Tools for Data Demand and Use in the Health Sector

Framework for Linking Data with Action

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CONTENTS

In areas of the world where the need for health services is great and resources are limited, policy and program decisions must produce the best possible outcomes. The urgency and expense associated with major health issues, such as disease mitigation, require that decisions be based on more than "gut feel" or past experience. The Framework for Linking Data with Action assists program managers and policy-makers to better understand the vital need for good data to support decision making. It also helps those that collect data, researchers and M&E specialists, visualize how their work can be applied to the program and policy context. Lastly, the Framework benefits all health stakeholders by prioritizing decisions and data-collection activities.

1 PURPOSE

Important program and policy decisions are often made based on insufficient data, even when a wealth of information is available.

The Kenyan national population agency was troubled by a stall in the fertility decline and plateau in contraceptive prevalence rate after years of success in increasing family planning.

MEASURE Evaluation helped the NCAPD develop a Framework for Linking Data with Action-Template 2 that identified opportunities to use a secondary analysis of fertility data to support evidence-based decisions about contraceptive planning. The Framework helped the agency see the need for secondary analysis of the Demographic and Health Survey dataset. This analysis revealed how program modifications would deliver better results—and enabled the Division of Reproductive Health to lobby successfully for additional resources. In fact, their evidence-based advocacy was so compelling that the organization was accorded a government-funded budget line item for family planning supplies for the first time.

In areas of the world where the need is great and resources are limited, policy and program decisions must produce the best possible outcome. The urgency and expense associated with major issues such as population and disease control require more than intuition and experience. Even if the decision made by personal insight is sound, the decision-maker will find it difficult to lobby persuasively for the resources to implement it.

Both needs—the need to make optimal decisions and to have a compelling case for advocacy—call for proof with facts. Yet, fully evidence-based decision making has been rare, for any or all of the following reasons:

- In many cases, a wealth of data resources are available, due to significant increases in data-gathering through national and local surveys and routine data collection efforts, but research reports and service delivery data are sitting on a shelf and are not being used to drive evidence-based decisions.
- Existing data resources are inadequate for decision making, perhaps because research processes did not consider how data might be used later, or decision-makers do not have confidence in the data.
- Critical policy/program decisions need to be made, and awareness of available data is low or there is not enough information to support the best decisions or to advocate persuasively for the required resources.

The Framework for Linking Data with Action is a tool to resolve these mismatches. It aligns data resources with the decisions they would support, and vice versa. The tool helps program managers appreciate the need for good supporting data, helps data managers visualize how their work can be applied, and helps all stakeholders prioritize decisions and data collection activities.

2 DESCRIPTION
Supports evidence-based decision making by creating and strengthening links between data and the decision-making processes.

The Framework for Linking Data with Action is a management tool—a combination of template and process—that serves three key purposes:

1. **Encourage greater use of information in decision making**—Identifies and documents key policy/program questions and decisions that must be made, and the information needed to answer the questions that will inform the decisions. For example, a national AIDS program has just initiated a multi-sectoral HIV/AIDS program and leaders have major decisions to make about program design, management and priority-setting. The Framework helps to prioritize decisions and link them to data that will inform future actions.

2. **Encourage better use of existing information**—Identifies existing data and uses that information to answer questions that will support evidence-based decision making. For example, a research group mandated to evaluate the effectiveness of a national family planning program has completed the report and is now interested in ensuring that this information is used to improve programs and influence family planning policies.

3. **Monitor the use of information in decision making**—Provides a timeline for monitoring progress in the decision-making process, and a systematic way of identifying data use by program managers, donors, and consultants. For example, a multidisciplinary advocacy network is interested in monitoring upcoming policy discussions and decisions, and preparing advocacy briefs to inform these specific discussions and decisions.

The Framework for Linking Data with Action can be used in various scenarios. To accommodate this, two versions of the Framework have been developed:

1. **Version 1: Data**—This version should be used when a new data collection or analysis activity has been completed. The Framework ensures that recommendations generated from the research are supported by data and disseminated to the appropriate audiences. Program or policy recommendations that are developed from research results will always be more applicable if they are developed with the stakeholders that will be directly affected by the new recommendation. This group of stakeholders is frequently not involved in the conduct of research and is therefore not intimately familiar with the study results or the strengths and weaknesses of the data. It is, therefore, helpful to provide a framework to encourage that the resulting recommendations are directly linked to the study data.

2. **Version 2: Decisions and Questions**—This version should be used when there is a specific decision to be made, or stakeholders have specific questions around program or policy issues. For instance, a district health team may be in the process of annual planning and need to make decisions about how to allocate HIV funding. To do this they will have questions about how their HIV services are functioning. By reviewing service delivery data they can monitor program success. The Framework for Linking Data with Action can help the district health team to identify their programmatic questions and the existing data sources, or the need to collect new data that can inform the answers to their questions. Answers to these questions will inform the action or decision that will need to be taken.

   The Framework for Linking Data with Action is a working document that should be extended and revised as a program develops and changes. It is recommended that this tool be complemented with an Expanded Timeline. The Expanded Timeline allows users to plan out, against time, how to implement the guidance captured in the Framework. Users can specify the exact timing of steps that are outlined in the Framework and they can also add more detail to their timeline by identifying the sub-activities of the larger primary activity. The Expanded Timeline also provides a tool to manage and monitor progress in improving evidence-based decision making.

3 TEMPLATES

This section presents two blank templates of the Framework for Linking Data with Action, versions 1 and 2, and a blank template for the Expanded Timeline:

- **Version 1: Data**—Useful to researchers/data specialists and stakeholders identifying beneficial applications for existing data (specifically research findings or survey results).

- **Version 2: Decisions and Questions**—Assists decision-makers and researchers/data specialists in identifying the data requirements upon which to base their upcoming decisions and program/policy questions to inform decision-making.

Stakeholders determine which version of the template is most appropriate based on the purpose of the Framework. The next section describes the type of content to be included in each column or field and provides sample templates that were developed for specific applications. It is recommended that the Framework for Linking Data with Action be complemented with an Expanded Timeline.

- **Expanded Timeline**—Allows users to plan out, against time, how to implement the guidance captured in the Framework. Users can specify the exact timing of steps that are outlined in the Framework and they can also add more detail to their timeline by identifying sub-activities that comprise the primary activity.

Template—Version1: Data

Title:
Objective:
Time Period:

Research Question	Findings	Recommendations for Action/ Decision	Decision-Maker (DM) and Other Stakeholders (OS)	Communication Channel to Reach DM & OS	Timeline

Template—Version 2: Decisions and Questions

Title:
Objectives:
Time Period:

Action/Decision	Policy or Programmatic Question	Decision-Maker (DM) and Other Stakeholders (OS)	Indicator/Data Required	Data Source	Timeline (Analysis) (Decision)	Communication Channel

Expanded Timeline Template

Title:
Objectives:
Facilitator:
Time Period:

	Decision-Maker	Other Stakeholders	Month	Month	Month	Month	Month	Month	Month	Month
Research question										
Finding:										
Recommendations										
1										
2										
3										
Finding:										
Recommendations										
1										
2										
3										
Research question:										
Finding:										
Recommendations										
1										
2										
3										
Finding:										
Recommendations										
1										
2										
3										

4 GUIDING PRINCIPLES
Issues and considerations for using this tool

1) Host country representatives must have ownership

To serve as an ongoing management tool, the Framework for Linking Data with Action must reflect the perspectives, needs, and interests of the people who will actually be using it. It is essential from the outset to secure input and buy-in from the stakeholders—the ultimate owners of this tool. If users of the tool have ownership of it they will become advocates for information use and will champion the Framework for Linking Data with Action process as an ongoing endeavor.

This process of applying and using the Framework must be collaborative and iterative in order to be successful.

- **Collaborative**—Though the Framework can be managed directly by researchers and M&E professionals, a program manager or other staff programmer can be of great assistance as a facilitator in drafting the original Framework. Convening a group meeting with key stakeholders to brainstorm the decisions/actions and data requirements next will populate the tool.

- **Iterative**—Identification of potential contributors to and reviewers of the Framework is recommended. What ensues is an iterative process that will likely involve additional modifications to the Framework. Integration of the Framework's content into the decision-making process is key to successful implementation. Content integration can be sustained by making review of the Framework a standing agenda item for decision-makers during regular meetings. Additionally, regular reminders about action items related to activities identified in the Framework can be sent to stakeholders.

2) A successful Framework for Linking Data with Action draws on multiple resources

Reference materials can be instrumental in guiding development of the Framework. Key policy and programmatic issues documented in strategic and operational plans provide a useful background and starting point for identifying and prioritizing questions and decisions which require information. Data sources then provide the supporting evidence for implementing action. Useful reference materials include, but are not limited to the following:
- Strategic plan for the targeted program or organization.
- Assessments or evaluations of a policy, plan, or program.
- M&E plan or results framework for the target program or organization.
- M&E operational plan.
- Assessments of M&E systems and/or information use.
- Specific data sources, such as Demographic and Health Surveys (DHS), Priorities for Local AIDS Control Efforts (PLACE), HIV/AIDS Service Provision Assessments (HSPA), special study or evaluation.

3) The Framework for Linking Data with Action template is flexible, adaptable and extensible

- **Flexible**—The templates presented in this document were developed from extensive experience with health care and population planning issues. However, the tool reflects best practices that are applicable to a broad realm of issues and environments. The tool is flexible enough to be modified to fit specific situations as necessary.

- **Adaptable**—Users can adapt the specifics of the templates to suit their unique needs. For example, the Indicator/Data Required column in Version 2 – Decisions and Questions can be split to include a field that specifies from where the information can be obtained.

- **Extensible**—The Framework will be a working document, one that is extended and revised as a program develops or changes.

The Framework for Linking Data with Action encourages a systematic process that links decisions and data. Within that objective, the specific appearance of the template—and the time span it addresses—can be adapted to the specific needs of the tool's owners/users. There are two different ways to use this tool.

- **Version 1: Data**—assists M&E specialists, researchers and program managers with identifying useful applications of existing data. The following steps would commonly be implemented when using this version:
  » Identify main research questions from existing data source.
  » Identify key findings from analysis.
  » Interpret findings with appropriate stakeholders.
  » Identify recommendations for action or decision that could be influenced by these findings.
  » Determine the decision-makers and key stakeholders necessary to make the decisions or take action.
  » Determine the appropriate communication channel to reach the decision-maker and key stakeholders.
  » Develop timeline to implement the recommended decisions.
  » Complete an Expanded Timeline.

- **Version 2: Decisions and Questions**—helps decision-makers identify the data requirements for their upcoming decisions and for relevant programmatic or policy-oriented questions. The process steps for each Template of the tool will vary. Process steps will not necessarily be sequential. The following steps would commonly be implemented when using this version:
  » Identify key decisions/actions that need to be made then list the policy or programmatic questions that need to be answered to inform the decision. Or, list policy or programmatic questions that need to be answered to make the decision (in some situations a decision cannot be identified before key programmatic or policy questions are answered).
  » Determine key stakeholders necessary to make the decisions or take action.

- » Define the data or indicators necessary to answer the programmatic and policy questions.
- » Document the data sources containing the data or indicators.
- » Clarify next steps and timeline to utilize the needed data sources.
- » Complete an Expanded Timeline

5 USE
For best results, the Framework for Linking Data with Action would be in place when working to ensure evidence-informed decision making. The tool should be routinely updated.

Ideally, completing the Framework for Linking Data with Action is not a one-time exercise tied to one specific calendar date or decision point. For best results, the tool should be regularly referenced, monitored, and updated. Hopefully, the Framework serves as a working tool, integrated fully into annual work plans and data dissemination activities.

However, several conditions may trigger the initial creation of a Framework or an update to an existing framework, and help determine which template of the tool to use:

- A new data collection or analysis activity has been completed. The Framework for Linking Data with Action ensures that the recommendations generated from the research are supported by data and that they are disseminated to the appropriate decision-makers. *(Version 1: Data)*.

- There is a specific, identified decision to be made. For instance, an external agency might be working to develop national strategic plans for HIV/AIDS programs for a region. Knowing which targeted decisions will be made to formulate these plans, this is a prime opportunity to engage stakeholders in creating a Framework for Linking Data with Action. *(Version 2: Decisions and Questions)*.

- Stakeholders have questions around specific programmatic or policy issues. For instance, a district health team may not know how their new ARV program is functioning. By reviewing service delivery data they can monitor program success. The Framework can help the district health team to identify their programmatic questions and the existing data sources, or the need to collect new data that can inform the answers. *(Version 2: Decisions and Questions)*.

6 AUDIENCE
Anyone involved in collecting, analyzing, reporting and using health information.

The tool can be used collaboratively by three types of stakeholders:

1. **A designated manager for the Framework**, such as technical support consultants/ facilitators, who is not part of the decision-making process. Responsibilities include:
    - » providing the Framework for Linking Data with Action template;

- » establishing relationships with contributors to the framework;
- » ensuring appropriate representation and authority on the team—individuals who will champion decisions in their areas of influence;
- » facilitating and mentoring team members as they complete the template;
- » providing technical assistance in obtaining and interpreting information; and
- » monitoring the development, use, updating and results of the Framework.

2. **Country-level decision-makers,** such as program managers and other key stakeholders, whose responsibilities include:
   - » participating in the creation of their unique Framework for Linking Data with Action (identify programmatic and policy relevant questions, identify actions/decisions that must be addressed);
   - » using the Framework to identify and address data gaps;
   - » incorporating the Framework into local decision-making processes; and
   - » monitoring the development, use, updating and results of the Framework.

3. **Data specialists**, such as researchers and monitoring and evaluation (M&E) specialists, whose responsibilities include:
   - » contributing their individual knowledge of data resources to the Framework for Linking Data with Action;
   - » identifying ways existing quality data can be integrated into decision-making processes, creating "retrospective demand" for their data; and
   - » identifying ways to resolve data gaps, such as data cleaning, reformatting, secondary analysis or new data collection activities.

7 FIELD APPLICATIONS

Ethiopia—Early Marriage Evaluation Study
MEASURE Evaluation facilitated development of a Framework for Linking Data with Action – Template 1 to guide the use of the main study findings by policymakers and program managers to support efforts in addressing the challenges posed by child marriage for women's reproductive health, education, and national development.

Dominica, St. Lucia and St. Vincent—National AIDS Program
MEASURE Evaluation facilitated development of a Framework for Linking Data with Action—Template 2 to guide the information systems for an expanded response to HIV/AIDS. The Framework encouraged all participants to think more strategically about data collection efforts—and, in turn, to focus research activities on getting targeted information to support program and policy decisions.

8 EXAMPLE APPLICATIONS

Version 1: Data

The 2007 Early Marriage Evaluation Study (EMES) was a regionally representative survey of female adolescents, male youth and caretakers in Amhara Region, Ethiopia. The primary purpose of the EMES was to provide policymakers and program managers with detailed information on the reach and effectiveness of early marriage prevention interventions in the region to support program efforts in addressing the challenges posed by child marriage for women's reproductive health, education, and national development.

In March 2008 a one-day dissemination workshop was held in the capital of the Amhara Regional state with representatives from USAID, Pathfinder International (PI), World Learning (WL), girls' clubs (GC), teachers groups, women's associations (WA), government agencies and non-governmental organizations (NGO). Researchers presented the main study findings to the group, held a question-and-answer session, then divided participants into four groups. A facilitator was assigned to each group and provided instructions on how to prepare the Framework for Linking Data with Action using the study research questions and key findings. The sample table contains excerpts from this exercise.

The sample Expanded Timeline corresponds to the preceding sample Framework (Ethiopia: Coverage and Effects of Child Marriage Prevention Activities). It expands on the contents of the timeline column in the Framework template. The timeline begins by listing the research questions, the accompanying research findings, and recommendations in the Framework template. For each recommendation, the timeline lists the activities that need to be carried out to fulfill the recommendation, and the relevant decision-maker and other stakeholders for each activity. It then lists the time increments (weeks, months) in the column next to other stakeholders. Finally, a practical timeline for completing each activity is included via color codes.

Example Framework—Version 1

Title: Ethiopia: Coverage and Effects of Child Marriage Prevention Activities
Objectives: To develop action plan that includes recommendations based on the key findings of the research study, relevant stakeholders and timeline for implementation
Facilitator: MEASURE Evaluation
Time period: January–July 2008

Research question	Key findings	Recommendations for action/decision	Decision-Maker (DM) and other stakeholders (OS)	Communication Channel (DM & OS)	Timeline
What is the level of exposure to early marriage prevention messages?	26% of females were exposed to prevention messages in the media vs. 75% exposed to non-media messages	None. The finding suggests that non-media has greater reach in disseminating messages but other findings could be used to develop more specific and actionable recommendations—see below	n/a		n/a
	Females reported hearing about early marriage prevention messages most frequently from religious leaders and peer educators	Continue disseminating early marriage prevention messages through religious leaders and peer educators • School Development Agent (SDA) to provide positive feedback to religious leaders about success of message exposure • WL to recruit 10 more SDAs to train religious leaders about early marriage prevention messages • WA to organize and provide guidance to 5 new GCs who will provide peer education training on child marriage, harmful traditional practices, reproductive health, and life skills	• DM—WL • OS—School Development Agents; religious leaders; local education offices • DM—PI • OS—Girl's Clubs in schools; Women's Association	• DM—study briefing sheet highlighting key recommendations • OS—radio spot on study key findings, fact sheets, face-to-face meetings	Feb–May 2008
What proportion of respondents is aware of the laws against early marriage?	About half of respondents knew that there was a legal minimum age of marriage	• Increase awareness of the legal minimum age at marriage. • SDAs should revise training material for religious leaders and peer educators to include information about the legal minimum age of marriage	• DM—WL, PI • OS—SDAs, religious leaders; GCs; WA; Ministry of Women's Affairs	• DM—study briefing sheet highlighting key recommendations • OS—radio spot, fact sheets	Jan–March 2008
What community members were involved in marriage cancellation?	Police intervened to stop 4% of planned marriages of under-age girls	The police and justice departments should be trained to discuss stopping the formal engagement or marriage with girl's parents.	• DM—Ministry of Justice • OS—police; district advisory committees; AWA	DM—study briefing sheet, face-to-face meetings	Feb–July 2008

Example Expanded Timeline—Version 1

Title: Coverage and Effects of Child Marriage Prevention Activities
Objectives: To develop an action plan that includes recommendations based on the key findings of the research study, relevant stakeholders and timeline for implementation
Facilitator: Addis Continental Institute of Public Health
Time period: January–July 2008

	Decision-Maker	Other Stakeholders	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08
Research question: What is the level of exposure to early marriage prevention messages?										
Finding: 26% of females were exposed to prevention messages in the media vs. 75% exposed to non-media messages										
Recommendation										
• None—the finding suggests that non-media has greater reach in disseminating messages but other findings could be used to develop more specific and actionable recommendations	n/a	n/a								
Finding: females reported hearing about early marriage prevention messages most frequently from religious leaders and peer educators										
Recommendations										
• SDAs to provide positive feedback to religious leaders about success of message exposure	World Learning	School Development Agents; religious leaders; local education offices		■	■					
• WL to recruit 10 more SDAs to train religious leaders about early marriage prevention messages	World Learning	School Development Agents; religious leaders; local education offices			■	■	■			
• AWA to organize and provide guidance to 5 new GCs who will provide peer education training on child marriage, harmful traditional practices, reproductive health, and life skills	Pathfinder International	Girl's Clubs in schools; Amhara Women's Association			■	■	■			
Research question: What proportion of respondents are aware of the laws against early marriage?										
Finding: About half of respondents knew that there was a legal minimum age of marriage										
Recommendation										
• SDAs should revise training material for religious leaders and peer educators to include information about the legal minimum age of marriage	World Learning; Pathfinder International	SDAs, religious leaders; GCs; AWA; Ministry of Women's Affairs	■	■	■					
Research question: What community members were involved in marriage cancellation?										
Finding: Police intervened to stop 4% of planned marriages of under-age girls										
Recommendation										
• The police and justice departments should be trained to discuss stopping the formal engagement or marriage with girls' parents	Ministry of Justice	police; district advisory committees; AWA		■	■	■	■	■	■	

Version 2: Decisions and Questions—Kenya

In 1980, Kenya had the highest fertility rate in the world—on average, every woman was giving birth to eight children. Between 1980 and 2000, the rate dropped to 4.7 children per woman. In 2003, however, the Kenya Demographic and Health Survey (KDHS) showed that the 20-year pattern of sustained fertility decline had stalled, and that a plateau in the contraceptive prevalence rate had been reached. The Ministry of Planning and National Development, which was troubled by these trends and their potential implications for economic development, began looking into the issue more closely. Information was needed to help explain the causes of the stall and to help develop strategies to reposition family planning as a cornerstone issue for national development strategies.

Following a secondary analysis of the KDHS, a stakeholders' meeting provided the opportunity to review the conclusions of the analyses and to prepare a Framework for Linking Data with Action to identify key decisions and the information necessary to support those decisions. The use of this framework tool helped the NCAPD to:
- identify data required for evidence-based decision making
- create a time table for developing and implementing corrective actions; and
- monitor the progress towards developing and implementing these corrective actions.

The Sample Expanded Timeline corresponds to the preceding sample Framework: Template 2 (Kenya: Analysis of factors affecting fertility and contraceptive use) and expands on the contents of the timeline column in the Framework. It begins by listing the action or decisions and the policy or programmatic questions. For each question, the timeline lists the activities that need to be carried out to answer the question or to move forward on the action, as well as the relevant decision-maker and other stakeholders for each activity. In some cases a decision does not have a programmatic question or require specific indicators/data. The timeline then lists the time increments (weeks, months) in the column next to other stakeholders. A practical timeline for completing each activity is included via color coding.

Example Framework—Version 2 (Kenya)

Title: Kenya: Analysis of factors affecting fertility and contraceptive use
Objectives: To gather information to help explain the causes of the stalled fertility decline and to help develop strategies to reposition family planning as a cornerstone issue for national development strategies
Facilitator: Deputy Director for Policy and Programs
Time period: Fiscal Year 2005–2006

Action/Decision	Policy or Programmatic Question	Indicator/Data Needed	Data Source	Decision-Maker and Other Stakeholders	Timeline
Incorporate demand creation for family planning in the new Reproductive Health Policy	Are Information, Education and Communication (IEC) campaigns reaching women of reproductive age?	IEC trends from the Demographic and Health Surveys (DHS)	DHS—available online	• Permanent Secretary, Ministry of Health • Family planning non-governmental organizations (NGOs) and donor agencies	• Review draft Reproductive Health Policy and identify places to insert recommendations for demand creation. August-November 2005 • Publish final Reproductive Health Policy in February 2006
Convene conference to review community-based distribution (CBD) strategies for Kenya	What strategies could be used to increase the contraceptive prevalence rate and reverse the stagnation in fertility decline?	• Analysis of CBD trends from the DHS surveys • Inventory of current CBD programs	• DHS—available online • Studies on cost and benefits of CBD programs	• Head of the Division of Reproductive Health, Ministry of Health • Family planning NGOs and development partners	• Prepare a concept paper for the conference. Oct 05–Jan 06 • Mobilize resources and hold the conference. • Feb–Oct 06

Example Expanded Timeline—Version 2 (Kenya)

Title: Kenya: Analysis of factors affecting fertility and contraceptive use
Objectives: To gather information to help explain the causes of the stalled fertility decline and to help develop strategies to reposition family planning as a cornerstone issue for national development strategies
Facilitator: Deputy Director for Policy and Programs
Time period: Fiscal Year 2005–2006

	Decision-Maker	Other Stakeholders	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
Action/Decision: Incorporate demand creation for family planning in the new Reproductive Health Policy	Permanent Secretary, Ministry of Health	Family planning non-governmental organizations (NGOs) and donor agencies																								
Q: How could the government generate awareness and support for corrective actions?																										
1. Analysis of IEC trends from DHS																										
• Obtain DHS data	MoH	FP NGOs, DA								■																	
• Revised IEC and Advocacy Strategy	MoH	FP NGOs, DA								■																	
2. Revise policy																										
• Review/revise draft policy	Permanent Secretary, MoH	DA									■	■	■	■	■												
• Publish final policy	Permanent Secretary, MoH	DA														■											
Action/Decision: Convene conference to review community-based distribution (CBD) strategies for Kenya	Division of Reproductive Health, Ministry of Health	Family planning NGOs and development partners																									
Q: What strategies could be used to increase the contraceptive prevalence rate and reverse the stagnation in fertility decline?																										
1. Obtain required information																										
• Analysis of CBD trends from DHS	DRH	FP NGOs				■	■																				
• Inventory of current CBD programs	DRH	FP NGOs						■	■																		
• Studies on CBD prog. costs/benefits	DRH	FP NGOs								■	■																
2. Conference tasks																										
• Prepare concept paper	DRH, MoH	FP NGOs										■	■	■	■												
• Mobilize resources	MoH	FP NGOs, DP														■	■	■	■	■	■	■	■				
• Convene conference	MoH	FP NGOs																						■		

Version 2: Decisions and Questions—Nigeria

In 2009, MEASURE Evaluation convened six teams representing organizations receiving U.S. government funding and working in Nigeria in a participatory workshop with the objective of strengthening the organization's capacity to use data. During the workshop, each team began the process of developing a Framework for Linking Data with Action that reflects the decisions that the organization and its staff make or influence. One of the teams in attendance primarily supports a program providing HIV Counseling and Testing (HCT) services, and developed the Framework below to guide the project's own internal use of existing data as well as to channel the appropriate information to external audiences (i.e., Local Government Chairman).

The Sample Expanded Timeline shown below corresponds to the preceding sample Framework— Template 2 (Nigeria: Framework for Linking HIV Testing and Counseling Decisions with Project Data). This timeline begins by listing the action or decisions and the policy or programmatic questions. For each question, it lists the activities that need to be carried out to answer the question or to move forward on the action, as well as the relevant decision-maker and other stakeholders for each activity. In some cases a decision will not have a programmatic question or require specific indicators/data. It then lists the time increments (weeks, months) in the column next to other stakeholders. Finally, a practical timeline for completing each activity is shown.

Example Framework—Version 2 (Nigeria)

Title: Nigeria: Framework for Linking HIV Testing and Counseling Decisions with Project Data
Objectives: To guide the Project's use of internal data and channel the appropriate use of information to external audiences
Facilitator: Project Monitoring and Evaluation Manager
Time period: 2010

Decision-Makers and Stakeholders	Decision/Action	Research Question	When will decision be made?	Indicators and/or data of interest	Source of data	How will data be presented?	When is data available?
Site Staff	Request for allocation of test-kits and other supplies	How many people are tested for HIV in this facility monthly?	Weekly	# of clients tested	Client in-take form. HCT Register. Store requisition form	Frequency analysis	Daily and are compiled immediately
Local Government Chairman	Planning and Allocation of Resources	How many people access HCT services? What % of clients tested were reactive and referred? Are there sufficient numbers of facilities providing HCT services? Are current staffing levels adequate?	Monthly	# of clients tested. # of clients that received result. # of clients reactive and referred for treatment. # of staff trained in providing HCT. Ratio of facilities to population. Ratio of trained staff per site providing HCT services.	Monthly Report	Narratives and univariate analysis	Monthly
State Ministry of Health	Planning and Allocation of Resources across health/program areas	How many people access HCT services monthly? What % of clients tested were reactive and referred? What % of the estimated population in need are accessing HCT services?	Quarterly	# of clients tested. Cumulative # of clients reactive and referred for treatment across the state. Estimated number of PLWHA in state.	Biannual Report	Univariate analysis (mean, median, mode, and two-page brief with recommendations	Monthly
Project's Logistic/ Store Personnel	Requisition, Planning and Allocation of Resources	Were the numbers of test-kits adequate and did they get to the site in good condition?	Weekly	# of test-kits supplied to the sites. # of wastages. # of test-kits to be procured.	Store requisition form and Bin cards	Figures and numbers and narratives	weekly
Project Program Manager	Programming, Planning and Allocation of Resources	Are sites retaining 100% of clients to the point of referral of reactive clients for treatment? Are the test kits adequate in number and quality? Are sites conducting tests according to standard operating procedure?	Monthly	# of clients tested. # of clients that received result. # of clients reactive and referred for treatment. # of test-kits supplied to the sites. # of wastages. # of test-kits to be procured.	Client in-take form, HCT Register, Store requisition form and bin cards	Univariate analysis (mean, median, mode and two page brief with recommendations	Monthly
Program Managers	Allocation of funds for consistent DQA and supervisory visits	Are these visits resulting in improvements? How many visits are required within a quarter and what are the human and financial resource requirements to conduct these visits?	April, 2010	Trend of timely and complete reporting over the past year. # of DQA/supervisory visits conducted within a quarter. Staff and funding requirements per visit.	Quarterly reports	Narrative and Financial reports	March, 2010

Example Expanded Timeline—Version 2 (Nigeria)

Title: Nigeria: Framework for Linking HIV Counseling and Testing Decisions with Project Data
Objectives: To guide the project's own internal use of data and channel the appropriate information to external audiences
Facilitator: Project Monitoring and Evaluation Manager
Time period: 2010

	Person Responsible	Other Stakeholders	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11
Action/Decision: Site to request additional funding for allocation of test kits and other supplies	Site Staff	Project staff and vendors													
Q: How many people are tested for HIV in this facility monthly?															
1. Analyze available information	Site M&E Officer														
• Obtain data	Site M&E Officer		■	■	■	■	■	■	■	■	■	■	■	■	■
• Conduct analyses	Site M&E Officer		■	■	■	■	■	■	■	■	■	■	■	■	■
• Forecast need	Site M&E Officer	Other Project staff	■	■	■	■	■	■	■	■	■	■	■	■	■
Action/Decision: Local Government Authority to plan and allocate additional resources to facilities and across line items	Local Government Chairman	Local Action Committee on AIDS, Local government authorities, facilities													
Q: Does current supply of HCT services meet demand?															
1. Obtain and analyze required information	LACA M&E Officer	Facilities													
• Current number of HCT clients						■	■	■							
• Percent of clients reactive and referred						■	■	■							
• Ratio of facilities to population and staff to population						■	■	■							
2. Interpret and develop budgeting brief for LGA															
• Convene meeting with facilities to interpret findings	LACA	Facilities							■						
• Develop brief	LACA M&E Officer								■						
• Advocate to LGA Chairman with brief	LACA									■					

	Person Responsible	Other Stakeholders	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11
Action/Decision: Allocate funds for consistent data quality assessments (DQA) and supervisory visits	Program Managers	Facility Managers and other staff													
Q: Are DQA and supervisory visits having a measureable impact and what level of resources are required?															
1. Obtain required information															
• Trend of timely and complete reporting over year	M&E Manager							■	■						
• Number of visits conducted each quarter	Program Managers							■	■						
• Calculate resource requirements for visit	Program Managers	Facility administrator						■	■						
2. Discuss and answer question in group															
• Convene facility staff and program managers to discuss information collected										■					
• Determine visit needs for each facility and finalize budget										■					

9 CREATING A FRAMEWORK
Desired content for each area of the template

Both templates of the Framework for Linking Data with Action are divided into columns or fields. This section describes the type of content that goes into each area of the template for both Version 1: Data and Version 2: Decisions and Questions.

Version 1: Data

This version of the Framework links specific research findings to actionable recommendations and can be used to facilitate the use of study findings.

- **Research Question**—describes the primary and secondary research questions of the study or data source being used to create the Framework. Typically the research questions are based on the objectives or aims of the study. This field might include such questions as:
  » What programs elements are effective at improving the well-being of orphans and other vulnerable children (OVCs) and their families?
  » What proportion of HIV-positive women enrolled in a prevention of mother-to-child treatment program completes each phase of the program?
  » What is the level of exposure, among youth aged 14–25, to early marriage prevention messages in Amhara Region, Ethiopia?

- **Key Findings**—refers to the main results of the data analysis conducted to answer each research question. The key findings are generally identified by the research team and presented to stakeholders during a dissemination workshop or in a summary report. Once key findings are identified a group discussion should ensue to determine the programmatic relevance of the findings. Sample discussion questions include:
  » What do you think are the main findings in this area?
  » Are any findings surprising?
  » What findings show positive performance? Improvement in a particular health or service delivery area? Etc.
  » What findings show areas that need improvement?
  » Review the recommendations contained in the summary report (if available). What are your thoughts? Are they supported by the data?

- **Recommendations for Action/Decision**—should be based on the discussion of key findings outlined above. Recommendations could include policy and advocacy decisions, interventions to improve or design programs, and actions to address program management and operations. There may be more than one recommendation for each key finding, however not all findings are necessarily actionable. Some points to consider when developing the recommendations include:
  » *Impact*—What will be the impact on health programs both long and short-term?
  » *Resources*—Do stakeholders have sufficient financial and human resources for implementation? Are additional resources needed?
  » *Supporting factors*—Does the action support the overall objective of the plan? Are policy, operational or management changes needed?

» *Acceptability*—Are the recommendations politically and culturally acceptable?
» *Timeliness*—Can implementation be timely?

- **Decision-Makers and Other Stakeholders**—include individuals and groups that will be involved in making decisions. "Decision-maker" is the primary individual (name or title) wielding ultimate authority to make the decision or take action. "Other stakeholders" include individuals or groups involved in advocating for or implementing the decision.

  Decision-makers include such stakeholders as the following:
  » Prime Minister
  » Director of donor agency
  » Director of community-based organization
  » Director of a specific branch of the MOH

  Others stakeholders often include:
  » Providers
  » Beneficiaries (clients)
  » Professional associations
  » Other non-health related government agencies

- **Communication Channel**—identifies the most appropriate way to convey your messages to the primary decision-maker and other stakeholders. Stakeholder groups vary by their information use, familiarity with research terminology, and preferences for receiving information, resulting in the need to tailor research findings and recommendations for different audiences. Some communication methods and formats may be effective with multiple stakeholder groups. Despite the need to adapt research findings for each stakeholder group and present the information in a user-friendly manner, stakeholders generally prefer key messages that are concise and actionable. Making research results and recommendations available, accessible, relevant, or useful, to decision-makers increases their applicability for improving health systems. Identifying your communication channel to reach different segments of stakeholders is essential to increasing stakeholders' research uptake.

  Illustrative communication methods for different stakeholder groups include:
  » Politicians and government officials: dissemination workshops, face-to-face meetings, policy forums, policy briefs, brochures, and executive summaries, public Web sites
  » Program managers: summary reports, executive summaries, audiovisual presentations
  » Civil society, NGOs and professional associations: fact sheets, brochures and other handouts, audiovisual presentations
  » Private-sector: fact sheets, audiovisual presentations,
  » General public: magazines, newspapers, press releases, radio, television, Web-based media
  » Donors/funders: full research report, audiovisual presentation,
  » Academic researchers and international agencies/organizations: peer-reviewed article, research databases, oral and poster presentations, CD-ROM, Web sites

- **Timeline**—presents a concrete, actionable timeframe for implementing the recommendations so progress can be objectively monitored against the original plan. It is recommended that stakeholders also use the Expanded Timeline template provided to list the recommended actions/decisions, specific activities and the schedule for implementing them. A sample Expanded Timeline can be found following Template 2 of the Framework for Linking Data with Action template.

Version 2: Decisions and Questions

This version of the Framework is useful when a specific action needs to be taken or a decision made. It can also be used to respond to a specific programmatic or policy question that must be answered to inform a decision. It is helpful for program managers, clinic managers and policy makers as well as data specialists and researchers.

- **Action/Decision**—describes either an upcoming decision that needs to be made, or a decision that could potentially benefit from specific data resources. Program managers and policy makers frequently need to make a decision about what to do next, or they need to take action in order to meet the needs of the stakeholders they serve. In this column, list what you need to decide—to improve a program, develop an annual work plan, advocate for programmatic resources, etc. Policy or programmatic questions frequently need to be answered to inform a decision or action. In this column list what you need to know in order to make the decision. This field might include questions such as:
  » What is the population in need for a particular service?
  » What clinical areas are performing poorly?
  » Which health units are underfunded?

  It is also possible to start with this field. At times it can be challenging to identify a specific upcoming decision, but health professionals are always faced with questions about their programs. In this case the user can begin with this column and work to the right. It is possible that after the programmatic questions are answered, that an action requiring a decision will become clear.

- **Indicators/Data**—describes the quantitative or qualitative measure of program performance. This information will help answer the policy or programmatic questions you have posed. In this column define what data you need and/or what indicators are necessary to calculate an answer to programmatic and policy questions. This field will include indicators/data such as:
  » The number of pregnant women who have been tested in the last six months.
  » The amount of money budgeted for and spent by a hospital's health units.
  » Cost-effectiveness data for four HIV treatment strategies in a low-resource setting.
  » GPS coordinates for voluntary counseling and testing sites.

- **Data Source**—identifies either existing or new datasets, reports, budgets, etc., from which you will get the indicators/data listed in the previous column. This field includes the name of data source, such as a specific report, or a subset or range of data elements from a named report. If the data do not exist this should be noted as well. Proxy data can be identified

here. All information should be as specific as possible. Below are sample entries for the required information field:

» Service statistics for ante-natal care (ANC)
» National budget for ARV drugs
» National Demographic and Health Survey (DHS)
» Sentinel Surveillance Data for tuberculosis (TB)

- **Decision-Makers and Other Stakeholders**—include individuals and groups that will be involved in making and implementing the decision. "Decision-maker" is the primary individual or organization (name or title) that has ultimate authority to make the decision and oversees the implementation of activities. "Other stakeholders" include individuals or groups involved in advocating for or implementing the decision.

  Decision-makers include such stakeholders as the following:
  » Prime Minister
  » Director of donor agency
  » Director of community-based organization
  » Director of a specific branch of the MOH

  Others stakeholders often include:
  » Providers
  » Beneficiaries (clients)
  » Professional associations
  » Other non-health related government agencies

- **Communication Channel**—identifies the most appropriate way to convey your messages to the primary decision-maker and other stakeholders. Stakeholder groups vary by their information use, familiarity with research terminology, and preferences for receiving information, resulting in the need to tailor research findings and recommendations for different audiences. Some communication methods and formats may be effective with multiple stakeholder groups. Despite the need to adapt research findings for each stakeholder group and present the information in a user-friendly manner, stakeholders generally prefer key messages that are concise and actionable. Making research results and recommendations available, accessible, relevant, or useful, to decision-makers increases their applicability for improving health systems. Identifying your communication channel to reach different segments of stakeholders is essential to increasing stakeholders' research uptake.

- **Timeline**—presents a concrete, actionable schedule of activities to address policy and programmatic questions, to resolve a data gap, or to integrate data into decision-making processes. The specific date for conducting the analysis that will inform decisions should be identified, as well as a date by which the decision needs to be made. It is recommended that the Expanded Timeline Template also be completed to detail the specific tasks of accessing data, conducting the analysis, convening necessary meetings, and developing communication materials. A sample Expanded Timeline can be found in Section 8: Example Applications.

- *Note*—Version 2: Decisions and Questions does not necessarily require that the user complete it from left to right (starting with the decision or action). It is possible that a programmatic question will be asked before a decision is made or action taken. In this case, the "Programmatic question" column would be filled in first followed by the data columns. The user may wish to consider the key stakeholders asking the programmatic question and the timeline within which the question requires an answer. Once the answer to the question is found the decision/action column can be filled in along with the key stakeholders needed for the decision and the timeframe within which the decision should be made and activities completed.

10 IMPLEMENTATION CHECKLIST
Seven steps for completing the Framework for Linking Data with Action.

Step 1—Identify the need

☐ 1.1—Identify a potential opportunity. Host country stakeholders identify opportunities for implementing a Framework for Linking Data with Action.

☐ 1.2—Determine how the Framework will be implemented to address this need.
Will it be used to increase the use of an existing data source and link it to upcoming decisions (Version 1: Data), or will it be used to help a group or project team be strategic in identifying the information they need to support evidence-based decisions (Version 2: Decisions and Questions)? The perspective will influence certain aspects of this process, such as which stakeholders lead the agenda in the Framework for Linking Data with Action workshop and what types of actions are recommended in the Framework.

Step 2—Create an internal plan for responding to the need

☐ 2.1—Coordinate with key stakeholders. Contact stakeholders to determine an achievable timeline for providing support (given available resources), as well as an appropriate protocol for contacting in-country stakeholders.

☐ 2.2—Draft the internal action plan/proposal. This document would describe:
- The need identified in Step 1.
- How your organization will support the development and monitoring of the Framework for Linking Data with Action.
- How this activity fits into the organization's priorities and workload.
- The preliminary list of stakeholders and how they will be engaged.

☐ 2.3—Review this plan with relevant stakeholders, and incorporate their feedback.

☐ 2.4—Obtain approval from necessary counterparts, according to your organization's protocol, to proceed with the Framework activity.

Step 3—Engage stakeholders

Good relationships and buy-in are essential, because the success of the Framework rests on several issues that stakeholders either control or know better than anyone, such as:

- How confident are they about using given data sources to support decisions?
- How committed are they to implementing, tracking, and updating the Framework?
- What expertise, resources, and decision-making forums are available?
- What behind-the-scenes factors will influence project success?

❐ 3.1—Identify stakeholders. The designated Framework manager can identify the best way to initiate contact and methods of inviting stakeholders to participate in developing a Framework for Linking Data with Action.

❐ 3.2—Determine the complete context for the Framework activity. Working with the lead stakeholder, determine the total environment in which the Framework will be used. What are the pressures, available resources and priorities? For example, the stakeholder might be under pressure from a donor agency to scale up a specific program, so there will naturally be more focus on that program.

❐ 3.3—Determine the role and participation level for each stakeholder. This list should include representation both from program managers and data specialists. Questions posed during the initial discussion might be:

- In addition to this list, who else needs to be involved in this process?
- What is each person's role in this process—their current and expected participation? Some stakeholders, such as the Minister of Health, will have a vested interest in the Framework activity but will have limited involvement in its creation.
- What resources and expertise does each stakeholder bring to the process, in terms of time available, support staff, external funding, or other resources?
- What external projects or funding issues will also be influencing factors?

Step 4—Plan the approach for implementing the Framework

❐ 4.1—Determine the most appropriate forum for drafting the Framework. In most cases, this will occur as a formal workshop with all key stakeholders. In rare cases, the Framework will be drafted in one-on-one sessions with a single influential stakeholder—a very high-level person or one with sole responsibility for a decision. The results will later be disseminated for review. This option is less desirable than a group workshop, but it may be the best option when other stakeholders are unavailable or have not yet been hired.

❐ 4.2—Establish an agenda for the forum. If the Framework is being used to help decision-makers think strategically about their information needs, the agenda should open with lead decision-makers. For promoting greater use of existing data in the decision-making process, M&E and data specialists should present earlier.

☐ 4.3—Define the timeline for major milestones. When will the workshop or meetings to draft the Framework take place? When will a final draft of the Framework be available? When will there be follow up to assess decisions and verify that they have incorporated the identified information? On what schedule or under what conditions will the Framework be updated or extended?

Step 5—Facilitate the creation of the Framework for Linking Data with Action

☐ 5.1—Hold the forum to draft the Framework. For purposes of this action plan, the forum is assumed to be convened as a formal workshop. This will be an in-person workshop at a site convenient to the majority of attendees, held in a room that is conducive to brainstorming in small groups as well as open group work.

☐ 5.2—Facilitate a brainstorming session to identify priority decisions to be made, actions to be taken, or recommendations. In the past, it has proven overwhelming to expect the group to brainstorm all the decisions, data requirements, and recommendations on one large wall chart or blackboard.
   • Organize the group into sub-groups based on their strategic objectives and areas of interest. For instance, you might group all the people who are working on ART programs, or those associated with HIV/AIDS policy.
   • Have each group record their priority decisions, programmatic/policy questions or study recommendations on flip chart paper. If they are focusing on decisions, you can prompt them with open-ended questions, such as, "Which decisions do you have to make for policy? For programs? For day-to-day operations? Which decisions do you make daily? Monthly? Quarterly?" If they are focusing on questions, you can prompt with "What questions about your program do you wish you had the answer to? Is there a specific programmatic problem that providers have been reporting? For example, are providers reporting a decrease in clients? Frequent drop-outs from services?" If you are focusing on recommendations, you can prompt with "Does the recommended action support the overall objective of the plan? Are policy, operational or management changes needed?"

☐ 5.3—Identify the data requirements to inform these decisions. Ideally, a data specialist would give an overview presentation about existing data sources. However, there is not always time for this step. It may be necessary to solicit this information before the forum and present it in a handout, PowerPoint presentation, or summary flip chart.

☐ 5.4—Connect decisions with data. Where there are a manageable number of decisions and data resources, it can be useful to write a list of decisions on one half of a blackboard and a list of data resources on the other half. The group can then more readily visualize the connections between these elements. This step can take one or two hours. At this stage, it will become clear where there are gaps between the information that is needed and what is available. Does the information even exist? If it does, is it good quality? Does it need secondary analysis or interpretation? Can we access it?

☐ 5.5—Complete the remaining fields of the Framework for Linking Data with Action. Type up the list of decisions from the blackboard or flip chart pieces, and move on to completing the remaining fields for each decision, such as next steps and timeline. If the identified issue is an inadequacy in the data, the next steps might be to:
  • Perform data management tasks, such as aggregate data or convert formats.
  • Reconcile issues with data quality.
  • Engage an individual or group to conduct secondary analysis.
  • If the issue is to strengthen links between data and decisions, next steps might be found in the following step:

☐ 5.6—Prioritize the decisions and next steps. Sometimes what appears to be the highest priority decision or question during initial discussions may change as a result of this Framework exercise. For instance, the group might have prioritized a decision for which no supporting information is yet available; that decision might drop in priority until a data-collection process takes place. This step will likely require follow up with the lead stakeholder or activity lead.

☐ 5.7—Conduct follow-up interviews or meetings as necessary. Invariably, the first workshop will prompt ideas, questions, or issues that cannot be addressed by those who are present. There will often be a need for follow-up with other individuals. Identify other potential contributors and integrate them into the process.

Step 6—Build capacity to use the Framework for Linking Data with Action as a management tool

☐ 6.1—Determine a management process for ongoing use of the Framework. How will the organization manage and use the Framework from here on? How often will they reference the tool, monitor progress, update to add new items, or delete items that have been completed? You can help articulate this process and thereby ensure the continued usefulness of the Framework as a perpetual management tool and not simply a one-time exercise.

☐ 6.2—Promote the integration of the Framework into annual work plans. Encourage counterparts to incorporate the Framework into the strategic annual plan for their organization, and to extend and revise the document as their programs develop or change.

☐ 6.3—Support and mentor the program manager in using the Framework. Maintain a relationship with the program manager and provide follow-up support and mentoring as necessary to overcome any barriers or challenges. This can be informal, such as touching base with the program manager by e-mail or over the phone, or more formally by meeting in person.

Step 7—Monitor and document the results of using the Framework for Linking Data with Action

☐ 7.1—Is the Framework being updated?

☐ 7.2—How often do stakeholders refer to the Framework?

- 7.3—What evidence-based decisions have been made as a result of the Framework?

- 7.4—What documentation is available to substantiate the result? (This could be an e-mail, newspaper article, press release, budget allocation, new subcommittee, etc.)

- 7.5—What information influenced those decisions?

- 7.6—Is there a general increase in evidence-based decision making? To what degree?

There will likely be multiple factors that weigh into any decision, but we should be able to show that data resources were present in the decision-making process. It might be unrealistic to draw a direct cause-and-effect relationship between the data and the outcome, but if the framework methodology was active, we can feel confident in the fact that data resources were considered.

11 CONCLUSION
More effective, evidence-based decisions to ensure that the right information is available to support optimal policy and program decisions.

In complex decision-making environments, influenced by multiple internal and external pressures, it can be extremely difficult to follow best practices for data collection and use.

Data might be collected to satisfy the reporting requirements of a donor agency, but this information may not be fully aligned with the policy and program decisions that must be made. Or, if their input was not considered in the data planning, or if they are not confident of data quality, stakeholders might not be convinced that the information should even be used in decision making in the first place.

Valuable data resources often remain unused when they could yield better decisions that improve the effectiveness of programs and organizations, and, in turn, benefit the lives and health of countless more people.

The Framework for Linking Data with Action was developed to meet this need, to provide a systematic approach for stakeholders to leverage data—tangible evidence of real-world conditions—into more productive and optimized decision processes.

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