Information Use Mapping

An assessment tool for identifying opportunities for feedback mechanisms and data use

Data Demand and Information Use Part Two: Strategies and Tools

MEASURE Evaluation
www.cpc.unc.edu/measure
Information Use Mapping

In Dominica, local health centers and hospitals sent information about the number of people they tested for HIV/AIDS, while labs sent test results. A statistician in the Health Information Unit aggregated the data and sent a quarterly report to the Ministry of Health, which in turn sent a quarterly report to the Caribbean Epidemiology Center (CAREC) and an annual report to the Prime Minister.

Trouble was, local facilities never got these reports. They could not know how they compared to other facilities, or to national trends and goals. Were they on track or not?

These information gaps quickly became apparent when processes were visualized in an Information Use Map. Data were reported, but not used. Reports did not get back to the providers of source data. The mapping exercise identified ways the Health Information Unit could share its insights down the line, which would lead to mid-course improvements in pre-test counseling and greater acceptance of HIV/AIDS testing.

Scenario

Why is this tool important?
Too much information is sitting on shelves in reports instead of being used to improve conditions.

Existing monitoring and evaluation (M&E) systems typically focus on data collection and reporting to higher levels, while little attention is paid to how the data can be used locally for program improvements. As a result, there are many missed opportunities for feedback mechanisms and the identification of specific ways in which the data can be analyzed to make mid-course corrections.

The scenarios below are typical:

Local data are not being used locally. Oftentimes, data are tallied and reported up the levels, but are rarely analyzed and used to support mid-course corrections at the level at which they were generated. In many situations, data could be used to investigate trends over time, compare different areas, set priorities and goals for future years, compare progress against defined goals, and advocate for funding or policies.

Higher-level information does not return back to the local level. Consider the example of a family planning clinic, where data reveal a declining trend in use of oral contraception. The providers knew that women complained about the side effects, but they did not know how much the overall contraception rates were being affected. The district and regional officers knew contraception rates were declining, but could not know why. There was a need to bring these information sources and stakeholders together.

Local data are not assessed in broad context. For example, suppose 10 percent of the population in the region is expected to receive a service, and one district is only reaching 2 percent. Obviously, there is a large service coverage gap in this district—but the facilities and district office would not necessarily know it, because they may not be aware of how their service delivery rates compare to national objectives.
Information Use Mapping

There is little incentive to produce high-quality data. People involved in local-level data collection efforts often do not see the purpose in collecting the data. They have a difficult time appreciating their role in the larger context of the health information chain, and as a result, spend less energy in collecting the data and in paying attention to detail.

Since there is such a large amount of money and effort being devoted to collecting data and reporting in health information systems, it only makes sense to maximize the impact of that data for real-world benefit. This is where the Information Use Mapping tool is so valuable.

Description

What does this tool do?

It identifies existing data reporting channels and opportunities to increase use of information to benefit programs and people, not just to file reports.

The Information Use Mapping tool is a flowchart framework and structured process for:

- Creating a schematic representation of the existing state of a health information system or sub-system.
- Through this visual representation, quickly identifying gaps and deficiencies in that information flow.
- Identifying opportunities for new feedback mechanisms to share high-level analysis and reports with lower levels of the information hierarchy.
- Identifying points in the process where additional analysis and use of data could lead to improved programs.
- Prioritizing recommendations for feedback mechanisms or other interventions, and formulating an action plan to implement them.

One of the tool’s features that makes it so unique and effective is the visual nature of it. The flowchart captures a highly conceptual process in a way that is visible, clear and concrete.

Another key benefit is that the tool can be used to develop new approaches to addressing data collection, analysis and use constraints. It helps identify new, practical ways to use the data, such as points in the process where data could be applied to improve programs, or areas where capacity building could yield process improvements.

The Information Use Mapping exercise also identifies opportunities for new feedback mechanisms in the form of reports, email communications, cross-functional meetings, one-on-one supervisory visits, workshops or other channels. Feedback is important for assessing an entity’s performance in broader context, and for gauging the quality of data processes. “Do the trends in our facility compare favorably to trends in comparable facilities, or to national trends?” “Do our data meet expected standards?”

The simple process of creating an Information Use Map helps participants better understand their role in the greater health information system—and the importance of collecting data in the first place. When people can see the value, they become more committed to consistent, sustainable, high-quality
data collection and to regular analysis of that data.

The Information Use Mapping tool can be developed and applied at the international, regional, national, or local level. The map can be an ongoing guideline to assess progress toward the “expected” future vision of the map. The Information Use Map can also become a standard part of an M&E system—revisited and revised at biannual or annual intervals, or whenever a new survey or special study is being designed.

**Audience**

**Who should use this tool?**

*Key people involved in collecting, analyzing, reporting or using health information*

The tool has three principal sets of users, with unique roles in using the tool:

1. **MEASURE Evaluation representatives (or other external consultants):**
   - Provide the Information Use Mapping tool.
   - Identify key participants/stakeholders in the information flow.
   - Help host-country partners use the tool to define the baseline Information Use Map, which describes the current information flow and existing mechanisms for using that information.
   - Facilitate discussions that use the Information Use Map to identify opportunities for improving information flow.
   - Help design and prioritize the planned improvements or interventions (such as feedback mechanisms or training programs).

2. **Data specialists, such as M&E coordinators:**
   - Contribute their knowledge of existing data resources and processes to create a baseline Information Use Map.
   - Identify ways to resolve any gaps in that Information Use Map, perhaps to create another version of the map that represents the desired state.
   - Implement the feedback mechanisms or other interventions defined as part of the Information Use Map process.
   - Periodically revisit the Information Use Map to gauge progress toward the desired information flow.

3. **Program managers and other key stakeholders from various levels of the information system (such as national, sub-national, and facility):**
   - Validate the findings of the baseline Information Use Map, to ensure that the map accurately reflects real-world conditions.
   - Participate in individual or group sessions to identify gaps and opportunities in this information flow.
Information Use Mapping

- Prioritize the interventions for improving this information flow.
- Adopt the Information Use Map as an explicit component of their M&E system.

**Timing**

*When would this tool be used?*

*There is never a bad time, but certain circumstances would trigger this activity.*

The Information Use Mapping tool can prove useful at any time, but several conditions may trigger the initial creation of an Information Use Map or update of an existing map.

**When developing an M&E framework for a national strategic plan.** For example, a national coordinating agency might be developing a national strategic plan for its HIV/AIDS program. This could be a prime time to engage stakeholders in creating an Information Use Map to maximize the value and sharing of data within the M&E framework.

**When planning a new component of an M&E system, such as a national survey program.** The Information Use Map can ensure that the data-collection efforts return maximum value and that information is being fully exploited to improve local programs and results.

**When there is insufficient information to guide mid-course corrections.** Perhaps the M&E system is not producing the reports it should, or perhaps it was not designed to deliver all the information that is now needed. In either case, program managers need feedback about program performance or the impact of past program modifications so they can make informed decisions about the potential impacts of new decisions.

**When information is available, but is underutilized.** M&E specialists and other data managers want to see their data-collection efforts yield tangible value and real-world results. After generating a wealth of data resources, they do not want to see those resources unused. The Information Use Map can help ensure that information is not only gathered and reported to higher levels, but is also fully used at each level.

**When stakeholders could benefit from feedback.** How does the facility compare to other facilities? To regional trends? To national goals? An Information Use Map can help identify ways to provide this feedback so information that is aggregated and analyzed at a higher level is sent to lower levels.

**During regular program reviews.** Information Use Map “owners” should revisit the map during semi-annual or annual reviews—or at appropriate benchmarks in the M&E work plan. At this time, they could update the map to show new feedback mechanisms that have been implemented and identify new areas where data are now being used.

MEASURE Evaluation representatives (or other external consultants) might also identify a need based on their knowledge of external agency activities or in-country conditions.
Applications

Who has already used this tool?

Representative field applications

Swaziland – May 2005 to January 2006
National Emergency Response Council on HIV and AIDS (NERCHA)
Supporting a Strategic Information Assessment in Swaziland
MEASURE Evaluation helped NERCHA define data flow for national-level output indicators, identify data management challenges, and assess the M&E structures and processes that provide the necessary HIV/AIDS program data.

The Information Use Map helped participants see how data analysis was limited to compiling and summarizing data for reports to the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Facility-level information was only reported to higher levels, not processed to deliver actionable insights at the local level. Nor did the facilities receive feedback about their performance in regional or national context.

As part of the Information Use Map exercise, participants identified ways to send higher-level reports back to the facilities to support local decision-making processes—as well as resolve local data quality and lead time issues.

Dominica, St. Lucia and St. Vincent – February–March 2005
National AIDS Program for each country
Developing Information Use Maps for HIV/AIDS data
MEASURE Evaluation helped in-country stakeholders develop an Information Use Map to assess information flow for decision-making among national AIDS programs.

The Information Use Map showed how little use was made of HIV/AIDS data. Most of the capacity and energies of the M&E system were spent on generating reports for the Ministry of Health, the national government, regional counterparts and international donor agencies. In general, facilities and communities did not use HIV/AIDS data to improve their own programs, nor was there sufficient capacity to do so.

In follow-up consultations, a MEASURE Evaluation facilitator helped stakeholders identify opportunities to use routinely collected HIV/AIDS data, as well as obtain feedback from regional and international levels. “How well are we meeting international goals?” “Do our reports meet expectations for data quality?” “How have high-performing entities achieved their successes?”

The group also created an Information Use Map that described what the information flow should look like—a powerful, visual message to use in advocating for funds from regional, national or private-sector organizations.

Kenya – February–March 2006
Population Studies and Research Institute, University of Nairobi
Using Information Use Maps in M&E training programs
MEASURE Evaluation has used the Information Use Mapping tool as a key component of training modules on data use for several national and international M&E training programs.
In Kenya, Information Use Mapping was incorporated into the training program for 16 staff from the National AIDS Control Council and the National AIDS and STDs Control Programme of the Ministry of Health.

In the training session, the mapping exercise focused on specific indicators from their HIV/AIDS program—encouraging participants to think strategically about how to best use that information at various levels. After the training program, insights from the Information Use Mapping exercise were applied in the real world, as participants implemented their national M&E system for HIV/AIDS.

**About this document**

**What is in this tool guide?**

*Information Use Mapping description, sample, approach and process*

This document contains descriptions of:

- The purpose, audience and typical applications for this tool.
- Guiding principles of the Information Use Mapping methodology.
- The structure of baseline and expected Information Use Maps.
- A systematic process for creating and using an Information Use Map.
- A checklist to use in implementing the process.

**Guiding principles**

**The Information Use Mapping approach**

*Issues and considerations for using this tool*

An achievable scope for the Information Map assessment needs to be selected. Information Use Mapping can be applied for a full M&E framework for a national program, or for key indicators of that program, or within one agency or facility.

The more limited the scope, the more practical the application. For example, mapping the entire M&E system for a national HIV/AIDS program could prove cumbersome and complex, but it would be realistic to map one indicator or component of that program, such as voluntary counseling and testing (VCT) or anti-retroviral therapy (ART). With a more specific focus, the Information Use Map would be more direct and specific.

The tool was designed for rapid assessment. Information Use Mapping is intended to be a short-term exercise with long-term vision. The assessment and recommendation phases typically require a week or less. This is not intended to be an exhaustive assessment of every aspect of an M&E program, but rather a quick, highly visual representation of gaps and opportunities. The sooner the findings are revealed, the more relevant it will be to stakeholders—and the greater the momentum to move forward with interventions.
The mapping process can be formal or informal. The process often begins with informal information-gathering with a few M&E specialists or key stakeholders. These informal sessions lead to a draft version of the map that is then shared with a small subgroup to verify the initial assessment and brainstorm initial recommendations for improvements. In other cases, the review process takes place in a formal workshop with a larger group of key stakeholders. The tool accommodates either way of working—formal or informal.

The process should include a broad range of stakeholders. Representation from the following three categories should take part.

- Technical specialists, such as an M&E coordinator
- People who are empowered at the national level to implement any planned improvements, such as a national malaria program manager
- Development partners, such as staff of donor agencies in the funding/reporting cycle

These people could be identified as part of a prior stakeholder analysis exercise. They should be involved in the process and have ownership in it. An Information Use Mapping activity for HIV/AIDS data in Dominica included the following stakeholder groups:

- Non-governmental organizations (NGOs)
- District and regional health administration organizations
- Laboratories, pharmacies and local health centers
- National AIDS program
- Ministry of Health
- Caribbean Regional Epidemiological Center (CAREC)

This is a collaborative and iterative process.

Collaborative. The Information Use Map should include the perspectives of key contributors in all aspects of the information flow. An external consultant (such as a MEASURE Evaluation representative) can be of great assistance as a facilitator in defining the baseline map, interventions or feedback mechanisms to improve that map, and the future map.

Iterative. The process usually starts with an initial small group meeting with a few data specialists and available stakeholders to draft the initial Information Use Map. Once drafted, the map is then validated in a formal stakeholder workshop, where improvements are recommended and prioritized.

The Information Use Mapping tool is flexible and adaptable.

Flexible. The mapping format and process presented in this document were developed from extensive experience with healthcare and population planning issues in Africa and the Caribbean. However, the tool reflects best practices that are applicable to a broader realm of issues and environments.

Adaptable. The process can be tailored to suit the circumstances. For instance, the background for the baseline Information Use Map could be gathered from a series of one-on-one interviews or a group workshop with all stakeholders together.
The Information Use Map format itself is adaptable, in that each map will include stakeholders/levels appropriate for the scope of the exercise. Other elements of the Information Use Map, such as the columns (data collection, collation, analysis, storage, reporting and use), or the order of stakeholders (low-to-high or high-to-low), can be adapted. However, note that custom adaptations may compromise the ability to compare Information Use Maps across times and settings.

**Process steps are not absolute.**
The Action Plan presented in this document outlines a logical sequence of steps, from project initiation to post-project review. However, not all steps will be relevant for all cases.

For instance, an informal assessment of information flow within one institution would not entail gathering stakeholders at national and international levels. Therefore, this Action Plan should be considered a guiding framework, representing best practices for typical Information Use Mapping activities, and not a strict prescription.

**The Information Use Map**

*What does the tool include?*

*The Information Use Map is a schematic representation of information flow across various groups or stakeholders at different levels.*

The following flowchart is designed to allow users to quickly, visually assess deficiencies and opportunities in the use of information. As such, the structure of the map is straightforward:

- Each row of the chart represents a stakeholder group, such as the local healthcare facility, ministry of health or international donor organization. Stakeholders are labeled down the left side of the map.

- Each column of the chart represents a stage in the information lifecycle, from data collection and collation, to analysis and reporting, to applying the data, to support optimal decisions.

Active data processes are mapped into this framework, with lines and arrows showing reporting hierarchies and other transfers of information between stakeholders or lifecycle stages.

On the following pages, there are three sample maps:

- A baseline Information Use Map that maps the flow of an existing information system.

- An annotated version of the baseline map identifying the points in the system where feedback loops and opportunities for data use need to be developed.

- A forward-looking Information Use Map that includes new elements, to show proposed enhancements.
Sample baseline Information Use Map

Adapted from Strategic Information Assessment in Swaziland
MEASURE Evaluation, January 2006

When an information flow is mapped visually, deficiencies quickly become apparent. Large, empty expanses of the chart tell the story. In sample (A), it is clear that insights from high-level reports are not shared back with lower levels, and information is only being used to file reports, not to support evidence-based decisions for program improvements. The second map (B) highlights potential improvements in the M&E system where feedback mechanisms can be developed and where opportunities for increased data use can be identified.

(A) Existing Data Flows

<table>
<thead>
<tr>
<th>Information Use Map</th>
<th>Swaziland National HIV/AIDS Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May 2005</td>
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<table>
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<tr>
<th></th>
<th>Data Collection</th>
<th>Compilation</th>
<th>Storage</th>
<th>Analysis</th>
<th>Reporting</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private Clinics</strong></td>
<td>Client data collected in electronic patient record system</td>
<td></td>
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<tr>
<td><strong>NGOs</strong></td>
<td>Client data collected in electronic patient record system</td>
<td>Client data stored in electronic patient record system</td>
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<tr>
<td><strong>Government Facilities</strong></td>
<td>Client data collected in registers</td>
<td>Staff compile into monthly summary sheets</td>
<td>Regiona</td>
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<tr>
<td><strong>Regional</strong></td>
<td>Regional facilities’ monthly summary sheets compiled</td>
<td>Data entered into Access at MOH Health Statistics or NSEROHA</td>
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<tr>
<td><strong>SNAP/Moskwa</strong></td>
<td>Reporting to WHO or OFATM</td>
<td>Reporting to WHO or OFATM</td>
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</tbody>
</table>
(B) Potential Improvements to the M&E System

Information Use Map: Swaziland National HIV/AIDS Program
May 2005
Sample expected (future) Information Use Map

For an M&E system for HIV/AIDS community-based data

This Information Use Map describes a future scenario that would improve data use. This map was developed with stakeholder consensus during a workshop in which desired improvements in the M&E system were prioritized. In this scenario, information transfer is now two-way, with feedback and quarterly reports being broadly shared across stakeholder groups. The map also identifies ways to use data to monitor and evaluate programs, improve programs, lobby for additional funding, influence legislation, or share information with the media and the public.
Creating the baseline Information Use Map

Collecting information to characterize existing information flow
Information-gathering through a questionnaire or interactive group forum

This section provides details on each stage of the information lifecycle (collection, collation, analysis, etc.), to help facilitators gather the information to create a baseline Information Use Map.

Collection

Determine what data elements are collected (or need to be collected), and include this as an action item in the row for the person or group responsible for that action. To obtain this information, a facilitator might ask:

- What data elements are collected?
- How are these data elements collected?
- What is the format?
- Is it electronic or manual?
- Who collects the information?
- How often is it collected?
- What issues, if any, influence data quality or security?

When the answers to these questions are assembled, a description such as this is written: “A nurse records the number of clients who received pre-test counseling for HIV in a logbook and on client charts, by hand, at the end of each day.”

Note that not every stakeholder will be involved in data collection. It is perfectly normal for the left-hand column to have entries at the lower and middle levels but not at higher levels.

Collation (or Compilation)

Discuss and capture how the collected data elements are compiled. To obtain this information, a facilitator might ask:

- What data elements or forms are collated?
- What is the format?
- Is it electronic or manual?
- Who collates the information?
- How often is it collated?
- What issues, if any, influence data quality?

When the answers to these questions are assembled, a statement that describes the collation process is written. An example of the statement would be: “The district nurse-midwife manually adds up data from the VCT logbook and writes the total into a hard copy of a VCT abstraction form on a monthly basis. This compilation, however, is not always done on time.”
Note that not all data collection processes have matching data collation processes.

**Storage**
Discuss and capture how the collected and/or collated information is stored. (Note that it is possible that not all data will be stored). To obtain this information, a facilitator might ask:

- What collected or collated data are stored?
- How is this information stored?
- Is the storage electronic or manual?
- If electronic, what database format or software program is used?
- Who stores the information?
- How often is the information stored?
- What issues influence the quality or security of stored data?

When the answers to these questions are assembled, an active statement that describes the storage process, such as the following, is written: “The district nurse-midwife copies VCT monthly abstraction forms. The original is kept in a locked cabinet in her office, and the copy is mailed to the health information unit statistician. The data are entered biannually into Excel on a secure computer that is backed up nightly on the Ministry of Health server.”

**Analysis**
Discuss and capture the process of analyzing collected and collated data. To obtain this information, a facilitator might ask:

- What collected or collated data are analyzed?
- How is this information analyzed?
- Is the analysis electronic or manual?
- If electronic, what software program is used for analysis?
- What type of analysis is conducted?
- Who does the analysis?
- How often is the analysis done?
- What issues influence quality or security of analysis?

When the answers to these questions are assembled, a statement that describes the analytical processes is written: “A statistician in the health information unit analyzes data in the Excel VCT database once each quarter to determine frequencies and percentages of clients receiving the service.”

Note that some data elements will be collected but not collated; analysis is done on the original source data. It is also possible for one set of data to be analyzed in different ways by different system participants.
Information Use Mapping

Reporting
Discuss and capture the reporting process, by asking:

- What raw data and/or analyzed information data are reported?
- How is this information reported?
- Is the report electronic or manual?
- If electronic, what software and communications are used?
- Who prepares and distributes the report?
- How often are the reports prepared and distributed?
- What issues influence the quality or security of reports?

When the answers to these questions are assembled, a statement that describes the reporting process is written: “The National AIDS Program Coordinator prepares a National AIDS Program Annual Report for the Ministry of Health, which documents the percentage of clients who accepted an HIV test after pre-test counseling.”

Use
The following questions are asked to discuss and capture the use of information to support a decision or activity:

- What data are used for practical decision making (such as advocating for funds, designing program improvements, or influencing policies)?
- How are data used; what decisions do they inform?
- What is the mechanism for facilitating the use of this data (such as quarterly department meetings and annual planning meetings)?
- How often does this process take place?
- What issues, if any, influence the quality and security of data use?

Data can be used immediately after any of the previous steps. For example, collated health facility data may be used immediately within facilities during a meeting of department heads to inform the improvement of client care or procurement of commodities. Ideally, there is some use of information for every stakeholder on the map.

The information in this section can be used to create a custom questionnaire to guide interviews with key informants. Stakeholders should review and approve the questionnaire at the initial meeting.
Process Action Plan

For using the Information Use Mapping tool

Seven steps

Step 1. Perform pre-assessment planning.

1.1 Identify a potential need or opportunity. At times, national governments feel that their M&E systems are not delivering all the reports and value that they should. Unsure about how to resolve deficiencies with limited budgets and personnel, they may ask for help from external donors or government agencies. This request for assistance can trigger a direct request to MEASURE Evaluation (or other technical assistance organization) to perform an assessment and make recommendations. Information Use Mapping is very well suited for this task.

Sometimes the opportunity is brought to light by MEASURE Evaluation colleagues and host-country counterparts. These people can help determine an appropriate time to engage in this activity and help make introductions with in-country stakeholders.

1.2 Write up an internal summary of the planned activity. This document could be as simple as an email or one- or two-page proposal, which could describe:

☐ The need identified in Step 1.1.
☐ How technical support to address that need will be provided.
☐ The preliminary list of stakeholders and how they will be engaged.
☐ An outline of process steps.

1.3 Obtain endorsement and approval from the activity lead to proceed, or whatever organizational authorization process is required.

Step 2. Define details of the activity.

2.1 Determine the scope of the Information Use Map. What is the program area to be addressed? What is the scope of the map(s)? Will the map examine national data flow or information flow for one facility? Will it examine all community-based data, or data flow for certain surveys, special studies or indicators? In general, the more focused the scope, the more practical and targeted the recommendations that will result.

2.2 Identify the key participants. A small, core group of interested individuals who will help drive this process needs to be identified. Their goals and objectives need to be determined, and the role of the Information Use Mapping tool needs to be clarified.

2.3 Adapt the Information Use Map, if necessary. The standard Information Use Map sets forth six stages or steps in the information lifecycle: data collection, collation, storage, analysis, reporting, and use. If the activity has some unique step to consider, the map can be adapted accordingly. In should be kept in mind that adapting the structure will reduce the usefulness of the map for comparisons across time or across scenarios. The amount of detail required for describing each of the stages or steps should be kept to a minimum. Since the basic
purpose is to identify gaps in the information flow and opportunities for improved data use, more focus should be placed on the element of data use.

Step 3. Engage stakeholders.

3.1 Identify a limited number of stakeholders. Only a few stakeholders are needed to help create a preliminary Information Use Map. The objective is not to be as inclusive as possible, but rather to move forward efficiently to capture the existing information flows. Some recommendations need to be made and priorities need to be set. These priorities can be reviewed later with a broader group of stakeholders.

This core group of stakeholders should include one or two representatives from each of these categories:

- Technical specialists, such as an M&E coordinator.
- People who are empowered at the national level to implement any planned improvements, such as a national malaria program manager.
- Development partners, such as staff of donor agencies in the funding/reporting cycle.

To help identify the best people to include, conversations with in-country personnel or information from a formal stakeholder analysis are useful.

3.2 Obtain buy-in on the purpose and scope of the activity. Plan for the approach to be used, the scope of the map, the facilities, and people to be interviewed. The product of the activity, and what various stakeholders will get out of the activity also need to be discussed and clarified. These issues should be clarified in initial conversations or a group meeting. It is important to obtain consensus on what the activity will achieve. Stakeholders need to understand that the tool is designed to identify opportunities for improvement; it is not itself an intervention.

Diplomacy is important here. Even though an external consultant might view Information Use Mapping as a basic assessment, host-country stakeholders can perceive it as a critique of their performance or capabilities. By setting an objective tone at the outset—“This is an exercise to obtain more use from available data”—political and personal sensitivities can be minimized.

Step 4. Gather information for the baseline Information Use Map.

4.1 Conduct desk review of official information processes. The process needs to begin with a comprehensive review of plans, national policies, and guidelines, particularly an M&E framework or implementation plan, if available.

4.2 Conduct interviews with data reporting people. Whereas the desk review will yield the official perspective on how data-flow processes should work, a real-world view will be obtained from M&E specialists at the institutions involved in reporting processes. Interviews with these people will confirm the degree to which the national M&E plan has been implemented, and if deficiencies exist, why they exist.
4.3 **Conduct interviews with key informants.** In Step 3 (and probably also through the desk review and interviews with M&E people) appropriate people to interview were identified. This will be a small number of key informants—no more than 10 or 12—representing a few typical facilities at each level, such as a national referral hospital, district hospital and a selection of local health centers or community-level programs. Details about how to gather the information can be seen in the “Creating the Baseline Information Use Map,” mentioned earlier in this document.

The interview for Information Use Mapping does not replace a Service Provision Assessment (SPA) or other health service survey interview. An Information Use Map does not collect information about health services that are being provided. In this step, a limited interview is conducted to help determine existing systems for analyzing or using data.

4.4 **Create a report of findings**, including the baseline Information Use Map and explanatory text as necessary.

**Step 5. Conduct a validation workshop with key stakeholders.**

A day-long workshop with as many of the original stakeholders should be convened as possible. At this workshop, participants will:

- Review the findings of the baseline Information Use Map and validate the researcher’s interpretation (or clarify any perceived discrepancies).
- Identify opportunities for improving data use and feedback mechanisms in that flow.
- Map the appearance of their expected Information Use Map.
- Prioritize the activities or interventions that were recommended.
- Design actionable next steps for program managers to implement those recommendations.

What does the Information Use Map look like? Where are there new opportunities to use information? What resources are needed to make that happen? What barriers exist, and how can they be addressed? What should be done next, and how? The answers to these questions do not necessarily have to be detailed or comprehensive, but there should be enough information to form a guideline and encourage forward momentum.

**Step 6. Document and share the results of the validation workshop.**

6.1 **Create a final report.** The final report should include the following elements:

- The baseline Information Use Map, updated to reflect any revisions suggested during the stakeholder workshop.
- Narrative description of gaps that were identified, such as areas where useful data were readily available but not used.
- The projected Information Use Map, showing the anticipated information flow.
- Narrative description of proposed activities to implement that projected view: interventions (such as capacity building on data analysis and use at different levels in the
system) and feedback mechanisms (such as dissemination of reports down the levels). Where possible, tangible recommendations should be included in the report.

- Priorities, required resources, and next steps.

For example, the following questions should be addressed in the final report:

- What exactly is a “resource” in this context? Is it money, another data analyst, a software program, an approval or a new skill?
- What exactly is the feedback loop? Is it an email distribution of a report, or a quarterly meeting with managers during regular site visits? Is it a matter of sending printed copies of a report to a broader audience than before?
- What is meant by “more analysis?” Is it a trend analysis of indicators at the district level, comparing targets with achievements at each level of the system? Is it estimating coverage levels for various services at the district and sub-district level? What indicators should be included?

When recommendations are specific, the next steps can also be specific, and are more likely to take place.

6.2 Share this report with stakeholders, especially national program managers and donor agencies. This report can serve as a baseline and roadmap for host-country representatives as they carry out the recommendations and conduct future assessments of their M&E system.

Step 7. Monitor and document the results of using the Information Use Map.

An objective of MEASURE Evaluation (and the driving purpose of the Information Use Mapping tool) is to promote better use of data to drive decision making. This objective is shared by many organizations. Furthermore, donor organizations (such as USAID, CDC and World Bank) want to know that data-collection efforts yield maximum value in real, human terms, not just in more reports.

All of these objectives are served by revisiting the Information Use Map and documenting the successes that can be directly or indirectly attributed to its use. It is advisable to maintain a relationship with the in-country “owner” or champion of the Information Use Map—even if it is only through email correspondence—and periodically review the following types of information:

- Which recommendations have been implemented?
- In what new ways are data being used to drive program success?
- In what ways have better data processes supported training activities?
- What has been the impact of new feedback mechanisms?
- Does the organization use the Information Use Map as an ongoing guide?
- What overall benefits have been seen?

Documenting this information helps enable MEASURE Evaluation refine the tool based on an ever-expanding range of field experiences.
Checklist

For an Information Use Mapping activity

Summary of the Process Action Plan

This checklist can be photocopied and used as a reference for the process steps. Note that Information Use Maps with a limited scope—such as within an institution—will not require all the steps. This checklist should be used as a general guideline, to ensure that a systematic approach and best practices are followed.

- **Step 1. Perform pre-assessment planning.**
  - 1.1 Identify a potential need or opportunity.
  - 1.2 Develop an internal summary of the planned activity.
  - 1.3 Obtain endorsement for the project plan.

- **Step 2. Define details of the activity.**
  - 2.1 Determine the scope of the Information Use Map.
  - 2.2 Identify the key participants.
  - 2.3 Adapt the Information Use Map, if necessary.

- **Step 3. Engage stakeholders.**
  - 3.1 Identify a limited number of stakeholders to include.
  - 3.2 Obtain their buy-in on the purpose and scope of the activity.

- **Step 4. Gather information for the baseline Information Use Map.**
  - 4.1 Conduct a desk review of official information processes.
  - 4.2 Conduct interviews with data reporting people.
  - 4.3 Conduct interviews with key informants at all levels.
  - 4.4 Create a report with the baseline map and explanatory text.

- **Step 5. Conduct a validation workshop with key stakeholders.**
  - Review and validate the baseline Information Use Map.
  - Identify new opportunities for feedback mechanisms and data uses.
  - Map out the appearance of the expected Information Use Map.
  - Prioritize the activities or interventions that were recommended.
  - Design actionable next steps for program managers to implement.

- **Step 6. Document and share the results of the validation workshop.**
  - 6.1 Create a final report with both the baseline and expected maps.
  - 6.2 Share this report with key stakeholders.

- **Step 7. Monitor and document results of using the Information Use Map.**
Conclusion

Improving data flow and utilization at all levels

Ensuring that data drives real advances in health and welfare, not just reports

Data collection systems are often designed and developed with a singular goal: report to national governments or international donor agencies. Huge volumes of data are created, but little of it is actually used to directly benefit programs and people.

"Does our program serve all the people it is intended to serve? If not, what should we be doing differently?"

"Are we making progress toward reaching the people who need HIV/AIDS voluntary counseling and testing?"

"What percentage of children who experienced diarrhea have access to oral rehydration solutions? Have we adequately trained mothers to provide this care?"

"Are we doing a better job providing ante-natal care to pregnant women at local clinics? What could we do to reach even more women?"

"What percentage of children and pregnant mothers are actually using the insecticide-treated bed nets we distributed? How can we improve this?"

The extent to which program managers can answer these questions depends on where analysis takes place, who has access to the findings and — where information is compiled at a high level — what specific channels have been created for feeding that information back to relevant service providers.

The Information Use Mapping tool is invaluable for:

- Identifying missed opportunities for facilities or community organizations to analyze their own data—to identify problems with the services they are providing and suggest mid-course improvements.
- Identifying ways to provide program managers with the information about their performance in a broader context.
- Ensuring that new M&E initiatives are designed to deliver real-world benefits.

By enabling people to see the long-term value of the data they are collecting, Information Use Mapping increases their commitment to quality and consistency in data collection and analysis.

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