Tools for Data Demand and Use in the Health Sector

Information Use Map

MEASURE Evaluation
MANUAL

Information Use Map

CONTENTS

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.

Since such large amounts of money and effort are being devoted to collecting data and reporting in health information systems, maximizing the impact of that data for real-world benefit is essential. This is where the Information Use Mapping tool is so valuable.

1 PURPOSE

Information on the delivery of health services is often hidden in shelved reports and not shared with those that can use it to improve health programs.

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.

Unfortunately, local facilities never received 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.

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 a 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.

2 DESCRIPTION

The Information Use Map identifies existing data reporting channels and opportunities to increase the use of information to benefit programs and people.

One of the features that makes this tool so unique and effective is its visual nature. A flowchart captures a highly conceptual process in a way that is visible, clear, and concrete. 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 tool 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.

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 one 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.

The Information Use Map should be used in conjunction with the Planning Matrix to ensure that opportunities identified for increasing the use of information are actualized.

Formal planning should follow up the mapping process

The Information Use Map is developed to describe the current information system and then amended to outline a future or expected information flow scenario. Once key stakeholders have developed this expected or future Information Use Map, they may need an action plan to outline how to refine the current information system and flow. The Planning Matrix that follows allows stakeholders to identify key actions to take in order to strengthen data use based on their expected Information Use Map.

Stakeholders will begin by identifying all changes required to implement the expected Information Use Map. They will then prioritize these changes and list them in the first column of the plan. For each identified change, stakeholders will discuss specific interventions and the steps involved in implementing these interventions. The Proposed Interventions and Steps Involved should be as specific as possible to ensure adequate and accurate implementation. Stakeholders are also asked to identify:

- person(s) directly responsible,
- other stakeholders involved, and
- general timeline.

This Planning Matrix will provide guidance to the stakeholders responsible for refining the information system, and will also clearly allow them to assess progress in implementing the proposed changes.

The Information Use Mapping tool is adaptable

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.

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—or levels of data collection—appropriate for the scope of the exercise. Other elements, such as the columns (data collection, collation, analysis, storage, reporting, and use), or the order of stakeholders/level of data collection (facility-level to national-level) 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 Planning Matrix presented in this document allows the user to outline a logical sequence of steps to improve information flow, from intervention initiation to post-intervention review. The Planning Matrix should be considered a guiding framework, representing steps and best practices for improving information flow and use, and should not be considered a strict prescription.

3 TEMPLATES

The Information Use Map is a schematic representation of information flow across various stakeholders at different levels of the data collection system.

The following Information Use Map is designed as a flowchart to allow users to quickly and 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 level of data collection or 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 supporting optimal decisions.

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

A Planning Matrix template is also provided to assist users in outlining a logical sequence of steps to improve information flow based on the opportunities identified in the Information Use Mapping process. The Planning Matrix should be considered a guiding work plan , representing steps and best practices for improving Information flow and use, and should not be considered a strict prescription.

Baseline and Annotated Information Use Map—Template

	Data Collection	Compilation	Storage	Analysis	Reporting	Use
Private Clinic						
NGO						
Government Facility						
District						
Regional						
National						

Planning Matrix Template—Strengthening Data Demand and Use by Addressing Problems in the Flow of Data and Information

Barrier or problem identified in Information Use Map	Proposed intervention	Steps involved	Person(s) responsible	Other stakeholders	General timeline

4 USE

This tool is generally used to improve the flow of information, 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 the update of an existing map. Examples include:

- When developing an M&E framework for a national strategic plan.
- When planning a new component of an M&E system, such as a national survey program.
- When there is insufficient information to guide mid-course program corrections.
- When information is available, but is underutilized.
- When stakeholders could benefit from feedback.
- During regular program reviews.

5 AUDIENCE

This tool is meant for key individuals involved in collecting, analyzing, reporting, or using health information.

The tool has two principal sets of users that should together draft each version of the tool. Specific roles include:

- **Program managers** and other key stakeholders from various levels of the information system (such as national, sub-national, and facility):
  - » Identify key participants/stakeholders in the information flow.
  - » Define the baseline Information Use Map, which describes the current information flow and existing mechanisms for using that information.
  - » 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 for improvement in this information flow.
  - » Design and prioritize the interventions (such as feedback mechanisms or training programs) for improving this information flow.
  - » Adopt the Information Use Map as an explicit component of their M&E system.

- **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 the 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 Mapping process.
  - » Periodically revisit the Information Use Map to gauge progress toward the desired information flow.

6 FIELD APPLICATION

National AIDS Programs in Dominica, St. Lucia, and St. Vincent—February to March 2005.

MEASURE Evaluation helped in-country stakeholders develop an Information Use Map to assess information flow for decision making among national AIDS programs in Dominica, St. Lucia, and St. Vincent between February and March 2005.

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 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.

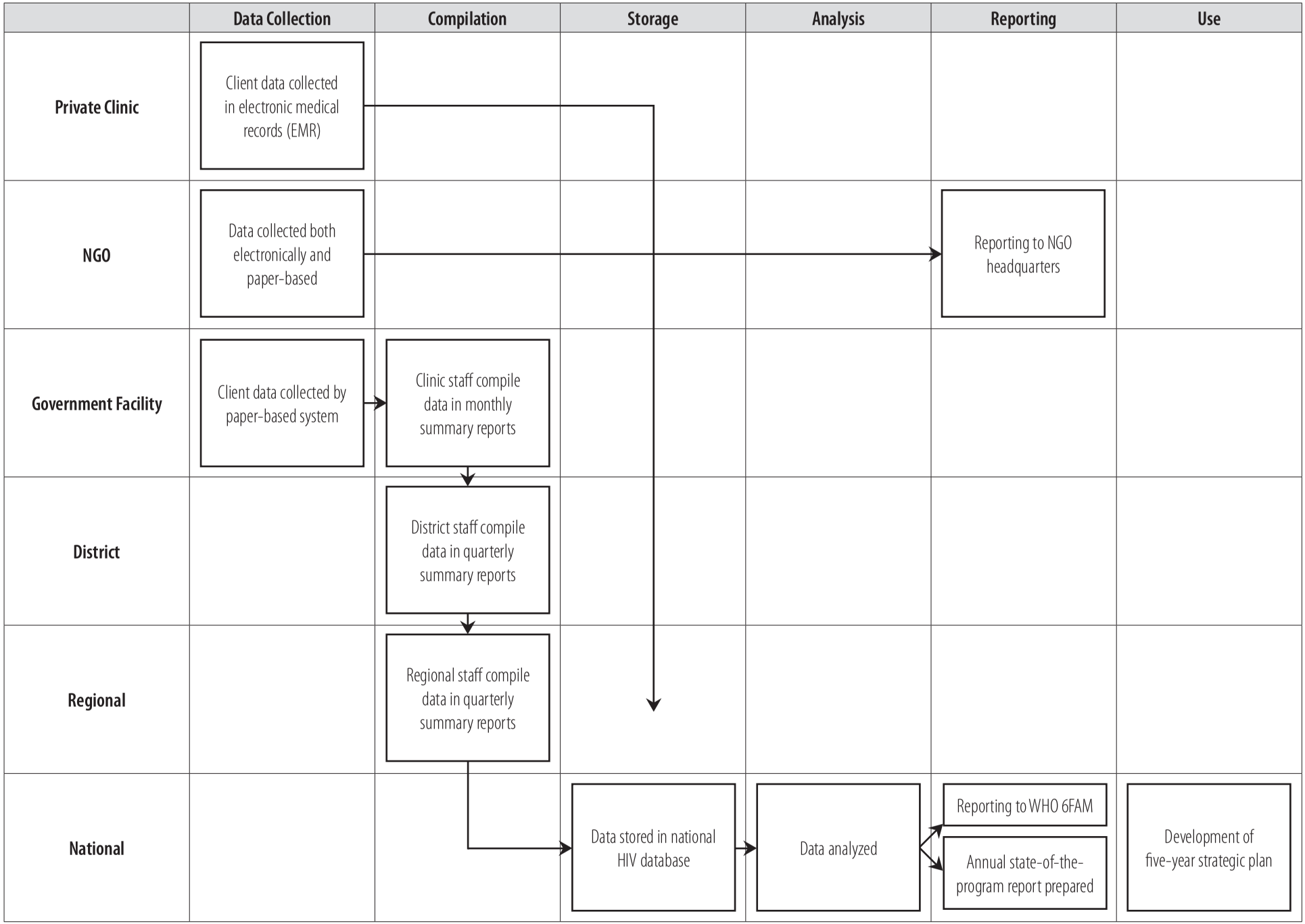
7 EXAMPLE APPLICATION

Adapted from Strategic Information Assessment in Swaziland—MEASURE Evaluation, January 2006 *(note: The Information Use Maps included here are not the actual maps produced in Swaziland)*

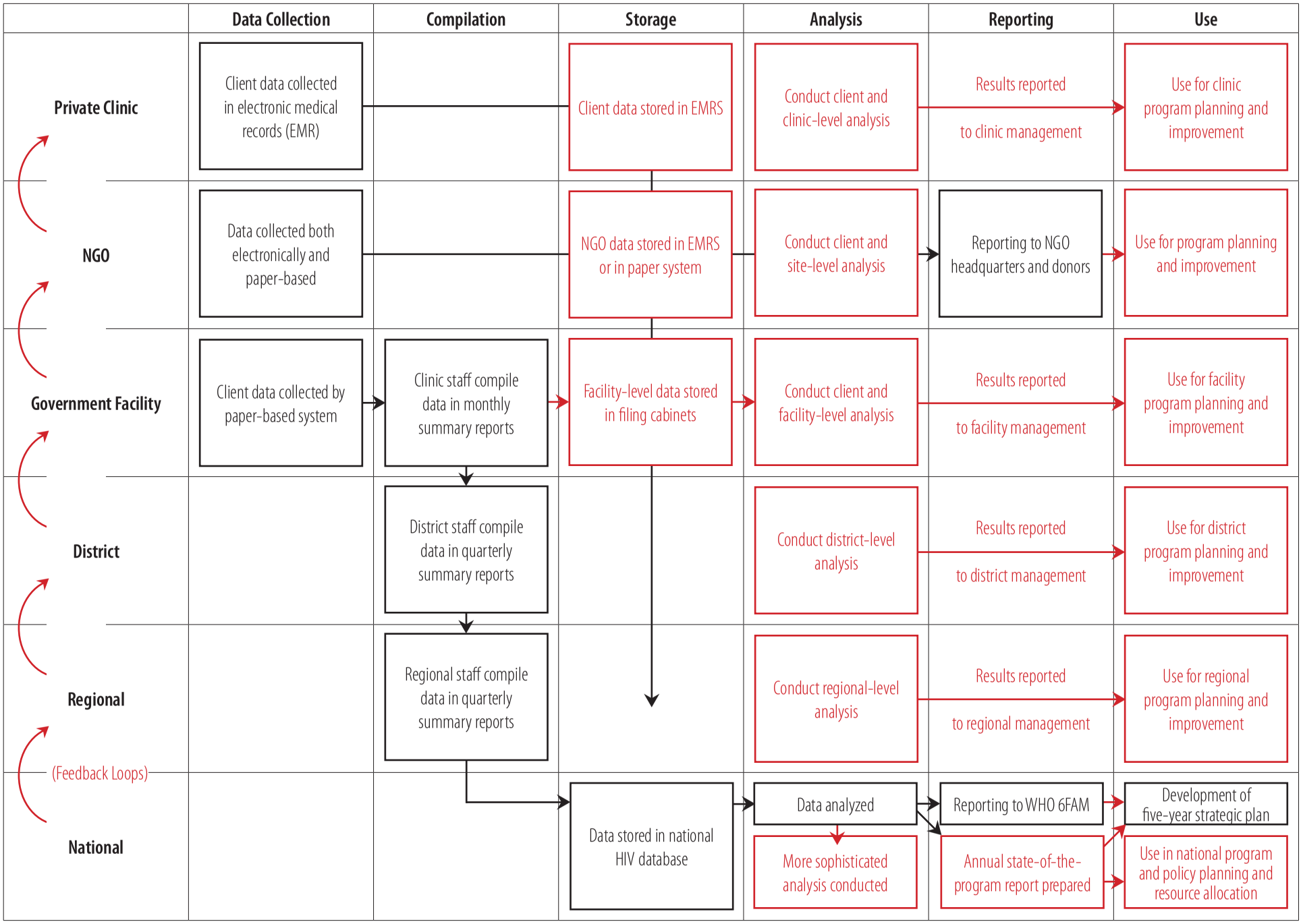
When an information flow is mapped visually, deficiencies quickly become apparent. Large, empty expanses of the chart tell the story. In the first example (A), it is clear that insights from high-level reports are not shared back with lower levels and information is only being used to file reports, not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

The annotated Information Use Map and Planning Matrix describe 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 discussed. In this scenario, information transfer is now two-way, with feedback and quarterly reports being broadly shared across stakeholder groups. The map also identifies additional analyses that can be conducted to answer specific questions at different levels of the data collection system. The resulting information can be used to monitor and evaluate programs, improve programs, lobby for additional funding, influence legislation, or share information with the media and the public.

Existing Data Flow Map—Information Use Map A: National HIV/AIDS Program (May 2005)



Annotated Map that Shows Potential Improvements—Information Use Map B: National HIV/AIDS Program (May 2005)



Sample Planning Matrix—Strengthening Data Demand and Use by Addressing Problems in the Flow of Data and Information: Swaziland

Barrier or problem identified in Information Use Map	Proposed intervention	Steps involved	Person(s) responsible	Other stakeholders	General timeline
Private clinic level not using data in programmatic decision making.	Work with private level clinics to encourage them to access the national HIV database and conduct specific analyses to monitor programs.	Contact head of Physician's Professional Association to develop a partnership with the MOH.	Dr. Lala	• Medical Association leadership • Head of MOH HMIS	July 2006
NGOs not using data in programmatic decision making.	Work with private level clinics to encourage them to access the national HIV database and conduct specific analyses to monitor programs.	Contact head of the NGO to develop a partnership with the MOH.	Dr. Pilusa	• NGO leadership • Head of MOH HMIS	June 2006
Government facilities not using data in programmatic decision making.	Work with private level clinics to encourage them to access the national HIV database and conduct specific analyses to monitor programs.	Contact head of the NGO to develop a partnership with the MOH.	Dr. Pilusa	• NGO leadership • Head of MOH HMIS	June 2006
District Health Management Teams (DHMTs) are not using district-level data.	• Assist DHMTs to identify programmatic questions relevant to decision making. • Provide training to DHMTs to conduct specific analysis to monitor district-level service delivery. • Provide training on accessing the national HIV data base.	Train trainers to conduct district-level data use workshops to (1) identify programmatic questions by implementing the Framework for Linking Data With Action, (2) build basics analysis and interpretation skills, and (3) navigate the national HIV database.	Dr. Sukuta	• HMIS and M&E Directorates • DHMTs • MOH services department	December 2006
Regional Health Management Teams (RHMTs) are not using district-level data.	• Assist RHMTs to identify programmatic questions relevant to decision making. • Provide training to RHMTs to conduct specific analysis to monitor regional-level service delivery. • Provide training on accessing the national HIV database.	Train trainers to conduct regional-level data use workshops to (1) identify programmatic questions by implementing the Framework for Linking Data With Action, (2) build basics analysis and interpretation skills, and (3) navigate the national HIV database.	Ms. Tembe	• HMIS and M&E Directorates • RHMTs • MOH Program Divisions	December 2006
National-level MOH is not maximizing use of data for decision making	Identify additional programmatic questions and upcoming decisions and inform them with data.	• Host a national workshop to implement a triangulation exercise or Framework for Linking Data With Action. • Use data for regular monitoring of national services and program improvement. • Use data to inform advocacy needs and use in advocacy.	Dr. Nkomo	• HMIS and M&E Directorates • NAC • MOH Program Divisions	September 2006
Information does not flow back down the information system (from National back to Facility).	Improve Information feedback at all levels of the health system.	• Develop and distribute a health bulletin that reports on service delivery at the national, regional, and district levels. • Develop reporting templates for districts and provinces to use to feedback quarterly report information to the participating facilities. • Encourage quarterly data review meetings at the facility, district, and regional levels to discuss and compare progress to surrounding areas.	Dr. Nkomo	• HMIS and M&E Directorates • NAC • MOH Program Divisions • RHMTs • DHMTs	February 2007

8 CREATING THE BASELINE INFORMATION USE MAP

Collecting information through a questionnaire or interactive group forum to characterize existing information flow.

1) Create a template

The Information Use Maps presented in this document were created in Microsoft Word. To create your own map, open a blank Word document, and change the page orientation to "Landscape" using the "Page Layout" menu. Add a table (this example shows a 7x7 table) using the "Insert" menu.

2) Refine the row headings

The first step in this process is to refine the headings for the rows listed down the left side of the map. In each row the stakeholder or the data collection level is specified. Label the rows to reflect your facility type (or stakeholder type) and the columns to reflect the stages of information gathering or use in your setting. The blank and sample Information Flow Maps included in this section lists the common hierarchy of data collection from the facility service delivery level to the national coordinating level. Each country and stakeholder using the Information Flow Map will have different data collection levels and stakeholders who collect data, so it is important to refine the row headings before filling in the Information Use Map.

3) Fill in the columns

The columns represent each stage of the information life cycle (collection, collation, analysis, etc.). By defining each stage, facilitators can gather the information to create a baseline Information Use Map. This information is entered in the map columns.

Entries are placed in text boxes in each of the relevant cells, and then connected by arrows to show the flow of information. The first rendition of the map is all in black, as they are the initial entries (See Existing Data Flow Map—A).

When you add information to the initial map that shows potential improvements to the flow of information, using color helps highlight the evolution of your map (see Annotated Map that shows potential improvements—Map B). Text, text boxes, and arrows can all be manipulated to appear in different colors.

- **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: 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: 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: 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.)

- **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." (Note: Be sure to differentiate between reporting and use. Often, when asked how they will use the data, respondents will say, "We're going to use it to prepare a report." For an Information Use Map, "using the data" means leveraging it to support a decision or activity, not just to prepare a report.)

- **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. (Note: 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.)

9 IMPLEMENTATION CHECKLIST

Seven steps for using the Information Use Mapping tool.

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. 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 recognize that improvement in data use is needed. The Information Use Map is very well suited for this task.

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

❒ 1.3—Write up an internal summary of the planned activity. This document could be as simple as an e-mail 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.

❒ 1.4—Obtain endorsement and approval from the activity lead to proceed.

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 must 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. The standard Information Use Map lists six levels of data collection. Depending on the situation in which it is being used, the number of levels will vary. The standard Information Use Map also sets forth six stages or steps in the information lifecycle: data collection, collation, storage, analysis, reporting, and use. If an activity has a unique step to consider, the map can be adapted accordingly. It 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. Certain recommendations need to be made and priorities 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 individuals to include, conversations with in-country personnel or information from a formal stakeholder analysis are useful. These individuals could be identified as part of a prior stakeholder analysis exercise. Stakeholders 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; and
- Caribbean Regional Epidemiological Center (CAREC).

❒ 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 individuals 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 a desk review of official information processes. The process should 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 staff. 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.

- ❒ 4.3—Conduct interviews with key informants. In Step 3 (and likely through the desk review and interviews with M&E specialists), the appropriate individuals 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. Steps 4.2 and 4.3 can also be accomplished in a meeting format. (Note: 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 meeting with key stakeholders and complete the Planning Matrix

- ❒ 5.1—Review the findings of the baseline Information Use Map and validate the researcher's interpretation (or clarify any perceived discrepancies).

- ❒ 5.2—Identify opportunities for improving data use and feedback mechanisms in that flow.

- ❒ 5.3—Map the appearance of their expected Information Use Map.

- ❒ 5.4—Prioritize the activities or interventions that were recommended for improving data use and feedback mechanisms by drafting the Planning Matrix.

- ❒ 5.5—Design actionable next steps for program managers to implement those recommendations by finalizing the Planning Matrix. Tangible recommendations should be included in the matrix. The answers to the following questions do not necessarily have to be detailed or comprehensive, but there should be enough information to form a guideline and encourage forward momentum:

- What does the Information Use Map look like?
- Where are the 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?

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). Refer back to the Planning Matrix when completing this section.
- Priorities, required resources, and next steps. Refer back to the Planning Matrix when completing this section. 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 e-mail 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.

❒ 7.1—Which recommendations have been implemented?

❒ 7.2—In what new ways are data being used to drive program success?

❒ 7.3—In what ways have better data processes supported training activities?

❒ 7.4—What has been the impact of new feedback mechanisms?

❒ 7.5—Does the organization use the Information Use Map as an ongoing guide?

❒ 7.6—What overall benefits have been seen?

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

10 CONCLUSION

Improving data flow and utilization at all levels to ensure that data drives real advances in health and welfare, not just reports.

Data collection systems are often designed and developed with the singular goal of reporting 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 antenatal 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 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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