

Modelo de Intervención Psicomédica



**Evaluation
Field
Guide**



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It is our hope that this guide will prove useful to those implementing MIP in the field. It is our goal to keep this guide and its information as current as possible. To achieve this, we welcome your comments. Please contact Dr. Jonny Andia, DHAP, CDC, via electronic mail at efn4@cdc.gov with any comments or concerns.

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INTRODUCTION

About this guide

The content of this manual is intended to serve as a guide to assist your evaluation efforts. All the forms, objectives, and guidelines offered (other than the conditions stated in your contract) are examples, suggestions, or recommendations and not mandates.

This Monitoring and Evaluation (M&E) Field Guide is a resource for program staff to use in creating and implementing M&E plans and activities specific to the Modelo de Intervención Psicomédica (MIP) intervention. An M&E plan will provide a systematic way to organize the monitoring and evaluation process for MIP. This guide focuses on process monitoring, process evaluation, and outcome monitoring. Each of these types of evaluation will be explained in further detail in **Chapter 3**.

This field guide is organized into seven chapters based on the CDC Framework for Program Evaluation in Public Health as pictured on the next page (CDC, 1999). This guide describes the steps in the framework in practical terms, and takes you through the process to develop an M&E plan based on these steps. This guide includes a variety of tools that have been created to help you develop materials to monitor and evaluate the MIP intervention, organize data collection activities, and analyze your data.



Each of the steps in the M&E process is described in this guide in subsequent chapters. A helpful resource for further information on each of the steps discussed here is the CDC Evaluation Capacity Building Guide (CDC, 2008a). This guide also outlines additional CDC resources that will be helpful to you as you embark upon M&E activities for MIP. These resources contain additional information about M&E that supplement what has been included in this guide.

Chapter 1 provides an overview of monitoring and evaluation (M&E) and helps you think about the factors to consider when developing an M&E plan for the MIP intervention, including the first step in the evaluation framework: [Step 1: Engage stakeholders](#).

In **Chapter 2** the next step in the evaluation framework is discussed: [Step 2: Describe the program](#). You will begin to develop an M&E plan by drafting a logic model and developing SMART objectives. The logic model will help to provide a visual depiction of the MIP intervention and its expected outcomes. The logic model will be used to develop SMART objectives. A sample logic model (See [Tool 1, p.95](#) in the Appendix) is presented and can be adapted to fit your agency and the community and populations you serve.

Chapter 3 concentrates on [Step 3: Focus the evaluation design](#). The chapter covers how to narrow your evaluation by identifying the key questions about MIP that you want to answer. It also guides you through the process of organizing your SMART objectives and questions into a sample Data Planning Matrix ([Tool 3, p.100](#)) to identify quantitative and qualitative measures and data sources you will use to address them.

In **Chapter 4** the specific steps you will take to implement your M&E plan are reviewed. This will include information about collecting the data in **Step 4: Gather credible evidence**.

Chapter 5 focuses on **Step 5: Justify conclusions** and will help you to compile and analyze your data and understand how these data will help you calculate the performance indicators you are required to report to CDC.

Chapter 6 focuses on how to maximize the use of your M&E data based on **Step 6: Ensure use and share lessons learned** and completes the evaluation cycle by continuing to engage stakeholders. The chapter covers how data can be used for program improvement and planning activities, advocacy efforts, and reporting to your funding sources.

Chapter 7 describes the National HIV Prevention Program Monitoring and Evaluation (NHM&E) required variables and use of the Program Evaluation and Monitoring System (PEMS) software to capture elements of the MIP M&E plan.

The **Appendix** provides an overview of the tools that have been developed and included in this guide to assist you in the implementation of your MIP M&E plan. These tools are also introduced and explained throughout the guide when they are relevant to each stage of the M&E process. Any of the tools can be adapted to meet your needs.

Tool 1 (p.95): Modelo de Intervención Psicomédica (MIP) Logic Model for Monitoring & Evaluation

Tool 2 (p.96): Sample MIP SMART Objectives.

Tool 3 (p.100): Sample Data Planning Matrix

Tool 4 (p.110): MIP Client Session Log

Tool 5 (p.116): Community Resource Assessment

Tool 6 (p.134): MIP Fidelity Form

Tool 7 (p.196): Client Satisfaction Survey

Tool 8 (p.199): MIP Monitoring and Evaluation Checklist

Tool 9 (p.201): National HIV Prevention Program Monitoring and Evaluation (NHM&E) Variable Requirements

Who should use this guide?

The guide is intended for all staff who will be involved with any aspect of your MIP M&E plan. This includes staff directly involved in conducting the MIP intervention, program supervisors, and agency administrators, among others.

The guide can be useful to:

- Assess your capacity to conduct M&E
- Identify staff to participate in M&E activities
- Design your MIP M&E plan
- Select tools for data collection, analysis, and quality assurance activities
- Develop and implement staff training on M&E

How to use this guide

There are a few symbols that are used throughout this guide:



Recommended Activity: Signifies a suggested activity for your agency to complete



Time-saver: Signifies a “time-saver,” usually identifying a tool included in the guide that can be tailored to your agency’s needs



Tip: Signifies a suggestion for how to approach an activity



Link to the MIP Program Manual: Signifies information that is addressed and/or discussed in further detail in the MIP Program Manual

Additional Resources

A variety of resources are available to assist you as you plan and implement M&E activities for MIP. This manual is one of several documents disseminated by the Division of HIV/AIDS Prevention (DHAP) to provide information and guidance on HIV prevention program evaluation, data collection, data utilization, and use of the National HIV Prevention Program Monitoring and Evaluation (NHM&E) variables. These materials will be referenced when relevant and supplement the information presented in this guide. Related documents include:

Framework for Program Evaluation in Public Health

The CDC framework for program evaluation is a valuable overview of the key components of public health program evaluation. The diagram of the framework and its components are incorporated throughout this guide (CDC, 1999).

Evaluation Capacity Building Guide

This guide provides an overview of monitoring and evaluating evidence-based interventions, with particular focus on process monitoring and evaluation activities, tools, and templates (CDC, 2008a).

National Monitoring and Evaluation Guidance for HIV Prevention Programs (NMEG)

This manual provides a framework and specific guidance on using NHM&E variables to monitor and evaluate HIV Prevention programs (CDC, 2008b).

Program Evaluation and Monitoring System (PEMS) User Manual

This how-to manual describes the functionality within the PEMS application and provides step-by-step instructions for each module within the web-based software tool. Screenshots, sample data extracts, and reports are used to illustrate key features included in the PEMS software. The manual can be downloaded from the National HIV Prevention Program Monitoring and Evaluation (NHM&E) website (<https://team.cdc.gov>) under Trainings/PEMS User Manual (CDC, 2008c).

National HIV Prevention Program Monitoring and Evaluation Variables and Values Data Variable Set (NHM&E DVS)

The complete list and description of all M&E variables required for reporting to CDC and

optional for local M&E and specific to certain interventions (CDC, 2009).

Modelo de Intervención Psicomédica Program Manual

The MIP manual provides an overview of the core components of the MIP intervention. It includes detailed information on preparation for implementation of MIP, the structure of MIP sessions, and a brief introduction to monitoring and evaluation. It is important to remember that the M&E portion of the manual provides an overview of M&E for MIP. This guide will give more specific guidance to be used for monitoring and evaluating the MIP intervention at your agency (CDC, 2008d).

HIV Prevention Performance Indicators

CDC has developed a series of HIV Prevention Performance Indicators for HIV prevention programs. Be sure that you have the most recent version of the required indicators and are compliant with the current CDC guidelines. Contact your CDC



Tip

Consult your CDC Project Officer for assistance accessing any of the resource materials.

Project Officer for more information regarding the HIV Prevention Performance Indicators (CDC, 2008e).

1

INTRODUCTION TO MONITORING & EVALUATION: AN IMPORTANT COMPONENT OF THE MIP INTERVENTION

Overview of Monitoring and Evaluation

Monitoring and evaluation (M&E) are information gathering activities that provide answers to important questions about HIV prevention program implementation and outcomes. It is an essential component of any program or intervention, and also a required of most funders' grant agreements, including those of the Centers for Disease Control and Prevention (CDC).

Monitoring and evaluation activities provide us with information to address questions such as:

- Are we implementing the intervention as planned?
- Did the intervention reach the intended audience?
- What barriers did clients experience in accessing the intervention?
- Did the expected outcomes occur?

The answers to these questions can be used for program monitoring, improvement, and planning purposes, for accountability to funders and other stakeholders, and for advocacy purposes. Stakeholders are those individuals and organizations that have an interest in the evaluation and its results. Although stakeholders may be particularly interested in what is learned from the evaluation and what happens with the results, they should be engaged in the M&E process from the beginning. Information about the first step in the CDC Framework for Program Evaluation in Public Health "Engage Stakeholders" is presented later in this chapter.

M&E activities should be incorporated throughout the implementation of the MIP intervention. By looking at M&E as an integral part of program implementation, you have the ability to make well-informed changes and improvements to the program as necessary. For example, M&E activities can help you determine the following:

- Are we reaching our intended target population?
- Are we implementing all the core elements and key characteristics of MIP?

- Are we making the most effective use of staff and community resources?
- Are we achieving our stated goals and objectives?
- Are we compliant with CDC reporting requirements?

Answering these questions will also help you determine if there is a need to make adjustments, so that you may report required information to funding sources and advocate for your clients and community. Fundamentally, program evaluation will contribute significantly to the continued success and effectiveness of HIV prevention efforts by your organization and in your community.



Recommended Activity

Once your program is established, you should review your implementation plan regularly (semi-annually or annually) based on the results of your M&E activities.

Monitoring and Evaluation Plans

Monitoring and evaluation (M&E) plans provide a systematic way to organize the monitoring and evaluation process. Each step of the M&E plan will be discussed in detail in the subsequent chapters.

As part of M&E, you will identify key questions about how MIP is being implemented. Your M&E plan will outline the process for answering these and other evaluation questions. The answers to these questions will help you recognize how well you are implementing MIP and what changes might need to be made. Your M&E plan should include schedules and/or descriptions of:

- Who is responsible for carrying out the various steps in the M&E process
- Tools that will be used to collect data, and how those tools will be used
- How data will be analyzed
- The process for using M&E data to improve program implementation
- Report generation and dissemination, as appropriate, to stakeholders

There is no one way to implement M&E plans, and they should always be tailored to the particular needs and characteristics of your agency. This guide is designed for you to use and/or modify the materials as needed; some chapters and tools may be more pertinent to your specific situation than others. All of the ideas and tools presented can be adapted to fit your agency's particular needs and capacity. Please consult with your CDC Project Officer for further information about adapting tools to meet your agency's needs.

Approach to monitoring and evaluating the MIP intervention

MIP is an evidence-based intervention (EBI) that employs individualized behavior change strategies to reduce HIV and viral hepatitis risk associated with injection drug use (IDU) and sexual practices. MIP is a two-facet intervention that incorporates client-centered counseling with comprehensive case management to achieve behavior change. MIP aims to increase client self-efficacy by integrating these services and by linking the client to basic health and social services. MIP is based on the following behavior change theories and models: (1) The Transtheoretical Model of Change (Prochaska & DiClementi), (2) Social Learning Theory (Bandura), (3) Role Induction Theory (Stark & Kane), (4) Motivational Interviewing (Miller and Rollnick), (5) Cognitive Behavioral Approach (Beck), and (6) Comprehensive Case Management (CDC, 2008d).

The MIP intervention incorporates unique components that need to be monitored and evaluated discretely. Evaluation questions must be designed to capture these specific activities. Requirements of MIP that go beyond a client-centered counseling model are:

- **Community assessment**¹ which includes **mapping of services, mapping of injection drug users social networks**, and development of an **outreach** strategy
- Secured **social services and support for each client's specific needs**
- Identification of a **client's readiness to change behaviors and take action**
- Counselor and case manager **collaboration and case conferences** as described in the MIP model

Flexibility is essential to the implementation of MIP. It is not a sequential or linear intervention, and the client drives the process through which the individual sessions are delivered. They may be delivered in any order as long as all six sessions and one booster session are completed. It may also take multiple encounters with the client to fulfill the goals of a session and topic area. The progression from one session to another is determined by both the counselor's and the client's assessment of the client's readiness to move to another topic area.

¹ The Community Resource Assessment (Tool 5, p.116), included in this guide, can be modified for use with your community mapping efforts.

Core elements and key characteristics

While the implementation of MIP is flexible, it is important to note that the **core elements** are critical to ensure that MIP's intervention is effective. All of the core elements must be included in the implementation of MIP and cannot be modified.

CORE ELEMENTS

Are those parts of an intervention that must be done and cannot be changed. They come from the behavioral theory upon which the intervention or strategy is based; they are thought to be responsible for the intervention's effectiveness. Core elements are essential and cannot be ignored, added to, or changed.

-CDC Evaluation Capacity Building Guide

The **key characteristics** are critical to conducting the MIP intervention, but may be adapted to meet the needs of the target population and ensure that the strategy is culturally appropriate.

KEY CHARACTERISTICS

Are those parts of an intervention (activities and delivery methods) that can be adapted to meet the needs of the CBO or target population.

-CDC Evaluation Capacity Building Guide

MIP Core Elements

- **Conduct community assessment and outreach** to identify sites for potential participant recruitment and enlist the support and cooperation of proven existing community resources.
- Employ an **induction process** that covers basic orientation topics and includes an assessment at the beginning of each session of the participant's stage of readiness to seek access to health services and to reduce HIV risk.
- Use **motivational interviewing** techniques and apply underlying theories and approach.
- Use a **self-assessment readiness** instrument or evaluation tool at each session to affirm and increase the participant's self-efficacy and gauge the participant's readiness to take meaningful action.
- **Counselor and case manager interaction and collaboration** to identify and intervene on problems related to social support, integration of services, and retention.
- Conduct a **minimum of six sessions and one booster** and provide for additional contacts, if necessary.
- Conduct a **booster session** that reviews the participant's achievements, needs, strengths, and outstanding issues and includes an exit plan with specific strategies to maintain healthy behaviors and enhance self-efficacy.

MIP Key Characteristics

- **Cultural competence and sensitivity**
- Conduct **whole-staff training** to ensure understanding of the culture(s) of the target population(s) and the culture of drug use.
- **Team structure and training**
 - ◇ Form a MIP team consisting of a case manager, a counselor, and a supervisor.
 - ◇ Ensure that the team is committed to participating in a uniform orientation about the intervention process.
 - ◇ Ensure that the team members demonstrate competence in Motivational Interviewing, the Transtheoretical Model of Change, the Social Learning Theory, Role Induction Theory, the bonding process, and developing strategies to ensure participants' access to critical medical and drug treatment resources.
 - ◇ Ensure that the MIP team has completed a basic HIV/AIDS course and secured HIV counseling and testing certification.
- **Offer counseling and testing** and/or effective referrals for HIV and viral hepatitis at each contact.
- **Counseling team interaction and the bonding process:** Promote close working relationships among members of the MIP team in order to establish a unified approach to the participant's accomplishing his/her goals and ensure the success of MIP.

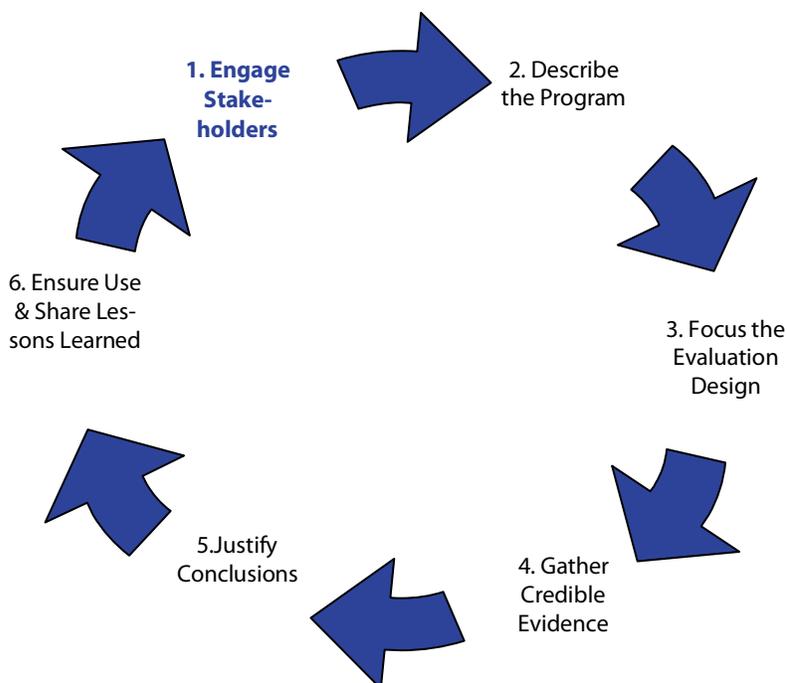
MIP adaptations

Any overall adaptations to the MIP model will need to be captured in the M&E plan. For example, if the intervention is adapted to meet special subgroups of drug users, such as poly drug users or non-IDUs, the M&E materials will need to reflect this change.

It is important that any adaptations you make to the model are documented. Remember that you cannot adapt or change any of the **core elements** of MIP. Otherwise, there is the potential that MIP may not be implemented as intended and therefore may not prove to be as effective. Discuss any changes in **key characteristics** with your CDC Project Officer. If key characteristics are changed, you will want to make sure those changes are reflected in the M&E materials you develop.

Step 1: Laying the Foundation for M&E (Engage Stakeholders)

A key step in successful implementation of M&E is assessing your agency's capacity to conduct M&E activities. This step includes identifying and engaging stakeholders who should be involved in the M&E process. Stakeholders are both individuals and organizations that have an interest in your MIP program and that may be affected by the results of the evaluation.



Stakeholders are partners in the M&E process. By involving stakeholders, you build credibility and increase the likelihood that they will support your evaluation efforts and advocate for your program. Stakeholders can provide insight into the needs of the target population and can help ensure that:

- There is an ongoing, participatory process for providing and receiving feedback related to program implementation and evaluation activities
- Evaluation questions are appropriate and feasible
- Evaluation tools are culturally competent
- The evaluation methodology is appropriate for the target population
- Multiple perspectives are involved in the interpretation of results
- Evaluation results are communicated and disseminated to the appropriate parties

**Tip**

You should identify the relevant stakeholders for your program and agency.

Examples of stakeholders include:

- Staff involved in the MIP program, whether or not they are providing direct services to clients
 - ◇ Counselors
 - ◇ Case managers
 - ◇ Community educators
 - ◇ Outreach workers
 - ◇ Supervisors
 - ◇ Data entry staff
- Decision makers
 - ◇ Executive Director
 - ◇ Program managers
- Partners
 - ◇ Substance abuse treatment programs
 - ◇ Health service organizations
 - ◇ Social service organizations
 - ◇ Other community partners
- Participants
 - ◇ Clients
 - ◇ Community members

Some stakeholders may only be interested in the results of the evaluation or have limited involvement and only be engaged in M&E at particular points in the process; others may be more active throughout the implementation of the intervention and the entire M&E process. However, it is important to bring key stakeholders together at the beginning of the evaluation process to obtain buy-in, understand needs and concerns related to program implementation and evaluation, and establish the process to keep stakeholders involved and informed throughout the evaluation process. You may decide to engage your stakeholders through a workshop or series of meetings.

By engaging stakeholders at the beginning of the M&E process, you can determine:

- Who is interested in the evaluation results
- What stakeholders want to know about the program
- What perceptions and concerns stakeholders have about the program and/or the evaluation
- Stakeholder understanding of monitoring and evaluation
- Stakeholder willingness to participate in M&E activities

- Stakeholder roles and responsibilities related to M&E
- Communication strategies for keeping stakeholders informed and obtaining feedback and input during the M&E process

Clients are important stakeholders and can also provide input into your M&E activities through a consumer advisory board or some other mechanism. They can offer valuable insight into aspects of the program that might not be captured otherwise, such as identification of barriers to participation, ways to make your program more culturally sensitive, and feedback about the intervention and providers.

It is likely that staff members will be most active in M&E activities. It is important to remember that they come from a variety of backgrounds and disciplines with varying experience and attitudes toward evaluation. Staff may be concerned about the added burden related to data collection and may be fearful that the evaluation will be used to highlight weaknesses rather than program accomplishments. Taking stock of your current ability to conduct M&E will help you to determine a realistic plan and develop strategies you may need to build buy-in and capacity among staff and other stakeholders.



Tip

There are practical and useful steps you can take to engage staff and other stakeholders in M&E:

- Communicate the reasons for and the goals of the MIP M&E plan with all key staff and stakeholders likely to be involved with and/or affected by the evaluation results
- Provide M&E training
- Involve staff and stakeholders in the development of an M&E plan
- Address staff concerns and fears about evaluation from the outset
- Identify additional resources you may need to implement the M&E plan

It is important to involve the *right* staff in M&E activities. Developing an effective MIP M&E plan will require the participation of a variety of staff in your agency. Typically, staff who have the following roles and responsibilities contribute to M&E for MIP, although this will vary by organization, and in some instances one person may serve in multiple roles:

- **MIP counselor** conducts sessions and records information about his/her sessions with each client, using tools to document implementation of the MIP protocol.
- **MIP case manager/community educator** he or she facilitates information and access to drug and health related services, as well as, documents community mapping process and collects data on outreach efforts.
- **MIP supervisor** provides supervision to the counselor and case manager/community educator; conducts observations and records information; ensures program fidelity; and participates in data analysis.
- **Data entry staff and/or providers** collect data from session records and enter data.
- **Program managers** oversee implementation of the evaluation plan; participate in analysis of data; and make use of data for reporting, improvement, program planning, and advocacy.

Additionally, some agencies retain a **consultant** to assist them with M&E activities. The consultant can serve as an evaluation leader and provide technical support on all aspects of the evaluation plan. If you choose to work with a consultant, make sure his/her roles and responsibilities are clearly defined and included in a contract. The consultant should be fully informed about the program's goals and objectives and any evaluation plans that may have already been developed.

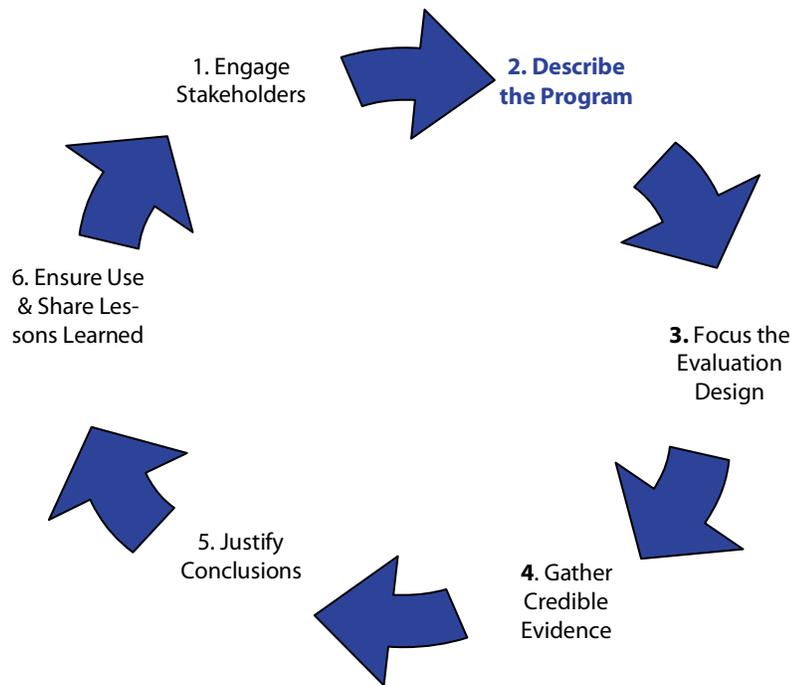
CHAPTER 1 SUMMARY

- Monitoring and evaluation (M&E) activities can help you determine if you are implementing MIP as intended.
- M&E activities are conducted throughout the intervention and can help you clarify if changes are needed in how MIP is being implemented at your agency.
- M&E activities will likely involve a variety of stakeholders and staff at your agency. It is critical to build buy-in and capacity among stakeholders.
- The MIP M&E plan will need to include strategies to evaluate the unique elements of the MIP intervention including:
 - Client-centered counseling
 - Case management
 - Community mapping process and outreach
 - Assessment of a client's readiness to progress to a session topic and take action
 - Identification of social services
- The core elements are the critical features of the MIP intervention responsible for its effectiveness and cannot be eliminated or changed. The key characteristics may be adapted to meet the needs of the target population and ensure that the strategy is culturally appropriate. Any adaptations require approval from the CDC Project Officer.
- A variety of other resources are available to assist in the planning and implementation of M&E activities for MIP.
- Stakeholders can provide valuable input into program implementation and evaluation and should be engaged as appropriate throughout the evaluation process.

2

DESCRIBE THE PROGRAM: DEVELOP A LOGIC MODEL AND SMART OBJECTIVES

This chapter describes how to begin developing a MIP M&E plan for your agency by focusing on Step 2 in the CDC Framework for Program Evaluation in Public Health as pictured below.



Step 2: Describe the Program

To develop your MIP M&E plan, you should begin by describing your MIP program. Your description should include the expectations, scope and activities of the program. We will describe the program using a logic model and the creation of program objectives.

Develop a Logic Model

You can begin to describe your program by creating or adapting a logic model. A logic model provides a “picture” of an intervention or program and drives the development of the M&E plan. It helps to describe the problem the intervention is addressing; identify the key activities to be tracked; and guides the development of the evaluation questions.

LOGIC MODEL

A tool used to visually describe the main elements of an intervention and illustrate the linkages between the components.”

-CDC Evaluation Capacity Building Guide

The MIP logic model for M&E identifies the critical assumptions, inputs, activities, outputs, and outcomes of the MIP intervention. It illustrates the “logical” pathway through which MIP activities eventually lead to the reduction in HIV transmission and viral hepatitis. The evaluation logic model is based on the MIP training curriculum and the research that has been conducted to date on the MIP intervention.

Your evaluation logic model should describe how you are implementing MIP for your client population and agency.



Link to MIP Program Manual

The MIP logic model for M&E provided in this field guide is an example and does not replace the MIP Behavior Change Logic Model in the MIP Program Manual (CDC, 2008d), which looks specifically at client behavior change.

**Tip**

When creating your logic model, be sure to consider:

- **The specific group or sub-group of clients who will participate in MIP**

The eligible population is the client demographic that *your organization defines* as eligible to receive MIP. The eligible population may be the same as the overall population of high-risk individuals your organization serves or it may be a sub-population determined to be at high risk.

Scenario: Clinic serving drug users in urban area

- ◇ The organization provides services to drug users but decides to implement MIP as intended and deems current IDUs to be eligible to receive MIP.
- ◇ In this scenario, if a client is a non-injection drug user or poly user, then he or she is considered to be outside of the “eligible” population.

- **How clients will be recruited for MIP**

Various recruitment strategies can be used. Some examples of recruitment strategies include:

- ◇ Recruitment through community mapping and outreach
- ◇ Recruitment through target population social networks

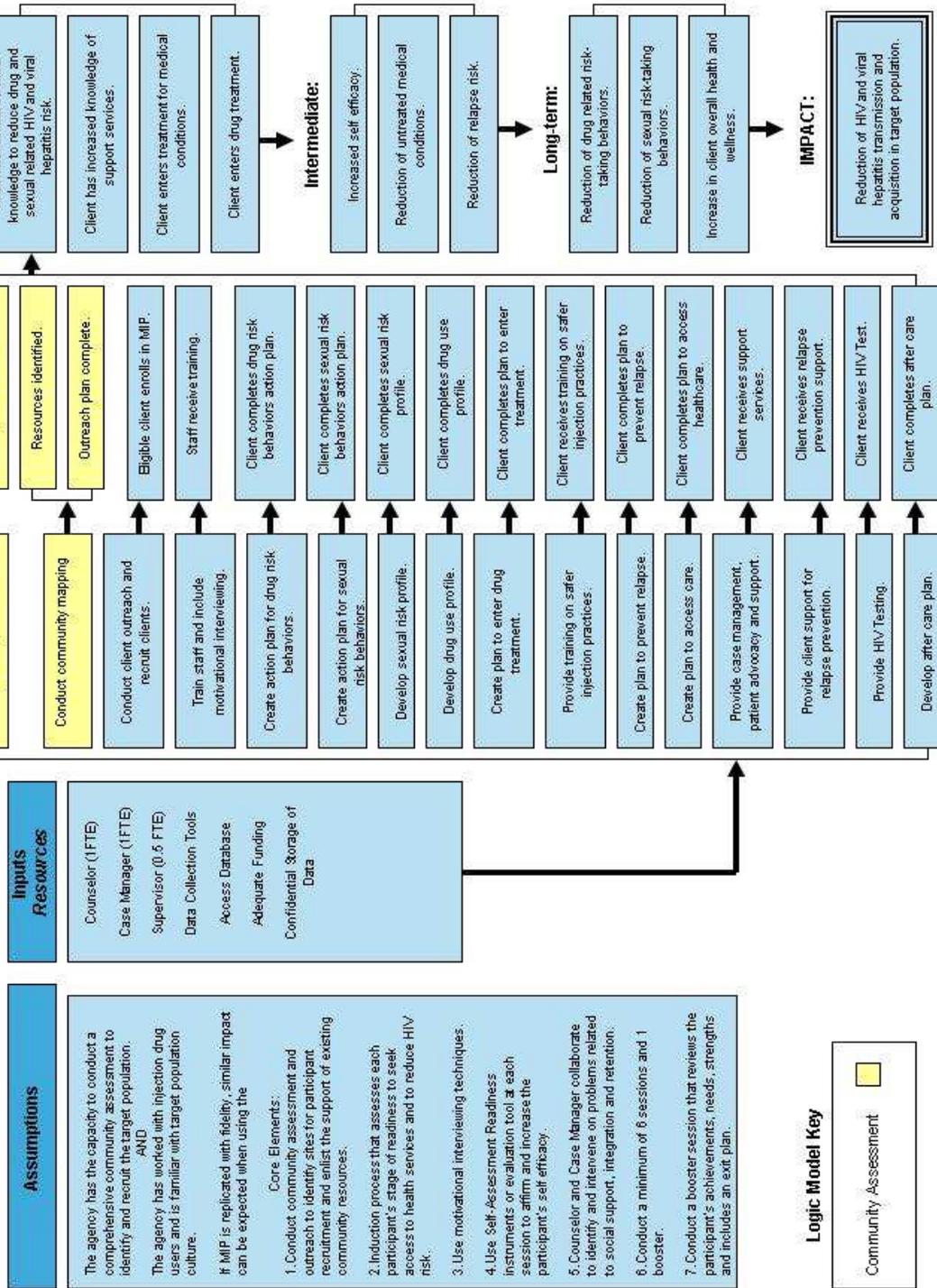
**Recommended Activity**

Review the sample **MIP Logic Model for M&E** on the next page (also included in the Appendix - **Tool 1, p.95**). This evaluation logic model illustrates how MIP might be conceptualized in the field and the M&E components that are part of implementation.

Tailor the logic model to fit:

- Your agency
- The community you serve
- The specific characteristics of the client population that will participate in MIP

**Tool 1: Modelo de Intervención Psicomédica (MIP)
Logic Model for Monitoring & Evaluation**





Time Saver

The sample logic model for MIP included in this chapter is also available in the Appendix (**Tool 1, p.95**). It should be tailored to your agency, taking into account the factors mentioned previously in this chapter, as well as the resources available to you to implement MIP.



Tip

Consult the CDC Evaluation Capacity Building Guide (CDC, 2008a) for further information on developing logic models.

Develop SMART Objectives

The second step in describing your program is to develop objectives. There are two types of objectives: process objectives, which link to the inputs, activities, and outputs columns of the logic model; and outcome objectives, which link to outcomes column of the logic model. Your MIP logic model for M&E provides the conceptual framework for identifying objectives.

The objectives should focus on who you serve and how the program is being implemented (**process**), and on what changes (**outcomes**) occur for clients who participate in MIP.

Process monitoring and evaluation

Process M&E activities will help you ensure that you are delivering the intervention as intended.

PROCESS MONITORING

The routine documentation and review of program activities, populations served, services provided, or resources used in order to inform program improvement and process evaluation.

-CDC Evaluation Capacity Building Guide

PROCESS EVALUATION

Assesses the planned versus actual program performance over a period of time for the purpose of program improvement and future planning.

-CDC Evaluation Capacity Building Guide

Outcome monitoring

Through outcome monitoring, you will assess whether MIP is helping clients identify and implement risk reduction steps and identify community sources of support.

OUTCOME MONITORING

Involves the routine documentation and review of program-associated outcomes (e.g., individual-level knowledge, attitudes, and behaviors or access to services; service delivery; community or structural factors) in order to determine the extent to which program goals and objectives are being met.

-CDC Evaluation Capacity Building Guide

In addition to have process and outcome objectives, they must be SMART. SMART stands for **Specific, Measurable, Appropriate, Realistic and Time-phased**. Objectives that do not have all of these characteristics can be difficult to monitor. **Tool 2, p.96** is a list of sample MIP SMART objectives that you can select, adopt, or use as a guide to create your own objectives.

SMART Objectives are:

SPECIFIC
MEASURABLE
APPROPRIATE
REALISTIC
TIME-PHASED

**Time Saver**

Tool 2, p.96 in the Appendix provides a table that will assist you in developing SMART objectives as well as sample MIP SMART objectives. Remember to tailor your SMART objectives to reflect how MIP is being implemented for your agency and client population.

CHAPTER 2 SUMMARY

- There are two ways to describe your program: Developing a logic model and SMART objectives.
- A logic model will provide a visual description of the MIP intervention and drive the development of the M&E plan
- A MIP logic model identifies the critical assumptions, inputs, activities, outputs, and outcomes of the MIP intervention.
- Your logic model should be tailored to your organization and the community you serve.
- There are two types of objectives: process and outcome. Process objectives are related to the inputs, activities, and outputs columns of the logic model. Outcome objectives are related to the outcomes column of the logic model.
- Tools related to this chapter include:
 - MIP Logic Model for Monitoring and Evaluation (**Tool 1, p.95**)
 - Sample MIP SMART Objectives (**Tool 2, p.96**)

3

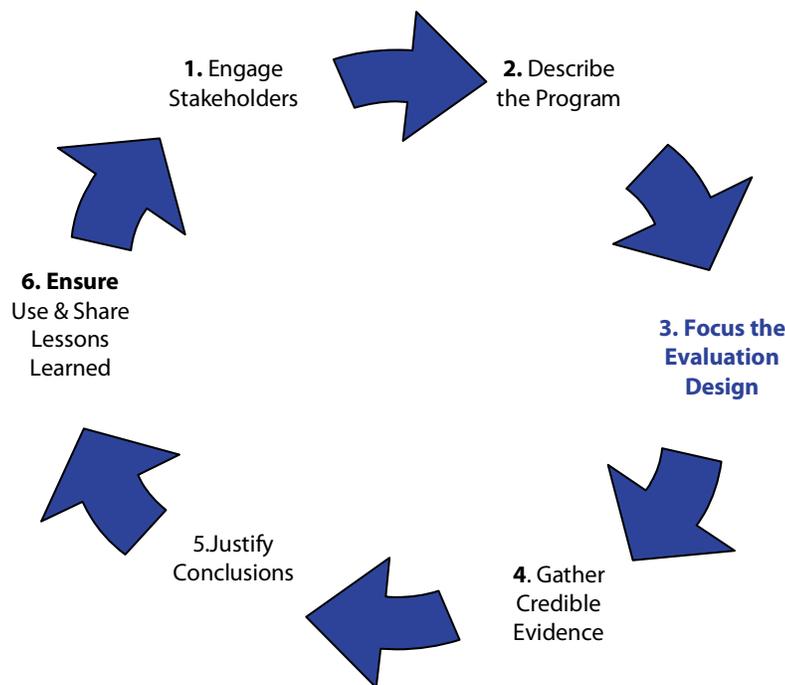
FOCUS THE EVALUATION DESIGN: THE EVALUATION PLAN

In this phase of the M&E process, you will focus the evaluation design to determine what you want to know and establish the methods and sources you will use to obtain the necessary information.

Step 3: Focus the Evaluation Design

This step includes the following activities:

- Identify the evaluation questions you want to answer.
- Begin to develop a data planning matrix.
- Identify measures and data collection methods or sources for evaluation questions and SMART objectives.



Identify the evaluation questions you want to answer

An evaluation could be designed to measure any aspect of the program presented in the logic model. However, due to limited resources and time, it is important to focus the evaluation on what will be most meaningful for your organization, your program, and your stakeholders. One way to narrow your focus is by developing evaluation questions. You should develop your questions with your stakeholders in order to ensure you are asking the appropriate questions. If you do not articulate the questions you want answered, you will not know which data you need to collect. You will use your logic model and SMART objectives to help you ask your evaluation questions.

Questions addressing **process monitoring and evaluation (M&E)** may include:

- Have we developed our implementation plan?
- Are staff members appropriately trained?
- Are we implementing MIP as planned?
- Are we reaching the number of clients we expected to reach?
- Are we reaching our intended target population?
- Do clients who begin MIP complete the intervention?
- Are clients participating in the intervention as intended?
- Are testing and referral activities occurring as we would expect?
- Have we identified problems that we are having with the implementation of MIP?
- Are we addressing the problems we have identified?
- Are counselors and case managers following the protocol for delivery of MIP?
- Are we effectively utilizing community resources?

Questions addressing **outcome monitoring** may include:

- Are clients taking action based on their drug and sexual risk behavior plans?
- Do clients demonstrate an increase in skills and knowledge to reduce drug-related and sexual HIV and viral hepatitis risk?
- Are clients who are referred to a service accessing it?

You will also want to include questions related to CDC reporting requirements, your agency's internal objectives, and those required by or of interest to any other funding sources.

There may be additional questions your agency wants to answer about MIP and those should be included as well. For example, if you are implementing MIP with only one segment of your client population, you may want to ask whether clients receiving MIP are more likely to enter drug treatment than clients who do not receive MIP.

While the initial MIP research included intermediate outcome objectives related to decreased drug injection and increased likelihood to enter drug treatment, tracking of intermediate or long-term outcomes is not part of the MIP intervention and would require considerable additional resources. Therefore, your M&E plan will focus on collecting process data and short-term outcome data.



Recommended Activity

Write out your M&E questions. This will help you begin to think about the data elements that will be needed to answer the questions and your plan for gathering data.

Develop a matrix

A Data Planning Matrix, described in the *CDC Evaluation Capacity Building Guide* (CDC, 2008a), is a tool that can help you organize your SMART objectives, evaluation questions, and the information needed to complete your evaluation plan.

DATA PLANNING MATRIX

A table that captures your evaluation questions, the associated objectives and how, by whom, and when it will be measured.

-CDC Evaluation Capacity Building Guide



Time Saver

A sample Data Planning Matrix is included in the Appendix (**Tool 3, p.100**). The Data Planning Matrix is organized into the following sections:

- Pre-implementation objectives
- Staff training objectives
- Process objectives
- Short-term objectives
- Quality improvement objectives

Using content from the sample Data Planning Matrix (**Tool 3, p. 100**) as examples, the rest of this chapter will take you through the process of developing your own matrix.

At this point, you are able to begin completing the Data Planning Matrix by entering your SMART objectives and their related evaluation questions in the corresponding columns. As you develop your M&E plan, you will complete the remaining information in the matrix to identify how you will measure progress toward meeting your objectives.

The following is an example of how a SMART process objective and process evaluation question related to retention would be presented in the Data Planning Matrix.

Objective	Evaluation question	Measure(s)	Data collection method/ Source	Who will collect the data?	Timeframe
By (time frame), X percent of those clients who complete Session I (the induction session) will complete the remaining six sessions.	What was our retention rate?				



Tip

Be sure to modify the examples from the sample Data Planning Matrix to reflect the specific questions you have identified for your program.



Link to MIP Program Manual

In **Section IV** of the MIP Program Manual, step one of implementing and evaluating MIP provides an example of a Monitoring and Evaluation Plan for MIP (Table 1). This can also be modified to meet your agency needs.

Identify measures and data sources for the SMART objectives and evaluation questions

Each SMART objective should have a corresponding “measure of success.” These measures of success can be either qualitative or quantitative in nature.

Quantitative measures

Quantitative measures generally describe **how often** something is happening. They are numeric and can be calculated. Quantitative data include counts, proportions, and averages, to name a few.

The following example of a quantitative measure is a proportion. It was developed to address the SMART objective in the example: “By (time frame), X percent of those clients who complete Session 1 (the induction session) will complete the remaining six sessions. This example from the sample Data Planning Matrix focuses on the first three columns: Objective, Evaluation question, and Measure.

Objective	Evaluation question	Measure(s)	Data collection method/ Source	Who will collect the data?	Timeframe
By (time frame), X percent of those clients who complete Session 1 (the induction session) will complete the remaining six sessions.	What was our retention rate?	Number of clients who completed 7 sessions/ Number of clients who completed the induction session			

The “measure of success” in this example is the **proportion** of clients who complete MIP (participate in all seven sessions).

Qualitative measures

Qualitative measurements describe **what is happening** or **why something is happening** and are usually descriptive data that document observations, perceptions, and opinions. Examples of qualitative data are notes taken during counseling sessions, case manager observations, or answers to open-ended questions.

The following example of a qualitative measure is an observation. As with the quantitative measure example above, this example focuses on the first three columns of the Data Planning Matrix: Objective, Evaluation question, and Measure.

Objective	Evaluation question	Measure(s)	Data collection method/ Source	Who will collect the data?	Timeframe
By (time frame), three conditions or circumstances that promote relapse will be identified	What are the conditions or circumstances that contribute to client relapse?	Name three conditions or circumstances that facilitate or promote relapse			

Both quantitative and qualitative data are important to understand whether you are reaching your program goals

In addition to the data used to measure SMART objectives, you will need to include additional data required by funding agencies. If you are funded by CDC's HIV Prevention dollars to deliver MIP, there is a set of National HIV Prevention Program Monitoring and Evaluation (NHM&E) variables that you are required to collect and report. These variables will need to be incorporated into the data collection plan. See Chapter 6 for additional information regarding these variable requirements and use of the Program Evaluation and Monitoring System (PEMS) software.



Recommended Activity

Identify how each evaluation question and SMART objective will be measured.



Time Saver

The sample Data Planning Matrix (**Tool 3, p.100**) includes measures for each SMART objective(s) and its corresponding evaluation question. Use these as appropriate to guide your agency's evaluation of MIP.

CHAPTER 3 SUMMARY

- Process monitoring and evaluation activities will help ensure that the intervention is being delivered as intended.
- Evaluation questions are developed to focus the evaluation.
- The logic model is used to develop evaluation questions.
- A Data Planning Matrix is a tool that can help organize evaluation questions, SMART objectives, and the information needed to complete the evaluation plan.
- Both quantitative and qualitative data can be collected and help to understand whether the service goals are being reached.
- Tool related to this chapter include:
 - Sample Data Planning Matrix (**Tool 3, p.100**)

4

GATHER CREDIBLE EVIDENCE: DATA COLLECTION

This phase of monitoring and evaluation will focus on the data collection process.

Step 4: Gather Credible Evidence

This step includes the following activities:

- Review the data your agency has decided to collect [use the SMART objectives and measures shown in the sample Data Planning Matrix (**Tool 3, p.100**).
- Identify the forms that will be used to collect the data.
- Develop a data collection protocol.
- Develop or revise data collection tools as needed.
- Pilot-test data collection tools if tools have been adopted or revised.
- Train staff on how to use data collection tools.



Collect Data

Now that you have organized your evaluation questions and SMART objectives and identified the measures, the next step is to develop a plan for collecting the data. Your data collection plan should specify which data will be collected, as well as how, when, and by whom data will be collected. You need to identify which tools to use for data collection and who in your agency will collect the data.

Identify the forms that will be used to collect the data

The fourth component of the Data Planning Matrix is the identification of the data collection source needed to calculate the measure. You can use the logic model to identify which pieces of key information need to be collected. The logic model will help you consider which data should be captured by data collection forms. The example below was first introduced in Chapter 3. The MIP Client Session Log (**Tool 4, p.110**) will capture the necessary data to answer the evaluation question.

Objective	Evaluation question	Measure(s)	Data collection method/ Source	Who will collect the data?	Timeframe
By (time frame), X percent of those clients who complete Session I (the induction session) will complete the remaining six sessions.	What was our retention rate?	Number of clients who completed 7 sessions/Number of clients who completed the induction session	MIP Client Session Log		

When creating forms, you may want to consider the following questions:

- Can all data be collected on one form, or will multiple forms be necessary?
- How will the data collected on the forms be analyzed?
- Do you need to see a data breakdown by client age or gender? If so, the forms should include date of birth and/or gender.
- Do you need to capture where the induction session took place? If so, it is important to include the location of the session on the data collection forms.

Identify who will collect the data

The fifth column of the Data Planning Matrix identifies who will collect the data. When deciding who will collect the data, consider your staffing capacity and staff work patterns. For example:

- What are the current staffing roles? Do staff members have the appropriate training and time to carry out their M&E roles? For example, with the current caseload that providers have, can they also be expected to complete the MIP Client Session Log (**Tool 4, p.110**) **AND** enter the information into a database? If not, is there another staff person who can be trained to enter the data into a database? Or are there ways the agency can reduce caseloads to accommodate the new emphasis on M&E?

- Based on staff workloads, what is the amount of data your agency can reasonably collect? If your data collection goals are too time intensive for your staff capacity, you may need to review and revise your evaluation questions and SMART objectives. However, be sure that you are still collecting the data required by your funding agencies.

Objective	Evaluation question	Measure(s)	Data collection method/	Who will collect the data?	Timeframe
By (time frame), X percent of those clients who complete Session I (the induction session) will complete the remaining six sessions.	What was our retention rate?	Number of clients who completed 7 sessions/Number of clients who completed the induction session	MIP Client Session Log	MIP Counselor	

Develop a data collection protocol

A protocol is a written document that provides detailed instructions to complete a certain task. In community-based organizations, which tend to have a high turnover of employees, protocols help ensure that new staff will follow existing practices and accomplish tasks in a similar way. A protocol is an important tool for the continuity and sustainability of a program.

Agencies are encouraged to have a data collection protocol in place, so that everyone can collect information in a similar fashion. The data collection protocol should include all the steps in the data collection process, from obtaining data collection forms to destroying them. The data collection protocol should also capture two major activities related to data collection: data capture and data entry. Data capture is the act of taking the information about the client or the session and completing a paper form, while data entry is the process of entering the data from a paper form into a database. It is important to keep reporting deadlines in mind and allocate sufficient time and resources to collect and enter data. The last column in the Data Planning Matrix helps you plan by specifying a time line for completing data collection forms.

Additional questions that the data collection protocol should answer include:

- How and where will the completed forms will be stored? (This is especially important if the forms contain confidential client information.)
- Who should have access to the forms?
- How will the forms be transported from place to place if needed? (Do they need to be sent to a central office for data entry?)
- Who will enter data from the forms into a database and how often?
- How long will the forms be stored after data entry?
- What security procedures are in place to protect data?



Tip

There is a completed **sample Data Planning Matrix** available in the Appendix (**Tool 3, p.100**).

Develop or revise data collection forms as needed

When drafting or tailoring data collection tools, be sure that they include required data variables. Data collection tools should include:

- National HIV Prevention Program Monitoring and Evaluation (NHM&E) required variables
- Variables needed to calculate CDC HIV Prevention Program Performance Indicators
- Data required to monitor and evaluate MIP at your agency
- Data required by other funding sources

Before a data collection form is created, it is important to think about its purpose and how it fits into the flow of serving clients. Before implementing a form, you should:

- Identify the purpose of the form. For example, the MIP Client Session Log (**Tool 4, p.110**) documents the outputs that are included in the MIP logic model.
- Determine at what point in the intervention the form will be used (for example, at intake, at the end of the session, etc.). The MIP Client Session Log, for example, will be used at each and every contact with the client at the end of the session.

- Decide who will complete the form and who will enter the data from the form into the database. The MIP Client Session Log will be completed by the MIP staff members who meet with the client and will be entered into the database by designated MIP staff.
- Determine the process that you will use to collect, manage, and analyze the data.

How to use the MIP Client Session Log

The MIP Client Session Log is a form created to collect information about each and every client contact. It captures information to document the outputs from the logic model, as well as all the client information that is required in each of the MIP sessions. This form saves you time since all the information is collected through checklists.

One form is completed for every encounter with the client. For example, if you see a client in the morning, you will use the MIP Client Session Log to document all the activities that occurred during that encounter. If the client shows up in the afternoon, you will complete another form. The form should be placed in an inbox for data entry.



Link to MIP Program Manual

Section IV of The MIP Program Manual identifies five MIP M&E forms that collect pertinent data and can be used for monitoring and evaluation of MIP: 1) MIP Intake Form; 2) Self-assessment/Staging Form; 3) Behavioral Risk Assessment; 4) Session Action Plans; and 5) Case Management Tracking and Referral Form.

Please review these forms, in addition to the data collection forms included in this field guide, as you develop your data collection protocol and identify and/or adapt data collection forms.

Pilot-test data collection tools

Before implementing the data collection forms, it is important to test them. Pilot-testing will help ensure that the tools are suitable for your particular agency and client base. This can be done in a number of ways. You could have a MIP counselor and case manager review the forms. Or you could pilot the forms during a few client sessions, being sure to track how well the form works throughout the entire process. Another technique is to hold focus groups. In the focus groups, clients and/or counselors who will use the forms provide feedback on them. You may want to use a combination of these methods. This is an example of how stakeholders can remain involved throughout the evaluation process and provide valuable insight.

During pilot-testing, check for the following:

- Are there clear instructions on how to use the form?
- Are the questions on the form clear?
- Is there enough space to document the information?
- Is the form too long for the amount of time given to complete it?
- Is any information missing from the form?

Train staff on how to use the data collection tools

All staff using a data collection tool, whether for data capture or data entry, should be trained on the use of the form. Training should include the definitions for each field on the form, even if the definition may seem obvious. It is important that everyone understands the definition of every field to avoid mistakes in data capture. For example, if the form asks for a “client’s identified risks,” training should specify that documentation should be limited to the risks that the client identifies, and *not include* the risks that the counselor perceives the client to have.

All staff should be trained regarding your agency’s policies for maintaining client confidentiality. Additionally, each staff person’s role in implementing the agency’s security procedures should be identified and documented on the data collection protocol.

CHAPTER 4 SUMMARY

- Data collection is guided by your evaluation questions, SMART objectives, and staff capacity. If data collection becomes too burdensome for your staff, you may need to examine and revise your evaluation questions and SMART objectives.
- The development of a data collection protocol is essential to ensure the data collection process is uninterrupted in the case of staff turnover.
- In addition to the MIP data collection tools included in this guide, review the tools and forms included in the MIP Program Manual.
- Tools related to this chapter include:
 - Sample Data Planning Matrix (**Tool 3, p.100**)
 - MIP Client Session Log (**Tool 4, p.110**)
 - Community Resource Assessment (**Tool 5, p.116**)

5

JUSTIFY CONCLUSIONS: COMPILE, CLEAN, AND ANALYZE DATA

Step 5: Justify Conclusions

This chapter describes the data management activities associated with Step 5: Justify conclusions.

Before you can use your data to reach any conclusions, you first need to clean, compile, and analyze the data that have been collected. Therefore, this chapter will first discuss:

- Data compilation
- Data cleaning
- Data analysis



Compile, Clean, and Analyze Your Data

Data compilation

Data compilation refers to the process of gathering and tallying data from individual data collection forms in order to combine them into a total aggregate count.



Recommended Activity

Choose a database to store and compile data. The field guide is accompanied by an Access database which requires Microsoft Access software.

Many agencies will have access to the CDC Program Evaluation and Monitoring System (PEMS) for data entry and reporting. Data entered in the PEMS database can be compiled by running pre-programmed reports, or by extracting the data and then using Excel, SAS, or SPSS to analyze the data. If your agency is using a database other than PEMS, it is important to make sure that the database meets your data management needs.

A database should:

- Capture necessary data elements
- Have specifications/requirements and field limitations for each data element that minimize data entry mistakes
- Have a mechanism for compiling or extracting data for data analysis



Tip

Data Entry Rules

It is important to think through the instructions that staff will need in order to be consistent and accurate in their data entry over time. Some things to consider are:

- How will missing data on forms be handled?
- Are there details in the client files that may be denoted differently by counselors but should be entered consistently? For example: Risk Reduction Step might be written, "RR," "Risk Red.," Risk Red. Step," etc., but should be entered one way by all staff for consistency.

**Tip****Not Using a Database?**

It is generally accepted that using a database (e.g., Access), statistical software (e.g. SAS and SPSS), or an Excel spreadsheet is more efficient than hand-tallying data. However, it may be more feasible for an agency to hand-tally data if staff members are unfamiliar with data systems and/or the agency does not have access to a database or spreadsheet program. If data will be hand-tallied, it is a good idea to write a description of how the data are tallied to ensure uniformity of the process over time and across staff.

As you develop your M&E plan, you should consider if it is really more efficient to hand-tally data or if training staff to use Access, PEMS, or another database would be worth the investment. Generally, compiling data from a database is not only more efficient, but data are also usually more accurate.

Data cleaning

A key component of data compilation is cleaning. Data cleaning means ensuring no data were omitted, that data were entered correctly into the database, and that data values are within expected ranges. One focus of data cleaning is to identify data missing from forms and the database. Efforts should be made to identify and complete missing information. Data cleaning can start by checking that forms are filled out completely before entering them into a database.

Another step in data cleaning is to have a second person check the database entry of another and correct any mistakes that were found. This is usually done for a small percentage of the overall data. Thirdly, variables that have clear relationships should be compared. For example, if the data show that a man is pregnant, the data should be double-checked and corrected.

Data compilation is usually done on a monthly basis to ensure that all data are clean and available for data analysis.



Recommended Activity

Identify staff resources to compile data:

- Do staff members have the necessary training to carry out their roles?
- Have staff members been trained on the agency's policies and procedures for maintaining client confidentiality?
- If staff capacity to compile the data is not sufficient, do you need an outside evaluator or quality assurance monitor?

Data analysis

Data analysis is the process of calculating quantitative data, and organizing and summarizing qualitative data. The aim of data analysis is to answer evaluation questions, identify trends in service delivery (e.g., very few clients decide to participate in the intervention after the induction session), and identify gaps in data (e.g., are there questions the data do not answer?).

QUANTITATIVE DATA

Are represented by numbers and represent predetermined categories that can be treated as ordinal or interval data and subjected to statistical analysis.

Quantitative data come from structured questionnaires, tests, standardized observation instruments, and program records.

-CDC Evaluation Capacity Building Guide

Analysis of quantitative data

Quantitative data analysis does not have to involve complicated statistics. The calculation can be as simple as tallying. For example, in order to answer "How many clients received services during the reporting period?" you would tally:

- The total number of clients who received services in a given period

Quantitative data can also involve simple division of two data sets. For example, to answer the question "What proportion of clients who inject drugs received training on safer injection practices?" you would need:

- The total number of clients who received training on safer injection practices

- The total number of clients who inject drugs and attended the “Reducing Drug Related HIV Risk” session

To analyze these data, you would divide the number of clients who received training on safer injection practices by the number of clients who inject drugs and attended the “Reducing Drug Related HIV Risk” session.

This evaluation field guide includes an Access database that is capable of documenting the information contained in the MIP Client Session Log. This database will also quantify selected MIP objectives. In the absence of the Access database, a local system can be used to perform the calculations.

The table below illustrates how the database will perform the necessary calculations to answer selected evaluation questions and determine whether SMART objectives were met.

Objective	Evaluation question	The Access database calculation
By (time frame), MIP will provide services to at least X clients	How many clients did we serve?	Provide a count of all clients served
By (time frame), X percent of those clients who complete Session 1 (the induction session) will complete the remaining 6 sessions	What was our retention rate?	Divide number of clients who completed all seven sessions by the number of clients who completed the induction session
By (time frame), X percent of the clients who inject drugs and complete the “Reducing Drug Related HIV Risk” session will receive training on safer injection practices	What proportion of clients who inject drugs received training on safer injection practices?	Divide the number of clients who received training on safer injection practices by the number of clients who inject drugs and attended the “Reducing Drug Related HIV Risk” session.
By (time frame), X percent of clients who complete the “Reducing Drug-Related HIV Risk” session will complete a drug risk behavior action plan.	What proportion of clients completed a drug risk behavior action plan?	Divide the number of clients who completed a drug risk behavior action plan by the number of clients who completed the “Reducing Drug-Related HIV Risk” session.
By (time frame), X percent of clients who complete the “Reducing Sex-Related HIV Risk” session will complete a sexual risk behavior action plan.	What proportion of clients completed a sexual risk behavior action plan?	Divide the number of clients who completed a sexual risk behavior action plan by the number of clients who completed the “Reducing Sex-Related HIV Risk” session.

Objective	Evaluation question	The Access database calculation
By (time frame), X percent of clients who complete the <i>“Readiness for Entering Drug Treatment”</i> session will complete a drug use profile.	What proportion of clients completed a drug use profile?	Divide the number of clients who completed a drug use profile by the number of clients who completed the <i>“Readiness for Entering Drug Treatment”</i> session.
By (time frame), X percent of clients who complete the <i>“Reducing Sex-Related HIV Risk”</i> session will complete a sexual risk profile.	What proportion of clients completed a sexual risk profile?	Divide the number of clients who completed a sexual risk profile by the number of clients who completed the <i>“Reducing Sex-Related HIV Risk”</i> session.
By (time frame), X percent of clients who complete the <i>“Relapse Prevention”</i> session will complete a relapse prevention plan.	What proportion of clients completed a relapse prevention plan?	Divide the number of clients who completed a relapse prevention plan by the number of clients who completed the <i>“Relapse Prevention”</i> session.
By (time frame), X percent of clients who complete the <i>“Readiness For Entering Drug Treatment”</i> session will prepare a treatment entry plan.	What proportion of clients in need of treatment prepared a treatment entry plan?	Divide the number of clients who completed a treatment entry plan by the number of clients who completed the <i>“Readiness for Entering Drug Treatment”</i> session.

QUALITATIVE DATA

Are detailed descriptions of situations, events, people, interactions, and observed behaviors; direct quotations from people about their experiences, attitudes, beliefs, and thoughts; or excerpts or passages from documents, correspondence, records, and case histories.

Qualitative data come from open-ended interviews, focus groups, observations, document review, and questionnaires without predetermined, standardized categories.

-CDC Evaluation Capacity Building Guide

Analysis of qualitative data

Not all the answers to your evaluation questions will be numeric. Data analysis also includes examining focus group data and case manager and counselor notes and observations. For example, if your agency would like more information on why a community service provider is not accepting your agency referrals, you will need to interview the case manager, client, and the service provider. A qualitative analysis of this question could begin by compiling your interview notes. You may also conduct focus groups or collect additional observations. After reviewing those notes, a number of themes should become apparent to you. Usually, these themes are mentioned repeatedly by different respondents and are documented in different sources.



Recommended Activity

Identify staff resources to analyze data:

- Does the agency have the expertise on staff to carry out data analysis?
- If not, what training will staff need?
- Do you need an outside evaluator, and if so, in what capacity?



Recommended Activity

Develop a plan detailing how often data will be analyzed

- What are your reporting requirements? Does your plan for analyzing data correspond to reporting deadlines?
- How often do you want to analyze data to consider the need for program improvements? If it is your first year implementing the program, you will want to analyze data for feedback on service delivery more often than during the fifth year of implementation.

Minimally, data should be analyzed and interpreted often enough to make program improvements and meet reporting requirements. A good rule of thumb is to compile data once a month and analyze data on a quarterly basis.

Once the data analysis is complete, data are ready to be utilized for reporting, program improvement, and feedback to staff and clients.

CHAPTER 5 SUMMARY

- Data cleaning, data compilation, and data analysis are necessary before any conclusions can be drawn.
- Data cleaning begins by verifying completion of data collection forms and verification of accurate data entry
- Quantitative data analysis will include the calculation of measures and CDC Performance Indicators.
- Qualitative data analysis includes compilation and review of focus group data, and case manager and counselor notes and observations.
- Tools for data analysis included in this guide:
 - Sample MIP SMART Objectives (**Tool 2, p.96**)
 - Sample Data Planning Matrix (**Tool 3, p.100**)
 - MIP Client Session Log (**Tool 4, p. 110**)
 - Community Resource Assessment (**Tool 5, p. 116**)
 - MIP Fidelity Form (**Tool 6, p. 134**)
 - Client Satisfaction Survey (**Tool 7, p.196**)

6

USING DATA FOR PROGRAM MONITORING AND IMPROVEMENT

This chapter focuses on how to use the findings and results that you have collected and analyzed. Monitoring and evaluation data will be used on an ongoing basis for:

- Program monitoring
- Program improvement
- Program planning
- Reporting to funders and other stakeholders
- Program advocacy and support

The use of data for each of these activities will be based on Step 6 of the framework: ensure use and share lessons learned. At this point, the stakeholders who have not been involved in the entire M&E process should be engaged to share the evaluation results and determine how the data will be used for program improvement.



Step 6: Ensure Use & Share Lessons Learned

Utilize data according to your monitoring and evaluation (M&E) plan

Your M&E plan will help ensure that you are maximizing your resources and obtaining the results you want. While one person, likely the program manager, may have overall responsibility for the M&E plan, your stakeholders should also be involved to determine the use of data to inform program changes and program improvement.

Data analysis will help you to identify trends, limitations, and gaps in the implementation of your program. The program's plan for collecting, managing, and analyzing data should describe how often you will use the results of your analysis to make changes. It should also include who will be involved in the program planning and improvement activities that result from the data analysis.



Recommended Activity

During the first several months of implementing the MIP intervention and M&E plan, you should review data frequently (perhaps weekly or bi-weekly) to identify any challenges that need to be addressed. Once your program is established, you can review your data less frequently (monthly or quarterly, depending on the data element).

Use data for program monitoring

You documented your SMART objectives and evaluation questions in the Data Planning Matrix. Your **process objectives** form the basis for identifying whether or not you are implementing your program as planned.

Your agency's own Data Planning Matrix will provide you with the numerators and denominators you want to track for each SMART objective and evaluation question. The MIP Access database will assist you in calculating the measures related to MIP-specific objectives. If you have opted to use another database, statistical software application, or Excel spreadsheet, you will need to create the formulas to calculate the measures.

Decide whether the SMART objectives were met

In order to use your data for program improvement effectively, you must determine whether you have met your objectives. After compiling, cleaning, and analyzing your data, gather the results related to each objective to determine if the objective was met.

**Tip****Expressing Measures as Percentages**

If your objective is in the form of a percentage and you have expressed your measure as a decimal, you will want to multiply the measure by 100 to compare the actual program results to your objective.

Example, using the objective, evaluation question, and measure listed below:

If 35 clients received training on safer injection practices and 42 clients who inject drugs attended the “Reducing Drug Related HIV Risk” session, the calculation equals 0.83. Multiply 0.83 by 100 to determine that 83% of clients who inject drugs received training on safer injection practices. Compare your actual result of 83% to the objective that you established when you created your M&E plan to determine whether you met your objective.

Objective	Evaluation question	The Access database calculation
By (timeframe), X percent of the clients who inject drugs and complete the “Reducing Drug Related HIV Risk” session will receive training on safer injection practices.	What proportion of clients who inject drugs received training on safer injection practices?	Divide the number of clients who received training on safer injection practices by the number of clients who inject drugs and attended the “Reducing Drug Related HIV Risk” session.

If an objective was met:

Decide what additional information (if any) is needed in order to understand what is contributing to the success of that element in order to keep doing it. You will want to use the data to reinforce what is working well.

If an objective was not met:

Decide what information is needed in order to determine the changes that need to be made. In some cases, you will already have an idea of what information you need and may already have access to that information. In other situations, you might have to question staff, clients, or other stakeholders to help identify the factors that have influenced this objective and the

reasons that have kept you from meeting the objective.

If you are not able to determine whether an objective was met:

If you find that you do not have the information that is necessary to determine whether or not you reached an objective, you will need to figure out why the information is missing and address the reason it is missing.

Here is an example of what the process of using M&E data for program monitoring might look like for MIP:

Process evaluation question: Do clients who begin MIP complete the intervention? (What is our retention rate?)		
SMART objective: 80% of clients who complete Session I (the induction session) will complete the remaining six sessions by (time frame)		
Evaluation Finding	Implications (additional data that may be needed)	Potential ways to gain insight
<p>Scenario #1 Objective was met:</p> <p>86% of MIP clients who completed the first session completed the remaining six sessions by (time frame).</p>	<ul style="list-style-type: none"> ■ Is there something specific that counselors do to ensure that a client returns for the subsequent sessions? ■ Do case managers do something in particular to ensure clients return for additional sessions? ■ What contributes to completion of the additional sessions? ■ What are staff members doing to reinforce attendance at the additional sessions? 	<ul style="list-style-type: none"> ■ Review: <ul style="list-style-type: none"> ◇ Client Session Log ◇ Incentives provided ◇ Process for scheduling subsequent sessions ◇ Case manager notes ■ Conduct client surveys with those who complete the intervention. ■ Hold discussions with counselors and case managers to understand how clients are encouraged to attend additional sessions.

Evaluation Finding	Implications (additional data that may be needed)	Potential ways to gain insight
<p>Scenario #2 Objective was NOT met:</p> <p>60% of MIP clients who completed the first session completed the remaining six sessions by (time frame).</p>	<ul style="list-style-type: none"> ■ Does retention have to do with the characteristics of our population of current drug users? ■ Do participants respond to incentives? ■ Is there a difference between the clients who complete the intervention and those who do not? 	<ul style="list-style-type: none"> ■ Ask counselors and case managers what they believe are the factors that limit completion of the intervention. ■ Review the Client Session Logs to compare readiness for change after the first session for clients who complete the intervention vs. those who do not.
<p>Scenario #3 Do not know whether objective was met:</p> <p>Data were not compiled.</p>	<ul style="list-style-type: none"> ■ Were session records completed? ■ Were session records entered into the database? ■ If not, why? 	<ul style="list-style-type: none"> ■ Review Client Session Logs and the database. ■ Discuss with counselors and data entry staff why the information is not current and potential barriers to completion.

Use data for program improvement

There is no use in monitoring how you are doing if you do not use the information you gather to improve your program.



Recommended Activity

Analyze all process objectives

Over the first few months of implementation, the program manager should examine all of the process objectives (outlined in the Data Planning Matrix) as described in the previous section and identify any areas in which the objectives are not being met. This process will ensure that you identify all objectives that are not on target and the reasons why they are not being met. If you are not on track to meet your goals, the barriers that prevent you from doing so should be identified and corrected.

For example, you may find that the clients you are enrolling in MIP do not return for subsequent sessions and are not completing the intervention. You will want to determine if modifications to the induction process, staff training, provision of incentives, or some other effort is needed to correct client retention.



Recommended Activity

Share the analysis results and make improvements

Sharing the results of the analysis with counselors, case managers, and supervisors, or with other staff who are involved in the intervention (such as data entry staff) can heighten awareness of any shortfalls that need to be addressed. Sharing data also allows for adjustments to be made to the program and enables your organization to better meet its implementation goals.

Analyze short-term outcome objectives

While this guide is not designed for long-term outcome evaluation, you should analyze short-term outcome objectives to explore whether your MIP intervention is having its intended immediate effect on your target population. Use the same objective analysis procedure described previously to analyze outcome objectives.

You can conduct these analyses as they are appropriate (i.e., according to the time line of each short-term outcome SMART objective shown in your Data Planning Matrix. This will tell you whether or not the outcomes you are achieving are what you expected.

You may be carrying out MIP largely as you planned, but find that your clients are not completing the program with increased knowledge of ways to reduce sexual- and drug-related risk or knowledge of available program support services. In this case, you should consider additional information about your client needs in order to modify your program and better meet those needs.

Use data for program planning



Recommended Activity

At least annually or semi-annually, look at your data as you plan activities, strategies, and resource allocation for the next implementation period. Your data (both process and outcome) will allow you to identify the strengths that you may want to build on, as well as the areas you may want to improve. You will also identify any significant changes that you need to make to the implementation plan.

Need more resources

Your program data may also help you to budget the resources you need for your next intervention cycle. For example, you may discover a need for staff training that will require additional training or travel dollars. Or you may want to increase the time that a supervisor spends on the project in order to help providers maintain fidelity to the intervention and

increase their effectiveness.

Redistribute existing resources

Your data may also help you allocate existing resources. If you find that you are having difficulty enrolling clients in MIP, you may plan to increase outreach efforts or provide alternative incentives. Or if you do not know how to address the problem, you may plan to track some additional objectives and indicators that will provide you with the information you need.



Recommended Activity

Review and revise evaluation documents

At regular intervals (after your first few months of implementation and then at least annually), you for long-term outcome evaluation, will need to review your evaluation documents to incorporate what you have learned. They may only need minor changes. However, if your evaluation caused you to change some basic assumptions, you will need to make more significant changes.

Be sure to review your:

- Logic model
- SMART objectives
- Evaluation questions
- Data Planning Matrix

Engage stakeholders – share M&E results, modify approach

Use your data for advocacy and to gain support

At this point in the evaluation, you may reengage those stakeholders who have not been actively involved in all steps of the evaluation process. It is also important to encourage stakeholders to provide recommendations and share their input regarding evaluation and program decisions. It is critical that your data are shared with your stakeholders in order to obtain feedback, report on what you have already accomplished, and share what you plan to do moving forward. You can demonstrate that future planning is based on implementation and evaluation activities that have already taken place. Additionally, your data will enable you to gain support to justify further program development and investment, expansion, redesign, or termination.

You will use your data to report to your funders and organizational leaders that you have achieved what you committed to do in your grant application. Or if you have not reached your goals, these data will help you develop some realistic steps for improvement. Your data can also be used to meet programmatic reporting requirements as directed by your funders.

However, there are additional ways your data can help you with advocacy and support:

- Identification of trends or changes in client characteristics (such as risk factors or drug use patterns) may help you build a case for additional funding from a new or existing sources.
- Sharing with stakeholders how you used program data to make improvements can lead to increased credibility and cooperation from other community agencies and funders.
- Data can be shared in your organization's marketing materials and in subsequent grant proposals. Data can be used to highlight successes, develop a profile of your typical client, and "paint a picture" of what your program allows clients to achieve.
- Data that identify client needs can be used to forge new partnerships with other organizations, or re-negotiate existing partnerships.
- Data that emphasize program achievements can be shared with staff to increase morale and retention.

Use your data to ensure quality

Quality assurance is what you and your team do to ensure that the MIP intervention is delivered in the way that it was intended. It is a way of finding out whether or not the sessions are being conducted as they were originally designed. After all, the closer program implementation resembles the original, the more likely it is to yield its intended results.

One way of ensuring the quality of an intervention is by assessing fidelity. The term fidelity is used by evaluators to refer to the degree of resemblance between the intervention as it is actually delivered, and as it was intended to be delivered. A MIP Fidelity Form has been developed and is included in this guide (**Tool 6, p.134**). It lists all of the required elements in each MIP session. The form can be used by the MIP supervisor as a quality control tool or by the person conducting the session as a self-assessment of the way that the session is delivered. The MIP Fidelity Form is intended to capture qualitative data that can be used to assess fidelity of program implementation.

Client satisfaction is another indicator of the quality of services that your team provides. Usually, if something goes wrong with your program, clients are the first ones to feel the impact. Clients can also give you feedback on the quality of services that they are receiving from the referral services. Client satisfaction is difficult to measure because it needs to be tailored to a specific program. For that reason, a basic Client Satisfaction Survey is included in this guide (**Tool 7, p.196**). However, you should select and adapt the items that most apply to your program and create your own Client Satisfaction Survey. In particular, if you want to obtain information about the services clients receive when referred to other agencies, you will need to add the appropriate questions and administer the survey to clients after they access those services.

Finally, the MIP Monitoring and Evaluation Checklist (**Tool 8, p.199**) is another quality assurance tool in this guide that will help you to document your progress and keep track of your important achievements. You can use this tool to check off pre-implementation, monitoring and evaluation, and staff training tasks as they are completed and add comments to document issues you may have. As with the other tools, this is an example that should be modified to meet local needs.

CHAPTER 6 SUMMARY

- Monitoring and evaluation data should be used on an ongoing basis for program monitoring, program improvement, program planning, reporting to funders and other stakeholders, and program advocacy and support.
- Data analysis will help identify trends, limitations, and gaps in the implementation of a program.
- The first step of the analysis process is to gather the data that are related to each objective, and then determine if the objective was met. Depending on the outcome, determine what is contributing to the success of that element; what needs to be changed; or what additional data need to be collected, and make the appropriate changes.
- Share the results of the data analysis with program staff in order to provide feedback about MIP activities and to make necessary changes in the implementation of the program.
- Make any necessary modifications to future program plans based on what you have learned about your program through your SMART objectives and data analysis.
- Review and revise your evaluation documents to incorporate changes in your M&E plan.
- Share data with stakeholders, including funders and organizational leaders, in order to report on activities, confirm that grant application goals have been achieved, and to share how improvements will be made to the program.
- Assessing fidelity is a way to ensure the quality of the MIP intervention.
- Tools related to this chapter include:
 - MIP Fidelity Form (**Tool 6, p.134**)
 - Client Satisfaction Survey (**Tool 7, p.196**)
 - MIP Monitoring and Evaluation Checklist (**Tool 8, p.199**)

7

NATIONAL HIV PREVENTION PROGRAM MONITORING AND EVALUATION: USE OF PEMS SOFTWARE FOR MIP MONITORING AND EVALUATION

Introduction

CDC has undertaken significant efforts to ensure that the HIV prevention programs it funds are effective in preventing the spread of HIV (Thomas, Smith, & Wright-DeAgüero, 2006). One strategy employed by CDC to strengthen HIV prevention is improving organizational capacity to monitor and evaluate prevention programs (CDC, 2007). The National HIV Prevention Program Monitoring and Evaluation (NHM&E) required variables are a major component of this strategy.

Collection of the NHM&E variables makes it possible for CDC, at the national level, and its funded grantees, locally, to answer such questions as:

- Demographic and risk behavior of clients being served by its grantees
- Resources used to provide these services
- Effectiveness of these services in preventing HIV infection and transmission
- How many people are being served by various HIV prevention interventions?
- What populations are participating in HIV prevention interventions?
- What services have been planned for and subsequently provided?
- What resources have been allocated for HIV prevention programs?
- Have the anticipated outcomes been achieved?
- What are the demographics, risk behaviors, and risk characteristics of clients served by MIP?

The variables you will be expected to collect and report to CDC for MIP will be described in this chapter. The NHM&E variable requirements are also included in this guide in **Tool 9, p.201**. Collection of the required variables will help you answer your evaluation questions, provide data for tracking of process monitoring and evaluation and outcome monitoring,

assess the status of your SMART objectives, and generate data you can use to calculate CDC Performance Indicators for MIP.

Note: It may be necessary to use complementary data management systems for other aspects of your M&E plan, such as MIP session information, documentation of community assessment activities, and quality assurance activities that cannot be captured in the PEMS software.

Disclaimer

The National HIV Prevention Program Monitoring and Evaluation reporting requirements presented in this document are current as of April 2009. Please refer to the National HIV Prevention Program Monitoring and Evaluation (NHM&E) website (<https://team.cdc.gov>) for the most current reporting requirements.

Preparing to collect the National HIV Prevention Program Monitoring and Evaluation required variables

There are a variety of things you should have in place at your agency to conduct National HIV Prevention Program Monitoring and Evaluation (NHM&E) activities. Someone on staff should be designated as the Implementation Coordinator (IC). This individual is responsible for coordinating all aspects of activities associated with NHM&E, including establishment of the NHM&E team.

Members of the NHM&E team will have responsibility for such activities as:

- Reviewing the NHM&E required variables
- Modifying and/or creating data collection forms to ensure the program is capturing the required variables
- Training prevention staff on collection of required variables
- Training staff who will be users of the PEMS software
- Ensuring staff have access to the correct hardware, software, and internet connections
- Working with prevention program staff on reporting and utilization of the NHM&E variables to support ongoing M&E activities

Here are some tips to prepare to implement NHM&E data collection for MIP.

- If your agency already receives HIV prevention funds from CDC, find out who in your agency is serving as the NHM&E Implementation Coordinator (IC). This individual can work with you to plan for integration of MIP into all aspects of NHM&E activities.
- If this is the first time you are receiving funds from CDC for HIV prevention, contact your CDC Project Officer, who will help you identify your technical assistance provider. Your technical assistance provider will begin by giving you an overview and orientation to the NHM&E requirements; making sure you have all relevant PEMS materials; developing a training plan to meet your needs; and assisting you in gaining access to the PEMS software.

The following NHM&E resources are available to all grantees implementing NHM&E activities:

- *Evaluation Capacity Building Guide* - This guide provides an overview of monitoring and evaluation for evidence-based interventions, with particular focus on process monitoring and evaluation activities, tools, and templates (CDC, 2008a).
- *National Monitoring and Evaluating Guidance for HIV Prevention Programs (NMEG)* - This manual provides a framework and specific guidance on using NHM&E variables to monitor and evaluation HIV prevention programs (CDC, 2008b).
- *Program Evaluation and Monitoring System (PEMS) User Manual* - This how-to manual describes the functionality within the application and provides step-by-step instructions for each module within the web-based software tool. Screenshots, example extracts of data, and reports are used to illustrate key features included in the PEMS software. You can download this manual at the National HIV Prevention Program Monitoring and Evaluation (NHM&E) website (<http://team.cdc.gov>) under Trainings/PEMS User Manual (CDC, 2008c).
- *National HIV Prevention Program Monitoring and Evaluation Variables and Values-Data Variable Set (NHM&E DVS)* - is the complete set of CDC's HIV prevention program monitoring and evaluation variables, including required variables for reporting to CDC and optional variables specific to an intervention or for local M&E (CDC, 2009).
- *Technical assistance and training* on all aspects of NHM&E required variables is provided by CDC and its partners who work directly with CDC-funded grantees. This assistance is provided to the NHM&E Implementation Coordinator (IC) designated by your agency, who is then responsible for training and assisting other staff.

National HIV Prevention Program Monitoring and Evaluation (NHM&E) Variables

The NHM&E variables are organized in a series of data tables. The NHM&E Variables and Values (NHM&E DVS) provides the number, name, definition, instructions, value choices, and codes for each variable. The PEMS software captures these variables in various modules: Agency Information, Program Information, Client Level Services, Aggregate Level Services and Community Planning.

- The required variables are the minimum set of variables that all grantees must report to CDC.
- There are additional variables included in the PEMS software that may be useful to your agency but are not required.
- There are “local variables” in the PEMS software that can be used when you enter client information to capture data not otherwise reflected in the NHM&E variable requirements.



Recommended Activity

Review your client intake and session record forms to ensure that you are gathering all the required variables.

In this chapter, we will discuss in detail only those data tables and associated PEMS modules you will use to enter information specific to MIP.

Agency Information module in PEMS

The following tables in the Agency Information module apply to all interventions including MIP, and should be updated annually under the direction of your NHM&E Implementation Coordinator:

- **Table A:** General Agency Information
- **Table B:** CDC Program Announcement Award Information
- **Table C:** Contractor Information (including any agencies you contract with to implement MIP)

The Agency Information module in the PEMS software also describes the infrastructure, including delivery sites, network agencies, and workers (e.g., counselors) that will be used to deliver MIP. Correct set-up of this information before program implementation will facilitate entry of client-level data, as well as the generation of reports helpful for program M&E and progress reports.

- **Table S:** Site Information (Agency Information module, Sites sub-module). Each service delivery site (i.e., location) where the MIP intervention is delivered should be entered into PEMS. This will allow you to indicate the site where the MIP session was delivered when client level data are entered.
- **Table N:** Network Agencies (Agency Information module, Network Agency sub-module). The variables in this table are not required. However, use of this table will help with tracking and verification of client referrals to services outside of your organization. Referrals to other programs within your agency, known as internal referrals, can also be tracked in PEMS. Because referral outcomes are important process measures for MIP, use of this table is recommended.
- **Table P:** Worker Information (Agency Information module, Worker sub-module). The variables in this table are not required. However, use of this table will allow you to identify the sessions provided by each MIP counselor, as well as whether or not they provided certain components of the intervention as planned.

Program Information module in PEMS

The Program Information module in the Program Evaluation Monitoring System (PEMS) software is where information is captured on how MIP will be implemented, including where it fits into the overall structure of your agency, the target population to be served, and the activities to be included in MIP sessions. Correct set-up of this information before program implementation is essential to capture client-level data accurately, as well as to generate reports helpful for program M&E and progress reports. The Program Information module includes the following table:

- **Table D:** Program Name
- **Table E:** Program Model
- **Table F:** Intervention Plan Characteristics

Programs in PEMS are identified in terms of the *Program Name* (the overall name your agency uses for the program of which MIP is a part), the *Program Model* (the scientific or operational basis for a program), and the *Intervention Plan* (how the intervention is delivered as part of the program model). An intervention may have multiple sessions, as in the case of MIP.

A program model may also have multiple interventions. For example, under the MIP Program Model, there may be three interventions: one for the “MIP Sessions,” one intervention for “Case Management,” and another intervention for “Outreach.”

If your agency is delivering MIP to two distinct target populations that you want to track separately, you can create two distinct interventions for MIP sessions under the MIP program model, each with unique names.

Within the Program Information module, PEMS allows you to select the activities that are part of each MIP session. Because the NHM&E variables were designed to be used for a variety of HIV prevention interventions, they do not cover all activities that are part of all interventions. PEMS does not, for example, have specific value choices for the following activities that are part of each MIP session:

- Review of each session’s Action Plan with client
- Client identification of his/her own specific risk factor for HIV and viral hepatitis
- Clients expressing intent to implement risk reduction step
- Clients identifying a source of support for risk reduction step
- Clients identifying their readiness or stage of change

PEMS does, however, have an activity value choice for “decision making” and “risk reduction” discussions that could be used to indicate some or all of the MIP components listed above were completed.

If you wish to capture the specific activities that are not part of the existing value list, PEMS allows you to define your own local variables and value choices that can be entered. Your NHM&E technical assistance provider can provide more information about how to do this.

Below are the NHM&E variables that should be collected for the MIP program plan.

PROGRAM INFORMATION

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Table D: Program Name – Planning			
Program Information, Program Details	Do1	Program Name	<p>Enter the name of the overarching program under which MIP resides. The name you use should be the name your organization uses to identify the program. MIP may stand alone as its own program, or it may fall under a general HIV Prevention Program.</p> <p>It is a good idea to add the year to the <i>Program Name</i>, since programs must be set up annually and you will want to be able to distinguish them easily.</p>
	Do2	Community Planning Jurisdiction	This is the CDC-directly funded state, territory, or city health department <i>Community Planning Jurisdiction</i> in which MIP will be delivered.
	Do3	Community Planning Year	Enter the calendar year within the comprehensive HIV prevention community plan for the <i>Community Planning Jurisdiction</i> that guides how MIP will be implemented. Usually this is the same year in which you begin program implementation.

PROGRAM INFORMATION

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Table E1 Program Model and Budget – Planning			
Program Information, Program Model Details	E101	Program Model Name	The <i>Program Model</i> describes the scientific basis for an intervention. Your <i>Program Model Name</i> is the name your agency uses to represent MIP. It may be the same as the program name you entered above, or different.
	E102	Evidence Base	The evidence base is the research study that has proven an intervention is effective. Select <i>MIP</i> from the drop-down menu.
	E105	Target Population	This is the population you have decided will be eligible to participate in the MIP intervention. You will select from the list of priority populations that have been identified for your community planning jurisdiction. If your eligible population is not represented in this list, you must add that target population through the <i>Additional Target Populations</i> sub-module before entering information into the <i>Program Model Details</i> sub-module.
	E107	Program Model Start Date	The start date of the annual funding period for this program model (month and year).
	E108	Program Model End Date	The end date of the annual funding period for this program model (month and year).
	E109	Proposed Annual Budget	Enter the annual budget for MIP using CDC/DHAP funds.

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Table F: Intervention Plan Characteristics			
Program Information, Intervention Details	Fo1	Intervention Type	This field identifies a type of intervention. Choose <i>Health Education/Risk Reduction</i> (code o6) for the MIP sessions and case management. Select <i>Outreach</i> (code o5) if setting up the outreach component of MIP.
	Fo2a	Intervention Name	The unique name of the intervention. Note: You may have multiple interventions under your MIP program model. For example, you may have up to three interventions: MIP sessions, case management, and outreach.
	Fo3	HIV+ Intervention	Choose <i>Yes</i> (code o1) if your eligible population for this MIP intervention is exclusively persons living with HIV/AIDS and their sex and/or injection drug using partners. Otherwise, choose <i>No</i> (code oo).
	Fo4	Perinatal Intervention	Choose <i>Yes</i> (code o1) if your eligible population for this MIP intervention is exclusively pregnant women. Otherwise, choose <i>No</i> (code oo).
	Fo5	Total Number of Clients	Enter the total number of clients you plan to reach with this MIP intervention during the program year.
	Fo6	Sub-Total Target Population	For each target population you identified in E1o5, indicate the number of persons in that target population you intend to reach. The numbers you enter for the target populations must add up to the number you entered in <i>Total Number of Clients</i> , variable Fo5.
	Fo7	Planned Number of Cycles	Select the <i>Number of Cycles</i> is <i>Ongoing</i> checkbox. Enrollment is ongoing.
	Fo8	Number of Sessions	A session consists of one or more activities delivered to a MIP client on a given date. Enter 7, as MIP should have six sessions plus a booster session. Note: If you are entering the intervention information for case management and outreach, select the checkbox indicating that the <i>Number of Sessions</i> is <i>Unknown</i> .

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Table F continued			
	F09	Unit of Delivery	<p>This variable describes how clients are grouped and the intervention is delivered during each session. MIP is designed to be delivered to one person at a time. Choose <i>Individual</i> (code 01) for the unit of delivery when entering data for each of the seven sessions.</p> <p>Note: If you are entering the intervention information for case management, select <i>Individual</i> on the <i>Intervention Detail</i> screen. For outreach, select all of the appropriate unit(s) of delivery.</p>
	F11	Delivery Method	<p>This variable describes how the intervention is delivered. For MIP, choose <i>In person</i> (code 01.00).</p>
	F14	Level of Data Collection	<p>This variable indicates whether individual or aggregate level data will be collected during the session. For MIP sessions and case management, choose <i>Individual</i> (code 01). For outreach, select <i>Aggregate</i> (code 02).</p>

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
F10	Activity		<p>PEMS allows you to select activities that you plan to be part of each MIP session. By including activities in the intervention characteristics you will be able to compare what you planned with what actually happens. Some of the activities expected to be part of a MIP session, such as “ensure social support” are not included in the list.</p> <p>The following activities may be included in the program plan:</p> <p>Session 1: Induction</p> <ul style="list-style-type: none"> 04.00 Referral 05.00 Personalized risk assessment 08.05 Information - Availability of HIV/STD counseling and testing 08.08 Information - Availability of social services 08.66 Information - Other 11.01 Discussion - Sexual risk reduction 11.02 Discussion - DU risk reduction 11.03 Discussion - HIV testing 11.13 Discussion - Availability of HIV/STD counseling and testing 11.15 Discussion - Availability of social services 11.66 Discussion - Other 13.07 Distribution - Referral lists 89 Other (specify) - SELF ASSESSMENT/STAGING

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
F10	Activity		<p>Session 2: Taking Care of Your Health</p> <ul style="list-style-type: none"> 04.00 Referral 08.01 Information - HIV/AIDS transmission 08.03 Information - Other sexually transmitted diseases 08.04 Information - Viral hepatitis 08.05 Information - Availability of HIV/STD counseling and testing 08.15 Information - Decision making 08.18 Information - HIV testing 08.22 Information - Sexual health 08.23 Information - TB testing 08.66 Information - Other 11.03 Discussion - HIV testing 11.04 Discussion - Other sexually transmitted diseases 11.11 Discussion - Viral hepatitis 11.13 Discussion - Availability of HIV/STD counseling and testing 11.19 Discussion - Decision making 11.22 Discussion - Sexual health 11.23 Discussion - TB testing 11.66 Discussion - Other 13.07 Distribution - Referral lists 89 Other (specify) - SELF ASSESSMENT/STAGING <p><i>If conducted at agency:</i></p> <ul style="list-style-type: none"> 03.00 HIV Testing 12.01 Other testing - Pregnancy 12.02 Other testing - STD 12.03 Other testing - Viral hepatitis 12.04 Other testing - TB

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
F10	Activity		<p>Session 3: Readiness for Entering Drug Treatment</p> <ul style="list-style-type: none"> o4.00 Referral o8.01 Information - HIV/AIDS transmission o8.04 Information - Viral hepatitis o8.05 Information - Availability of HIV/STD counseling and testing o8.08 Information - Availability of social services o8.11 Information - IDU risk reduction o8.15 Information - Decision making o8.21 Information - Alcohol and drug use prevention o8.23 Information – TB testing o8.66 Information - Other 11.02 Discussion - IDU risk reduction 11.03 Discussion - HIV testing 11.04 Discussion - Other sexually transmitted diseases 11.11 Discussion - Viral hepatitis 11.13 Discussion - Availability of HIV/STD counseling and testing 11.15 Discussion - Availability of social services 11.19 Discussion - Decision making 11.21 Discussion - Alcohol and drug use prevention 11.23 Discussion - TB testing 11.66 Discussion - Other 13.07 Distribution - Referral lists 89 Other (specify) - SELF ASSESSMENT/STAGING

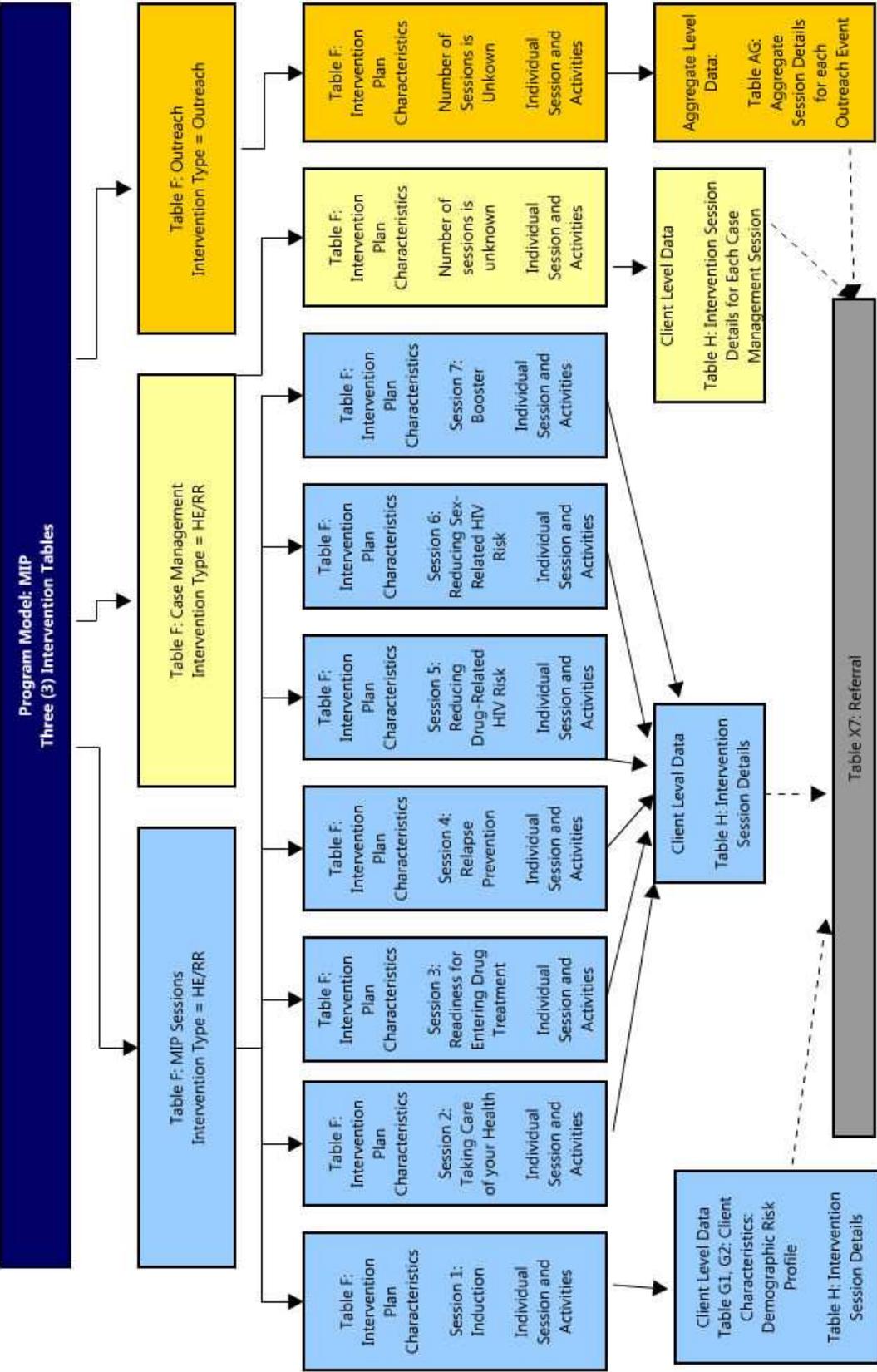
PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
F10	Activity	<p>Session 4: Relapse Prevention</p> <ul style="list-style-type: none"> 04.00 Referral 08.04 Information - Viral hepatitis 08.05 Information - Availability of HIV/STD counseling and testing 08.08 Information - Availability of social services 08.11 Information - IDU risk reduction 08.15 Information - Decision making 08.21 Information - Alcohol and drug use prevention 08.23 Information - TB testing 08.66 Information - Other 11.02 Discussion - IDU risk reduction 11.03 Discussion - HIV testing 11.11 Discussion - Viral hepatitis 11.13 Discussion - Availability of HIV/STD counseling and testing 11.15 Discussion - Availability of social services 11.19 Discussion - Decision making 11.21 Discussion - Alcohol and drug use prevention 11.23 Discussion - TB testing 11.66 Discussion - Other 13.07 Distribution - Referral lists 89 Other (specify) - SELF ASSESSMENT/STAGING 	

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
	.	Activity	<p>Session 5: Reducing Drug-Related HIV Risk</p> <ul style="list-style-type: none"> 04.00 Referral 08.04 Information - Viral hepatitis 08.05 Information - Availability of HIV/STD counseling and testing 08.08 Information - Availability of social services 08.11 Information - IDU risk reduction 08.15 Information - Decision making 08.21 Information - Alcohol and drug use prevention 08.23 Information - TB testing 08.66 Information - Other 10.02 Practice - IDU risk reduction 10.04 Practice - Decision making 11.02 Discussion - IDU risk reduction 11.13 Discussion - Availability of HIV/STD counseling and testing 11.15 Discussion - Availability of social services 11.19 Discussion - Decision making 11.21 Discussion - Alcohol and drug use prevention 11.66 Discussion - Other 13.04 Distribution - Safer injection/bleach kits 13.07 Distribution - Referral lists 89 Other (specify) - SELF ASSESSMENT/STAGING

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
F10	Activity	<p>Session 6: Reducing Sex-Related HIV Risk</p> <ul style="list-style-type: none"> 04.00 Referral 08.04 Information - Viral hepatitis 08.05 Information - Availability of HIV/STD counseling and testing 08.08 Information - Availability of social services 08.10 Information - Sexual risk reduction 08.15 Information - Decision making 08.13 Information - Condom/barrier use 08.23 Information - TB testing 08.66 Information - Other 10.01 Practice - Condom/barrier use 10.04 Practice - Decision making 11.01 Discussion - Sexual risk reduction 11.13 Discussion - Availability of HIV/STD counseling and testing 11.15 Discussion - Availability of social services 11.17 Discussion - Condom/barrier use 11.18 Discussion - Negotiation/communication 11.19 Discussion - Decision making 13.01 Distribution - Male condoms 13.03 Distribution - Safe sex kits 13.07 Distribution - Referral lists 89 Other (specify) - SELF ASSESSMENT/STAGING 	

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
	F10	Activity	<p>Session 7: Booster</p> <ul style="list-style-type: none"> 04.00 Referral 11.13 Discussion - Availability of HIV/STD counseling and testing 11.15 Discussion - Availability of social services 11.19 Discussion - Decision making 11.66 Discussion - Other 14.02 Post-intervention booster session 89 Other (specify) - SELF ASSESSMENT/STAGING
	F10	Activity	<p>Case Management Activities:</p> <ul style="list-style-type: none"> 04.00 Referral 08.05 Information - Availability of HIV/STD counseling and testing 08.15 Information - Decision making 08.18 Information - HIV testing 08.23 Information - TB testing 08.66 Information - Other 11.03 Discussion - HIV testing 11.13 Discussion - Availability of HIV/STD counseling and testing 11.19 Discussion - Decision making 11.15 Discussion - Availability of social services 11.16 Discussion - Availability of medical services 11.23 Discussion - TB testing 11.66 Discussion - Other 13.07 Distribution - Referral lists

PEMS Software module and sub-module	DVS Variable Number	Variable Name	Guidance
Optional Variables			
	F10	Activity	<p>Outreach Activities:</p> <ul style="list-style-type: none"> 08.08 Information - Availability of social services 08.21 Information - Alcohol and drug use prevention 11.21 Discussion - Alcohol and drug use prevention 11.66 Discussion - Other 13.01 Distribution - Male condoms 13.03 Distribution - Safe sex kits 13.04 Distribution - Safer injection/bleach kits 13.06 Distribution - Education materials 13.66 Distribution - Other



Client Level Services module in PEMS

The Client Level Services module includes:

- Table G1: Client Characteristics - Demographics
- Table G2 Client Characteristics - Risk Profile

For every client who participates in the MIP intervention, a demographic profile must be included. The profile includes some required variables (including race, gender, and year of birth, among others), and a number of optional variables.

Risk profile information is also captured in this module, and again can include both optional and required variables. Risk profile information can be linked to the MIP intervention, and can be captured at numerous points in time if desired. Risk profile information can be captured during multiple sessions.

On the next few pages are the NHM&E variables that should be collected for each client that participates in MIP.

PEMS Software module and sub-module	PEMS DVS Variable Number	Variable Name	Guidance
Table G: Client Characteristics – Demographic			
Client Level Services/ Interventions	G101	Date Collected	The date you collected client demographic data from the client – usually the date of intake.
	G102	PEMS Client Unique Key	PEMS automatically generates a unique ID. If you use locally generated IDs you can enter them as well (optional variable G103.)
	G112	Date of Birth-Year	The year in which the client was born. Note that there are optional variables for the client’s day and month of birth.
	G114	Ethnicity	The client’s self report of whether they are of Hispanic or Latino origin, using standard Office of Budget and Management (OMB) codes.
	G116	Race	The client’s self-reported race, using standard Office of Budget and Management (OMB) race codes for the value choices. More than one value can be selected.
	G120	State/ Territory of Residence	The state, territory or district where the client is living at the time of intake.
	G123	Assigned Sex at Birth	The biological sex assigned to the client at birth (i.e. noted on the birth certificate).
	G124	Current Gender	The client’s self-reported sexual identity.
Optional Variables			
	G103	Local Client Unique Key	You may use this field to enter client IDs you generate and utilize locally.
	G110	Date of Birth - Month	The calendar month in which the client was born.
	G111	Date of Birth- Day	The calendar day on which the client was born.
	G 128 – G 136	Locating Information	These variables can be used to capture the current address and phone number of the client.

PEMS Software module and sub-module	PEMS DVS Variable Number	Variable Name	Guidance
Table G: Client Characteristics – Risk Profile			
Client Level Services/ Risk Profile	G200	Date Collected	The date client risk profile data are collected.
	G204	Previous HIV Test	The client's self report of whether or not he/she has had at least one HIV test before the day the risk profile data were collected.
	G205	Self Reported HIV Test Result	If the client reports having a previous HIV test, the client's self-reported result.
	G208	In HIV Medical Care/ Treatment (only if HIV+)	If a client reports having tested HIV+, his/her self-report of whether or not he/she is receiving HIV medical care and treatment.
	G209	Pregnant (only if female)	For female clients who have tested HIV+, this variable captures her self reported pregnancy status.
	G210	In Prenatal Care (only if pregnant)	If a woman is pregnant and HIV+, her self-report of whether she is receiving regular health care during pregnancy.
	G211	Client Risk Factors	In this variable, you can select all of the activities the client has been involved in during the last year that could potentially put him/her at risk for HIV exposure and/or transmission. These include: injection drug use, sex with transgender, sex with female, sex with male, no risk identified, not asked, refused to answer, other (specify).
	G212	Additional Client Risk Factors	If a client's risk factors include sexual activity, these are additional risk factors that can further describe the client's sexual risk for HIV exposure. There are 12 values to choose from.
	G213	Recent STD (Not HIV)	The client's self-reported or laboratory confirmed status of having been diagnosed with Syphilis, Gonorrhea, or Chlamydia in the past 12 months.

PEMS Software module and sub-module	PEMS DVS Variable Number	Variable Name	Guidance
Optional Variables			
	G201	Incarcerated	This variable captures whether or not the client is or has been imprisoned (in jail or a penitentiary) in the 12 months prior to data collection.
	G202	Sex Worker	This variable indicates whether the client derived some or part of his/her income or received other compensation from engaging in sexual intercourse in the 12 months prior to data collection.
	G203	Housing Status	This variable captures the client's housing status in the 12 months prior to data collection.
	G210a	Local Recall Period	The default recall period (time that a client is asked to recall his/her risk behaviors) is 12 months. If you use a different recall period locally, you can indicate that period here and capture all of the risk indicators for both the default and local recall periods.
	G214	Injection Drugs/ Substances	This variable allows you to indicate which drugs/substances the client reports having injected during the previous 12 months.

Session Information

- Table H: Client Intervention Characteristics
- Table X7: Referrals

Once a client has participated in a MIP session, information about that session will be entered into PEMS. Once the client and MIP program are chosen, PEMS will prompt the user to enter which worker led the session, where and how the session was delivered, and which activities were included in the session. PEMS will generate a list of the planned activities, allowing the user to choose those that were completed, and add any activities that were delivered, but not originally planned. If a referral is made, a referral activity can be chosen and referral details, including the outcome, can be tracked.

There is also an opportunity to enter information for up to 32 local variables for which you define the variable and the value choices. PEMS does not include activity variables for the following components of MIP sessions:

- Review of each session's Action Plan with client
- Client identification of his/her own specific risk factor for HIV and viral hepatitis
- Clients expressing intent to implement risk reduction step
- Clients identifying a source of support for risk reduction step
- Clients identifying their readiness or stage of change

Tracking these components is not part of the required NHM&E variables, but they are important for local M&E and ensuring fidelity. These components could be captured through the PEMS local variables or through a complementary tracking database.

On the next two pages are the NHM&E variables that should be collected for each client that participates in a MIP session.

PEMS Software module and sub-module	PEMS DVS Variable Number	Variable Name	Guidance
Table H: Client Intervention Characteristics			
Client Level Services/ Interventions	H01	Intervention Name/ID	When entering information about the session you will select the appropriate intervention name that you created for MIP in the Program Information module
	H05	Session Number	If you are entering information for the MIP sessions, indicate the appropriate session (1-7).
	H06	Session Date - Month	The calendar month in which the session was delivered to the client.
	H07	Session Date - Day	The calendar day on which the session was delivered to the client.
	H08	Session Date - Year	The calendar year in which the session was delivered to the client.
	H10	Site Name/ID	The official name of your agency's site where MIP was delivered.
	H13	Recruitment Source	This variable allows you to track how clients become aware of and enroll in MIP, including from agency referral, health information/public information campaigns, etc.
	H18	Recruitment Source-Service/ Intervention Type	If the client came to you via agency referral, this variable allows you to indicate the type of intervention the client was referred from, such as counseling and testing, outreach, etc.
	H21	Incentive Provided	This variable captures whether the client received any type of compensation for his/her time and participation in the session.
	H22	Unit of Delivery	This variable captures whether the session was provided to one person at a time, to a couple or to a group. For MIP, <i>Individual</i> (code 01) should be selected.
H 23	Delivery Method	This variable captures how the session was delivered. For MIP, <i>In Person</i> (code 01.00), should be selected. Additional modes of delivery can also be selected.	

PEMS Software module and sub-module	PEMS DVS Variable Number	Variable Name	Guidance
Client Level Services/ Interventions Optional Variables			
	H109	Worker ID	This variable allows you to choose from a list of workers to indicate the counselor who delivered the MIP session. Workers must be entered into the <i>Agency Information</i> module, <i>Workers</i> sub-module, to appear on the list. If you complete this variable you will be able to run reports by worker on how MIP is being implemented.
	H20	Activity	This variable allows you to capture the activities in which the client participated, and compare the activities provided to those planned. In addition to choosing from planned activities, you can choose any additional activities that were provided but not planned.
	LV01-LV32	Local Variables	These variables are for local agency use. The agency may decide what values are stored in these variables and how often these variables should be collected and entered.
Table X7: Referral			
Client Level Services/ Referrals	X702	Referral Date	The date on which the referral was made for the client.
	X703	Referral Service Type	Select the service to which the client was referred.
	X706	Referral Outcome	This variable captures the status of the referral, and can be updated as more information is gathered. The system will automatically change the outcome to <i>Lost to follow up</i> (code 04) if the referral status is <i>Pending</i> (code 01) more than 60 days after the referral date.
	X710	Referral Close Date	The date when the outcome of the referral was confirmed or lost to follow-up. The system will automatically close the referral 60 days after the referral date.
Optional Variable			
	X701 or X701a	PEMS Referral Code or Local Referral Code	The PEMS system can be used to generate a unique referral code that will help to track internal client referrals and referrals to other agencies. This code facilitates tracking the outcome of the referral. A local referral code may also be used.

Program monitoring via PEMS

Reports can be run on client level data that allow you to see how many MIP clients have completed all of the MIP sessions, which program activities they have engaged in, and how their risk profile has changed over time.

It is important that session record forms and case management forms used to collect client and session data include the NHM&E data variables. In addition, the outreach forms should collect the required NHM&E aggregate data variables.

MIP components not captured in PEMS

The following MIP quality assurance activities will need to be captured outside of PEMS:

- Staff training on MIP
- Client satisfaction
- Program implementation fidelity

Obtaining data from PEMS

Data can be obtained from PEMS in two ways:

- A data extract may be used to obtain all data points in a particular PEMS table or set of tables. The data can be imported into a spreadsheet or database for further analysis.
- Pre-defined PEMS reports can be generated on specific data elements such as:
 - The characteristics of MIP clients
 - The characteristics of MIP sessions
 - Details on referrals made and their outcomes
 - MIP sessions with incomplete information in PEMS
 - Client risk behaviors

CHAPTER 7 SUMMARY

- The National HIV Prevention Program Monitoring and Evaluation Variables and Values – Data Variable Set (NHM&E DVS) is the complete set of variables, including required variables for reporting to CDC and optional variables for local M&E.
- Collection of the required variables will help you answer your evaluation questions, provide data for tracking of process and outcome monitoring, assess the status of your SMART objectives, and generate data you can use to calculate CDC Performance Indicators for MIP.
- The NHM&E DVS is organized in a series of data tables with specific variables. The PEMS software captures these variables in different modules.
- Tools related to this chapter include:
 - NHM&E variable requirements (**Tool 9, p.201**)
 - Sample MIP SMART Objectives (**Tool 2, p.96**)