producer roles are fulfilled by the same individual. Both roles should be represented in respondents regardless of their job titles. Depending on the organization being assessed, this tool can be used at national and subnational levels of a government, or at various levels within a nongovernmental organization. We provide Figure 1 as an example of the kinds of people you would seek to interview at national and subnational levels if you were conducting an assessment of a malaria program.

**Figure 1. Sample list of people to interview for assessment of a malaria program**

**National level**
- National malaria control program (NMCP) program manager
- NMCP M&E manager
- NMCP commodities manager
- President's Malaria Initiative (PMI) program lead
- Health management information system (HMIS) malaria lead
- Malaria implementing partner (nongovernmental)

**Subnational level**
- Health records and information officer
- M&E officer
- Provincial health manager
- Provincial malaria lead
- District health manager
- District malaria lead
- Head doctor from health facility

## Tool Implementation

Interviewers should be trained in qualitative interview methods, particularly probing. The questionnaire should be administered to one respondent at a time. This should take about an hour. Each question is associated with at least one probe and interviewers should feel comfortable developing additional probes depending on the respondent's answers. Probing is an essential part of the interview process and the only way to uncover some of the nuances affecting the use of data in decision making.

All interviewers should take notes during the interview (using paper, computer, or column in the interview tool for "reflections and interpretations"). Ideally, all interviews should be audio recorded so that interviewers can review the results, complete their notes, and capture direct quotes. Afterwards the interviewer should make sure the information captured is accurate.

## The Interview

**Introductory Script**

The purpose of this questionnaire is to identify the strengths and weaknesses in your organization's data use culture and infrastructure. The assessment information will be used in conjunction with other assessment materials to draft a plan of action to promote data use.

In health systems as well as in organizations, the purpose of collecting and analyzing data is to improve programs by enabling more informed decisions or decisions based on data. However, information is not always available to make decisions. If it is available, it is not always used.

Your participation is requested to provide insight about the current situation within your organization. Your participation is very important, but is entirely voluntary. 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 use the interviews to develop potential interventions to strengthen the demand for and use of data in decision making. Do you have any questions? May we begin?

**Part I. Decisions**

1. What are the different types of program decisions that are made in your organization?
   - Probe: For example, there may be decisions related to where to provide services, how to allocate resources or plan for new activities. How are decisions like these made in your organization?
   - Probe: Who is involved in the decision-making process?
   - Probe: What sources of information do you think they rely on to make decisions?
2. Could you give me some examples of times during your work when you consulted data to inform a decision about a health service or program?
3. What specific targets are you currently tracking for your malaria-related programs?
   - Probe: How do you know when a program is not meeting these targets?
   - Probe: If you are aware that a program is not meeting expectations, what kinds of things can you do about it?
4. Could you tell me about any current organizational plans, policies, procedures, or guidelines that relate to the collection, review, or use of data?
   - Probe: Does anyone's job description specifically address the review or use of data?
   - Probe: What are their job titles?

**Part II. Assessing Data Demand and Use**

5. Can you tell me what typically happens in your organization with data collected by your organization?
   - Probe: How often do you think decisions in your organization are informed by data?
   - Probe: When data is available, who in the organization reviews it?
   - Probe: Who among your colleagues discuss new data or reports?

6. Has your organization ever taken steps to improve the use of data?
    - Probe: If so, please tell me about those efforts.
    - Probe: Did they result in improvements for the organization?
    - Probe: What were the obstacles?
7. Does your organization need data that you don't have?
    - Probe: How do you identify data that you need?
    - Probe: What process do you go through to get it?
8. In your opinion what is the biggest obstacle to data use in your organization?

## Part III. Data Availability and Quality

9. Tell me about the availability of data within your organization. When you need to access it for decision making, how easy is it to do so?
    - Probe: How easy is it to get the data from each section/unit (such as M&E unit) and from different areas and different data collection points?
10. Can you give me an example of a time when you provided input on the design of data collection instruments?
    - Probe: Can you give me an example of a time when you provided input on the design of an indicator?
11. Tell me about the data quality in terms of accuracy, timeliness, and completeness of the information available to you from both routine and non-routine sources.
    - Probe: Who is responsible for managing data and assuring data quality within the organization?
    - Probe: In your opinion, what are the primary causes of data quality issues?
    - Probe: How often do you perform data quality checks?
    - Probe: When supportive supervision visits are conducted for M&E and data quality do the supervisors spend time on facilitating the use of the data?

## Part IV. Capacity in Data Use

12. What do you think about the technical capacity within your organization to collect, analyze, review, and use data?
    - Probe: What kinds of technical assistance in M&E or data review have you received in the past six months?
    - Probe: Who provided the technical assistance?

## Part V. Communicating Data

13. Does your organization have a protocol, policy, or written guidance for sharing or communicating data internally or externally? Please describe them.
    - Probe: Does sharing data include both directions, that is, does the data go from communities up to headquarters and does the feedback go from headquarters down to service providers?
14. Do you segment your communication to different audiences?
    - Probe: Who are your audiences for data generated by your programs?
    - Probe: How do you communicate data to your different audiences?

- Probe: What types of information products are available to you?
- Probe: What kinds of performance feedback does your team receive?
- Probe: How frequently do you receive feedback?

15. Has your organization ever documented success stories that involved the use of data?
- Probe: If yes, how were these stories identified and disseminated?
- Probe: Have they resulted in additional funding for programs, more data use activities, or M&E system improvements?

## Self-Assessment Survey

## Description of the Tool

The purpose of this survey is to collect information about individual skills and confidence in conducting data analysis, interpretation, and use. This tool is administered during the assessment workshops with respondents working at the national and provincial levels.

The survey asks respondents to rate their self-efficacy or confidence in performing a variety of tasks related to the demand and use of data in decision making, on a scale from 1–4. A rating of 1 indicates "no confidence" and 4 "very confident". We provide Figure 2 as a sample of how a task is presented with options for the respondent's self-assessment.

**Figure 2. Sample of how to rate self-efficacy on a scale of 1–4**

| Tasks | 1 (no confidence) | 2 | 3 | 4 (very confident) |
|---|---|---|---|---|
| I can communicate the extent to which a series of reported numbers vary from a set target. | | | | |

The tool also tests respondents' actual skills in order to compare perceived versus actual knowledge in data-use core competencies. For example, the assessment will ask respondents to calculate a target for program performance based on a series of data presented to them.

In addition, the tool asks the respondents' opinions about how data are used within their immediate work environment. Responses are rated via different scales (such as a scale of 1–4 where a rating of 1 means "never" and 4 means "all the time"). We provide Figure 3 as a sample of this kind of question.

**Figure 3. Sample of how to rate data use at one's own workplace**

How often do you think senior managers in your organization allocate resources based on a review of data?

Never..........................................................All the time

1          2          3          4

## Intended Audience

The self-assessment tool should be given to all participants involved in the assessment workshop. For meaningful survey results, at least 20 respondents are needed. Respondents should represent both data users and data producers at multiple levels of a health system or organization, such as national level decision makers, subnational level decision makers, M&E and data officers, and facility managers and doctors. We provide Figure 4 as a sample list of potential survey respondents.

**Figure 4.  Sample list of potential respondents for the Self-Assessment Survey**

**National level**
- National HMIS Division, data management lead
- National HMIS Division, technical advisor
- National Malaria Control Program (NMCP) director
- NMCP M&E lead
- National level NGO M&E lead

**Subnational level**
- Health zone level, head doctor
- Provincial level, data manager
- Provincial level, health lead

## Tool Implementation

This survey tool should be given in a workshop setting in conjunction with the Group Assessment Tool. It should take about an hour. All participants involved in the assessment should complete this tool. This can be done using paper or computer, but for the purposes of this document, we will discuss completing the tool on paper. Respondents should have a pencil, scratch paper, and a calculator. Respondents should be reminded that this tool is not a test, but rather a means of assessing current capacity in data use core competencies as a baseline measure upon which to improve.

## The Survey

**Introduction**

The purpose of this survey is to collect information from individuals on their skill level analyzing and using data. Please express your opinion honestly. Your individual responses will remain confidential. Aggregate information from across all surveys will be analyzed to inform an assessment of capacity and use of data for the DRC health system. We appreciate your cooperation in completing this questionnaire. It should take approximately 1 hour to complete. Thank you.

A1. Date completed survey: _____

A2. Name of organization you work for: _____

A3. Your professional title in this organization: _____

A4. Your age. Please circle one.

a. Below 30 years  b. 31–39 years    c. 40–49 years  d. 50 years and above

A5. Gender

1. Female

2. Male

A6. Your highest level of formal education:

1. High school diploma

2. University diploma

3. License or equivalent

4. Master's degree (15–16 years)

5. Doctorate or Ph.D.

6. Professional diploma or degree. Specify: _____

7. Other type of education. Specify: _____

A7. Years of professional career employment: _____

A8. Did you receive any training in Monitoring and Evaluation in the last year?

1. Yes

2. No

**Self-Efficacy**

This part of the survey is about your confidence in performing tasks related to using and analyzing data. High confidence indicates that you could perform the task listed, while low confidence means there is room for improvement or training.  For each activity listed on the table below, please rate your level of confidence that you can accomplish the activity, using the following scale from 1–4:

1      not confident

2      somewhat confident

3      confident

4      very confident

Circle the appropriate number at the right for each activity.

| | | | | |
|---|---|---|---|---|
| B1. I understand the information needs of my organization. | 1 | 2 | 3 | 4 |
| B2. I can organize a meeting with decision-makers to discuss data for a data/performance review. | 1 | 2 | 3 | 4 |
| B3. I can create graphs that effectively communicate health data. | 1 | 2 | 3 | 4 |
| B4. I can explain M&E findings and their implications for programs. | 1 | 2 | 3 | 4 |
| B5. I can use data to identify program gaps | 1 | 2 | 3 | 4 |
| B6. I can use data to set program targets | 1 | 2 | 3 | 4 |
| B7: I can calculate means correctly. | 1 | 2 | 3 | 4 |
| B8. I can calculate medians correctly. | 1 | 2 | 3 | 4 |
| B9. I can calculate percentages correctly. | 1 | 2 | 3 | 4 |
| B10. I can calculate rates correctly. | 1 | 2 | 3 | 4 |
| B11. I can access data as needed for program management. | 1 | 2 | 3 | 4 |
| B12. I can use data to make decisions about health programs. | 1 | 2 | 3 | 4 |

C1. How often do you think senior managers in your organization allocate resources based on a review of data? Circle the appropriate number using the scale 1–4.

Never...........................................................All the time
1                2                3                4

C2. How useful are program indicators to senior managers in your organization when they make planning decision?

Not Useful...................................................Very Useful
1                2                3                4

C3. How frequently does your organization have performance and/or data review meetings? Select only one response.

1. Never
2. Weekly
3. Every 2 weeks
4. Monthly
5. Quarterly
6. Yearly
7. There isn't a regular schedule

C4. Is an official record maintained of management meetings where health data are discussed?

1. Yes
2. No

C5.  Please read the following paragraph and Table 1, then follow the instruction below.

In June, the National Malaria Control Program initiated a new pilot training for nurses who provide intermittent preventive treatment in pregnancy (IPTp) to pregnant women attending antenatal care (ANC) clinics. The goals of the training were to: attract new clients to ANC services and increase the number of pregnant women receiving IPTp services. The Monitoring and Evaluation (M&E) specialist for the project collected the data on routine indicators from the clinic, shown in Table 1.

Table 1. Intermittent preventive treatment for pregnancy services at antenatal care clinic for 2012

| Indicators | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of ANC visits | 350 | 375 | 355 | 358 | 303 | 340 | 401 | 488 | 495 | 525 | 507 | 455 |
| Number of women receiving at least two doses of IPTp | 107 | 112 | 121 | 112 | 102 | 114 | 133 | 189 | 199 | 221 | 233 | 212 |
| Percentage of pregnant women attending ANC who received two or more doses of IPTp | 31 | 30 | 34 | 31 | 34 | 34 | 33 | 39 | 40 | 42 | 46 | 47 |

C5a. Create a graph that the M&E Specialist can use to best communicate to the National Malaria Control Program the effect of the pilot nurse training on the number of people accessing malaria services.

C6. Please read the paragraph and the table, then follow instructions below.

In June, the National Malaria Control Program initiated a new pilot training for community health workers in two districts. The goals of the training were to: increase the number of people sleeping under an insecticide-treated net (ITN) and increase the number of pregnant women sleeping under an ITN. The M&E specialist for the project collected data from each household on the indicator: proportion of population of all ages who slept under an ITN the previous night. The data were displayed with this graph (Figure 5).

**Figure 5. Proportion of population of all ages who slept under an insect-treated net the previous night, two districts, 2012**
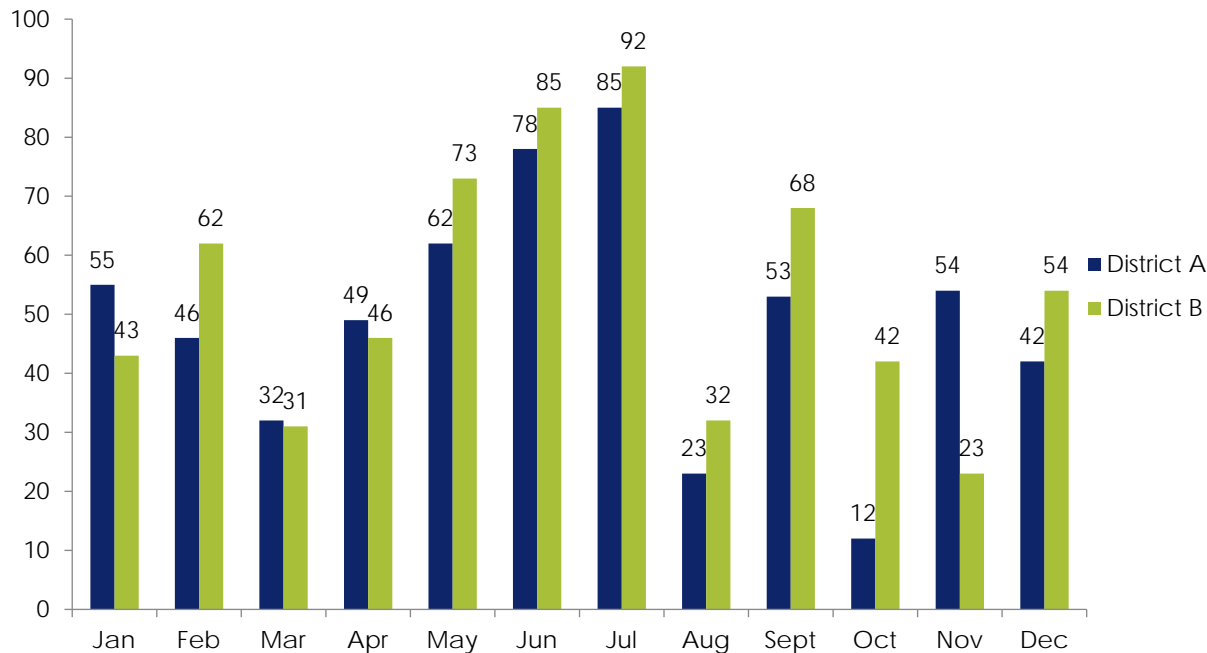


C6a. What do the data in this graph indicate about the new pilot training for community health workers?_____

The M&E Specialist for the project also collected data from each district on the indicator: Proportion of pregnant women who slept under an ITN the previous night. The data were displayed with this graph (Figure 6).

**Figure 6. Proportion of pregnant women who slept under an insect-treated net the previous night, two districts, 2012**
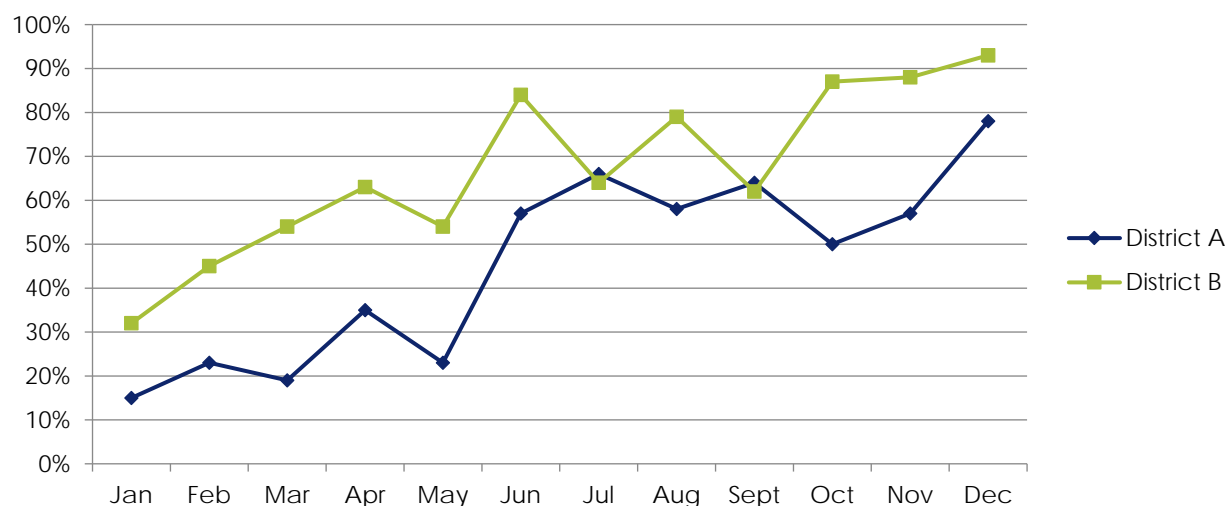


C6b. Based on the data presented in Figures 1 and 2, select the option below that provides the most precise conclusion about the pilot community health worker training program:

1. The program was effective in increasing the proportion of people of all ages sleeping under an ITN the night before.

2. The program was effective in increasing the proportion of people of all ages sleeping under an ITN the night before, but less so in increasing the proportion of pregnant women sleeping under an ITN the night before.

3. The program was effective in increasing the proportion of pregnant women sleeping under an ITN the night before, but less so in increasing the proportion of people of all ages sleeping under an ITN the night before.

4. The program was not effective in increasing the proportion of people of all ages sleeping under an ITN the night before or the proportion of pregnant women sleeping under an ITN the night before.

C7. The M&E Specialist showed the community health workers in both districts data presenting the average proportion of pregnant women who slept under an ITN the night before and those who did so after the pilot training in June. (See Table 2.)

**Table 2. Average percentage of women who slept under an insect-treated net the previous night in two districts for 2012**

| District | January to June | July to December |
|----------|-----------------|------------------|
| District A | 29 | 62 |
| District B | 55 | 79 |

The community health workers in District A requested advice on setting a reasonable target for improving their performance in increasing the proportion of pregnant women who slept under an ITN the night before over the next 6 months, from January to June 2013. Which of the following 6-month target increases would you recommend?

1. 100%
2. 45%
3. 75%
4. 65%

C8. Table 3 shows the number of confirmed malaria cases at District B hospital in 2012.

**Table 3. Number of confirmed malaria cases at District B Hospital for 2012**

| Indicators | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Confirmed malaria cases | 350 | 375 | 355 | 358 | 303 | 340 | 401 | 488 | 495 | 525 | 507 | 455 |

C8a. What is the mean number of confirmed malaria cases for 2012?
C8b. What is the median number of confirmed malaria cases for 2012?

C9a. In 2009, a health center had 31,155 confirmed malaria cases. During that same time period, 1,536 patients died from malaria. What was the mortality rate for malaria patients in this health center for 2009 (round to the nearest whole number)?

C9b. The estimated number of pregnant mothers in the catchment area for a health center is 340. Antenatal clinics have registered 170 pregnant mothers for IPTp. What is the percentage of pregnant mothers in the catchment area attending antenatal clinics?

## Group Assessment Tool

## Description of the Tool

This tool is adapted from the data use component of the UNAIDS 12 Components Assessment, an M&E system assessment tool that is used to critically assess and improve M&E systems and action plans for organizations working in the HIV/AIDS sector.

The tool will be used with all participants in the workshop in conjunction with the self-assessment tool. Workshop participants should be divided into groups of 5–7. Ideally, the groups will practice as a "team" of colleagues that work closely together. The purpose of this is to ensure that responses relate to a collective experience. For example, the following types of participants can be grouped together:

- National-level participants. If there are too many participants to have one national group divide them by health program (such as malaria, reproductive health, HIV).
- Participants from the same province. If there are insufficient numbers of participants to group by province, then group them by the next level up of administrative classification (such as region or county).
- Donors
- Implementing partners

Each group will review their organization's M&E system by classifying the different criteria assessed in the tool as "completely present", "partly present", or "not at all present".   We provide a sample in Figure 7.

Figure 7. Sample assessment criteria

| Criteria |
| --- |
| Data use plan or strategy exists |
| Stakeholder information needs have been assessed |

Assessment team members also should take notes on their discussions concerning points of strong agreement or disagreement, or clarifying statements. These notes are an important aspect of the analysis. Each team will also be paired with a facilitator, whose role is to implement the tool, orient respondents to it, guide the discussion where necessary, and take notes on the discussion. Facilitators should particularly note any points of agreement or contention among participants when answering the assessment questions.

What follows is a list of definitions for criteria used in the tool. The facilitator should read each definition to the group as they are asked to classify it, to ensure that they understand what's being asked.

**Criteria definitions**

- **Data use plan or strategy exists**. A data use plan/strategy is a formal document that describes when and how data should inform decision making. This document can include: the specific planning and decision-making forums which should be informed by data, how often data analysis and review should take place, who should be involved, how to ensure accountability (such as how to move findings from data analysis into action), and how to follow up on data-informed recommendations and track data use. This can be a stand-alone document, part of an M&E plan, or other form of guidance.

- **Stakeholder information needs have been assessed in the past two years.** This refers to the priority questions program managers or policy makers have about their programs. An assessment can take the form of a workshop to identify core program data analyses, set research priorities, or harmonize program indicators.

- **Written guidelines exist for sharing or communicating data (internally or externally)**. Guidelines should cover how to share data and how often, what channels should be used, and how information should be segmented for different audiences.

- **High quality information products have been developed in the past 12 months and are available.** Information products should be accurate, high quality, and tailored to the data and needs of the organization or entity in question. They should be readily available electronically or in paper format.

- **Information products are disseminated regularly to those who collect or report data.** Information products, such as malaria bulletins and district summary reports, summarize findings from data analysis. These products should be disseminated quarterly or at least semiannually to anyone in the program/organization who is involved in data collection and decision making.

- **Information products are sent regularly to a wide variety of stakeholders beyond those who collect and/or report data.** For example, this can include implementing partners, funders, media, and universities. These information products should be sent quarterly or at least semiannually.

- **Information products meet stakeholders' information needs.** Information products provide valuable data and information that can help stakeholders better implement their programs and make informed decisions. Decision makers are not experiencing data gaps.

- **Information products disseminated are used regularly in decision making for programs and services**. Information products are used to provide data during program planning and monitoring, such as during annual work planning and program performance review meetings. Respondents should be able to cite examples of when these products have been used.

- **Guidelines exist that support the analysis, presentation, and use of data at national, subnational, and facility levels, such as graphs on walls showing cumulative coverage.** Guidelines address what analyses should be done, what data should be used, how data should be presented and displayed (graphs, charts), which indicators should be analyzed, and how this information should be used at the provincial, district, and facility levels.

- **Synthesis and analysis of data from relevant sources is conducted using a collaborative approach involving data users, data producers, and other stakeholders.** Synthesis and analysis should be a collaborative process involving a variety of stakeholders to ensure that data are accurate and useful for many different decision-making purposes.

- **Programmatic and policy decisions are based on analyzed data.** All decisions should be made after reviewing data. Respondents should be able to cite specific examples.

- **Guidelines exist that document procedures for conducting regular performance and/or data review meetings to monitor program performance.** Such meetings should be held quarterly or at least semiannually to monitor data for program performance. Guidelines should be in place to ensure that meetings are of high quality and are standardized to achieve intended results.

- **Data review meetings to improve program performance are held quarterly at the subnational level to discuss key program indicators with program managers and other decision makers.** Such meetings should be held quarterly or at least semiannually to monitor data for program performance. Data review meetings include data users and data producers in attendance. Data review meetings focus on the programmatic implications of data, rather than just on the quality of data.

- **Recommendations for programmatic changes (that result from data review) are made during meetings and action plans are developed to implement the recommendations.** The review of data during data review meetings should lead to data-informed decisions to answer key questions of interest or respond to identified programmatic challenges or gaps. Data review meetings should include action planning sessions to implement decisions and/or recommendations involving timeframes, point people, and key stakeholders.

- **In the last 12 months, the data needed to make decisions have been available and accessible.** Data are available when needed to make decisions and are easily and readily accessible.

- **In the last 12 months, the quality of data available has been sufficiently adequate (complete, accurate, timely) that it can be confidently used in decision making.** Data are assessed for completeness, accuracy, and timeliness. Decision makers trust the quality of data needed to inform decision making.

- **M&E personnel are part of performance monitoring and planning teams**. Data producers (such as M&E personnel or information records officers) are included in teams with data users during data review meetings to explain the results of data analysis, the information presented in graphs, and how indicators are constructed to ensure a clear understanding of the data being reviewed.

- **M&E supportive supervision procedures, guidelines, and responsibilities are defined.** Standardized processes and guidelines exist for supportive supervision of data collection, management, and use. Guidelines include what is required before, during, and after the supportive supervision and what is expected of everyone involved. Supportive supervision focuses on M&E and data use, not just on data quality.

- **Supportive supervision visits to facility and subnational units have been conducted in the past six months (according to guidelines).** Supportive supervision of those involved in data collection, management, and use was conducted in at least 50 percent of provinces in the past six months. Respondents should be able to provide documentation in the form of supervision schedules and site visit reports.

- **Supportive supervision results are recorded and feedback is provided to supervisees.** Findings and information from supportive supervision visits are communicated down to the supervisees at least 75 percent of the time to ensure learning and improvement.

## Intended Audience

This tool should be given to all participants involved in the assessment. Ideally, the Self-Assessment Survey and the Group Assessment Tool should be administered in the same day in a workshop setting.

We provide an example of the types of people who should be included in the Group Assessment Tool training, in Figure 8.

**Figure 8. Sample list of targets to include in group assessment training**

**National level**
1. National HMIS Division, data management lead
2. National HMIS Division, technical advisor
3. National Malaria Control Program (NMCP), director
4. NMCP, M&E lead
5. National level NGO, M&E lead

**Subnational level**
6. Health zone level, head doctor
7. Provincial level, data manager
8. Provincial level, health lead

## Tool Implementation

Facilitators will help each respondent group complete the tool. The facilitator will ensure that the group understands each question before the discussion begins. The group will discuss each criteria and come to agreement on its assessment. The facilitator will move the discussion along and help the group come to consensus in the time allotted. The facilitator will use the data collection tool to record the group's score and the comments section to note major points of disagreement during the discussion as the group reaches consensus.

After the tool is completed, groups will reconvene in a plenary session to discuss their work. Each group will report the scores they gave each criteria and briefly discuss their rationale for scoring. Facilitators will record points of disagreement and compile this information into one bulleted list. Following the report-back session, the plenary group will brainstorm possible solutions that can improve on criteria that were scored as "partly present" or "not at all present". The information gathered in this session will be compiled into one bulleted list and serve as a guidance document for developing recommendations and an action plan.

## The Group Assessment Tool

The criteria from the group assessment tool are listed below.

- A data use plan or strategy exists.
- Stakeholder information needs have been assessed in the past two years.
- There are written guidelines for sharing or communicating data (internally or externally).
- High-quality information products have been developed in the last 12 months and are available.
- Information products are disseminated regularly to those who collect or report data.
- Information products are sent regularly to a wide variety of stakeholders, beyond those who collect and/or report data.
- Information products meet the information needs of stakeholders.
- Information products are used regularly in decision making for programs, services, and policies.
- Guidelines exist to support the analysis, presentation, and use of data at the national, subnational, and/or facility level.
- Synthesis and analysis of data from relevant sources is conducted using a collaborative approach involving data users, data producers, and other stakeholders
- Programmatic and policy decisions are based on analyzed data.
- Guidelines exist that document procedures for conducting regular performance and/or data review to monitor program performance.
- Data review meetings to improve program performance and delivery are held quarterly.
- Recommendations for programmatic changes (that result from data review) are made during meetings and action plans are developed to implement these recommendations.
- In the last 12 months, the data needed to make decisions are available and accessible.
- In the last 12 months, the quality of data has been adequate for use in decision making.
- M&E personnel are part of performance monitoring and planning teams.
- M&E supportive supervision procedures, guidelines, and responsibilities are defined.
- Supportive supervision visits to facility and subnational units have been conducted in the past six months (according to guidelines).
- Supportive supervision results are recorded and feedback is provided to supervisees.

**Site Visit Checklist**

## Description of the Tool

This tool allows the user to confirm the presence of different documents that facilitate the use of data in decision making and/or the presence of various guidance documents, policies, and/or procedures at select health facilities. Documents will be qualitatively ranked as "completely," "partly," or "not at all" present during the site visit. The purpose of this tool is to validate findings from the other assessment tools at the facility level. For example, this checklist asks about the existence of data-use policies or guidelines available within a health facility, which serves as a way to validate statements made about data-use guidance in the semi-structured interviews and the group assessment.

## Intended Audience

This checklist should be filled out by a member of the assessment team with a facility head or facility manager. The number and types of facilities included in the site visit checklist will depend on what type of assessment you are conducting. Ideally, there should be a facility from each location involved in an assessment. For example, in an assessment of seven provinces, there should be one facility chosen per province. In some circumstances, this is not possible. In other circumstances, more than one facility per province may be chosen.

## Tool Implementation

Site visits often are the costliest component of a data use barriers assessment because they can involve extensive travel. The aim of this tool is primarily to verify information from the group discussion and individual interviews using qualitative observations. Therefore, a small, convenience sample of heterogeneous health facilities that represent a variety of health services is ideal. For example, it would be good to include site visits to a national and/or regional hospital, a primary care unit, and a selection of health centers, both public and private that provide a variety of healthcare services.

Sample size will depend on the scope of the assessment. A national assessment will require some geographic representation. It is advisable to review the information as it is collected to avoid unnecessary further data collection once data saturation has been reached.

Appointments should be made with facilities before visiting them to implement the tool. When visiting the facility, analysts should speak to the facility head or manager. When possible, copies or photographs of the items being assessed (such as policies, maps, and graphs) should be collected as appendices to the tool.

## The Checklist

Name of Interviewer:

_____

Health Facility:

_____

Date of Site Visit:

_____

Instructions:

    A.  For each observation, the interviewer circles an answer code that corresponds with the extent to which an activity or document is present: 1) Completely, 2) Partly, 3) Not at All, or 4) N/A.

    B.  For all answer codes other than "1) completely", the interviewer provides detailed comments to justify and explain the situation.

    C.  If the respondent shows a physical copy of a requested document, then place an X in the box labeled "Document shown to interviewer"

| Observations | Answer Code | Comments |
|---|---|---|
| 1. Guidelines, standard operating procedures or protocols are present that describe steps to aggregate, analyze, or manipulate data for each level of the reporting system. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 2. Guidelines, standard operating procedures, or protocols are present that describe how to develop and disseminate data synthesis products to a variety of stakeholders. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 3. For a healthcare entity that routinely reports data, there are guidelines present that describe reporting requirements, deadlines, and instructions on how to compete data collection and reporting forms/tools. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |

| Observations | Answer Code | Comments |
|---|---|---|
| 4. For a healthcare entity that routinely collects and reports data, there are guidelines present that describe how to manage data to ensure quality. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 5. A training schedule is present.<br><br>Probe: If yes, comment on whether training topics include: data management, data analysis, data interpretation, and/or data use. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 6. Staff are able to present analyzed data displayed using a table, graph, map, or other format from the previous two to six months, or two quarters.<br><br>Probe: If yes, comment on staff position(s) responsible for data analysis. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 7. Staff are able to show evidence that analyzed data were shared with facility or district managers (using meeting minutes, activity report, email, or other information product). | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |

| Observations | Answer Code | Comments |
|---|---|---|
| 8. There are specific data review meetings where analyses findings can be presented and discussed.<br><br>Probe: If yes, comment on whether staff are able to share meeting schedule, meeting minutes, an advocacy document, data references in a strategic planning or budget report, or other similar form of evidence. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A<br><br>Document shown to interviewer | |
| 9. Data visuals (such as a chart, graph, or map) are displayed in the office.<br><br>Probe: If yes, identify the data sources. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A<br><br>Document shown to interviewer | |
| 10. A map of the catchment area is displayed in the office.<br><br>Probe: If yes, identify the data sources. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A<br><br>Document shown to interviewer | |
| 11. An estimated summary of populations in the catchment area by target group are displayed in the office.<br><br>Probe: If yes, identify the data sources.<br><br>Probe: If yes, indicate when last updated. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A<br><br>Document shown to interviewer | |

| Observations | Answer Code | Comments |
|---|---|---|
| 12. Feedback reports on the accuracy, completeness, and timeliness of reported data are present.<br><br>Probe: If yes, indicate the dates of the reports. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 13. Feedback reports on program performance are present.<br><br>Probe: If yes, indicate the source of the feedback (such as national, district, province, or other organization).<br><br>Probe: If yes, indicate the dates of the reports. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 14. A trip report or checklist from a recent M&E supportive supervision visit is present.<br><br>Probe: If yes, review trip report or checklist to verify whether the support provided incorporated training or coaching in the use of data for decision making.<br><br>Probe: If yes, indicate report date. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 15. A report is present from either the district or national level which contains routine HMIS data and recommended actions.<br><br>Probe: If yes, comment on source of report.<br><br>Probe: If yes, indicate report date. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |
| 16. A copy is present of a newsletter or report published by staff site in the last 12 months. | 1) Completely<br>2) Partly<br>3) Not at All<br>4) N/A | |
| | Document shown to interviewer | |

# ANALYSIS OF FINDINGS

This section covers how to analyze the data from each tool and compile the findings into one report. The analysis of the findings requires qualitative analysis techniques. We provide overarching recommendations regarding the four tools in this assessment but we do not provide comprehensive qualitative analysis guidance. We encourage readers to visit the MEASURE Evaluation website at [www.measureevaluation.org](http://www.measureevaluation.org) for additional guidance.

## Semi-Structured Interview Guide

To analyze the data from this tool you must first create a list of topical codes based on the interview questions. Topical codes are used to identify key ideas in the transcript of individual interviews. We provide a suggested topical code book based on the interview guide in Appendix A. The topical code book can be used to analyze data from semi-structured interviews and site visit observations. Each section has a topical code general heading such as "data processing" or "data communication" that can be applied to a highlighted section of text. A text can be highlighted with more than one topical code, and text with more detailed responses can have sub-topic codes.

Interview transcripts can be entered and coded using software such as NVivo, Atlas.ti, Dedoose, or EZ-text. Alternatively, recorded interviews can be transcribed into Word and the comments function can be used to highlight text using the code book. If resources and time are limited, hand-written notes and quotations from the interview could be summarized in Word and similarly highlighted. Responses can be recorded as direct quotes or as a summary of the response given. Direct quotes are particularly helpful during report writing, as they provide rich illustrative examples.

If the evaluator chooses this form of manual analysis using Word, we recommend keeping the sample size to 10 or 20 respondents per 1–2 evaluators, so that you can analyze the data within a reasonable time period. For confidentiality purposes, it is not necessary to record names, but helpful to understand job types and location of respondents (such as, M&E officer, national level)

Before coding transcripts, evaluators should read all respondents' answers several times to ensure that they understand their meaning and context. For each interview, they should look at the type of information provided as it relates to data use. They should consider the detail of the responses, the use of appropriate probing questions, and whether there were topics that may not have been addressed adequately. After reading the responses, evaluators can begin to develop a list of interpretative codes related to the data that generalize common themes emerging from the informant responses, while recognizing various points of view expressed. The development and refinement of interpretative codes can be an iterative process; evaluators may develop different interpretations as they become more familiar with the data.

The next stage is to highlight sections of transcript and label those sections based on the defined codes. The goal of qualitative data analysis is to identify, summarize and make meaning from themes identified in the data that explain patterns of behavior. The highlighting of text with codes facilitates this process by making large volumes of text more manageable for analysis. Codes will interrelate with one another and together will form larger themes. For example, a common theme found in many data use assessments has to do with data quality as a major impediment to data use in decision making. Responses from multiple questions and data from multiple codes contribute to this theme.

For example, a decision maker may say she does not often use certain data to make decisions because she perceives the data quality is poor. She may also talk about a lack of data management procedures, which contributes to poor quality data. A health zone level doctor may say that he believes the biggest impediment to data use is the low number of health records and information officers working at the health zone level, which causes nurses and other service providers to have to do data collection and management on top of their service delivery responsibilities. District level staff may discuss data quality as an issue, particularly during data review.

They may say that data are often late, incomplete, or inaccurate, and they are forced to enter inaccurate data into DHIS2 to meet reporting requirements. These responses are all from different respondents and are answers to different questions and feed into different codes. However, when taken together, they paint a larger picture of issues with understaffing and lack of training in data management procedures, which leads to poor data quality that are not trusted to be used in decision making.

Once the interview transcripts have been coded, if the evaluator is using qualitative analysis software, there is often an option of producing a coding sort report that collects all similarly coded texts from multiple informants into one report. When looking at a coding sort report, one should consider all of the following factors:

- The words used by the informant
- The intensity of the discussion or emphasis on one idea
- The context of each segment of text and if they are different
- What information each informant may be leaving out or not saying

If the evaluator transcribed and coded using Word, several options can be used to produce a coding sort report:

- Transfer coded text segments to index cards and manually arrange cards into larger themes.
- Create a summary page of each interview with reflective questions and key quotes.
- Cut and paste coded text segments into an Excel matrix to compare informant responses across multiple codes. It is helpful to include memos as needed to provide additional context.

We provide a sample of an Excel matrix (Table 4), organized by select topical themes (from Appendix A).

**Table 4. Sample of matrix comparing informant responses across multiple codes**

| # | Data User | TPD1.0: Decision Type | DMP1.1: Decision process | Memos |
|---|---|---|---|---|
| 8 | Care and Treatment Coordinator | 1) "We make sure that all those who meet treatment criteria receive it and are retained." | 1) "The strategic information unit, M&E person, and I are involved. Also, we involved the healthcare providers at the facility level." | DMP1.1.: In response to question about whether inputs into the design of data collection instruments. |
| | | 2) "For the Global Fund application, we needed to prioritize interventions and allocate resources" | | |

Once the coded text has been organized into patterns and relationships, the evaluator will need to communicate these themes to a wider audience. This can be as simple as defining the theme and selecting respondent quotes that reflect several positions regarding that theme. For example:

Data Use Barriers: Motivation

Some informants identified a general attitude among staff that their purpose is simply to collect or report data, and others with more authority are responsible for using data in decision making.

"[Health facility staff] generate data and give it to you. But they don't feel like they should take initiative to do things on their own. They do not feel they need to use data to inform decisions unless you call a meeting... Then they are forced to make presentations."

At other times a visual representation of themes can more effectively communicate meaning from the data. We provide an example in Figure 9.

**Figure 9. Three staff barriers to data use**
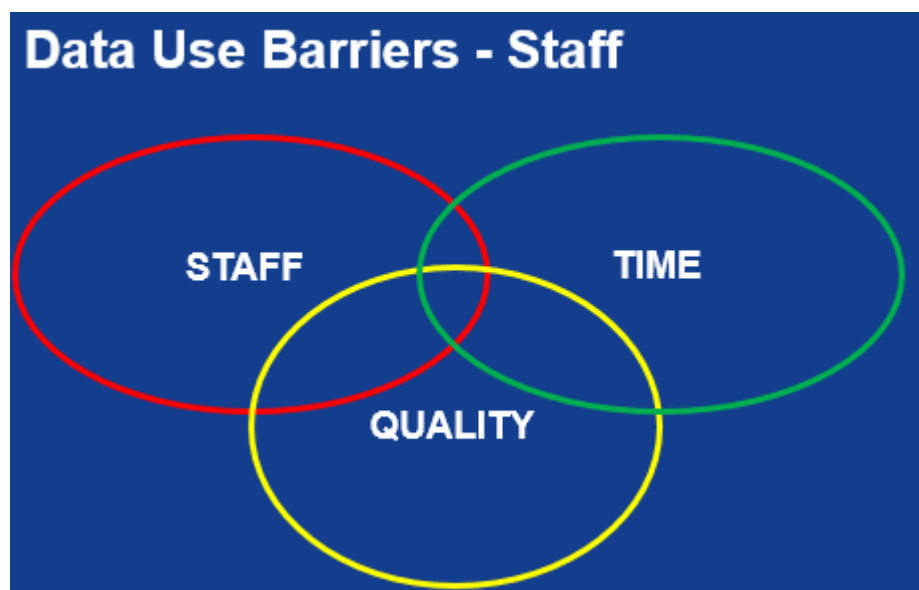


Informants described three factors that inhibited the use of data in decision making: limited staff, limited time and poor quality of data. These factors are interrelated as the insufficiency in one affects the other two. Informants described a staff environment involving the following conditions:

- Too few qualified staff for data entry and reporting

- Resource challenges to reaching existing staff with trainings

- High staff turnover

- High frequency of relocation of staff from one area to another.

Evaluators also should validate each communicated theme, whether it is described, reported in a matrix or visually represented. The evaluator should ask:

- Do the categories that I have developed make sense?

- What information might contradict my ideas?

- What information remains missing or underdeveloped?

- How do my own biases influence this analysis?

Some other common themes across assessments conducted in Kenya and the Democratic Republic of Congo are listed below.

- There are minimal or no organizational policies or standard operating procedures regarding data use for decision making, resulting in a limited understanding of what data use is, why it is important, and whether it is part of people's job descriptions.

- National and subnational level staff have mixed experience in monitoring and evaluation. Some are experienced and have been trained, while others have no knowledge or skills in this area. This skills variation limits the likelihood that data are properly analyzed and used.

- Health facilities often have limited funding for IT equipment, including computers and consistent internet. As health systems become electronic and data are increasingly stored on web-based platforms like DHIS2, this lack of funding for infrastructure causes issues with data access, entry, and availability.

## Self-Assessment Survey

The first eight questions from the tool concern demographics. They provide information on the types of respondents, their education, work experience, and prior M&E training. Depending on the nature of the assessment, these answers can be aggregated by location or reported together. If the sample size is large enough, results could be reported by respondent type. For example, in an assessment that includes both national and subnational level respondents, it may be useful to have results from national respondents analyzed and reported separately from subnational level respondents, particularly regarding years of work experience and the receipt of M&E training in the last year.

The self-efficacy section (B) asks respondents to rate themselves on a scale of 1–4 ("not at all confident" to "very confident") on a variety of data-use core competencies. Scores should be tallied for each response. For the purposes of analysis, respondents who said they were "confident" or "very confident" can be counted together and reported as a percentage of the total number of respondents. We provide an example of a question and the responses (Table 5), in which 100 respondents were asked to rate their capacity to calculate percentages correctly.

Table 5. (Question B8) I can calculate percentages correctly

| 1 – Not at all confident | 2 – Somewhat confident | 3 – Confident | 4- Very confident |
|---|---|---|---|
| 12 | 27 | 34 | 27 |

Based on these responses, the analyst could report that 61 percent felt confident or very confident in their ability to correctly calculate percentages.

The self-efficacy questions are linked to specific skills questions starting at question C5, as respondents are asked to demonstrate various data-use competencies. Thus perceived skills (from Section B) can be compared with actual skills (demonstrated in section C). The answer key to questions C5 through C9b is shown below, followed by a Table comparing answers showing perceived skills and answers showing actual skills in each competency area.

## Self-Assessment Answer Key

C5: This question can be drawn by hand or created on a computer but should look like the graph shown in Figure 10.

**Figure 10. Graph for questions about women receiving intermittent preventive treatment for pregnancy during ANC visits**
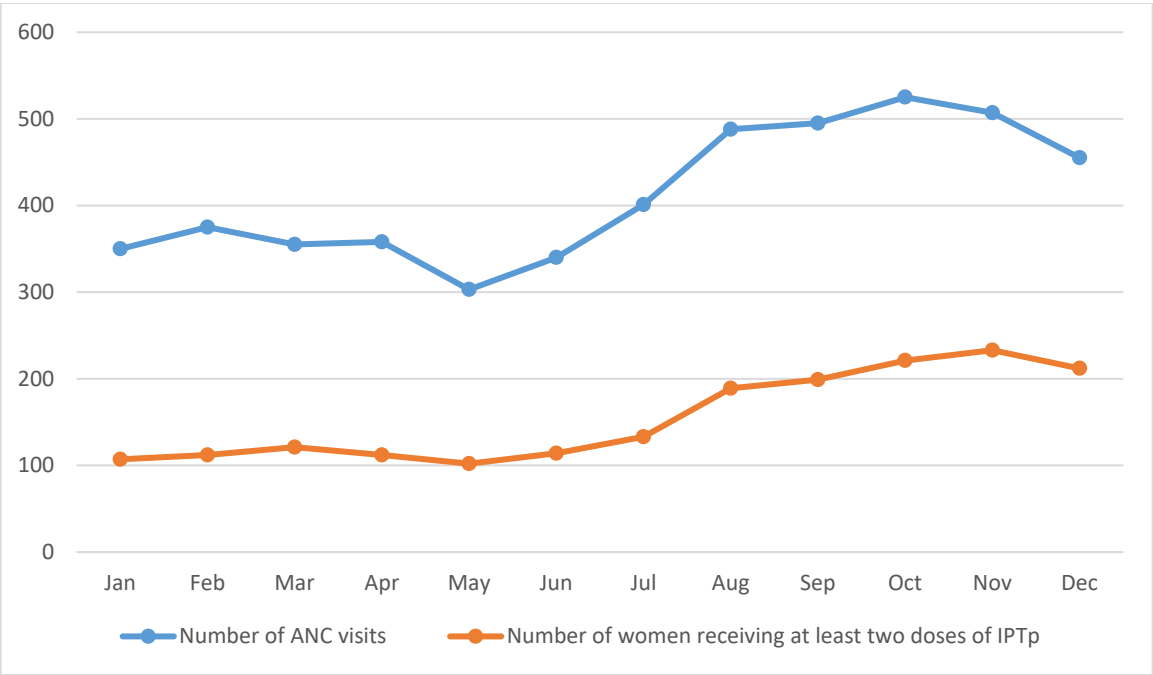


C6a: The pilot program had limited long-term success in either district.
C6b: 3
C7: 3
C8a: 413
C8b: 388
C9a: 49 deaths per 1,000 confirmed cases
C9b: 50%

## Comparing Perceived vs. Actual Skills

Table 6 outlines which questions from the perceived skills section match with which questions from the actual skills section.

**Table 6. Comparing questions about perceived and actual skills**

| Perceived | Actual |
| --- | --- |
| B3: I can create graphs that effectively communicate health data. | C5: Create a graph that the M&E Specialist can use to best communicate to the National Malaria Control Program the effect of the pilot nurse training on the number of people accessing malaria services. |
| B4: I can explain M&E findings and their implications for programs. | C6a) What does the data in this graph indicate about the new pilot training for community health workers? |
| B5: I can use data to identify program gaps | C6b) Based on these 2 graphs in question C6, select the option that provides the most **precise** conclusion about the pilot community health worker training program: |
| B6: I can use data to set program targets | C7: The community health workers in District A requested advice on setting a reasonable target for improving their performance in increasing the proportion of pregnant women who slept under an ITN the night before over the next 6 months, from January to June 2013. Which of the following 6-month targets would you recommend? |
| B7: I can calculate means correctly. | C8a) What is the mean number of confirmed malaria cases for 2012 (write a single digit in each box and round to the nearest whole number)? |
| B8: I can calculate medians correctly. | C8b) What is the median number of confirmed malaria cases for 2012 (write a single digit in each box and round to the nearest whole number)? |
| B10: I can calculate rates correctly. | C9a) In 2009, a health center had 31,155 confirmed malaria cases. During that same time period, 1,536 patients died from malaria. What was the mortality rate for malaria patients in this health center for 2009 (type a single digit in each box and round to the nearest whole number)? |
| B9: I can calculate percentages correctly. | C9b) The estimated number of pregnant mothers in the catchment area for a health center is 340. Antenatal clinics have registered 170 pregnant mothers for IPTp. What is the percentage of pregnant mothers in the catchment area attending antenatal clinics (type a single digit in each box and round to the nearest whole number)? |

To go back to the earlier example, the analyst can calculate the percentage of respondents who correctly calculated a percentage in question C9b and then compare that information with the percentage of respondents who felt confident or very confident that they could correctly calculate percentages. We provide Figure 11 to show how the information could then be portrayed.

**Figure 11. Calculating percentages: perceived skills compared with actual skills**
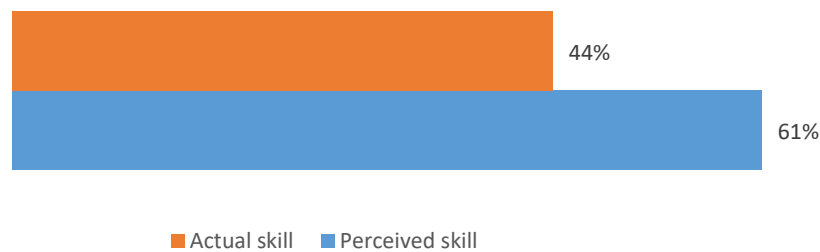


While 61 percent of respondents felt confident or very confident in their ability to calculate percentages, only 44 percent of respondents could actually calculate a percentage when tested on that skill. These comparisons should be made for all questions listed in Table 6.

## Group Assessment Tool

Group assessment data are analyzed in two ways: 1) to understand how each group responded to each criteria statement and groups of statements and 2) for quotes and any other information collected from facilitators during note taking. Each criteria statement in the group assessment tool has three possible responses: not at all present, partly present, or completely present. Each group will select an answer for each criteria; then the groups will convene to select a consensus statement for each criteria. For the purposes of analysis, it can be helpful to report on both the group responses and the consensus response.

Quotes and other information collected by the facilitators during discussion can be used as supporting evidence for the report. For example, if a group responds that a criteria is partly present, it can be helpful to include a quote to explain how and why it is partly present – what is or is not happening or what needs to be improved? When asked about whether data review meetings are held regularly, if a group responds this is partly true, this can be confusing. A notes section can illuminate on this response. For example a note can say, "Perhaps the respondents say that they do have data review meetings occasionally, but due to a lack of funding they are not held regularly." This additional information can provide context to responses in this tool.

Groups can also use this tool to brainstorm recommended activities that address criteria that are not met or are partially met. This helps to get an understanding of the perceived priorities for data use promotion at the national level. This tool can also reveal if these are the same priorities noted in the key informant interviews.

## Site Visit Checklist

This tool can be analyzed in the same ways as the group assessment tool. The checklist helps evaluators categorize the presence of relevant documents, from "not at all" to "completely" present, and supporting documentation or information can be given as needed. The purpose of the site visit checklist is to validate findings from the other tools. For example, understanding whether a health facility has data analysis guidelines and examples of data analyses that were conducted can provide useful supporting evidence to participants' data analysis skills (from the self-assessment tool) and data use capacities (from the interview tool). It is also useful to report observations on documents that are not present or partly present, and provide photo examples of data displayed in health facilities (especially useful in understanding the capacity to analyze data within a health facility).

## Synthesis of All Four Tools

Putting the data from all of the tools together in an assessment report is an important step in the assessment process. The data must be properly analyzed and synthesized to form a coherent picture of an organization's data use capacity and the barriers, facilitators, and necessary next steps towards data use institutionalization.

Analyzing and comparing data across the four tools will underscore the significance of the findings and emerging themes, and show how the findings relate to one another or in some instances contradict one another. For example, during the interviews, an analyst may find that decision makers are not using available data to make decisions because they do not find the information useful. The data they really need are either unavailable or are in formats that are not conducive to decision making. During the self-assessment, most respondents report that they do not find program indicators useful in decision making. During the group assessment, respondents sometimes find that information needs have not been assessed or that high-quality information products have not been developed in the last 12 months. While the questions are all asked in different ways, the responses from these tools are similar and all relate to a common emergent theme about irrelevant or inaccessible data. This can ultimately result in a recommendation to assess information needs and develop and disseminate information products that are based on expressed needs.

Alternatively, the analysis of responses from these tools may show contradictory responses. When analyzing results from an assessment in the DRC, almost all respondents in the interviews said that data were not used in decision making because data quality was poor. They believed poor quality data had to do with low capacity in data analysis and data management; they also said that many people had not been trained in basic data use core competencies, thus creating an adverse chain effect reducing the likelihood for data use. During the self-assessment, however, almost all respondents said that they had M&E training in the last 12 months. At first glance, these findings seem to be at odds with each other, with some saying that lack of training caused poor quality data, and many saying that everyone had been trained. The interpretation of these findings is crucial for analyzing the data. Perhaps the trainings had occurred but they were of poor quality, or perhaps the wrong people had been trained and the people responsible for data quality were not the ones receiving M&E trainings. Recommendations can then be made around improving the quality of trainings and overhauling the process around who is trained and in what context.

You must understand the relationship between the tools and questions within each tool in order to reconcile similarities and differences in the data that come back. There is a great deal of overlap among the questions in the four tools and many of them get at the same themes or intervention areas. We provide Table 7 to show how the tools relate to each other.

**Table 7. How the four tools relate to each other**

| Intervention Area | Tool | | | |
|---|---|---|---|---|
| | **Semi-Structured Interview Guide** | **Self-Assessment Survey** | **Group Assessment Tool** | **Site Visit Checklist** |
| Assess and improve the data use context. | 1. What are the different types of program decisions that are made in your organization? 2. Could you give me some examples of times during your work when you consulted data to inform a decision about a health service or program? 3. What specific targets are you currently tracking for your malaria-related programs? 5. Can you tell me what typically happens in your organization with data collected by your organization? 6. Has your organization ever taken steps to improve the use of data? | B12: I can use data to make decisions about health programs. C1: How often do you think senior managers in your organization allocate resources based on a review of data? | Programmatic and policy decisions are based on analyzed data. | |
| Engage data users and data producers. | | B2: I can organize a meeting with decision makers to discuss data for a data/performance review. | Synthesis and analysis of data from relevant sources is conducted using a collaborative approach involving data users, data producers, and other stakeholders Data review meetings to improve program performance are held quarterly at the subnational level to discuss key | Staff are able to show evidence that analyzed data were shared with facility or district managers (through meeting minutes, activity reports, emails, or another information product). |

| Intervention Area | Tool | | | |
|---|---|---|---|---|
| | Semi-Structured Interview Guide | Self-Assessment Survey | Group Assessment Tool | Site Visit Checklist |
| | | | program indicators with program managers and other decision makers<br>M&E personnel are part of performance monitoring and planning teams | |
| Improve data quality | 10. Can you give me an example of a time when you provided input on the design of data collection instruments?<br>11. Tell me about the data quality in terms of accuracy, timeliness, and completeness of the information available to you from both routine and non-routine sources. | C2: How useful are program indicators to senior managers in your organization when they make planning decisions? | In the last 12 months, the quality of data available has been sufficiently adequate that it can be confidently used in decision making (completeness, accuracy, timeliness, etc.) | For a healthcare entity that routinely reports data, there are guidelines present that describe reporting requirements, deadlines, and instructions on how to compete data collection and reporting forms/tools.<br>For a healthcare entity that routinely collects and reports data, there are guidelines present that describe how to manage data to ensure quality.<br>Feedback reports on the accuracy, completeness, and timeliness of reported data are present. |

| Intervention Area | Tool | | | |
|---|---|---|---|---|
| | **Semi-Structured Interview Guide** | **Self-Assessment Survey** | **Group Assessment Tool** | **Site Visit Checklist** |
| Improve data availability | 11. Tell me about the availability of data within your organization. When you need to access data for decision making, how easy is it to do so? | B11: I can access data as needed for program management. | In the last 12 months, high quality information products have been developed and are available. Information products are regularly disseminated to those who collect or report data. Information products are regularly sent to a wide variety of stakeholders, other than those who collect and/or report data. In the last 12 months, the data needed to make decisions have been available and accessible. | Guidelines, standard operating procedures, or protocols are present that describe how to develop and disseminate data synthesis products to a variety of stakeholders. Data visuals such as a chart, graph, map or other format are displayed in the office. A map of the catchment area is displayed in the office. An estimated summary of populations in the catchment area by target group are displayed in the office. |
| Identify information needs | 7. Does your organization need data that you don't have? | B1: I understand the information needs of my organization. | Stakeholder information needs have been assessed in the past two years. Information products meet stakeholders' information needs. | |
| Build capacity in data use core competencies | 12. What do you think about the technical capacity within your organization to collect, analyze, review, and use data? | B3: I can create graphs that effectively communicate health data. B4: I can explain M&E findings and their implications for programs. | There are guidelines to support the analysis, presentation, and use of data at sub-national and facility levels, such as graphs on walls showing | Guidelines, standard operating procedures, or protocols are present that describe steps to aggregate, analyze, or manipulate |

| Intervention Area | Tool | | | |
|---|---|---|---|---|
| | **Semi-Structured Interview Guide** | **Self-Assessment Survey** | **Group Assessment Tool** | **Site Visit Checklist** |
| | | B5: I can use data to identify program gaps<br>B6: I can use data to set program targets<br>B7: I can calculate means correctly.<br>B8: I can calculate medians correctly.<br>B9: I can calculate percentages correctly.<br>B10: I can calculate rates correctly. | cumulative coverage. Supportive supervision visits to facility and sub-national units has been conducted in the past six months (according to guidelines). Supportive supervision results are recorded and feedback provided to supervisees. | data for each level of the reporting system.<br>A training schedule is present.<br>Staff are able to present analyzed data using a table, graph, map, or other format from the previous two months or two quarters.<br>A trip report or checklist from a recent M&E supportive supervision visit is present. |
| Strengthen the organization's data demand and use infrastructure. | 4. Could you tell me about any current organizational plans, policies, procedures, or guidelines that relate to the collection, review, or use of data?<br>8. In your opinion what is the biggest obstacle to data use in your organization? | C3: How frequently does your organization have performance and/or data review meetings? | Data use plan or strategy exists. Guidelines exist that document procedures for conducting regular performance and/or data review meetings to monitor program performance. Recommendations for programmatic changes (that result from data review) are made during meetings, and action plans are developed to implement these recommendations. M&E supportive supervision procedures, guidelines, and responsibilities are defined. | Specific data review meetings are held to present and discuss findings from analyses.<br>Feedback reports on program performance are present.<br>A report is present from either the district or national level which contains routine HMIS data and recommended actions.<br>A staff newsletter or report has been published in the last 12 months. |

| Intervention Area | Tool | | | |
|---|---|---|---|---|
| | Semi-Structured Interview Guide | Self-Assessment Survey | Group Assessment Tool | Site Visit Checklist |
| Monitor, evaluate, and communicate results of data use interventions. | 13. Does your organization have a protocol, policy, or written guidance for sharing or communicating data internally or externally? Please describe them. 14. Do you segment your communication to different audiences? 15. Has your organization ever documented success stories that involved the use of data? | C4: Is an official record maintained of management meetings where health data are discussed? | Written guidelines exist for sharing or communicating data (internally or externally). | |

The themes identified during the analysis of interview data can be a guiding point for the outline of a report. Data from each of the four tools can be organized by theme, and the themes can be used as sections in the report. We recommend using a combination of different ways to present data in the report, such as summary, graphs, tables, and direct quotes. We provide an excerpt from an assessment report (Figure 12) as an example.

**Figure 12. Excerpt from an assessment report**

the needs in the different provinces [and is decided] after data analysis." Another respondent said that the allocation of funding for various programs and projects is based on data.

Data appeared to be rarely used for advocacy (e.g., to garner additional funds, support, or resources from organizations or individuals) at either the national or provincial levels. Our findings also revealed limited documentation of success stories that involve the use of data. We asked each respondent if he or she had ever documented data-use success stories and whether these had resulted in additional funding for programs, more data-use activities, or M&E system improvements. Respondents were generally unable to point to a specific data-use success story that had been disseminated. According to one respondent, after they disseminated their programmatic success (that was noted in the data), the province did not receive additional funding to enhance M&E or data-use activities, because most funds remain frozen for specific activities. Without clear documentation of data-use successes or documentation of data-use success stories, it is difficult to highlight the value added for efforts to improve the use of data.

**Examples of data use in decision making**

1) After analyzing malaria data, the team found inconsistencies in the data. In turn, the central health zone office chose to build the capacity of service providers in the diagnosis and treatment of malaria through supportive supervision.

2) Epidemiological surveillance data are constantly monitored. In the case of an "epidemic catastrophe," field visits can be initiated to investigate reported disease outbreaks and orient decision making on how to stop the spread of the disease.

3) Performance data are used to create supportive supervision plans for the health zones and prioritize needs. The worst performing health zones are prioritized when the DPS decides where to conduct trainings, supervision, and mentorship.

4) An analysis of commodities data showed that long-lasting insecticide-treated bed nets were not being distributed evenly, and some health zones had a very low supply of bed nets. National-level decision makers then reallocated resources to ensure that health zones were covered and had adequate supplies.

When asked in the self-assessment about the promotion of data in decision making, 19 out of 25 respondents said that senior managers "sometimes" or "often" allocated resources based on data.

**Figure 1. How often do senior managers allocate resources based on data?**
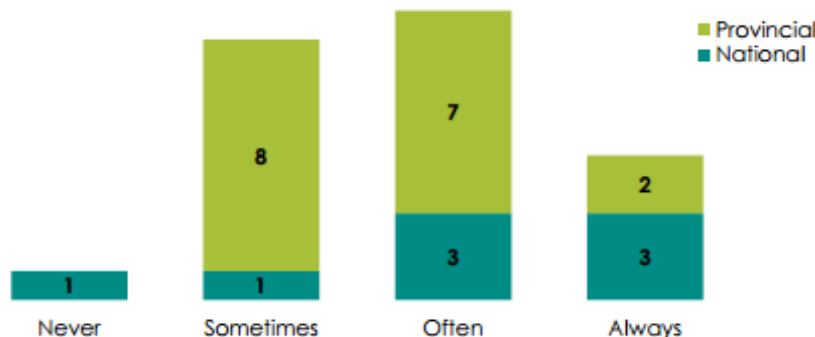
# DEVELOPING RECOMMENDATIONS AND ACTION PLAN

Relevant recommendations and an action plan are essential if you want assessment findings to result in better use of data for decision making. This helps the organization being assessed to begin thinking about how they can strategically promote and/or improve data use. The recommendations serve as a roadmap for countries or organizations to understand what steps should be taken to improve and institutionalize a data use culture.

The development of recommendations should take into account the assessment findings in the context of the organization's needs and available resources. Many recommendations come from past experiences conducting data use interventions and capacity building work through previous projects and activities. These can often serve as a template for recommendations in an assessment report.

The recommendations are just a starting point for an organization. Once the report has been reviewed and approved by the organization or country in question, an action planning workshop should be held to review and prioritize recommendations, and develop an action plan with timelines, deliverables, and key points of contact. Actions plans provide a way for organizations or countries to make incremental steps towards improving their data use culture and to be held accountable for them. The action plan workshop also allows organizations to determine how recommendations will fit in with their overall strategic and organizational plans, the context of their country and culture, and their budget.

In this section we are providing sample recommendation(s) for each hypothetical finding.

## Sample Recommendations

**Finding 1. Data review meetings do not have the necessary resources to occur regularly.**

**Recommendations:**

12. **Support data review meetings at the health zone and provincial levels.** Data review meetings are a key step in the data use process and often directly lead to data-informed decision making. More staff are needed at both the provincial and health-zone levels to understand routinely collected indicators and their implications for service delivery. Data review meetings provide strong motivation for provincial, health zone, and health facility staff to prepare questions they have about their services and review data they routinely collect.

13. **Advocate for increased funding.** Although the SNIS normative framework includes guidance on regularly convening data review meetings, most respondents said that due to insufficient funding, these meetings were either held infrequently or conducted ineffectively. Funding should be allocated for these meetings to ensure that data are regularly discussed, analyzed, and reviewed. Collect and share stories of how data or policy improvements have supported programs. Develop powerful advocacy messages that describe the value of investing in data review and interpretation.

14. **Develop operational support.** Guidelines for data review meetings should be created so they become standardized in terms of timing, processes, attendance, and follow-up. Currently, these meetings focus mostly on reviewing data for data quality and not program performance. The emphasis should shift over time toward using data for programmatic decision making. A regular schedule should be developed to ensure proper planning and

attendance. Guidance should be developed regarding who should attend and what their roles and responsibilities are before, during, and after the meetings. Guidance should be elaborated on how to prepare for and follow-up on recommendations from the meetings. With robust support for data review meetings, NMCP and DSNIS will be able to track the frequency of data-informed decision making. To improve data-informed decision making, staff should be trained in data analysis, presentation, and interpretation, and on how to follow-up on data-informed recommendations in preparation for these meetings.

**Finding 2. Organizational protocols or guidance on data use do not exist.**

**Recommendation:**

- **Develop written protocols for organizational guidance promoting data use.** One of the most effective facilitators for data use is the existence of organizational support for data use at the highest levels. This support starts with written protocols that promote the use of data in decision making. Although most respondents seemed to be aware of the need to use data in decision making, organizational guidance is essential to ensure that it happens at all levels of the health pyramid. The NMCP should also develop an overarching plan for this.  A data use plan should include guidance on the following for all levels of the health system:

    o   Schedules for data-quality reviews

    o   Conduct of data-review meetings (see Recommendation 1 for guidance at the health-zone and provincial levels)

    o   Data-use roles and responsibilities for all cadres of staff

    o   A comprehensive capacity-building plan for data-use core competencies

    o   Infrastructure requirements for data use

    o   Guidance on stakeholder engagement for data-informed planning

    o   A repository of tools, guidance documents, and capacity-building materials to facilitate data use.

A comprehensive plan can help guide the NMCP in its data use activities and help prioritize data use interventions in order to establish a culture of data use.

**Finding 3. Information needs are not assessed at the subnational level and information products are not useful in decision making.**

**Recommendation:**

- **Conduct provincial-level information needs assessments and develop tailored information products from DHIS 2 to respond to assessment findings.** Information products can be very helpful for explaining data and improving evidence-informed decision making. Findings from this assessment showed that national-level stakeholders had their information needs assessed and the corresponding information products were useful to them when making decisions. However, respondents at the provincial level found that information needs assessments had not been sufficient, particularly for data producers, and that information products did not meet their needs. We recommend that a full information needs assessment be conducted for all provincial-level data users and producers. Information products, such as charts, tables, graphs, and maps, can then be created in DHIS 2, which all staff within NMCP and DSNIS are already using, to meet the stated needs of provincial-level stakeholders. This in turn will lead to improved planning and decision making that are rooted in relevant evidence and data.

# SAMPLE FINAL REPORT OUTLINE

Below is a template for a final report based on the assessment.

**Cover page: Report title, date, and author**
Data Use Results in [Country]'s [health program/organization] – [national/provincial/district]

**Report content**
- Acknowledgements
- Table of Contents
- List of Charts and Figures
- Abbreviations
- Background
  o Purpose of the Study
- Methods
  o Assessment Tools
    ▪ Description
    ▪ Sampling Method(s)
- Results: Presentation of Findings. Include quotes to support the findings
  o Program Decisions and the Decision-Making Process
    ▪ Types of Decisions Made
    ▪ Level of Health Systems at Which Decisions Are Made
  o Data Use in Decision Making
    ▪ Examples of Data Use
    ▪ Frequency of Data Use
  o Data Sources and Data Management
    ▪ Primary Sources of Routine and Non-Routine Data
    ▪ Data management practices
    ▪ Data Flow
  o Access to Data for Decision Making
    ▪ Ease of Data Accessibility
    ▪ Impediments to Data Accessibility
  o Institutional Support for Data Collection and Use
    ▪ Policies and Guidance
    ▪ Supportive Supervision
    ▪ Capacity Building and Technical Assistance
    ▪ Results from Self-Assessment (Comparing Perceived and Actual Skills)
  o Measures to Promote the Use of Data in Decision Making
  o Data Review Meetings
    ▪ Frequency
    ▪ Content
  o Data Quality
    ▪ Issues with Data Quality
    ▪ Data Quality Improvement Measures
  o Data Communication
    ▪ Guidelines
    ▪ Communication Channels
    ▪ Audience Segmentation
  o Understanding Information Needs
    ▪ Information Needs Assessment
    ▪ Information Products
- Key Findings and Recommendations
o 8–10 Actionable Recommendations Based on Assessment Findings

# ASSESSMENT IMPLEMENTATION CHECKLIST

Here are a series of steps that should be taken as part of the assessment process.

**Step 1. Perform pre-assessment planning.**

This involves communication with MEASURE Evaluation representatives (or other external consultants) in-country.

- Identify a potential need or opportunity. Communicate with host-country counterparts to identify opportunities where the assessment can be beneficial.
- Determine the scope of the assessment. Will you be assessing data use within an organization, a Ministry, at the national level, or subnational level, or some combination? What types of informants will you include and how many?
- Coordinate with key partners in-country to:
  - Define a plan for selecting and interviewing key informants and workshop participants (for the Semi-Structured Interview Guide).
  - Develop a timeline for completing the assessment.

**Step 2. Engage an individual to perform the assessment.**

The assessment can be performed by a consultant or a member of a MEASURE Evaluation team in-country. Ideally, the assessor will:

- Have knowledge of the cultural and political environment being assessed.
- Know the informants and have access to them for interviews.
- Have experience in using qualitative interview methods and techniques.

The assessor should identify members to form an assessment team. This team must be trained on general DDU concepts, all tools involved in the assessment, and qualitative interview principles. Members of the assessment team will act as facilitators during the assessment workshop and interviews, and will go out to the facilities to do the site visits.

**Step 3. Adapt tools to meet needs of organization or institution being assessed.**

The assessment tools can be adapted to meet the needs of the organization or institution being assessed. The assessor or another person with knowledge of the cultural and political environment being assessed should review the tools and adapt them as needed to fit the local context.

**Step 4. Conduct interviews and data collection workshop.**

- The data collection workshop should be scheduled during a time when all respondents are available and able to spend an entire day working on the tools. The workshop will involve an overview of the purpose of the assessment and the administration of the Self-Assessment Survey and the Group Assessment Tool. If the assessment is being conducted in multiple locations, multiple workshops can be held.
- The key informant interviews (for the Semi-Structured Interview Guide) should be scheduled with those identified in Step 1. Each interview should last about 45 minutes. Interviews can take place on an opportunistic basis depending on the schedules of those being interviewed.
- Conduct the interviews, following the Semi-Structured Interview Guide questionnaire that was adapted in Step 3. The questionnaire should be administered in a secure environment where the interview will not be disturbed or overheard by outsiders.

- Secure the participant's consent.
- Follow best practices for interviewing, including probing, note taking, and allowing for free and open discussion.
- Record the respondent's answers, preferably in written form and on audiotape.
- Type out the notes from the interview, preferably within 2–4 hours of the interview 's conclusion. Include both main ideas from each question and direct quotes from respondents.
- Conduct site visits. These should be scheduled with the person in charge of the facility to ensure that he or she is present for the data collection process. Each visit should take about 1 hour.

**Step 5. Analyze and report the findings.**

Once all of the data have been collected and documented, they should be analyzed in preparation for a final report on the findings.
- Semi-Structured Interview Guide responses should be analyzed and a codebook should be developed based on key themes that emerge from the responses. Interviews can be analyzed manually using Excel or through an analysis software such as NVivo. The themes found in the analysis will guide the structure of the final report. The analysis should include exact quotes and overall themes and findings.
- Group Assessment Tool responses should be analyzed using Excel. Responses should be tallied by each question for use in the report. For example, the report may state the number of groups that answered "completely", "partly", or "not at all" to a given question. Key points of discussion and quotes should also be recorded in Excel if useful for the report..
- Self-Assessment Survey responses should be analyzed using Excel. Responses should be tallied for each question. Depending on the number of respondents, percentages can be calculated, or raw numbers can be reported. For use in the report, it is sometimes useful to group some responses together, for example, a report can state that 44 percent of respondents answered "confident" or "very confident" to a given question. Additionally, responses should be calculated to allow for comparison between reported confidence in skills (perceived skills) and actual skills. Table 8 provides more information on this point.

**Table 8. Comparing questions on perceived skills and actual skills**

| Reported skill question | Actual skill question |
|---|---|
| B3: I can create graphs that effectively communicate health data. | C5: Create a graph that the M&E Specialist can use to best communicate to the National Malaria Control Program the effect of the pilot nurse training on the number of people accessing malaria services. |
| B4: I can explain M&E findings and their implications for programs. | C6a: What do the data in this graph indicate about the new pilot training for community health workers? |
| B6: I can use data to set program targets. | C7: The community health workers in District A requested advice on setting a reasonable target for improving their performance in increasing the proportion of pregnant women who slept under an ITN the night before over the next six months, from January to June 2013. Which of the following 6-month targets would you recommend? |

| Reported skill question | Actual skill question |
|---|---|
| B6: I can calculate means correctly. | C8a: What is the mean number of confirmed malaria cases for 2012 (write a single digit in each box and round to the nearest whole number)? |
| B7: I can calculate medians correctly. | C8b: What is the median number of confirmed malaria cases for 2012 (write a single digit in each box and round to the nearest whole number)? |
| B8: I can calculate percentages correctly. | C9b: The estimated number of pregnant mothers in the catchment area for a health center is 340. Antenatal clinics have registered 170 pregnant mothers for IPTp. What is the percentage of pregnant mothers in the catchment area attending antenatal clinics? |
| B9: I can calculate rates correctly. | C9a: In 2009, a health center had 31,155 confirmed malaria cases. During that same time period, 1,536 patients died from malaria. What was the mortality rate for malaria patients in this health center for 2009? |

- Site Visit Checklist responses should be analyzed using Excel. Responses should be recorded by health facility according to each question. Any useful direct quotes should also be recorded for the report.

The report should analyze the assessment findings and be structured around emerging themes. The report should include direct quotes, and data from the various tools in the form of graphs, charts, tables, and written summaries. More information on the report structure can be found in the previous Sample Final Report Outline section. The report should also include a section on recommendations, which is an important aspect of action planning for the organization or institution being assessed moving forward.

**Step 6. Share the findings with stakeholders.**

Convene the core group of stakeholders who helped design the assessment activity and participated in the data collection process. The group should:

- Define a strategy for disseminating the findings to a broader audience.
- Develop a list of recommendations and actions based on the recommendations section of the report. This process should be facilitated by a MEASURE Evaluation staff member and should involve the use of an action planning tool. The action plan should include specific points of contact, recommendations, and timelines for implementation.

# CONCLUSION

As data become increasingly available in a variety of accessible formats, the potential for data use increases. However, with this potential comes challenges for creating and sustaining a culture of data use within an organization. Data use is a time-consuming process that involves multiple actors working at multiple levels. To fully understand how to institutionalize data use, it is essential to understand the barriers and facilitators to data use within an organization.

This assessment is a crucial first step in the process to help organizations understand the barriers to data use that must be overcome and how to develop an actionable plan for improvements. The use of this toolkit and the recommended actions based on the results will eventually lead to organizations that can more effectively use their data for informed decisions. This will lead to valuing and using data consistently at all levels.

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# APPENDIX A. SUGGESTED TOPICAL CODE BOOK

This topical code book can be used to analyze data from semi-structured interviews and site-visit observations. Each section has a topical code general heading such as "data processing" or "data communication" that can be applied to a highlighted section of text. For text with more detailed responses there are sub-topic codes. A text can be highlighted with more than one topical code. A separate list of interpretative codes should be developed and applied by the evaluator.
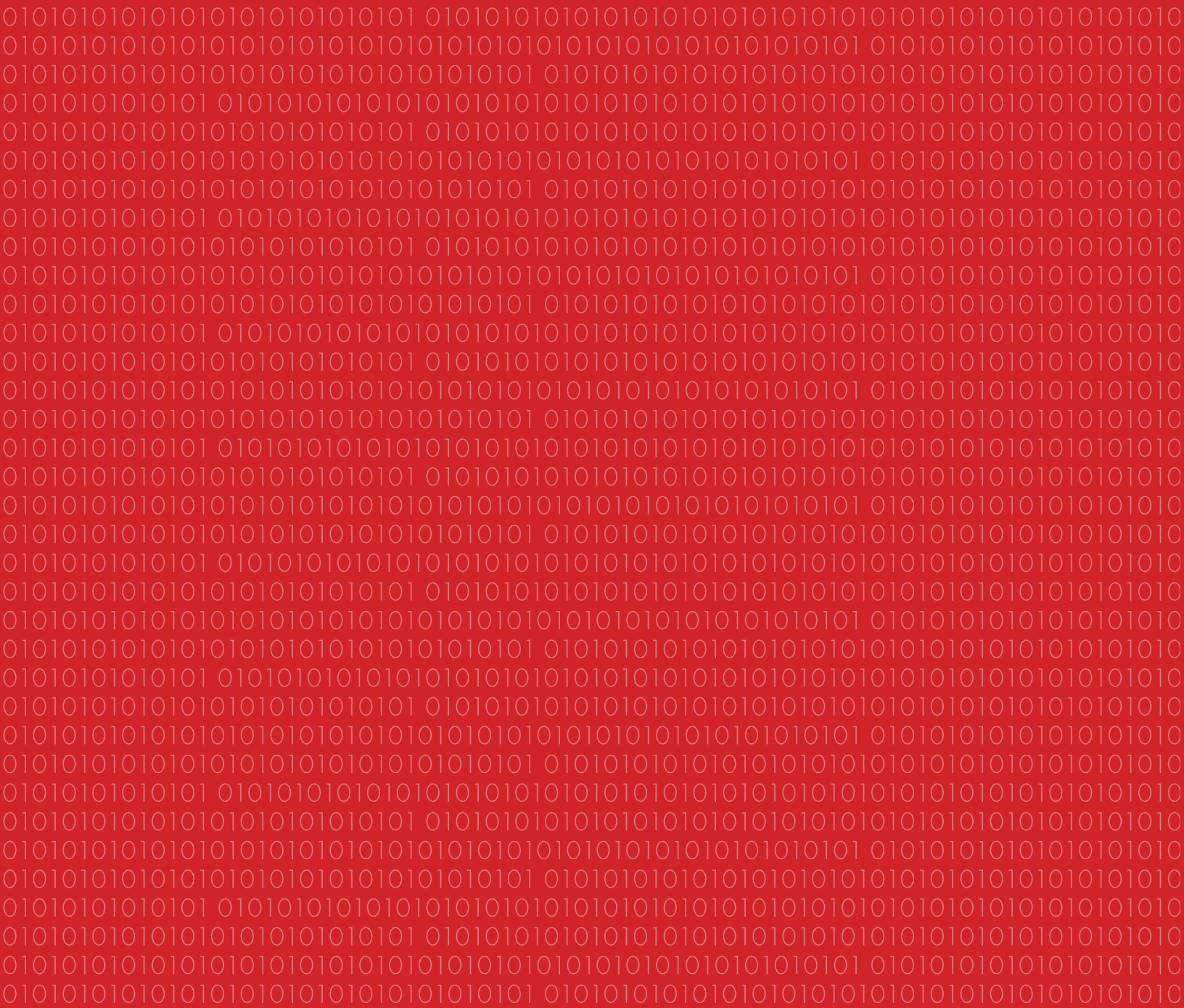
| Code Name<br>(Tool) | Sub-Topic | Code | Definition | Code Type |
|---|---|---|---|---|
| **Data Processing**<br>(Semi-Structured Interview) | | DP 1.0 | Activities that involve data quality checks, data analysis, and presentation of data. | Topical |
| (Semi-Structured Interview & Site Visit Checklist) | Quality | DP 1.1 | Activities that involve the accuracy, timeliness, or completeness of specific data sources. | Topical |
| (Semi-Structured interview & Site Visit Checklist) | Analysis | DP 1.2 | Activities that involve organizing and summarizing data into information to facilitate interpretation of the data, such as in a chart, table, graph, or map. | Topical |
| (Site Visit Checklist) | Presentation | DP 1.3 | Activities that involve the display of data, maps of catchment areas, or populations by target group. | Topical |
| (Semi-Structured Interview & Site Visit Checklist) | Identify a Message | DP 1.4 | Activities that involve selecting key messages from an analysis or interpretation of data to present to others in a report, presentation, or meeting. | Topical |
| **Data Communication**<br>(Semi-Structured Interview, Site Visit Checklist & Group Assessment Tool) | | DC 1.0 | Activities that involve preparing and distributing a report of synthesized or analyzed data to be reviewed by other stakeholders. | Topical |
| (Semi-Structured Interview) | Intended Audience | DC 1.1 | Interviewee talks about a specific target audience intended to review a report of synthesized or analyzed data. | Topical |
| (Semi-Structured Interview) | Information Product | DC 1.2 | Interviewee talks about how a report or analysis is prepared in different formats or information products to match the information needs of different target audiences.  Formats such as bulletin, technical report, policy brief, fact sheets, district profile, press release, journal article, abstract, and poster. | Topical |

| Code Name (Tool) | Sub-Topic | Code | Definition | Code Type |
|---|---|---|---|---|
| (Semi-Structured Interviews, Site Visit Checklist, and Group Assessment Tool) | Performance Feedback | DC 1.3 | Respondent talks about a formal or informal process for aggregated or synthesized information that was collected at a lower level to be reported back to the lower levels and the point to collection. | Topical |
| **Access to Data** (Semi-Structured Interview, Site Visit Checklist, and Group Assessment Tool) | | AD 1.0 | Respondent talks about ease or difficulty of accessing a health-related data source or information product. | Topical |
| (Self-Assessment Survey and Group Assessment Tool | Relevancy of Data | AD 1.1 | Respondent talks about how useful or relevant a set of indicators or M&E information products are for making decisions. | Topical |
| (Semi-Structured Interview) | Finds the Data | AD 1.2 | Interviewee discusses the extent of ease or difficulty experienced in finding information that matches decision making needs from among a variety of available data sources. | Interpretative |
| **Type of Program Decision** (Semi-Structured Interview) | | TPD1.0 | Interviewee talks about specific types of program decisions the organization makes related to its needs, such as types of services to offer, allocation of staff or other resources, program or strategic planning, and types of advocacy initiatives. | Topical |
| **Data Review Process** (Semi-Structured Interview, Site Visit Checklist, and Self-Assessment Survey) | | DRP 1.0 | Respondent talks about the consideration of using data analysis and/or interpretation to inform a decision in or outside of a routine meeting. | Topical |
| (Semi-Structured Interview and Site Visit Checklist) | Review | DRP 1.1 | Interviewer discusses the data review process and respondent describes the review of data as a review to look at program performance and not data quality. | Interpretative |
| (Semi-Structured Interview and Site Visit Checklist) | User/Producer Review | DRP 1.2 | Interviewer discusses the data review process and respondent describes a review of data for program performance that was conducted by M&E staff and program decision makers | Interpretative |

| Code Name (Tool) | Sub-Topic | Code | Definition | Code Type |
|---|---|---|---|---|
| **Source of Data/Information** (Semi-Structured Interview) | | SD 1.0 | Interviewee talks about a specific data source or report that is used to make decisions. | Topical |
| (Semi-Structured Interview) | Routine Data | SD 1.1 | Interviewee talks about a routine data source such as health service data, community service data, individual records, financial records, commodities records, or administrative records. | Topical |
| (Semi-Structured Interview and Group Assessment Tool | Non-Routine Data | SD 1.2 | Interviewee talks about a non-routine data source such as a census report, sentinel surveillance data for either epidemic-prone diseases or chronic diseases (such as HIV/AIDS or tuberculosis), population-based survey report (such as a household survey), or specific research/evaluation finding. | Topical |
| (Semi-Structured Interview) | Private Sector Data | SD 1.3 | Interviewee talks about a data source or report produced by a faith-based organization (FBO), nongovernmental organization (NGO), or private-sector organization that offers health services. | Topical |
| **Decision-Making Process** (Semi-Structured Interview and Group Assessment Tool) | | DMP 1.0 | Respondent talks about how a program decision is made in the organization. Can include recommendations to decision makers. | Topical |
| (Semi-Structured Interview and Site Visit Checklist) | Actions Taken | AT 1.0 | Respondent talks about actions taken after a decision has been made. | Topical |
| (Semi-Structured Interview and 12 M&E Components Group Discussion) | Demand for Data | DMP 1.1 | Interviewer thinks that interviewee/respondent describes a decision-making instance when decision maker or others involved in the decision-making process make a specific request for information or take efforts to find relevant information in order to make a data-informed decision. | Interpretative |
| (semi-Structured Interview) | Data Use Behaviors | DMP 1.2 | Interviewer thinks that interviewee talks about the general attitudes, values, or motivations among colleagues to use data in decision making. | Interpretative |

| Code Name (Tool) | Sub-Topic | Code | Definition | Code Type |
|---|---|---|---|---|
| **HIV/AIDS Target** (Semi-Structured Interview) | | HAT 1.0 | Interviewee talks about HIV-related program target that is regularly used to assess performance. | Topical |
| **Organizational Guidance for Use of Health Data** (Semi-Structured Interview, Site Visit Checklist, and Group Assessment Tool) | | OGD 1.0 | Interviewee (respondent) talks about a general plan, policy, or guideline for the use of health-related data. | Topical |
| **Technical Capacity** (Semi-Structured Interview, Site Visit Checklist, and Self-Assessment Survey) | | TC 1.0 | Interviewee (respondent) talks about the technical capacity (or need for capacity) within the organization to analyze, present, review, or use data. | Topical |
| **Data Use Promotion** (Semi-Structured Interview) | | DUP 1.0 | Interviewee talks about a specific activity to promote the use of health-related data. | Topical |
| (Semi-Structured Interview) | Barrier | DUP 1.1 | Interviewee talks about a specific obstacle or barrier y experienced while promoting the use of health-related data. | Topical |
| **Documentation of Data Use** (Semi-Structured Interview, Site Visit Checklist, and Self-Assessment Survey) | | DDU 1.0 | Activities that involve documenting the use of data to make a decision, such as meeting minutes, activity report, key informant interview, report/analysis of a change in an indicator over time, or a testimonial from staff members. | Topical |
| (Semi-Structured Interview) | Result of Data Use Story Dissemination | DDU 1.1 | Interviewee talks about the benefits of disseminating a story about a data-informed decision. Example benefits include: additional funding, increased use of data in decision-making, or improvements to the M&E system. | Topical |

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