

Monitoring HIV/AIDS Programs: Participant Guide

A USAID Resource for Prevention, Care and Treatment

Core Module 1: Introduction to Monitoring and Evaluation

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Family Health International



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CORE MODULE 1:

Introduction to Monitoring and Evaluation

Learning Objectives

The goal of this workshop is to build the skills of participants in the monitoring of HIV/AIDS prevention and care programs.

At the end of this session, participants will be able to:

- Understand concepts, methods, and tools for intensive and participatory monitoring of HIV/AIDS prevention and care programs
- Identify ways to overcome barriers to conducting effective program monitoring
- Identify key stakeholders in program monitoring and evaluation
- Select appropriate indicators for measuring program outputs and outcomes
- Conduct HIV/AIDS program monitoring using appropriate methods and tools

What Is Monitoring and What Is Evaluation?

Monitoring is the routine process of data collection and measurement of progress toward program objectives.

- Monitoring involves counting what we are doing.
- Monitoring involves routinely looking at the quality of our services.

Evaluation is the use of social research methods to systematically investigate a program’s effectiveness.

- Evaluation requires study design.
- Evaluation sometimes requires a control or comparison group.
- Evaluation involves measurements over time.
- Evaluation involves special studies.

Comprehensive Monitoring and Evaluation Framework

Overview of Monitoring and Evaluation Framework

- Monitoring and evaluation takes place at multiple stages of a program. At each stage we gather different information that comes together to demonstrate how the project has been conducted and what has occurred as a result. It is important to identify at the outset how we will gather the information for each level of evaluation.
- Some of these stages overlap and can, in different situations, represent different levels. For example, outcome-level data on risk behaviors of target groups can be used to evaluate the effectiveness of a program or set of programs without associating the changes with any single program.

Comprehensive Monitoring and Evaluation Framework

Types of Monitoring and Evaluation:			
Formative Assessments and Research (concept and design)	Monitoring (monitoring inputs, processes, and outputs; assessing service quality)	Evaluation (assessing outcome and impact)	Cost-Effectiveness Analysis (including sustainability issues)
Questions Answered by the Different Types of Monitoring and Evaluation:			
<ul style="list-style-type: none"> • Is an intervention needed? • Who needs the intervention? • How should the intervention be carried out? 	<ul style="list-style-type: none"> • To what extent are planned activities actually realized? • How well are the services provided? 	<ul style="list-style-type: none"> • What outcomes are observed? • What do the outcomes mean? • Does the program make a difference? 	<ul style="list-style-type: none"> • Should program priorities be changed or expanded? • To what extent should resources be reallocated?

1. Formative Needs Assessments

The Formative Needs Assessment should be conducted during the planning (or re-planning) stage of a prevention program to identify program needs and resolve issues before a program is widely implemented. This is the point where flexibility is greatest and program sponsors have more freedom to make decisions about how to proceed with implementation.

During a Formative Needs Assessment, the following issues are explored:

- a) Identifying the need for interventions
- b) Defining realistic *goals and objectives* for interventions
- c) Identifying feasible program strategies
- d) Setting program targets

The Formative Needs Assessment can be used as an exploratory tool and to help project managers adjust objectives to changing situations. It is also used to identify unacceptable or ineffective intervention approaches, designs, and concepts.

Methods of conducting a Formative Needs Assessment include:

- Reviews of existing information
- Focus group discussions
- Individual in-depth interviews
- Participant observations
- Short surveys with structured questionnaires

The main limitation of a Formative Needs Assessment is its inability to be generalized to other projects.

2. Monitoring

Monitoring is the routine process of data collection and measurement of progress toward program objectives.

There are **three main domains** of information required in a monitoring system:

1. **Inputs**—Resources going into conducting and carrying out the project or program. These could include staff, finance, materials, and time.
2. **Process**—Set of activities in which program resources (human and financial) are used to achieve the results expected from the program (e.g., number of workshops or number of training sessions).
3. **Outputs**—Immediate results obtained by the program through the execution of activities (e.g., number of commodities distributed, number of staff trained, number of people reached, or number of people served).

Monitoring addresses the following questions:

1. To what extent are planned activities actually realized? Are we making progress toward achieving our objectives?
2. What services are provided, to whom, when, how often, for how long, and in what context?
3. How well are the services provided?
4. What is the quality of the services provided?
5. What is the cost per unit service?

Monitoring also assesses the extent to which a program or project:

1. Is undertaken consistently with each design or implementation plan
2. Is directed toward the specified target group

3. Evaluation

Evaluation is the use of social research methods to systematically investigate a program's effectiveness.

Evaluation is used for the following:

1. To assess the changes in the target group (e.g., changes in risk behavior)
2. To assess the extent to which objectives have been met. It is the process of determining the effectiveness of a program or a project.
3. To track the **outcomes** and **impacts** of programs or projects at the larger population level, as opposed to the program or project level:
 - **Outcomes**—Short-term or intermediate results obtained by the program through the execution of activities
 - **Impact**—Long-term effects (e.g., changes in health status). This can be through special studies with wide district, regional, or national coverage.

Evaluation addresses the following questions:

1. What outcomes are observed?
2. What do the outcomes mean?
3. Does the program make a difference?

Evaluations are conducted to find out what has happened as a result of a project or program or a set of projects and programs. Conducting evaluations is very challenging for several reasons:

4. Cost-Effectiveness Analysis

Cost-effectiveness helps managers and planners make decisions about the use of their budgets and funding. With this information decision-makers can make choices about how to allocate their funds and decide whether or not the funds are being spent appropriately and whether they should be re-allocated.

This entails combining the results of monitoring data and cost data.

Levels of Monitoring and Evaluation and Responsibilities

Multidimensional Approach to Collecting Different Types of Monitoring Data

Different key players in the HIV epidemic conduct different levels of M&E. Program Managers and M&E planners must balance what is ideal or preferred against what is feasible, relevant, and essential when deciding how to evaluate a particular intervention or program. To this end, it may be useful to define M&E efforts in three different dimensions:

- Individual project dimension
- Country program dimension
- National dimension

Using this **multidimensional approach** to set priorities for the degree of rigor needed to monitor and evaluate programs may alleviate some of the tension that inevitably arises when universal, standardized monitoring and evaluation practices conflict with the objectives of individual projects.

Individual Project Dimension

One can think of the individual project dimension, also referred to as implementing partners or agencies, as an area of service delivery that does not require a rigorous research design to judge its proficiency unless it is piloting a new intervention or responding to an unanswered research question. Individual projects carrying out standard intervention strategies that have been found effective in similar settings should focus their monitoring and evaluation activities on formative assessments (when needed for project planning), monitoring activities, and capacity-building assessment. Only a demonstration project would justify a more rigorous research design.

Country Program Dimension

Within a country program dimension, several categories of evaluation should be emphasized. The country offices of collaborating agencies are interested in supporting implementing partners with the collection and assessment of data to design projects and programs. They are also interested in working with the implementing partners (IPs) to collect the input, process, and output data generated from monitoring their project activities. They should also be thinking about when they may need to conduct a formal evaluation of a project or set of projects. They also will often be providing assistance to the National AIDS Commission (NAC) or National AIDS Control Program (NACP) to establish surveillance systems to measure high-risk behaviors in addition to conducting special studies as required for their programs.

Country offices will want to work with the IPs to provide them with feedback on their progress, help them identify where they need to change their programs, and identify problem areas and ways to overcome them. The information is also needed for reporting to funders. The data could also be used by the country office to adjust its funding patterns and balance its programs to meet needs of community.

National Dimension

Within the national dimension, several categories of monitoring and evaluation should be emphasized: intervention outcomes, socioeconomic impact, and changes in societal norms. The guiding principle is that, where multiple donors are conducting interventions with overlapping target groups, evaluations are best if focused on country or regional programs, rather than on individual projects. This especially makes sense in behavioral surveys, where it is difficult to isolate the effects of individual projects funded by different donors. In addition, this approach may cost less.

Evaluation activities will reflect each country's information needs as shaped by the stage of its epidemic, its political and social environments, its capacity for research, and available financial resources.

The following illustrates the roles and responsibilities at each level/dimension:

- **Implementing Agencies**
 - Formative needs assessment
 - Monitoring of inputs, process, and outputs
 - Collecting and aggregating data from frontline project personnel (e.g., peer educators, outreach workers, and home-based care volunteers)
 - Feedback of results to target populations
 - Reporting to sponsors and partners
 - Using results for ongoing program implementation

- **Country Offices of Collaborating Partners**
 - Formative needs assessments
 - Aggregating and synthesizing results from all implementing agencies
 - Coordinating M&E activities across projects
 - Feedback of results to communities and target groups
 - Reporting to donors (based on reporting requirements)
 - Reporting to government agencies as required
 - Providing support and technical assistance for district-, regional-, or national-level M&E activities (e.g., behavioral studies and biologic surveys)
 - Disseminating results
 - Using program results for ongoing program implementation and advocating for required policy changes

- **National Level**
 - National formative needs assessment
 - Aggregating results from collaborating partners
 - Providing feedback to collaborating partners and implementing agencies on results of M&E activities undertaken by the government
 - Maintaining ongoing biologic and behavioral surveillance system
 - Using M&E results to advocate for policy formulation and changes

Goals, Objectives, and M&E Questions

1. Goals and Objectives

The core of any M&E system is the **goals** and **objectives** of the program to be monitored and evaluated. If the program goals and objectives are written in such a way that they can be easily distinguished from one another and measured, the job of the M&E specialist will be much easier. Unfortunately, many times these goals and objectives are not written so that they can be easily monitored or evaluated.

What is the difference between a goal and an objective?

- **Goal**—General statement that describes the hoped-for result of a program (e.g., reduction of HIV incidence). Goals are achieved over the long term (5-10 years) and through the combined efforts of multiple programs.

- **Objective**—Specific, operationalized statement detailing the desired accomplishment of the program. A properly stated objective is action-oriented, starts with the word “to,” and is followed by an action verb. Objectives address questions of “what” and “when,” but not “why” or “how.” Objectives are stated in terms of results to be achieved, not processes or activities to be performed.

2. SMART Objectives

S	—	Specificity
M	—	Measurability
A	—	Attainability
R	—	Relevance
T	—	Time

- (S) Specificity — Is it specific? Does it covers only one rather than multiple activities?
- (M) Measurability — Can it be measured or counted in some way?
- (A) Attainability — Is the objective actually doable? Can we achieve this goal?
- (R) Relevance — How important is this objective to the work that we are doing? How relevant is it to achieving our goal?
- (T) Time — Does the objective give a timeframe by when the objective will be achieved, or a timeframe during which the activity will occur?

3. Developing Monitoring and Evaluation Questions

Careful selection of the questions you want answered through monitoring and evaluation will greatly help you develop your M&E processes and work plan. At the outset of the planning process, program managers should ask themselves where they want the program to take them. Many of these questions will be reflected in the goals and objectives.

- Was the activity carried out as planned?
- Did it reach its target market?
- Did any changes in exposure to HIV infection result?
- How will the risk behaviors of the target population be affected?
- What sort of coverage do you expect to have?
- Did STI/HIV incidence change?
- How much did it cost?

Selecting Indicators

Indicators are clues, signs, and markers as to how close we are to our path and how much things are changing. These point to or indicate possible changes in the situation that may lead to improved health status.

For example, if you are driving in a car and the gas gauge shows you are low on gas, it is not actually the gas you are looking at, but rather you are looking at an “indicator” of the amount of gas you have.

Examples of indicators for HIV programs are:

- # VCT sites set up in the past year
- # clinicians trained in syndromic management of STIs in the last 6 months
- # children provided with psychosocial counseling in the past 3 months
- % men who have sex with men reporting condom use at last act of anal intercourse
- # HIV-infected pregnant women started on Navirapin

One of the critical steps in designing and conducting an M&E system is selecting the most appropriate indicators. Indicators should always be directly related to your project or program objective, so the process of selecting indicators can be fairly straightforward if the program objectives have been presented clearly and in terms that define the quantity, quality, and timeframe of a particular aspect of the program (SMART).

Even with well-defined objectives, however, selecting evaluation indicators requires careful thought of both the theoretical and practical elements. The following questions can be helpful in selecting indicators:

- Have the definitions of the indicators been tested and can objectives be measured accurately (**operational**) and **reliably**?
- Will the indicators measure only what they are supposed to measure (**valid**)?
- Are there areas of overlap in the content of the indicator with that of other indicators; is it **specific**, or is it too general?
- Will the indicators be able to measure changes over time (**sensitivity**)?
- What resources (human and financial) do the indicators require? (**affordable, feasible**)
- Are there alternative measures that should be considered?
- Will multiple indicators be able to help clarify the results of the primary objective?

Operational	Should be measurable or quantifiable using tested definitions and reference standards.
Reliable	Should produce the same results when used more than once to measure the same condition or event.
Valid	Should measure the condition or event it is intended to measure.
Specific	Should measure only this condition or event.
Sensitive	Should reflect changes in the state of the condition or event under observation.
Affordable	Should represent reasonable measurement costs.
Feasible	Should be able to be carried out in the proposed data collection system.

Selecting indicators and setting targets is usually done during program planning, preferably with input from the implementing agency and key stakeholders. To establish benchmarks (i.e., items or amounts to measure) and activities that are measured as either done or not done (e.g., # regional meetings held, final report written) and that are realistic for the target population, resource allocation, and type of intervention, it is useful to refer to previous interventions done in similar settings.

Monitoring Methods and Tools and Introduction to the Global Spreadsheet

1. Methods for Monitoring and Evaluation

Quantitative Monitoring (measuring how much, how many, *quantity*) tends to document *numbers* associated with the program, such as *how many* posters were distributed, *how many* were posted, *how many* counseling sessions were held, *how many* times a radio spot was on the air, *how many* truck drivers were trained as outreach workers and so on. It focuses on which and how often program elements are being carried out. Quantitative monitoring tends to involve record-keeping and numerical

counts. The activities in the project/program timeline of activities should be closely examined to see *what kinds of monitoring activities* might be used to assess progress. The method for monitoring *and* its associated activities should be integrated into the project timeline.

Quantitative Methods are those that generally rely on structured or standardized approaches to collect and analyze numerical data. Almost any evaluation or research question can be investigated using quantitative methods because most phenomena can be measured numerically. Some common quantitative methods include the population census, population-based surveys, and standard components of health facility surveys, including a facility census, provider interviews, provider-client observations, and client exit interviews.

Qualitative Monitoring (*quality; qualitative*) answers questions about *how well* the program elements are being carried out. Includes question on topics like: changes in people's attitudes toward abstinence, stigma, fidelity, care and support, or condoms; the influence of program activities on real or incipient behavior change; how information permeates the at-risk community; and so on. This type of information can also work as part of the feedback system.

Qualitative Methods are those that generally rely on a variety of semi-structured or open-ended methods to produce in-depth, descriptive information. Some common qualitative methods include focus group discussions and in-depth interviews.

It is possible to use both quantitative methods and qualitative methods in a complementary way to investigate the same phenomenon:

- One might use open-ended, exploratory (qualitative) methods to investigate what issues are most important and to decide what language to use in a structured questionnaire.
- Alternatively, one might implement a survey and find unusual results that cannot be explained by the survey, but that might be better explained through open-ended focus group discussions or in-depth interviews with a subgroup of survey respondents.

2. Tools for Monitoring and Evaluation

Whereas a **method** refers to the scientific design or approach to a monitoring, evaluation, or research activity, a data collection **tool** refers to the instrument used to record the information that will be gathered through a particular method.

- Tools are central to quantitative data collection because quantitative methods rely on structured, standardized instruments like questionnaires. Tools (such as open-ended questionnaires or checklists) are often also used in qualitative data collection as a way to guide a relatively standardized implementation of a qualitative method.
- Tools may be used or administered by program staff or may be self-administered (meaning that the program participant or client fills in the answers on the tool). If tools are to be self-administered, there should be procedures in place to collect the data from clients who are illiterate. Space, privacy, and confidentiality should be observed.

Some common *quantitative* M&E tools include:

- Sign-in (registration) logs
- Registration (enrollment, intake) forms; checklists
- Program activity forms
- Logs and tally sheets
- Patient charts
- Structured questionnaires

Examples of *qualitative* M&E tools include:

- Focus group discussion guide
- Direct observation checklist
- In-depth interview guide

Monitoring and Evaluation Work Plan Overview and Introduction

Why Develop an M&E Work Plan?

- Show how goals/objectives are related to results
- Describe how objectives will be achieved/measured
- Identify data needs
- Define how the data will be collected and analyzed
- Describe how results will be used
- Anticipate resources needed for M&E
- Show stakeholders how program will be accountable

The content and organization of an M&E work plan are flexible. They should be appropriate for the level (e.g., country, region, district, community, or organization) and the program areas.