

---

# ACKNOWLEDGEMENTS

The WILLOW Monitoring and Evaluation Field Guide was developed with funding from the Centers for Disease Control and Prevention (CDC). Dr. Aisha Gilliam of the Capacity Building Branch, Division of HIV/AIDS Prevention (DHAP), CDC, provided leadership on the conceptualization, development, and distribution of this document. Dr. Carolyn Parks-Bani reviewed the guide and provided valuable recommendations to the content.

We wish to acknowledge the project team at JSI Research and Training that developed this guide. In particular we wish to acknowledge the authors, Andee Krasner, Dianne Perlmutter, and Elena Thomas Faulkner and the support of JSI's Director of Research and Evaluation, Dr. Susan Grantham, Regional Director, Debra Olesen, and Program Manager, Jacqueline Nolan.

It is hoped that this guide will prove useful to those implementing WILLOW. It is our goal to keep this guide and its information as current as possible. Please consult the Diffusion of Effective Behavioral Interventions website [www.effectiveinterventions.org](http://www.effectiveinterventions.org) for additional information and resources.

---

# WILLOW M&E FIELD GUIDE

## Table of Contents

<b>Introduction to the WILLOW Field Guide .....</b>	<b>3</b>
<b>Chapter 1: Monitoring and Evaluation –An Important Component of WILLOW .....</b>	<b>11</b>
<b>Chapter 2: Describe the Program .....</b>	<b>16</b>
<i>Step 1: Develop an Evaluation Logic Model.....</i>	<i>16</i>
<b>Chapter 3: Develop a Monitoring and Evaluation Plan .....</b>	<b>20</b>
<i>Step 2: Write Evaluation Questions .....</i>	<i>20</i>
<i>Step 3: Write SMART Objectives .....</i>	<i>23</i>
<i>Step 4: Identify Measures for SMART Objectives.....</i>	<i>25</i>
<b>Chapter 4: Gather Credible Evidence.....</b>	<b>29</b>
<i>Step 5: Collect Data.....</i>	<i>29</i>
<b>Chapter 5: Implement your Monitoring and Evaluation Plan .....</b>	<b>35</b>
<i>Step 6: Manage Data (Enter, Store and Clean Data).....</i>	<i>35</i>
<i>Step 7: Analyze Data (Compile Data and Calculate Measures) .....</i>	<i>37</i>
<b>Chapter 6: Use Results .....</b>	<b>41</b>
<i>Step 8: Use Your Data According to Your Monitoring and Evaluation Plan.....</i>	<i>41</i>
<i>Step 9: Use Your Data for Advocacy and to Garner Support.....</i>	<i>46</i>
<b>Chapter 7: Report HIV Prevention Program Monitoring Data to CDC .....</b>	<b>48</b>
<i>Overview of the National HIV Prevention Program Monitoring and Evaluation Data Set.....</i>	<i>48</i>
<i>Use of PEMS Software for WILLOW Monitoring and Evaluation .....</i>	<i>51</i>
<b>Chapter 8: Overview and Summary of Tools .....</b>	<b>81</b>
<b>Appendix A: WILLOW M&amp;E Tools.....</b>	<b>84</b>
<b>Appendix B: 2008 National HIV Prevention Program Monitoring and Evaluation Data Set (NHM&amp;E DS) Variable Requirements .....</b>	<b>85</b>
<b>Appendix C: References .....</b>	<b>87</b>

# INTRODUCTION TO THE WILLOW FIELD GUIDE

## ***INTRODUCTION***

This monitoring and evaluation (M&E) field guide was developed to provide a comprehensive M&E plan for the evidence-based intervention **Women Involved in Life Learning from Other Women (WILLOW)**. This guide will provide an introduction to basic M&E concepts and will introduce a suggested M&E plan for evaluating WILLOW that may be tailored according to your agency's needs. Monitoring and evaluation is an essential component of any program to know whether the program is being implemented as intended, and to know that it is having its intended effect. M&E is often required by most funders, including the Centers for Disease Control and Prevention (CDC).

## ***WHAT IS WILLOW?***

WILLOW is a small-group, social skills training intervention for women living with HIV. WILLOW is an adaptation of the Sisters Informing Sisters About Topics on AIDS (SISTA) intervention and is designed for women living with HIV/AIDS who are 18 to 50 years of age and who have known their HIV status for at least 6 months. It is a behavioral intervention that is delivered in four sessions to groups of eight to 10 women. The intervention emphasizes gender pride and teaches women how to identify and maintain supportive relationships, as well as broaden their social networks. WILLOW helps women distinguish between healthy and unhealthy relationships, including abuse, and teaches skills for reducing stress, and negotiating safer sex – with an emphasis on consistent condom use. It also raises awareness about HIV transmission risk behaviors and discredits common myths about HIV prevention for people living with HIV.

## ***WHAT IS M&E?***

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 component of most funders' grant agreements, including those of the Centers for Disease Control and Prevention (CDC). Monitoring and evaluation activities provide 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.

#### ***PURPOSE AND USE OF THIS GUIDE***

The purpose of this M&E Field Guide is to help you develop and implement a monitoring and evaluation plan for WILLOW.

This M&E Field Guide may be used to:

- assess capacity to conduct M&E
- identify staff to participate in M&E activities
- design a WILLOW M&E plan
- select tools for data collection and analysis
- develop and implement staff training on M&E
- use data for program improvement

M&E plans should always be tailored to the particular needs and characteristics of your agency. There is no 'one way' to implement M&E. Some chapters and tools may be more pertinent to your work than others. The ideas and tools presented in this Guide may be adapted to fit your particular agency's need and capacity.

#### ***CONTENTS OF THE GUIDE***

This M&E field guide is organized into eight chapters that outline nine steps to implementing your M&E plan. There are 16 tools that have been designed to assist you in executing each of the suggested steps.

**Chapter 1** describes the key components of M&E, including nine steps to successful M&E implementation. It discusses approaches to consider based on how WILLOW is conducted in your agency and reviews the core elements and key characteristics of WILLOW to provide a framework for your M&E plan.

In **Chapter 2** a process for developing a logic model is presented. A logic model is a visual description of how the WILLOW intervention is implemented. A sample logic model is presented that may be adapted to fit your agency and the community and participant population you serve.

**Chapter 3** introduces how to develop an M&E plan, including developing evaluation questions and SMART objectives to answer them. It guides you through the process of organizing your evaluation questions and SMART objectives, and to identify qualitative and quantitative measures and data sources.

**Chapter 4** leads you through the development of a data collection plan, including identifying and testing data collection tools and determining how they will be used and who will use them, from their origin to their disposal.

**Chapter 5** provides advice, information, and examples for managing and analyzing your M&E data. It includes an introduction to data entry, cleaning, compilation and analysis.

**Chapter 6** focuses on how to use the data you have gathered. This chapter covers how data may be used for program improvement and planning, and then focuses on how to use data for advocacy efforts and to garner additional funding.

**Chapter 7** provides an overview of the National HIV Prevention Program Monitoring and Evaluation (NHM&E) data set and how the CDC database known as PEMS (Program Evaluation and Monitoring System) can be used to store data used for WILLOW M&E and reporting.

**Chapter 8** summarizes the tools that have been developed and included in this guide to assist you in implementing your WILLOW M&E plan. These tools are also introduced and explained throughout the guide where they are relevant to each stage of the M&E process.

In **Appendix A** you will find the tools described in Chapter 8. The tools are suggested to assist in implementation of your evaluation plan and may be adapted to meet your needs.

- Tool 1 -Monitoring & Evaluation Task List
- Tool 2 - Sample WILLOW Evaluation Logic Model
- Tool 3 - WILLOW Behavior Change Logic Model
- Tool 4 - Implementation Planning Tool
- Tool 5 - SMART Table
- Tool 6 - Sample SMART Objectives for WILLOW
- Tool 7 - Sample Data Planning Matrix
- Tool 8 - Blank Data Planning Matrix
- Tool 9 - Session Fidelity/Process Evaluation Forms
- Tool 10 - Session Evaluation Forms
- Tool 11 – Facilitator Observation Form
- Tool 12 - Sample Data Management Plan
- Tool 13 - WILLOW Data Analysis Tool
- Tool 14 - Fidelity/Process Evaluation Excel Spreadsheet
- Tool 15 - Session Evaluation Excel Spreadsheet
- Tool 16 – Facilitator Observation Schedule Spreadsheet

In **Appendix B**, there is a copy of the 2008 National HIV Prevention Program Monitoring and Evaluation Data Set variable requirements.

**Appendix C** contains a list of references.

***HOW TO USE THIS GUIDE***

A few symbols and text flags are used throughout this guide.

- ☑ Recommended Activity - Signifies a recommended activity for your agency.
- ⊕ Time-saver - Signifies a “time-saver,” usually identifying a tool included in the guide that may be tailored to your agency’s needs.
- ✍ Tip - Signifies a tip for how to approach an activity.

DRAFT

***WHO SHOULD USE THIS GUIDE?***

This guide is intended for all staff who will be involved with any aspect of your agency's WILLOW M&E plan. This includes intervention staff directly involved in conducting WILLOW, including program coordinators, agency administrators, and facilitators, among others.

**Ultimately, successful implementation of M&E of WILLOW depends on commitment from the staff at your agency.** Therefore it is important to involve your evaluation team in all aspects of M&E to ensure understanding of, and commitment to, M&E activities.

***THIS GUIDE IS....***

This M&E Field Guide is intended to be used in conjunction with the *WILLOW Implementation Manual*. The *WILLOW Implementation Manual* includes instructions, tools and materials related to M&E. This field guide uses or adapts many of the tools and materials from the *WILLOW Implementation Manual*. It is intended to be a "how to" manual that enables agencies implementing WILLOW to quickly and effectively start their M&E plans and activities.

***THIS GUIDE IS NOT...***

This guide is not intended to be a complete course on M&E. This M&E field guide does not provide information about how to conduct formative evaluation, as it is assumed that your agency will have already conducted a formative evaluation prior to choosing WILLOW. This guide also does not discuss how to evaluate long-term outcomes or the impact of the WILLOW intervention. Additional information on this topic can be found in the *Evaluation Capacity Building Guide* and through the CDC Capacity Building Branch. For more information visit <http://www.cdc.gov/hiv/cba>.

*"Formative evaluation is the process of collecting data that describes the needs of the population and the personal, interpersonal, societal and environmental factors that put them at risk for acquiring or transmitting HIV. It may also include testing program plans, messages, materials, strategies or modifications for weaknesses and strengths before they are put into effect."*

Evaluation Capacity Building Guide

### **ADDITIONAL RESOURCES**

Other resources, listed below, are available to assist you as you plan and implement M&E activities for WILLOW. They include more detailed information on program evaluation and should be helpful as complementary materials providing substantial additional detail to supplement the information and tools presented in this guide. We will refer to these materials when relevant within this guide.

- **Framework for Program Evaluation in Public Health. Centers for Disease Control and Prevention. MMWR 1999; 48 (no. RR-11). 1-42.** The CDC framework for program evaluation is a valuable overview of the key components of public health program evaluation.
- **Evaluation Capacity Building Guide (CDC 2008a).** This guide has been designed to help organizations implementing Effective Behavioral Interventions (EBIs), such as WILLOW, develop their capacity to conduct program evaluation activities. It is intended to help you choose evaluation approaches and activities that make the most sense for your agency and the programs you are conducting. It is a particularly useful resource for both the person overseeing your evaluation and those who are new to program evaluation. It also can be used to help you develop materials for training agency staff on evaluation. Contact your Project Officer if you would like to request additional technical assistance to complement both the Capacity Building Guide and this M&E Field Guide.
- **WILLOW Implementation Manual.** The *WILLOW Implementation Manual* provides detailed information about how to conduct the intervention. It provides handouts, session outlines, and information about how supervisors can provide feedback to facilitators.
- **Performance Indicators.** CDC has developed a series of performance indicators for each funded intervention including WILLOW. Be sure that you have the most recent version of the required indicators for WILLOW to make sure you are collecting the data to calculate the indicators. They are available on the NHM&E Web site, <https://team.cdc.gov>.
- **NHM&E Resources.** There are a variety of resources to assist you with the collection and utilization of data variables from the *National HIV Prevention Program Monitoring and Evaluation Data Set (NHM&E DS)* (CDC, 2008b). One resource is the NHM&E DS which contains a complete list and description of all M&E variables required for reporting to CDC and optional for local M&E. The most current version of this document can be found on the NHM&E Web site (<https://team.cdc.gov>). Also, the *Program Evaluation and Monitoring System (PEMS) User Manual* (CDC, 2008c) is a how-to manual that describes the functionality of PEMS (a secure, browser-based software that allows for data management and reporting of NHM&E DS). The PEMS User Manual provides step-by-step instructions for each module in PEMS. This document is also available on the NHM&E Web site

(<https://team.cdc.gov>). Another resource is the *National HIV Prevention Program Monitoring and Evaluation Guidance (NHM&EG)* (CDC, 2008d), this manual provides a framework and specific guidance on using the NHM&E DS to monitor and evaluate HIV prevention programs. The *National HIV M&E Service Center* has staff that are available to answer NHM&E-related questions, issues concerns, and requests, including the PEMS software. The Service Center also resolves issues related to CT scanning and HIV test form requests, they can be reached at: [pemsservice@cdc.gov](mailto:pemsservice@cdc.gov) or call (888) 736-7311. The PEMS Help Desk is available to address questions or issues related to digital certificates and the Secure Data Network, e-mail [dhapsupport@cdc.gov](mailto:dhapsupport@cdc.gov) or call 877-659-7725.

- **Capacity Building Branch** - Health departments and organizations directly funded by CDC can request monitoring and evaluation technical assistance through the Capacity Building Branch's Web-based system, Capacity Request Information System (CRIS). For more information about and access to CRIS, visit <http://www.cdc.gov/hiv/cba>.
- **The Diffusion of Effective Behavioral Interventions (DEBI) Project.** The DEBI project was designed to bring science-based, community, group, and individual-level HIV prevention interventions to community-based service providers and state and local health departments. The goal is to enhance the capacity to implement effective interventions at the state and local levels, to reduce the spread of HIV and STDs, and to promote healthy behaviors. For more information about training on WILLOW visit <http://www.effectiveinterventions.org>.

## Summary

The Introduction was an orientation to the purpose and content of the M&E Field Guide.

This chapter introduced:

- An overview of the content of this guide
- Tips on how to use this guide
- Guidance on who should use this guide
- Additional resources for conducting WILLOW M&E

## CHAPTER 1: MONITORING AND EVALUATION –AN IMPORTANT COMPONENT OF WILLOW

This chapter describes the essential components of a monitoring and evaluation (M&E) plan for WILLOW. Every monitoring plan should include a logic model, evaluation questions, measurable objectives, and clear measures. The M&E process has nine steps, each of which is described in subsequent chapters.

### ***The Monitoring & Evaluation Process- Nine Steps***

**Step 1: Develop an Evaluation Logic Model**

**Step 2: Write Evaluation Questions**

**Step 3: Write SMART Objectives**

**Step 4: Identify Measures for Each Objective**

**Step 5: Collect Data**

**Step 6: Manage Data (Enter, Store, and Clean Data)**

**Step 7: Analyze Data (Compile Data and Calculate Measures)**

**Step 8: Use Your Data According to your M&E Plan**

**Step 9: Use Your Data for Advocacy and to Garner Support**

In order to develop a meaningful M&E plan, it is important to understand the key components of the program that you are implementing. Your agency should be familiar with the WILLOW core elements and key characteristics, as well as your approach to implementing the WILLOW intervention. This familiarity with the intervention will help your agency develop an evaluation logic model, and use this guide effectively to develop and carry out your M&E plan.

As presented in the Implementation Manual, WILLOW has already been proven to reduce risk for HIV infection, as long as the identified core elements of WILLOW are maintained. Your monitoring and evaluation activities, therefore, do not need to prove that the overall intervention is effective. Instead, your agency's monitoring and evaluation efforts can focus on ensuring that the intervention is being implemented with fidelity, and identifying opportunities for program improvement. In doing so, it is critical to be familiar with WILLOW's core elements and key characteristics.

**Remember that you cannot adapt or change any of the core elements of WILLOW when you implement WILLOW at your agency.** Otherwise, there is the potential that WILLOW may not be implemented as intended, and therefore may not prove to be as effective. **Changes in key characteristics require approval from your Project Officer.**

### **WILLOW Core Elements**

1. Conduct small group interactive sessions that are supportive and meet the goals of the intervention.
2. Implement WILLOW with heterosexual women 18 to 50 years of age who are living with HIV/AIDS and who have known their HIV serostatus for at least 6 months in settings that offer HIV/AIDS services to HIV-positive women.
3. Use two skilled adult female facilitators to implement WILLOW sessions, at least one of whom is a woman living with HIV/AIDS.
4. Use materials that are gender and culturally appropriate to foster self-worth and self-efficacy.
5. Train women in coping, decision-making, goal setting, condom negotiation and proper condom use skills, all of which are supportive of safer sexual behaviors.
6. Teach women about social support networks, STD and HIV reinfection knowledge, and educate women about consistent and proper condom use to support their decision-making about sexual health issues.
7. Inform women about aspects of healthy and unhealthy relationships and types of abuse as related to the negotiation of safer sexual practices.
8. Employ an educational and informational focus in the sessions as opposed to a counseling and services provision focus.

### WILLOW Key Characteristics

1. Sessions should include between 8 to 10 women living with HIV/AIDS.
2. New members should not join the intervention once the series of sessions has begun.
3. Each session should last approximately 4 hours, with opportunities for breaks, snacks and/or meals.
4. Can be adapted for different populations of HIV-positive women.
5. Must be implemented with passion and sensitivity.
6. Should be publicized as a program that was developed by women for women.
7. Should include information and discussions that address coping, social support, STD and HIV reinfection, maintaining healthy relationships, sexual health issues and challenges within the context of experiences of woman living with HIV/AIDS.

Any adaptations to the WILLOW key characteristics will need to be captured in your logic model (to be introduced in Chapter 2). An example of an adaptation is implementing WILLOW with pregnant HIV positive women. **It is important that any adaptations you make to WILLOW be documented and approved by your Project Officer.**

#### ⊕ Time-saver

The Monitoring and Evaluation Task List (Tool 1) lists the tasks associated with development of an M&E plan. You may use this tool to create a work plan that identifies the responsible person(s) and timeline for each task, and to track your progress as you develop and implement your M&E plan.

#### **LAYING THE FOUNDATION FOR M&E**

Key to successful implementation of an M&E plan is an assessment of your agency's capacity to conduct program M&E. Monitoring and evaluation may involve staff from a variety of departments and disciplines with varying experience and attitudes towards evaluation. Staff may be concerned about the added burden related to data collection needs and may be fearful that the evaluation will be used to highlight staff or program weaknesses rather than program accomplishments. Taking stock of your current experience and ability to conduct M&E will help you determine a realistic plan and develop strategies you may need to build capacity and commitment among staff.

**Most importantly, develop an M&E plan that is consistent with your agency's capacity to collect, store, analyze, and report data.** For example, if you have only a few staff familiar with M&E, you may want to collect data for the minimum requirements for reporting.

It is important to involve the *right* staff in M&E activities. Conducting an effective WILLOW 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, although this will vary by agency, and in some instances one person may serve in multiple roles.

- **WILLOW facilitators** record information about each session, using tools suggested in this guide.
- **Supervisors** supervise facilitators, conduct and record information about observations, and participate in data analysis.
- **Data entry staff and/or facilitators** enter data from each session into a database.
- **Program Coordinators** oversee implementation of the evaluation plan, participate in data analysis, and use data for reporting, program improvement and planning, and advocacy.

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

Clients also may provide input into your M&E plan via a consumer advisory board or other mechanism. They can offer valuable insights 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 comments about the intervention and the facilitators.

 **Tip**

**Practical and useful steps to engage staff in M&E**

- Provide staff training on M&E
- Involve staff in the development of your M&E plan
- Identify additional resources you may need to implement the M&E plan

**TOOLS**

As noted in the Introduction, this guide introduces tools that were created to help your agency develop plans for implementing M&E, organize data collection activities, analyze data, and make the best use of data. These tools include a logic model, a data planning matrix, a sample data management plan, and a data analysis tool, among others. They can be found in Appendix A and will be discussed in detail as they are introduced.

**Summary**

Chapter 1 described how to develop a monitoring and evaluation plan and makes suggestions about who should be involved.

This chapter introduced:

- Nine steps of an M&E plan
- The core elements and key characteristics of WILLOW
- Involving staff in the M&E process
- Tool 1 - the Monitoring and Evaluation Task List

## CHAPTER 2: DESCRIBE THE PROGRAM

The first step in preparing the WILLOW monitoring and evaluation (M&E) plan is to develop an evaluation logic model. The evaluation logic model provides a visual description of an intervention or program, and drives the development of the M&E plan.

### STEP 1: DEVELOP AN EVALUATION LOGIC MODEL

An evaluation logic model for WILLOW will provide a common language and understanding of the WILLOW intervention for staff in your agency. It identifies the critical assumptions, inputs, activities, outputs, and outcomes of WILLOW. It is based on the *WILLOW Implementation Manual* and the research that was conducted on the intervention. The logic model depicts the “logical” pathway through which the WILLOW intervention leads to accomplishing the intended impact of a reduction in HIV transmission. Your agency’s logic model describes how you are implementing WILLOW for your participant population and agency. It reflects the program implementation model that your agency has chosen.

*A Logic Model is: “a tool used to visually describe the main elements of an intervention and illustrate the linkages between the components.”*

Evaluation Capacity Building Guide

#### **EXAMPLE LOGIC MODEL FOR WILLOW**

[layout note: insert logic model here]

#### Assumptions

WILLOW is an evidence-based intervention (EBI), meaning that it has been scientifically evaluated and found to reduce risk behaviors that are associated with contracting HIV. As an EBI, it is assumed that if WILLOW is implemented with fidelity, (that is, if the core elements are maintained and implemented as intended) it will reduce risk behaviors among your participants that are associated with HIV transmission. **Your agency is not required to demonstrate that the intervention reduces risky behaviors associated with HIV transmission since this has already been established.** However, your agency will need to demonstrate that the basic assumptions of the logic model have been met, namely, that WILLOW has been implemented with fidelity to the core elements and key characteristics. This assumption is noted in the first column of the logic model.

### Inputs

The Inputs column describes the resources your agency will need to implement the WILLOW intervention. The meaning of “replicate with fidelity” (see Assumptions column) is that all the core elements are maintained in WILLOW when it is implemented by your agency.

### Activities

The Activities column is derived primarily from the core elements of the WILLOW intervention. It describes the activities the agency will undertake to deliver the core elements of WILLOW. These will later be compared to the outputs in order to answer one of the two critical M&E questions: “*Are we doing what we said we would do?*”

### Outputs

Each activity is related to an output. Comparing the activities to the Outputs column helps develop the *process monitoring* questions and answers the question, “*Are we doing what we said we would do?*” For example, is your agency implementing WILLOW with four sessions? If not, why not?

### Outcomes

Outcomes measure the expected changes seen in participants. Outputs are linked to immediate outcomes. Participants in WILLOW should report that they have more information about gender pride, accessing social networks, HIV reinfection, sexually transmitted diseases (STDs), using a condom, and healthy and unhealthy relationships. These, in turn, based on the WILLOW study (Wingood, 2004), should logically lead to the longer-term outcomes of participants practicing safer sex more often.

The Outcomes column relates directly to the second critical M&E question: “*Is what we are doing having its intended effect?*”

Finally, the impact, “reduction of HIV transmission,” flows directly from the immediate, intermediate, and long-term outcome of safer sex practices. The intermediate and long-term outcomes boxes are shaded a different color from the immediate outcomes boxes because they are long-term outcomes and more difficult and resource intensive to monitor and evaluate. The research done on WILLOW has already demonstrated the associations between the intervention and the long-term outcomes (Wingood, 2004). It is not necessary for your agency to demonstrate these associations again. However, if you have the resources, you may choose to monitor and evaluate intermediate outcomes by administering the pre- and post-test found in the *WILLOW Implementation Manual*.

In addition to the Sample WILLOW Evaluation Logic Model, you can also use the WILLOW Behavior Change Logic Model (Tool 3) and Implementation Planning Tool (Tool 4) (also available at <http://www.effectiveinterventions.org/go/interventions/willow>) for understanding the

WILLOW M&E Field Guide-Draft 3-16-09

WILLOW program. The Behavior Change Logic Model describes the intent of the WILLOW intervention, including which behaviors it aims to change, the behavioral determinants of risk, the activities in WILLOW that help participants change behaviors, and the outcomes the program is anticipated to affect. The Implementation Planning Tool (Tool 4) is a guide to planning the pre-implementation, implementation, maintenance, and monitoring and evaluation activities. All of these tools will assist you in developing evaluation questions.

Recommended Activity

Review the Sample WILLOW Evaluation Logic Model, the WILLOW Behavior Change Logic Model, and WILLOW Implementation Planning Tool.

Tailor the evaluation logic model as needed to fit

- your agency
- the community you serve
- the specific characteristics of the participant population that will receive WILLOW
- your agency's implementation model for WILLOW.

Time-saver

The Sample WILLOW Evaluation Logic Model (Tool 2), the WILLOW Behavior Change Logic Model (Tool 3) and the Implementation Planning Tool (Tool 4) are included in Appendix A.

The WILLOW Implementation Planning Tool is also available on the Diffusion of Effective Behavior Interventions Web site,

<http://www.effectiveinterventions.org/go/interventions/willow>.

## Summary

Chapter 2 introduced an evaluation logic model and described how it can be used to develop an M&E plan.

This chapter introduced:

- Components of an evaluation logic model
- An evaluation logic model
- Discussion of how to use the WILLOW Behavior Change Logic Model and the Implementation Planning Tool
- Tool 2 – Sample WILLOW Evaluation Logic Model
- Tool 3 – WILLOW Behavior Change Logic Model
- Tool 4 – Implementation Planning Tool

## CHAPTER 3: DEVELOP A MONITORING AND EVALUATION PLAN

The purpose of a monitoring and evaluation (M&E) plan is to provide meaningful feedback about the program that is being implemented. In order to gather the information you want, it is helpful to develop evaluation questions that describe “what you want to know” about your program. After you have asked a question, you need to describe how that question will be answered; measurable objectives describe “how you will know it.”

In this chapter, you will learn how to design your M&E plan by completing the following:

Step 2: Write evaluation questions

Step 3: Write SMART objectives

Step 4: Identify measures for SMART objectives

### STEP 2: WRITE EVALUATION QUESTIONS

The WILLOW logic model provides the conceptual framework for identifying evaluation questions. These questions should focus on how the program is being implemented, including whether you have reached your target population (**process**), and on what changes (**outcomes**) occur for participants in WILLOW.

Here are some broad evaluation questions to keep in mind as you think about writing evaluation questions:

- What activities are being done as a part of the intervention?
- Who is being reached by the intervention?
- Is the intervention being delivered as planned?
- Is the intervention reaching the *target* population?
- Is the intervention achieving its intended outcomes?

#### **PROCESS MONITORING**

The evaluation questions related to process monitoring come primarily from the “Activities” and “Outputs” columns of the logic model.

**Process monitoring** is the routine documentation and review of program activities, populations served, services provided, or resources used in order to inform program improvement and process evaluation.

W

Questions addressing **process monitoring** may include:

- Have implementation, M&E and quality assurance plans for WILLOW been developed?
- Are problems with implementing WILLOW being addressed?
- Are staff appropriately trained and supported to implement WILLOW?
- Are facilitators following the protocol for delivery of WILLOW?
- Are quality assurance activities being completed?
- How many participants have been served by WILLOW?
- What are the characteristics of participants served by WILLOW?
- Are participants satisfied with WILLOW?

**Process evaluation** assesses planned versus actual program performance over a period of time for the purpose of program improvement and future planning.

Evaluation Capacity Building Guide

Questions addressing **process evaluation** may include:

- Is the target population being reached? For example: Are HIV+ women ages 18-50 from the specific target population (determined by your agency) who have known their HIV status for at least 6 months being reached?
- Are the *expected* numbers of participants being reached?
- Do participants who start WILLOW complete the intervention?
- What are the differences between participants who complete the intervention and those who do not?
- Is WILLOW being implemented as planned?

### **OUTCOME MONITORING**

The evaluation questions related to outcomes come from the “Outputs” and “Outcomes” columns of the logic model.

*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.*

Evaluation Capacity Building Guide

Questions addressing **outcome monitoring** may include:

- After participating in WILLOW do participants report having more: gender pride, social networks, and knowledge about HIV reinfection, condom use, and healthy and unhealthy relationships?
- Do participants returning for a second, third, or fourth session report that they made a positive change as a result of the previous session?
- Are participants who are referred to a service, accessing it?

When developing your evaluation questions, you will also want to include the questions related to CDC’s required performance indicators, 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 WILLOW, and those should be included as well. For example, if you are implementing WILLOW with only one segment of your client population, you may want to ask whether clients receiving WILLOW are more likely to use condoms than clients who do not receive WILLOW.

Process M&E activities will help you ensure that you are delivering the intervention as intended. Through outcome monitoring you will assess whether WILLOW is improving your participants' self-esteem, improving their ability to access social networks, increasing their knowledge about STDs and reinfection, and increasing their understanding of healthy and unhealthy relationships. Through outcome monitoring you will also assess whether your participants are linked to additional services they need.

Recommended Activity

Write out your evaluation questions. This will help you decide what you want to know about your program.

### STEP 3: WRITE SMART OBJECTIVES

SMART objectives help you determine the answers to your evaluation questions. Each evaluation question should have one or more related SMART objectives. SMART stands for **Specific, Measurable, Appropriate, Realistic, and Time-Phased**. Objectives that don't have all of these characteristics can be difficult to monitor.

Your M&E plan will focus on collecting data related to process objectives and **immediate** outcome objectives. While the initial WILLOW research included intermediate outcome objectives related to decreased STDs and fewer episodes of unprotected vaginal intercourse, **tracking of intermediate or long-term outcomes is not part of the WILLOW M&E plan presented in this Guide**. You may collect data for intermediate outcomes if you have resources available.

 Time-savers

- To assist you in writing your own SMART objectives there is a **SMART Table** (Tool 5), which breaks down the components of the objectives and suggests words and phrases to use.
- Sample WILLOW SMART Objectives (Tool 6) provides sample SMART objectives specific to WILLOW. Remember to tailor your SMART objectives to meet *your* agency's implementation of WILLOW.

Recommended Activity

*Complete a data planning matrix*

A data planning matrix, described in the *Evaluation Capacity Building Guide*, can help you organize your evaluation questions, SMART objectives, and the information needed to complete your evaluation plan.

⌚ Time-saver

The Sample Data Planning Matrix (Tool 7) organizes the M&E plan into one document; it includes evaluation questions, SMART objectives and measures, as well as data collection tools and staff who will implement the M&E plan. The data planning matrix is organized in two sections; one for process monitoring and one for outcome monitoring. There is a blank data planning matrix (Tool 8) that you may use for your own plan.

The rest of this discussion will take you through the process of developing your own data planning matrix, using content from the Sample Data Planning Matrix (Tool 7) as examples.

After you have written your evaluation questions and their related SMART objectives, you will want to put them into your data planning matrix. As you continue to develop your plan, you'll complete the rest of the columns in the matrix, entering information about how you will measure progress toward your objectives.

An example of how the process evaluation question “*Do participants who start WILLOW complete the intervention?*” would be presented in a data planning matrix is provided in Table 1. A SMART process objective (Objective #9 from the Sample Data Planning Matrix) may be entered in the matrix in the first column as demonstrated in Table 1.

TABLE 1: EXAMPLE EVALUATION QUESTION AND SMART OBJECTIVE FROM THE SAMPLE DATA MATRIX (TOOL 7)

<b>Evaluation Question: <i>Do participants who start WILLOW complete the intervention?</i></b>				
<b>Process Objective:</b>	<b>Measure(s)</b>	<b>Data Collection Method / Source</b>	<b>Who will Collect/Enter the Data?</b>	<b>Timeframe For Analysis</b>
<b>9.</b> By the end of the program year, X percent of WILLOW participants who attend the first WILLOW session, will participate in all four of the sessions.				

**Be sure to modify the examples from the Sample Data Planning Matrix to reflect the specific questions you have identified.**

## STEP 4: IDENTIFY MEASURES FOR SMART OBJECTIVES

Each SMART objective should have a corresponding measure. These measures 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, percentages, and averages, to name a few.

The following example of a quantitative measure is a proportion. It was developed to address SMART objective #9 in the example: “By the end of the program year, X percent of WILLOW participants who attend the first WILLOW session will have participated in all four of the sessions.” This process monitoring example from the Sample Data Planning Matrix focuses on the first three columns of the Data Planning Matrix: Process Objectives, Measures, and Data Collection Methods/Source.

TABLE 2: EXAMPLE EVALUATION QUESTION AND SMART OBJECTIVE WITH MEASURES AND DATA COLLECTION SOURCE

<b>Evaluation Question:</b> Do participants who start WILLOW complete the intervention?		
<b>Process Objective</b>	<b>Measure(s)</b>	<b>Data Collection Method(s)/Source</b>
<b>9.</b> By the end of the program year, X percent of WILLOW participants who attend the first WILLOW session will participate in all 4 of the sessions.	Total number of participants who complete all 4 sessions/Total number of participants who attend the first session	Attendance forms from all 4 sessions

The **measure** in this example is the **proportion** of participants who complete WILLOW (receive sessions one through four).

### **QUALITATIVE MEASURES**

Qualitative measures describe **what is happening or why something is happening** and are usually a documentation of observations, perceptions, and opinions. Examples of qualitative data are notes taken during counselor observations, narratives from focus groups, or answers to open-ended questions.

In the example in Table 3 the process objective is written to be quantitative, but it requires a step that utilizes qualitative data. Documenting observations made by staff is an example of collecting qualitative data. Using the feedback to make an assessment is an example of utilizing qualitative data. However, whether the assessment is done or not is quantitative (yes or no).

TABLE 3: EXAMPLE EVALUATION QUESTION AND SMART OBJECTIVE WITH QUALITATIVE AND QUANTITATIVE MEASURES

<b>Evaluation Question: “Are problems with program implementation being addressed?”</b>		
<b>Process Objective</b>	<b>Measure(s)</b>	<b>Data Collection Method(s)/Source</b>
15. By (date), the program coordinator will obtain and assess responses from key staff and stakeholders about what improvements should be made to the program.	Input is gathered from key staff and stakeholders? Yes/No	Documentation of staff feedback/Meeting notes, key informant interviews, focus groups, etc.

In this example, staff discussion about barriers provides qualitative information about ways to better support the staff and the participants during the intervention.

**Both quantitative and qualitative data are important to understand whether you are reaching your service goals.**

The example evaluation questions and SMART objectives provided in this chapter are not comprehensive. As a part of the M&E planning process, your agency will need to develop additional evaluation questions and SMART objectives for pre-implementation, implementation, program improvement and outcome monitoring tailored to the WILLOW intervention your agency is implementing.

Following is an example of an evaluation question and SMART objectives for process monitoring:

**Evaluation Question: *Is the intervention being implemented as intended?***

**Corresponding SMART Objectives:**

1. During the first program year, 95 percent of sessions were facilitated by 2 skilled female facilitators.
2. During the first program year, 95 percent of sessions were co-facilitated by a female facilitator who is HIV positive.
3. During the first program year, 100 percent of cycles included 4 sessions.
4. During the first program year, 80 percent of WILLOW activities were “taught as suggested.”

In addition to the data used to measure your SMART objectives, you will also need to include data required by funding agencies. Remember, there is a required National HIV Prevention Program Monitoring and Evaluation Data Set (NHM&E DS). Be sure to incorporate these variables into the data collection plan. CDC’s Program Evaluation and Monitoring System (PEMS) is a database available to CDC HIV Prevention-funded grantees to collect and store data from the NHM&E DS. More information about the NHM&E DS and PEMS is provided in Chapter 7, Reporting HIV Prevention Program Monitoring Data to CDC.

Recommended Activity

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

Time-saver

The Sample Data Planning Matrix (Tool 7) has measures for each evaluation question and its corresponding SMART objective for WILLOW. Use these as appropriate for your agency’s implementation of WILLOW. There is a blank Data Planning Matrix (Tool 8) that you may use for your own plan.

## Summary

Chapter 3 introduced key components of a monitoring and evaluation plan, including evaluation questions, SMART objectives and measures. Through an M&E plan you will determine what you want to know and how you will know it.

This chapter introduced:

- Definitions of process and outcome monitoring
- A list of evaluation questions pertaining to WILLOW
- A description of how to write SMART objectives
- A demonstration of how to complete a data planning matrix
- Definitions of qualitative and quantitative measures
- Tool 5- SMART Table
- Tool 6- Sample SMART Objectives for WILLOW
- Tool 7- Sample Data Planning Matrix
- Tool 8- Blank Data Planning Matrix

## CHAPTER 4: GATHER CREDIBLE EVIDENCE

Data collection is a very important step, and is often overlooked. Implementing good data collection procedures will ensure that the data you collect are complete and consistent, and representative of the program you are implementing. Pay close attention to the process of collecting data and you will have data, which is reflective of the work that you have done, for program improvement and reporting.

### STEP 5: COLLECT DATA

Now that you have organized your evaluation questions and objectives and identified the measures and data collection sources needed to address them, the next step is to determine how you will collect the data to measure the objectives.

The quality of your data is influenced by multiple factors: your forms, the people who use your forms, how forms are entered into the database and the database. One of your program goals will be to make sure that the forms you use to collect data have all the variables you need for reporting and program improvement. You also want to make sure that forms are easy to use and understand, and that they are used consistently by all your staff and participants.

Here are a few suggested steps for ensuring you have forms that collect the information you want and that your participants and staff know how to fill them out correctly.

- Identify the data you want collect
- Develop or revise data collection forms as needed
- Develop a process for using data collection forms
- Pilot test data collection forms
- Train staff on how to use data collection tools (forms and databases)

#### ***IDENTIFY THE DATA YOU WANT COLLECT***

Before you begin collecting data, consider what data needs to be captured on the forms you are using. Your forms should include the required variables from the NHM&E DS (see Appendix B for a list of variable requirements), variables you need to calculate the required CDC performance indicators, data required for monitoring WILLOW locally, and/or any other data required by other funding sources.

LAYOUT NOTE: separate text boxes

 **Tip**

There are two steps to data collection: **data capture** and **data entry**. Data capture is the process of documenting client information on a paper form, while data entry is the process of entering data into the database.

Data Capture

You will need to identify what paper forms you plan to use. This Field Guide provides or gives suggestions of where to find all the forms you will need to monitor WILLOW. There is no need to create new forms. However, you may choose to tailor the forms or combine the forms with forms your organization is already using.

Data Entry

You will need to choose a database or spreadsheet to collect and compile your data. Programs funded by the CDC will have access to a free database called Program Evaluation and Monitoring System (PEMS). If you do not have access to PEMS, you may use the Excel spreadsheets included in this guide or choose another type of database that suits your organization's data storage needs.

 **Tip**

Think about how you want to use your data for program monitoring and improvement. For example: If your agency has multiple locations where it is providing WILLOW, you may be interested in comparing client retention rates across the multiple sites. If so, it is important to include a location identification number on the data collection forms. The identification number will allow you to compare data from one facility to another.

 **Tip**

**Consider your staffing capacity and staff work patterns.**

- 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 workload that facilitators have, can they be expected to fill out the Session Fidelity/Process Evaluation Form (Tool 9) **AND** enter it 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 the workload to accommodate the new emphasis on M&E? For example, your agency could find an intern from a local college to do data entry.
- Based on staff workloads, what is the amount of data your agency can reasonably collect? If your data collection goals are too broad for your staff capacity, revise your evaluation questions and SMART objectives.

 **Time-saver**

- The Sample Data Planning Matrix (Tool 7) may help organize your data collection plan. It includes columns for entering a “Measure” for each SMART objective, and for entering the methods and forms to use for data collection (“Data Collection Method(s)/Sources”), as well as the responsible person and time frame.
- You can find a sample intake form and sample referral tracking form on the CDC NHM&E Web site <https://team.cdc.gov>. The site contains valuable information, tools, and training materials on the NHM&E DS.
- Sample data collection forms in the Appendix A include:
  - Session Fidelity/Process Evaluation Forms (Tool 9)
  - Session Evaluation Formss (Tool 10)
  - Facilitator Observation Form (Tool 11)

### ***DEVELOP OR REVISE DATA COLLECTION FORMS AS NEEDED***

When drafting or tailoring data collection tools, be sure that they include required data variables. For example, your agency may already have an intake form, but after reviewing the NHM&E DS, you realize that your intake form doesn't have the required variables, "race" and "ethnicity." Rather than creating a new form, you can add the variables "race" and "ethnicity" to your existing intake form. You should not have to develop any new data collection tools for WILLOW; remember that this guide includes sample data collection tools that you can tailor to your agency's data collection needs.

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

- Identify the purpose of the form
- Determine at what point in the intervention the form will be used (for example, at intake, at the end of the session, etc.)
- Decide who will fill out the form and who will enter the data from the form into your database

### ***DEVELOP A PROCESS FOR USING DATA COLLECTION FORMS***

The process for using each data collection tool should include all the steps from obtaining the form to destroying it. It should include how the form will be used in the agency, who will use the form, and how it will get from one person to another within the agency, and outside the agency if necessary. The process should include information about:

- Where the user will obtain the form
- Who will fill out the form and how often
- How and where the completed form will be stored (This is especially important if the form contains **confidential client information**. For example, if the form contains a client's name, date of birth or other identifying information it should be stored in a locked file cabinet in a locked room.)
- Who should have access to the form
- How the form will be transported from place to place, if needed. (Does it need to be sent to the state health department or to a central office for data entry?)
- Who will enter data from the form into a database and how often
- How long the form will be stored after data entry
- What security procedures are in place to protect the data
- When and how the form will be destroyed

⊕ Time-saver

The Sample Data Management Plan (Tool 12) describes how, by whom, and how often data are collected, managed, and analyzed. It is based on a fictitious agency and should be changed to reflect your agency's data management plan.

***PILOT TEST DATA COLLECTION FORMS***

Before implementing the data collection tools, it is important to test them. This can be done in a number of ways. You could have a few facilitators familiar with WILLOW review the forms. Or you could pilot the forms during the first cycle of the intervention, being sure to track how well the form works from its origin through its disposal. Another technique is to hold focus groups in which the participants and facilitators provide feedback on them. You may want to use a combination of these methods. It is important to pilot test all tools developed. This step helps to ensure that they are suitable for your particular agency and client base. Some of the things to check for are:

- Are the form instructions clear?
- 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 fill it out?
- Is any information missing from the form?
- Do the participants understand the questions on the form?

***TRAIN STAFF ON HOW TO USE THE DATA COLLECTION FORMS***

All staff using a data collection form, whether for data capture or data entry, should be trained on how to use it. They should receive training on all the definitions for each field on the form. Even for fields that seem obvious, it is important that everyone understand the definition to avoid mistakes in data capture. For example, the Session Fidelity/Process Evaluation Forms (Tool 9) has three options for each activity: "Taught as suggested," "Taught changes," and "Did not teach." Each facilitator might interpret what "Taught changes" means. One facilitator might check this option only if she added something to the curriculum, while another might check this option only if she omitted something. Be sure to communicate to the facilitators what your agency means by the various response options so that they are used consistently.

⊕ Time-saver

- The Sample Data Planning Matrix (Tool 7) may help organize your data collection plan. It includes a column for tracking the responsible person for data collection.

**All staff should be trained on your agency's policies for maintaining client confidentiality. Each staff person should be trained on how to comply with the agency's security procedures.**

#### Summary

Chapter 4 discussed how to collect good, quality data to inform your program evaluation. Implementing good data collection procedures will ensure that the data you collect are complete and consistent, and representative of the program you are implementing.

This chapter introduced:

- A discussion of how to develop data collection forms and procedures
- Tool 9 - Session Fidelity/Process Evaluation Forms
- Tool 10 - Session Evaluation Forms
- Tool 11 – Facilitator Observation Form
- Tool 12 - Sample Data Management Plan

## CHAPTER 5: IMPLEMENT YOUR MONITORING AND EVALUATION PLAN

Now that you have collected the data on forms, they need to be entered into a database, cleaned, compiled, and analyzed. This chapter will discuss:

Step 6: Manage data (enter, store, and clean)

Step 7: Analyze data (compile data and calculate measures)

### STEP 6: MANAGE DATA (ENTER, STORE AND CLEAN DATA)

After you have developed data collection tools, the next thing to think about is how to manage the data that have been collected. Some major components of data management are entering data from forms into a database, making sure the necessary security measures are in place to ensure that data are stored securely, and cleaning data. While each of these components is important to managing data, this discussion focuses on data entry and data cleaning.

**(Designer: Include data entry tip box here –currently on page 37)**

#### ***ENTER DATA***

It is important to develop standardized protocols for how to enter data into a database. For example, some forms will have participant names or identifying information. You may want to enter data only at certain times or in certain locations, like in a private office.

#### ***CLEAN DATA***

A key component of data management is cleaning data. 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 if data are missing from forms and from the database. Efforts should be made to identify and fill in missing information. Data cleaning may start with checking that forms are filled out completely before entering them into a database. A second way to clean data is to have one person check the database for omissions or mistakes entered by another and correct any mistakes that were found. This is usually done for a small percentage of the overall data.

Another way to clean data is to compare variables that have clear relationships. For example, if the data show that one of your WILLOW participants is male, the data should be corrected.

A third way to clean data, is to see if they are within the expected range. For example, if the data show that a participant rated a six on a scale that is from one to five, you know that the value was entered incorrectly.

In the CDC Program Evaluation and Monitoring System (PEMS) (CDC, 2008c), there is a quality assurance report that may be run to show you where you have blanks and incomplete data entry. Reports like this may be run prior to reporting to CDC or compiling data through extracts or reports. Data cleaning is usually done on a monthly basis to ensure that all data are clean and available for data analysis.

 **Tip**

**Data entry rules**

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

- How will missing data on forms be handled?
- If a data element on a form is missing because it is meant to be blank, how will it be entered into the database? Will it be left blank or will a 99 (indicating missing) be entered?

**Recommended Activity**

Identify staff resources to manage data.

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

 **Time-saver**

- ***The Program Evaluation and Monitoring (PEMS) User Manual*** describes which reports may be run to retrieve compiled data in PEMS. You can download this manual at the NHM&E Web site (<https://team.cdc.gov>) under Trainings/PEMS User Manual (CDC, 2008c).
- The Monitoring and Evaluation Task List (Tool 1) may be used to make sure that all the steps leading up to data analysis are complete.

 **Tip**

**Not using a database?**

It is generally accepted that using a database or spreadsheet is more efficient than hand-tallying data. However, it may be more feasible for an agency to hand-tally data if staff 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 it is tallied to ensure uniformity of the process over time and across staff.

## STEP 7: ANALYZE DATA (COMPILE DATA AND CALCULATE MEASURES)

### **COMPILE DATA**

Compiling data refers to the process of gathering and counting up data from individual data collection forms to combine them into a total aggregate count. Data compilation is done prior to data analysis; compiled data will be used in calculations.

Agencies funded by CDC may have access to PEMS for data entry and reporting. Data collected in PEMS can be aggregated by running pre-programmed reports or extracting the data into an Excel spreadsheet.

If your agency is using a database other than PEMS, it is important to make sure that the database meets your data management needs. It should:

- capture necessary data elements
- have specifications/requirements and field limitations for each data element that minimize data entry mistakes
- have validation checks
- have a mechanism for compiling or extracting data for data analysis

Recommended Activity

Choose a database (or multiple databases) to store and aggregate data. PEMS is available from the CDC and is free if you are a CDC-funded agency.

ANALYSIS - CALCULATE MEASURES

Data analysis is the process of calculating quantitative data and summarizing and organizing qualitative data. The aim of data analysis is to answer evaluation questions, and identify gaps in data (e.g., are there questions the data do not answer?).

**Data analysis does not have to involve complicated statistics.** It can mean calculating the measures you identified for the evaluation questions and SMART objectives. The following are examples of how to analyze data. If you are collecting **qualitative** data to understand what improvements should be made to your program, you may collect that data at a meeting and list all the ideas for improving your program. One approach to analyzing that data would be to identify which ideas are the most feasible and appropriate. For a **quantitative** measure example, look to Step 4 (Chapter 3) where the need to calculate the proportion of participants who completed all the WILLOW sessions was identified. Those measures were:

- Total number of participants who completed all four sessions of WILLOW
- Total number of participants who attended the first session

To analyze this data we would divide the total number of participants who completed all four sessions of WILLOW by the total number of participants who completed the first session during the identified time frame. The WILLOW Data Analysis Tool (Tool 13) may be used to automate this calculation.

Analyzing data may also mean organizing it in multiple ways to compare different populations. For example, data may be organized to show services delivered by participant age, by participant gender, or by service location. If such demographic or geographic information is important to your agency, it must be captured on the data collection forms.

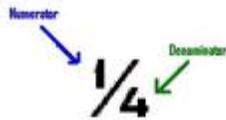
An example of this is looking at the data according to age group. Your agency may want to know if young (18-to-24 year-old) female participants are completing WILLOW as often as older (25-50 year-old) participants. The data in our quantitative example could be organized by age.

First, identify all the participants ages 18 to 24 years enrolled in WILLOW. The numerator would be the total number of female participants between the ages of 18 and 24 who completed all four sessions of WILLOW; the denominator would be the total number of female participants between the ages of 18 and 24 who completed the first WILLOW session. Then identify all participants ages 25 to 50 years and do the same calculation for that age group. The resulting

WILLOW M&E Field Guide-DRAFT 8-14-09

proportion for the young participants may be compared to the proportion for the older participants to see if the young population is completing WILLOW sessions as often as the older population.

[Layout Note: Insert picture demonstrating numerator and denominator]



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 for how often data will be analyzed.

- What are the reporting requirements? Does your plan for analyzing data correspond to reporting deadlines?
- How often do you want to analyze data to consider 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 your fifth year implementing the program.

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 to look for missing data. Analysis may be done less often, usually once per quarter. However, if you are providing only one cycle of WILLOW each quarter, then compiling data once a month is too often. Be sure that your data analysis plan is consistent with your implementation of WILLOW.

 Time-saver

- The Sample Data Management Plan (Tool 12) outlines the methods and the responsible party for collecting, entering, storing, and analyzing data and conducting quality assurance. In addition to the data management plan you will need to establish policies and procedures for storing, transporting, and/or disposing of data, to ensure confidentiality to your participants and to ensure ongoing data quality.

- The WILLOW Data Analysis Tool (Tool 13) is an Excel spreadsheet that may be used to capture the measures for the required CDC performance indicators and WILLOW outcomes. Compiled data may be entered into the tool, and the measures will be calculated automatically.

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

Remember, it is important to share successes!

#### Summary

Chapter 5 discussed how to manage data once it has been collected. After data have been collected, they are entered into a database, stored securely, cleaned, compiled and analyzed.

This chapter introduced:

- Data management
- PEMS and other databases
- Cleaning data
- Compiling data
- Analyzing data
- Tool 13 – WILLOW Data Analysis Tool

## CHAPTER 6: USE RESULTS

Once you have put in the effort to collect, store, clean, and analyze data for your M&E plan, it is important to use the data for:

Step 8: Use Data According to the Monitoring and Evaluation Plan and

Step 9: Use Data for Advocacy and to Garner Support

Oftentimes, data are only used for reporting, but if you routinely use your data, you will be able to improve how you implement your program, and garner additional support for it.

### STEP 8: USE YOUR DATA ACCORDING TO YOUR MONITORING AND EVALUATION PLAN

Now that you have put in place the systems to capture and analyze your data, it is time to **use it!**

Your monitoring and evaluation (M&E) plan will help ensure that you are maximizing your resources and obtaining the results you want. While one person, likely the program coordinator, may have overall responsibility for the M&E plan, stakeholders should also be involved, from planning to determining the use of data for program improvement. The data analysis you conduct will help you identify trends, limitations, and gaps in your program implementation. Your agency's plan for collecting, managing, and analyzing data should describe how often you will use the results of your analysis to make changes and who will be involved in the program planning and improvement activities that result from the data analysis.

#### Time-saver

The Monitoring and Evaluation Task List (Tool 1) may be helpful to remind you of the steps involved in planning and carrying out your M&E plan.

#### **USE DATA FOR PROGRAM MONITORING**

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 related to each evaluation question you are measuring. The WILLOW Data Analysis Tool (Tool 13) will provide data elements and formulas to assist you in calculating the outcomes related to WILLOW-specific objectives and CDC performance indicators.

#### Recommended Activity

WILLOW M&E Field Guide *Draft 8-11-09*

During the first several months of implementing WILLOW and your 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 may review your data less frequently (monthly or quarterly, depending on the data element).

Analysis of your data can help you determine if an objective was met and what helped or held back progress toward the objective.

If an objective was met, you need to understand what is contributing to the success so you can keep doing it. You may need additional information to understand what is working well.

If an objective was not met, you should ask what information will help you understand what to change. You may already have an idea of what information you need and have ready access to that information. Or you might have to ask staff, participants, or other stakeholders to help you identify what is keeping you from succeeding.

If you find that you don't have the information to determine whether or not you reached the objective, you'll need to figure out why the information is missing and address the reason it is missing.

In Table 1 there is an **example** of how to interpret data that has been collected for a SMART objective. The evaluation question "*Do participants who start WILLOW complete the intervention?*" and its corresponding SMART objective, "by (date), X percent of WILLOW participants who attend the first WILLOW session will participate in all 4 of the sessions", are used in the example. Table 1 provides three scenarios of data that might be collected for the objective, the implications for meeting or not meeting the objectives, and some things to consider when reading the data. This example is adapted from the *Evaluation Capacity Building Guide* referenced in the Introduction.

TABLE 1: EXAMPLE OF HOW TO INTERPRET AND UNDERSTAND DATA

<b>Evaluation Question:</b> Do participants who start WILLOW complete the intervention?		
<b>Process Objective: 9.</b> By (date) X percent of WILLOW participants who attend the first WILLOW session will participate in all 4 of the sessions.		
<b>Evaluation Findings</b>	<b>Implications (additional data that may be needed)</b>	<b>Potential ways to gain insight</b>
<p><b>Scenario One:</b>  <b>Objective met:</b>            92% of WILLOW participants attending the first session participated in all four sessions.</p>	<p>Is there something specific we're doing that helps our participants finish all four sessions? What contributes to participation in all four sessions?            What are we doing that reinforces attendance at the second, third, and fourth sessions?</p>	<p>Review of processes for encouraging participants to attend all sessions; conversations with facilitators about how to encourage participants to continue their participation in all the sessions.            Analysis of intake and attendance records for participants completing the all sessions compared to those not completing all the sessions.</p>
<p><b>Scenario Two:</b>  <b>Objective not met:</b>            70% of WILLOW participants attended the first session participated in all four sessions.</p>	<p>Is an outreach worker or intake person appropriately describing the time commitment? Is there any difference between the participants who attended all the sessions and those who don't? Do some facilitators have higher rates of completion than others?</p>	<p>Supervisor observations about how the WILLOW intervention is introduced to a participant; comparison of participant demographic and/or risk profiles for those attending all the sessions with those for participants not attending the all the sessions; comparison of session completion rates by facilitator.</p>
<p><b>Scenario Three:</b>  <b>Do not know if objective was met:</b>              Data were not compiled</p>	<p>Were intake forms and attendance forms completed? Were forms entered into the data collection system (PEMS or other)?            If not, what inhibited completion/entry?            If so, why wasn't the data compiled?</p>	<p>Review of forms and/or a sample of forms in the data collection system; report from PEMS on incomplete records; do a survey, or talk directly with, data entry staff and/or provider staff about barriers to form completion and/or data entry.</p>

### **USE DATA FOR PROGRAM IMPROVEMENT**

It is important to use the data you collect for monitoring to improve your program. Your data can also tell you whether the outcomes your agency is achieving are what you expected. Your agency may be carrying out WILLOW largely as planned but you may still find that participants aren't attaining the outcome objectives you expected. In that case you'll need to consider whether you need additional information about your participant population, and if you need to modify your agency's implementation to better meet participant needs.

#### Recommended Activity

Over the first few months of implementation the program coordinator should examine all of the process objectives outlined in your agency's Data Planning Matrix and the WILLOW Data Analysis Tool (Tool 13). The program coordinator should identify any areas where the objectives are not being met. If your agency isn't meeting its goals for WILLOW, barriers to meeting them should be identified and corrected.

For example, you may find that you are enrolling many more participants than you expected, but that they aren't from the population you most wanted to serve with WILLOW. You'll want to figure out why you aren't successfully enrolling eligible participants, and whether you need more targeted outreach, additional staff training, or some other effort to improve your enrollment of eligible participants.

#### Recommended Activity

Sharing the results of the analysis with facilitators, outreach staff, and supervisors, or with other staff who influence the WILLOW intervention (such as scheduling or data entry staff) can heighten awareness of any shortfalls that need to be addressed and identify adjustments that will allow your agency to better meet its implementation goals.

### **USE DATA FOR PROGRAM PLANNING**

Your M&E data may also help you budget the resources you need for your next intervention cycle. For example, you may discover a need for staff training on WILLOW that will require funds for training or travel. Or you may want to increase the available time of a supervisor who seems most capable of helping facilitators present WILLOW most effectively.

#### Recommended Activity

At least annually or semi-annually you'll want to look at your data as you plan your strategies and resource allocations for your next implementation period. Your data (both process and outcome) will allow you to identify strengths that you may want to build on and areas that you want to focus on improving. For example, the data may show that participants who have children are less likely to complete all four sessions of WILLOW than

other participants. If this is true, you may need to modify the time WILLOW is offered or offer child care on site.

Your data can also help you allocate existing resources. If you find that you are having trouble enrolling one of your target populations in WILLOW, you may plan to increase your outreach to that population or plan to employ an alternative enrollment strategy. Or if you don't know how to address the problem, you might plan to track some additional data elements that will provide the information you need.

Recommended Activity

At regular intervals (after your agency's first few months of WILLOW implementation and then at least annually) you should review your evaluation documents to incorporate what you have learned. It may be that they need only minor changes. Or it could be that your evaluation caused you to change some basic assumptions and you need to make significant changes.

Be sure to review the:

- logic model
- evaluation questions
- SMART objectives
- data planning matrix

## STEP 9: USE YOUR DATA FOR ADVOCACY AND TO GARNER SUPPORT

Most programs routinely report data to CDC or other funders. It is not as common to use data for advocacy or for promoting programs locally. This step lists other ways you can use your data for advocacy and support:

- Identify trends or changes in participant characteristics (such as risk factors). This may help you build a case for additional funding from a new source.
- Share with stakeholders how you used program data to make improvements. This may lead to increased credibility for your agency in the community and with funders.
- Develop a profile of your agency's typical participant and to "paint a picture" of what your agency's program allows participants to achieve. Data about goals met may be shared in your agency's marketing materials and in subsequent grant proposals.
- Forge partnerships with other organizations, or renegotiating existing partnerships, with data about participants' needs.
- Increase morale and retention by sharing data with staff about program achievements.
- Remember that data may be used as a marketing tool to promote existing programs or to conduct WILLOW with new target populations.

For example, your agency is the only agency in a metropolitan area that is providing a HIV prevention with positives program to African-American women in a community setting. Your agency currently provides WILLOW to 80 women a year, but you would like to expand your reach across the metro area. In this example, data demonstrating that your agency successfully recruited and served African-American women who are HIV positive may help you garner support from the city and state for additional funding. Or use the data to help forge new partnerships with existing community organizations in the city.

## Summary

Chapter 6 talked about how to interpret the data you have collected and analyzed. It also gave suggestions for how to use your data for program improvement and to garner support.

This chapter introduced:

- An example for how to interpret the the results from your data collection and analysis
- Suggestions for how to use your data for program monitoring, program improvement, advocacy, and to garner additional support

## CHAPTER 7: REPORT HIV PREVENTION PROGRAM MONITORING DATA TO CDC

### OVERVIEW OF THE NATIONAL HIV PREVENTION PROGRAM MONITORING AND EVALUATION DATA SET

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 Data Set (NHM&E DS) is a major component of this strategy.

The NHM&E DS is the complete set of CDC's HIV prevention program monitoring and evaluation (M&E) variables, including required variables for reporting to CDC and optional variables specific to an intervention or for local M&E. Implementation of NHM&E DS makes it possible for CDC to answer critical national questions about the following:

- demographic and risk behavior of participants being served by its grantees
- resources used to provide these services
- effectiveness of these services in preventing HIV infection and transmission

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

- 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?
- What are the demographics, risk behaviors, and risk characteristics of participants served by WILLOW?

The National HIV Prevention Program Monitoring and Evaluation plan consists of the following components:

- Information that is uniformly collected by all funded HIV prevention programs, known as the NHM&E DS. The variables you will be expected to collect and report to CDC for WILLOW will be described in this chapter.
- **National Monitoring and Evaluating Guidance for HIV Prevention Programs (NMEG)**—describes how to use the NHM&E DS to inform programmatic decisions and answer local M&E questions (CDC, 2008b).
- **Program Evaluation and Monitoring System (PEMS) software**—an optional, secure, browser-based software that allows for data management and reporting. PEMS includes all required and optional NHM&E DS variables (CDC, 2008c).
- Access to technical assistance and training on all aspects of NHM&E implementation is provided by CDC and its partners. Partners are contractors who have been enlisted to work directly with CDC-funded grantees to provide support on implementation of NHM&E requirements. This assistance is provided to the NHM&E Implementation Coordinator (discussed below) your agency designates, who is then responsible for training and assisting other staff.

Implementation of NHM&E at your agency will help you conduct activities associated with your M&E plan for WILLOW. 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 WILLOW.

**Note:** It may be necessary to use complementary data collection systems for other aspects of your M&E plan such as WILLOW Session Evaluation Forms, WILLOW Session Fidelity/Process Forms, and the WILLOW Facilitator Observation Form that have information that cannot be captured in PEMS software.

#### *PREPARING FOR NHM&E IMPLEMENTATION*

There are a variety of things you should have in place at your agency for implementation of NHM&E. Someone on staff should be designated as the Implementation Coordinator. This individual is responsible for coordinating all aspects of activities associated with NHM&E, including establishment of a NHM&E implementation team.

The Implementation Coordinator and members of your agency's M&E team have responsibility for such activities as:

- review of the NHM&E data set, including the required variables
- modification and/or creation of data collection forms to make sure the program is capturing required variables
- training of prevention staff on collection of required variables
- training of 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 data set to support ongoing M&E activities.

Here are some tips for getting ready to implement NHM&E data collection for WILLOW.

- If your agency already receives HIV prevention funds from CDC, find out who in your agency is serving as the NHM&E Implementation Coordinator. This individual may work with you to plan for integration of WILLOW into all aspects of NHM&E activities.
- If this is the first time you are receiving funds from CDC for HIV prevention, contact your 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 DS; making sure you have all relevant PEMS materials; developing a training plan to meet your needs; and assisting you in getting access to PEMS.

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 DS variables to monitor and evaluation HIV prevention programs (CDC, 2008b).
- **Program Evaluation and Monitoring (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, example extracts of data, and reports are used to illustrate key features included in the PEMS software. You can download this manual at the NHM&E Web site (<https://team.cdc.gov>) under Trainings/PEMS User Manual (CDC, 2008c).

- **National HIV Prevention Program Monitoring and Evaluation Data Set (NHM&E DS).** This is a complete list and description of all M&E variables required for reporting to CDC, optional for local M&E, and specific to certain interventions (CDC, 2008d).
- **The National HIV M&E Service Center.** Service Center staff are available to answer PEMS-related questions, concerns, and requests. The Service Center also resolves issues related to counseling and testing scanning forms and HIV test form requests, they can be reached at: [pemsservice@cdc.gov](mailto:pemsservice@cdc.gov) or call (888) 736-7311. The PEMS Help Desk is available to address questions or issues related to digital certificates and the Secure Data Network: e-mail [dhapsupport@cdc.gov](mailto:dhapsupport@cdc.gov) or call 877-659-7725.

**Disclaimer:** The reporting requirements for the National HIV Prevention Program Monitoring and Evaluation Data Set presented in this document are current as of September 2008. Please refer to the NHM&E Web site (<https://team.cdc.gov>) for the most current reporting requirements.

## USE OF PEMS SOFTWARE FOR WILLOW MONITORING AND EVALUATION

### ***NATIONAL HIV PREVENTION PROGRAM M&E DATA SET***

The NHM&E DS is organized in a series of data tables. The PEMS software captures these variables in different modules according to categories, such as information about your agency, your HIV prevention programs, and the clients you serve. The NHM&E DS document should be available from the NHM&E Implementation Coordinator in your agency, or from your Project Officer. The NHM&E DS provides the number, name, definition, instructions, value choices, and codes for each variable.

- There is a minimum set of variables that all grantees are required to report to CDC.
- There are additional variables included in the software that may be useful to your agency, but are not required.
- There are “local variables” that may be used when you enter participant information to capture data not otherwise reflected in the NHM&E DS.

### Recommended Activity

Review your agency’s intake form and referral form, as well as the Session Fidelity/Process Evaluation Forms (Tool 9), and Session Evaluation Forms (Tool 10) to ensure you are gathering all the variables required for contract monitoring, CDC performance indicators, the NHM&E DS, and your program needs. The data elements you need to collect may be required for the NHM&E DS but may not be CORE elements of WILLOW. For example,

WILLOW M&E Field Guide *Draft 8-14-09*

referrals are not part of the CDC performance indicators for WILLOW. Nor are they a CORE element of WILLOW. However, if referrals are made as a part of the WILLOW intervention, information about them must be collected and reported in PEMS because referrals and referral outcomes are required variables in the NHM&E DS. *Be sure you are collecting and reporting ALL required variables.*

We will discuss in detail only those tables and associated modules you will use to enter information specific to WILLOW.

#### ***AGENCY INFORMATION MODULE IN PEMS***

The following tables in the Agency Information Module apply to all interventions, including WILLOW, 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 WILLOW)

The Agency Information module PEMS describes the infrastructure, including delivery sites, network agencies, and workers (e.g., facilitators) that will be used to deliver WILLOW. Correct setup 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 WILLOW intervention is delivered should be entered into PEMS. This will allow indication of the site where the WILLOW 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 agency. Referrals to other programs within your agency, known as internal referrals, can also be tracked here. Because referral outcomes are important process measures for WILLOW, 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 number of sessions provided by each WILLOW facilitator, as well as whether or not they provided certain activities of the intervention as planned.

**PROGRAM INFORMATION MODULE**

The Program Information Module in PEMS contains fields for entering information on how WILLOW 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 WILLOW sessions. Correct setup of program information is essential because when client-level data is entered, it is associated with the program information. In order to see what clients have participated in your agency’s WILLOW intervention (or interventions), the program information must be correctly entered. The PEMS Information Module includes the following modules:

Table D: Program Name (Planning)

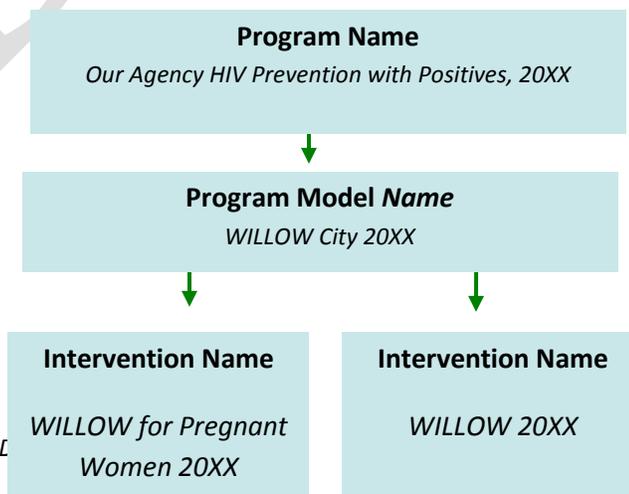
Table E1: Program Model and Budget (Planning)

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 WILLOW is a part), the *Program Model*, which identifies the evidence base (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 WILLOW.

It is possible to create two or more distinct interventions under the WILLOW program model, each with unique names. For example, if your agency is conducting WILLOW for pregnant women, and also conducting WILLOW for another group of women who do not have to be pregnant to be eligible to participate in WILLOW, you may want to track the WILLOW interventions separately in PEMS. When clients are entered in PEMS, the clients will be associated with the intervention name, program model and program name. In the example shown in Diagram 1, there are two interventions entered, each with their own name. One intervention is for pregnant women, while the other one is for women. In this example, clients served by WILLOW are tracked according to which intervention they participated in (WILLOW for pregnant women or WILLOW for women).

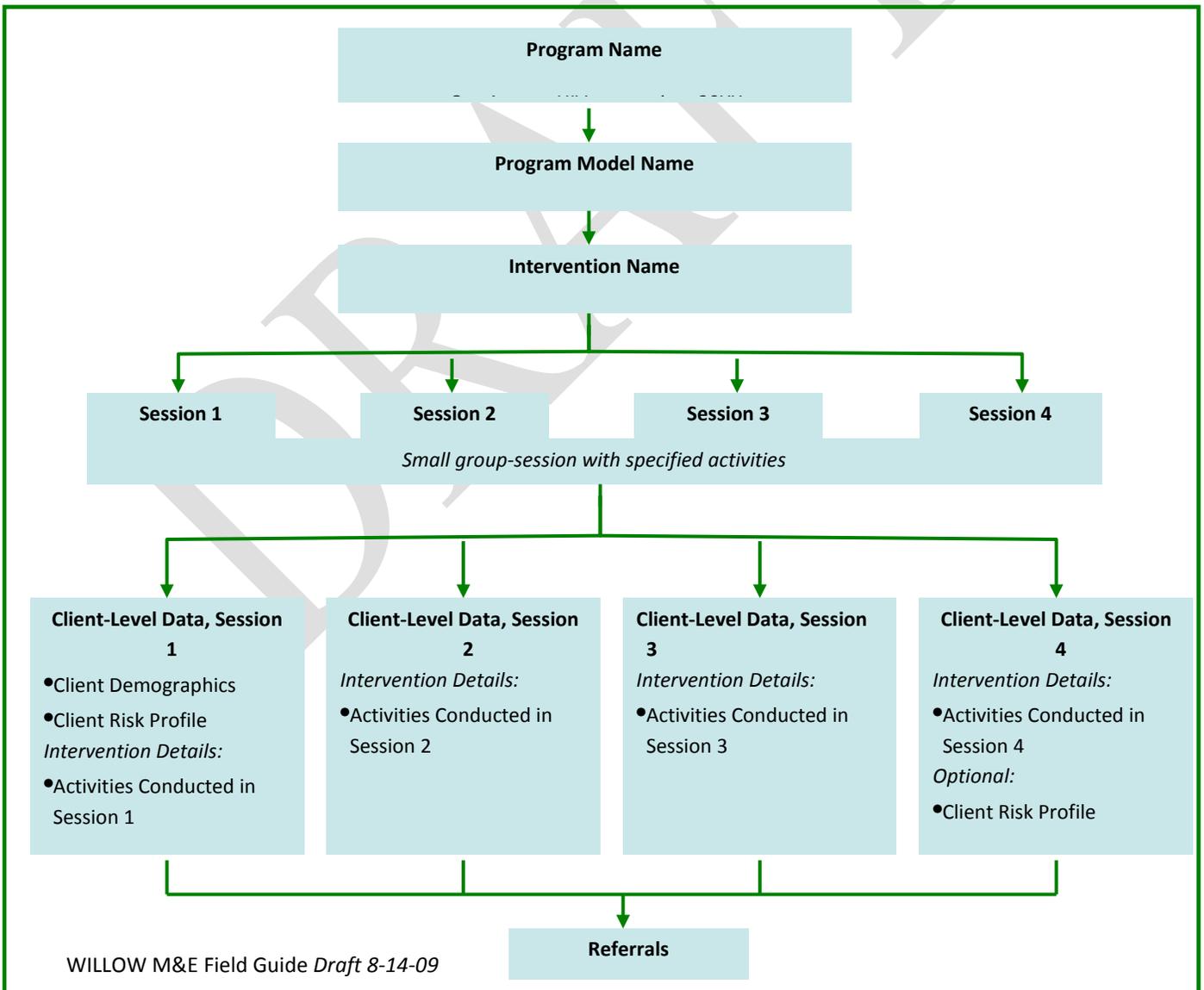
Diagram 1: Entering more than one intervention for WILLOW



**SAMPLE PEMS SETUP**

The following diagram illustrates how WILLOW may be set up as a PEMS program. Before any clients are entered into PEMS, the Program Name, Program Model Name, Intervention Name, and Session information, including activities, are entered (the first three lines in Diagram 2). Once the required variables for the program information have been entered, clients participating in the program may be entered into PEMS. In the diagram below, the fourth line illustrates information entered for each client, including client demographics, a risk profile, and specific activities the client participated in as a part of Session 1 of WILLOW. When a client completes subsequent sessions, information about those sessions are entered for the client. If any referrals are made for the client, those may also be entered (represented by the sixth line.)

Diagram 2: Entering WILLOW into PEMS



Recommended Activity

Diagram how your program will be entered into PEMS. Think about whether there will be one or multiple interventions, and how your agency will fill out the Program Name and Intervention.

Below is a discussion of each of the required and optional variables from NHM&E DS and how to enter WILLOW program information in PEMS for each variable. In Tables 1, 2 and 3 information is provided about how to enter WILLOW Program Information for PEMS Tables D, E and F.

**TABLE 1: HOW TO ENTER WILLOW INTO PEMS TABLE D, PROGRAM NAME**

PEMS Software Module and Sub-module	DVS Variable Number	Variable Name	Guidance
<b>Table D: Program Name – Planning</b>			
Program Information/ Program Details	D01	Program Name	Enter the name your organization uses to identify the overarching program under which WILLOW resides. This may be your program with multiple Health Education/Risk Reduction interventions, or WILLOW may be its own program. It is a good idea to <u>add the year</u> to the Program Name, since programs must be set up annually and you’ll want to be able to distinguish them easily.
	D02	Community Planning Jurisdiction	Enter the CDC directly funded state, territory, or city health department Community Planning Jurisdiction in which WILLOW will be delivered.
	D03	Community Planning Year	Enter the calendar year within the Comprehensive HIV Prevention Community Plan for the Community Planning Jurisdiction that guides how WILLOW will be implemented. Usually this is the same year in which you begin program implementation.

**TABLE 2: HOW TO ENTER WILLOW INTO PEMS TABLE E**

PEMS Software Module and Sub-module	Variable Number	Variable Name	Guidance
<b>Table E1: Program Model and Budget - Planning</b>			
Program Information/ Program Model Details	E101	Program Model Name	Enter the name your agency uses for the WILLOW intervention. It may be the same as the program name you entered for D01, Program Name, or different.
	E102	Evidence Base	The evidence base is the research study that has proven an intervention is effective. For WILLOW, choose Code 1.13.
	E103	CDC Recommended Guidelines	In PEMS you choose between Evidence Base (E102), CDC Recommended Guidelines (E103), and Other Basis for Program Model (E104). Because you have chosen WILLOW in E102, you will not select E103.
	E104	Other Basis for Program Model	In PEMS you choose between Evidence Base (E102), CDC Recommended Guidelines (E103), and Other Basis for Program Model (E104). Because you have chosen WILLOW in E102, you will not select E104.
	E105	Target Population	Enter the population (or populations) you have decided will be eligible to receive WILLOW. 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 “Additional Target Populations” sub-module before entering information into the Program Model Details sub-module.

PEMS Software Module and Sub-module	Variable Number	Variable Name	Guidance
	E107	Program Model Start Date	Enter the start date (month and year) of the annual funding period for this program model.
	E108	Program Model End Date	Enter the end date (month and year) of the annual funding period for this program model.
	E109	Proposed Annual Budget	Enter the annual budget for WILLOW using CDC/DHAP funds.

**TABLE 3: HOW TO ENTER WILLOW INTO PEMS TABLE F**

Table F: Intervention Plan Characteristics			
PEMS Software Module and Sub-module	Variable Number	Variable Name	Guidance
Program Information/ Intervention Details	F01	Intervention Type	This field identifies a type of intervention. Choose Code 06, Health Education/Risk Reduction.
	F02	Intervention Name/ID	Enter the unique name of the intervention. This name may be WILLOW, or whatever name you use for WILLOW within your agency. This name may be the same name you used for Program Model Name. <b>Note:</b> If you are delivering WILLOW to two distinct target populations that you want to track separately, you may create two distinct interventions with unique names.
	F03	HIV+ Intervention	Choose “yes”.
	F04	Perinatal Intervention	Choose “yes” if your eligible population for this WILLOW intervention is <b>exclusively</b> pregnant women. Otherwise, choose “no.”
	F05	Total Number of Clients	Enter the total number of clients you plan to reach with this WILLOW intervention during the program year.

PEMS Software Module and Sub-module	Variable Number	Variable Name	Guidance
	F06	Sub-Total Target Population	For each target population you identified in E105, 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 E105.
	F07	Planned Number of Cycles	Enter the number of times you plan to deliver the complete (4-Session) WILLOW intervention cycle during the funding year.
	F08	Number of Sessions	A session consists of one or more activities delivered to a WILLOW client on a given date. Enter "4," as WILLOW should have four sessions.
	F09	Unit of Delivery	This variable describes how clients are grouped and how the intervention is delivered during each session. WILLOW is designed to be a small group intervention. Choose "Small group (Code 03)."
	F11	Delivery Method	This variable describes how the intervention is delivered. For WILLOW, choose "In person" (Code 01.00).
	F14	Level of Data Collection	This variable indicates whether individual or aggregate level data will be collected during the session. For WILLOW, choose "Individual" (Code 1).

Table F Optional Variables					
PEMS Software Module and Sub-module	Variable Number	Variable Name	Guidance		
	F10	Activity	<p>You are not required to collect information on session activities and should choose variable 1.00 (not collected) if you do not collect that information. However, by including activities in the intervention characteristics you will be able to compare what you planned with what actually happens, and thus have information to inform program improvement.</p> <p>PEMS allows you to select activities that you plan as part of the WILLOW session. A lot of the activities expected to be part of a WILLOW session, such as “Discussing Gender Pride,” are not included in the PEMS list of response options, but generic activities, such as “discussion- other” or “other, specify” are, and may be used to capture the activities specific to WILLOW.</p> <p>By including activities in the intervention characteristics you will be able to compare what you planned with what actually happens.</p>		
			<p><b>Session 1: Gender Pride</b></p>		
			<table border="1"> <tr> <td>WILLOW Overview</td> <td>08.66 Information–Other</td> </tr> </table>	WILLOW Overview	08.66 Information–Other
WILLOW Overview	08.66 Information–Other				

			Gender Pride	11.66 Discussion – Other
			Personal Values and Goal Setting	10.66 Practice - Other
			Social Support	89 Other, Specify. <i>Note: After selecting this option, PEMS will provide a field to type in “Social Support”.</i>
			<b>Session 2: Coping Skills</b>	
			Stress and the Effects of Stress Coping with stress	08.66 Information–Other;
			Coping with Stress RELAX Technique: Let’s Release Express Your Emotions and Let Others Help Allow Positive Thoughts Let’s Exercise	10.66 Practice - Other
			Communication Styles	11.18 Discussion-Negotiation/Communication
			Relationships and Communication	09.03 Demonstration – Negotiation/Communication

			Coping with Stress: The DECIDE Model	08.15 Information – Decision making;
			Goal Setting: Assertiveness Contract	89 Other, Specify. <i>Note: After selecting this option, PEMS will provide a field to type in “Assertiveness Contract”.</i>

DRAFT

PEMS Software Module and Sub-module	Variable Number	Variable Name	Guidance	
	F10 cont.	Activity	<b>Session 3: Condom Use</b>	
			Facts about STDs	11.04 Discussion - Other Sexually Transmitted Diseases
			HIV Reinfection	11.10 Discussion - HIV/AIDS Transmission
			Card Swap Game	08.01 Information - HIV/AIDS Transmission
			Rate the Risk	11.01 Discussion - Sexual Risk Reduction
			WILLOW Quiz Game	08.10 Information- Sexual Risk Reduction
			Condom Line-Up Game	09.01 Demonstration - Condom/barrier use
			Condom Practice	10.01 Practice – Condom/barrier use

			Goal: Risk Prevention Contract	89 Other, Specify <i>Note: After selecting this option, PEMS will provide a field to type in "Risk Prevention Contract".</i>
			<b>Session 4: Healthy Relationships</b>	
			Healthy and Unhealthy Relationships	08.66 Information–Other;
			What Does Abuse Look Like?  The Power and Control Wheel  Unhealthy Relationships	11.66 Discussion - Other
			Graduation, Completion of a final WILLOW Contract	89 Other, Specify <i>Note: After selecting this option, PEMS will provide a field to type in "WILLOW Contract".</i>
			<b>Note:</b> Review the full list in the Data Variable Set to determine which other activities should be included.	

	F15	Duration of Intervention Cycle	<p>If you know the total number of WILLOW cycles you plan to deliver and the time frame in which you expect the four sessions to be completed, indicate the total time you expect it to take to complete the cycle in months or days. (Optional Variable)</p> <p><b>For Example:</b> If you plan to conduct WILLOW every Saturday for four consecutive Saturdays, you would enter "1" in F15 and choose "Months" in F16.</p>
	F16	Unit of Duration	<p>Specify the time frame you expect it to take to complete the cycle in Month(s) or Day(s). (Optional Variable).</p> <p><b>For Example:</b> If you plan to conduct WILLOW every Saturday for four consecutive Saturdays, you would enter "1" in F15 and choose "Months" in F16.</p>

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, which can be entered into PEMS when information is entered about a client session that was delivered. Your NHM&E technical assistance provider can provide more information about how to do this. Alternatively, you may track the activities listed above in the Fidelity/Process Evaluation Excel spreadsheet (Tool 14) and WILLOW Data Analysis Tool (Tool 13).

***CLIENT INFORMATION MODULE***

In the section above, you learned how to enter Program Information into PEMS. Now you will learn about how to enter data that pertains to individual clients that participate in your program.

The Client Information Module in PEMS includes:

Table G1: Client Characteristics - Demographics

For every client who receives the WILLOW 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.

#### Table G2 Client Characteristics - Risk Profile

Risk profile information is also captured in this module, and again may include both optional and required variables. Risk profile information can be linked to the WILLOW intervention, and can be captured for intake, and at the completion of the fourth session, if desired.

When client information is entered, it is linked to the program, program model, and intervention that was created as described above.

In Table 4, guidance for how to enter WILLOW into PEMS Tables G1 and G2 is provided.

TABLE 4: CLIENT CHARACTERISTICS FROM PEMS TABLES G1 AND G2

PEMS Software Module and Sub-module	PEMS DVS Variable Number	Variable Name	Guidance
<b>Table G: Client Characteristics – Demographic</b>			
Client Level Services/ Interventions	G101	Date Collected	Enter 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 may enter them as well (Optional Variable G103.).
	G112	Date of Birth - Year	Enter the year in which the client was born. Note that there are optional variables for the client’s day and month of birth.
	G113	Calculated Age	This value does not have to be entered. It is calculated by the system.
	G114	Ethnicity	Enter the client’s self-report of whether they are of Hispanic or Latino origin, using standard OMB codes. This variable is particularly important if ethnicity is an eligibility criterion for your WILLOW program.
	G116	Race	Enter the client’s self-reported race, using standard OMB race codes for the value choices. More than one value may be selected. This variable is particularly important if race is an eligibility criterion for your WILLOW program.
	G120	State/Territory of Residence	Enter the state, territory or district where the client is living at the time of intake.

PEMS Software Module and Sub-module	PEMS DVS Variable Number	Variable Name	Guidance
	G123	Assigned Sex at Birth	Enter the biological sex assigned to the client at birth (i.e., noted on the birth certificate).
	G124	Current Gender	Enter the client's self-reported sexual identity.
<b>Table G Optional Variables</b>			
	G103	Local Client Unique Key	This field may be used to enter client IDs you generate and utilize locally.
	G105 G106 G107 G108 G109	Last Name First Name Middle Initial Nick Name Aliases	These fields <i>may</i> be used to enter the client's name or nickname, to more readily identify the client. They are not required.
	G110	Date of Birth - Month	Enter the calendar month in which the client was born.
	G111	Date of Birth - Day	Enter the calendar day in which the client was born.
	G 128 – G 136	Locating Information	These variables may be used to capture the current address and phone number of the client.
<b>Table G: Client Characteristics – Risk Profile</b>			

<b>PEMS Software Module and Sub-module</b>	<b>PEMS DVS Variable Number</b>	<b>Variable Name</b>	<b>Guidance</b>
Client Level Services/ Risk Profile	G200	Date Collected	Enter the date client risk profile data are collected.
	G204	Previous HIV Test	Enter 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, enter the client's self-reported result.
	G208	In HIV Medical Care/Treatment (Only if HIV+)	If a client reports having tested HIV positive, enter 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 positive, this variable captures self-reported pregnancy status.
	G210	In Prenatal Care (Only if pregnant)	If a woman is pregnant and HIV positive, enter her self-report of whether she is receiving regular health care during pregnancy.
	G211	Client Risk Factors	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 may be entered here. These include injection drug use, sex with transgender, sex with female, sex with male, no risk identified, not asked, refused to answer, other (specify).

PEMS Software Module and Sub-module	PEMS DVS Variable Number	Variable Name	Guidance	
	G212	Additional Client Risk Factors	If a client's risk factors include sexual activity, this variable allows for entry of 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)	This variable captures the client's self-reported or laboratory confirmed status of having been diagnosed with Syphilis, Gonorrhea, or Chlamydia.	
	<b>Table G Optional Variables</b>			
	G201	Incarcerated	This variable captures whether or not the client is or has been imprisoned (in jail or in a penitentiary).	
	G202	Sex Worker	This variable indicates whether the client derived some or part of his/her income 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 a different recall period is used locally, that period may be indicated here and all of the risk indicators for both the default and local recall periods will be captured.	
	G214	Injection Drugs/ Substances	This variable allows you to indicate which drugs/substances the client reports having injected during the recall period.	

***SESSION INFORMATION***

Table H: Client Intervention Characteristics

Once a client has participated in a WILLOW session, information about that session will be entered into PEMS. Once the client and WILLOW program are chosen, PEMS will prompt for entry of which worker led the session, where and how the session was delivered, and what activities were included in the session. PEMS will generate a list of the planned activities, allow choice of those that were completed, and add any activities that were entered as delivered but not originally planned for the session. If a referral is made, a referral activity may be chosen and referral details, including the outcome, tracked.

In the following table, Table 5, instructions are provided for entering data for PEMS Table H.

**TABLE 5: HOW TO ENTER WILLOW INTO PEMS TABLE H**

PEMS Software Module and Sub-module	PEMS DVS Variable Number	Variable Name	Guidance
<b>Table H: Client Intervention Characteristics</b>			
Client Level Services/ Interventions	H01	Intervention Name/ID	Select the intervention name that you created for WILLOW in the Program Information module (F02, Intervention Name/ID).
	H03	Cycle	Enter the cycle number that the client is participating in.
	H05	Session Number	Indicate whether the client is participating in Session 1, 2, 3 or 4 of WILLOW.
	H06	Session Date	Enter the calendar date in which the session was delivered to the client.
	H10	Site Name/ID	Enter the official name of your agency's site where WILLOW was delivered.
	H13	Recruitment Source	This variable allows you to track how clients become aware of and enroll in WILLOW, including from agency referral, health information/public information campaigns, etc.

PEMS Software Module and Sub-module	PEMS DVS Variable Number	Variable Name	Guidance
	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 WILLOW, "Small group (Code 03)" should be selected.
	H 23	Delivery Method	This variable captures how the session was delivered. For WILLOW, "In Person (Code 01.00)" should be selected. Additional modes of delivery may also be selected.
<b>Table H Optional Variables</b>			

PEMS Software Module and Sub-module	PEMS DVS Variable Number	Variable Name	Guidance
	H109	Worker ID	This variable allows you to choose from a list of workers to indicate the facilitator who conducted the WILLOW session. Workers must be entered into the Agency Information module, Workers sub-module (Variables pertaining to Workers are not required variables and are not presented in this document.), to appear on the list. If this variable is completed you will be able to run reports by worker on how WILLOW 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 planned activities, you may choose activities which were provided but not planned to be delivered.

When session information is entered for a client, there is also an option to enter an updated risk profile for that client.

In addition, there is an opportunity to enter information for a client on up to 32 local variables for which you define the variable and the value choices. PEMS does not include activity variables for the components of WILLOW sessions listed below. You may want to create local variables for them.

- More gender pride
- Knows relaxation techniques
- Learned skills to cope with stress
- Learned how to expand a support network
- Can recognize healthy and unhealthy relationships
- Can recognize abuse
- Identified a change was made as a result of the session.

Tracking of local variables is not part of the required NHM&E variables or CDC performance indicators, but is an important part of local M&E. The variables described above (e.g. more gender pride) could be captured through the PEMS local variables or through a complementary tracking database like the Fidelity/Process Evaluation Excel spreadsheet (Tool 14).

In Table 6, there is a summary of how to enter local variables into PEMS.

**TABLE 6: HOW TO ENTER WILLOW INTO PEMS TABLE LV, LOCAL VARIABLES**

<b>PEMS Software Module and Sub-module</b>	<b>PEMS DVS Variable Number</b>	<b>Variable Name</b>	<b>Guidance</b>
	LV01-LV32	Local Variables	<p>Local Variables can be defined by each agency to capture client or session information not otherwise captured in PEMS. These variables are not entered as part of the program plan, but are captured at the time session information is recorded for each client.</p> <p>For WILLOW, local variables could be used to capture information such as whether or not a client reported at least one positive change in her life, or any of the outcomes your organization wishes to track.</p> <p>Information entered into the local variable fields may be alphabetic and/or numeric and may be up to 2000 characters per Local Variable.</p>

Any time a client receives a referral, the referral and subsequent follow-up information about the referral may be entered in PEMS. The referral does not have to be made as a part of a WILLOW session. In Table 6, information for how to enter WILLOW into PEMS Table X7 is provided.

**TABLE 6: HOW TO ENTER WILLOW INTO PEMS TABLE X7, REFERRALS**

		<b>Table X7: Referral</b>		
Client Level Services/ Referrals	X702	Referral Date	Enter the date on which the referral was made for the client, typically the date of one of the WILLOW sessions.	
	X703	Referral Service Type	Select the service to which the client was referred. Internal or external referrals may be tracked.	
	X706	Referral Outcome	This variable captures the status of the referral and may be updated as more information is gathered. The system will automatically change the outcome to “lost to follow-up” if the referral status is “pending” more than 60 days after the referral date.	
	X710	Referral Close Date	Enter 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.	
	<b>Table X-7 Optional Variable</b>			
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.		

If you want additional information on the NHM&E DS requirements, there is a copy of the 2008 National HIV Prevention Program M&E Data Set variable requirements in **Appendix B**. Additional information is also available on the NHM&E Web site, <https://team.cdc.gov>.

### ***PROGRAM MONITORING VIA PEMS***

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

It is critical that the your agency's forms used to collect client and session data include the required NHM&E data variables.

### ***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. If you have used the “local variables” you must use a data extract to see them; there is no pre-defined report for them.
- Pre-defined PEMS reports can be generated on specific data elements such as
  - the characteristics of WILLOW participants
  - the characteristics of WILLOW sessions
  - details on referrals made and their outcomes
  - WILLOW sessions with incomplete information in PEMS
  - participant risk behaviors.

#### **⊕ Time-saver**

The WILLOW Data Analysis Tool (Tool 13) identifies PEMS reports that will be useful in WILLOW M&E.

### **WILLOW VARIABLES NOT CAPTURED IN PEMS**

For WILLOW variables not captured in PEMS, your agency may choose to create local variables in PEMS or you may use the Excel Spreadsheets included in this Guide to collect and compile data from the Fidelity/Process Evaluation Forms or the Session Evaluation Forms. Alternatively, you may choose to develop your own database.

#### Time-saver

Two Excel spreadsheets have been developed for this guide to help capture, store and compile WILLOW-specific data for program monitoring, including the variables mentioned above. They correspond directly with the Session Fidelity/Process Evaluation Forms and the Session Evaluation Forms.

The Fidelity/Process Evaluation Excel spreadsheet (Tool 14) will compile the process monitoring data needed to complete the WILLOW Data Analysis Tool (Tool 13).

The Session Evaluation Excel Spreadsheet (Tool 15) has the same variables as the Session Evaluation Forms (Tool 10). It will compile outcome monitoring data needed to complete the WILLOW Data Analysis Tool (Tool 13).

### **WILLOW ACTIVITIES NOT CAPTURED IN PEMS**

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

- Facilitator observations according to the schedule described in the *WILLOW Implementation Manual*.

#### Time-saver

The Facilitator Observation Schedule Excel Spreadsheet (Tool 16) tallies the percent of sessions that have a facilitator observation.

## Summary

Chapter 7 introduced the National HIV Prevention Program Monitoring and Evaluation Data Set requirements, discussed how to prepare your organization for using the Program Evaluation and Monitoring System (PEMS), and illustrated how to enter WILLOW into PEMS.

This chapter introduced:

- The National HIV Prevention Program Monitoring and Evaluation Data Set (NHM&E DS)
- Preparing your agency for implementing PEMS
- How to enter WILLOW into PEMS
- Tool 14 - Fidelity/Process Evaluation Excel Spreadsheet
- Tool 15 - Session Evaluation Excel Spreadsheet
- Tool 16 - Facilitator Observation Schedule Excel Spreadsheet

## CHAPTER 8: OVERVIEW AND SUMMARY OF TOOLS

A variety of tools (check lists, logic models, forms and spreadsheets) are included in Appendix A to assist you in developing and implementing your monitoring and evaluation (M&E) plan. Following is a brief summary of each of these tools. As you review what is here, you may choose those tools that work best for you. They should be modified to reflect the unique features of WILLOW in your agency and may be used alone or to supplement tools you are currently using for M&E. Use of these tools is not a requirement.

Monitoring and evaluation may involve staff from a variety of departments and disciplines with varying experience and attitudes towards evaluation. Consider developing an evaluation team consisting of program coordinator, lead evaluator (if appropriate), facilitator, and data entry staff person to work together to develop and implement an M&E plan. Remember, technical assistance for M&E can be requested through your Project Officer or through the Capacity Building Branch's Web-based system, Capacity Request Information System (CRIS). For more information about, and access to, CRIS visit <http://www.cdc.gov/hiv/cba>.

It is our hope that including the tools in this M&E field guide will address one of the most frequent requests providers of evaluation technical assistance receive from community-based organizations: assistance with development of data collection tools for program evaluation.

- **Monitoring & Evaluation Task List (Tool 1)** - The M&E task list provides an overview and summary of all tasks associated with your M&E plan. It may be used to create a work plan to track implementation of the M&E plan. Periodic review of this task list will allow you to track progress as you proceed through each of the steps of your M&E plan. **FOR USE BY: Program Coordinator/Lead Evaluator**
- **Sample WILLOW Evaluation Logic Model (Tool 2)** - This sample evaluation logic model illustrates implementation of the WILLOW model with participants and includes components of an M&E plan. Be sure to tailor this model to reflect your agency's implementation of WILLOW. **FOR USE BY: Program Coordinator/Lead Evaluator**
- **WILLOW Behavior Change Logic Model (Tool 3)** –This logic model describes the intent of the WILLOW intervention, including which behaviors it aims to change, the behavioral determinants of risk, the activities in WILLOW that help participants change behaviors, and the outcomes the program is anticipated to affect. This logic model is presented in the *WILLOW Implementation Manual*. It is provided here for your reference. **FOR USE BY: Program Coordinator/Lead Evaluator**

- **WILLOW Implementation Planning Tool (Tool 4)** – This tool illustrates inputs (or resources needed to implement WILLOW), the activities to prepare for and conduct WILLOW, and the outputs (products resulting from implementation activities). The summary sheet is presented in the *WILLOW Implementation Manual*. It is provided here for your reference. **FOR USE BY: Program Coordinator/Lead Evaluator**
- **SMART Table (Tool 5)** - This table is designed to assist you in writing your own SMART objectives. The SMART Table provides suggestions of words and phrases to use for each component of a SMART objective. **FOR USE BY: Program Coordinator /Lead Evaluator**
- **Sample SMART Objectives for WILLOW (Tool 6)** - Your M&E plan will focus on collecting process objectives and immediate outcomes. Sample SMART objectives for WILLOW are presented in this tool for your reference. These should be tailored to meet your agency’s implementation of WILLOW. It is a useful overview to share with staff as part of training on evaluation. **FOR USE BY: Program Coordinator /Lead Evaluator**
- **Sample Data Planning Matrix (Tool 7) and blank Data Planning Matrix (Tool 8)**. The Sample Data Planning Matrix links sample SMART objectives with evaluation questions. The blank Data Planning Matrix is included for use in your agency. The matrix can be completed to document the SMART objectives, measures, and data sources you will use to answer each evaluation question you develop. You can also include the person responsible for collection of the data and the time frame for data collection. **FOR USE BY: Program Coordinator/Lead Evaluator**; useful overview to share with staff as part of training on evaluation.
- **Session Fidelity/Process Evaluation Forms (Tool 9)** – This form is designed to track activities that are presented in each session. It is an essential tool for process monitoring. The Session Fidelity/Process Evaluation Forms are presented in the *WILLOW Implementation Manual*. The version in this guide has been modified from the version in the IM. It has some additional questions about referrals that you may want to incorporate into your M&E plan. **FOR USE BY: Facilitator**
- **Session Evaluation Forms (Tool 10)** – This form captures immediate outcome information about your participants and your participants’ perceptions about the quality of the intervention. The Session Evaluation Forms are presented in the *WILLOW Implementation Manual*. The version in this guide has not been modified from the IM. **FOR USE BY: Facilitator**
- **Facilitator Observation Form (Tool 11)** – This form collects information about how well facilitators are conducting sessions. Observations are important to identify facilitator training needs or common obstacles to conducting sessions. This tool should be used as part of quality assurance activities. This is a copy of the form presented in the *WILLOW Implementation Manual*. **FOR USE BY: Supervisor**

- **Sample Data Management Plan (Tool 12)** – A data management plan describes your methods for collecting, entering, and storing data, conducting quality assurance, and analyzing the data. It also describes who is responsible for each of these steps. This sample plan is for a fictitious agency. The plan must be adapted to fit your agency, and describe steps staff will take to complete forms you are using, such as an intake form, a Session Fidelity/Process Evaluation Forms, and Session Evaluation Forms. The plan should also describe how forms will be assessed for completeness, how data will be cleaned, and how data will be used for reporting and program improvement purposes. It may also be used as a training tool for project staff. **FOR USE BY: Program Coordinator/Lead Evaluator**
- **WILLOW Data Analysis Tool (Tool 13)** - This tool summarizes the data variables you will need to collect for the CDC reporting requirements and data variables you may choose to collect that may be useful for local program monitoring and outcome monitoring. The tool is in an Excel spreadsheet and provides formulas to assist you in calculating the outcomes for your program. For example, you will report on the percentage of participants served who are from the target population you are trying to reach and engage in WILLOW. Likewise, you will report on the number of WILLOW participants who completed the intended number of sessions. **FOR USE BY: Program Coordinator/Lead Evaluator**
- **Fidelity/Process Evaluation Excel Spreadsheet (Tool 14)** – This spreadsheet has been designed to store and compile data from the Session Fidelity/Process Evaluation Forms. It will calculate the process monitoring data needed to complete the WILLOW Data Analysis Tool (Tool 13). **FOR USE BY: Program Coordinator/Lead Evaluator**
- **Session Evaluation Excel Spreadsheet (Tool 15)** – This spreadsheet has been designed to store and compile data from the Session Evaluation Forms (Tool 10). It will calculate the outcome monitoring data needed to complete the WILLOW Data Analysis Tool (Tool 13). **FOR USE BY: Program Coordinator/Lead Evaluator**
- **Facilitator Observation Schedule Excel Spreadsheet (Tool 16)** – This spreadsheet may be used to track implementation of provider observations for each facilitator. Upon completion, it will automatically calculate the percent of observations conducted so that supervisors may assess the extent to which they are following the required observation protocol detailed in the *WILLOW implementation manual*. **FOR USE BY: Supervisors**

APPENDIX A: WILLOW M&E TOOLS

DRAFT

APPENDIX B: 2008 NATIONAL HIV PREVENTION PROGRAM MONITORING AND  
EVALUATION DATA SET (NHM&E DS) VARIABLE REQUIREMENTS

DRAFT

**National HIV Prevention and Monitoring Data Set (NHM&E DS) 2008**– The variables that are required to be collected as part of CDC’s National HIV Prevention Program Monitoring and Evaluation Data Set are listed. Note: The reporting requirements for the **(NHM&E DS)** presented in this document are current as of September 2008. Please refer to the NHM&E Web site (<https://team.cdc.gov>) for the most current reporting requirements.

DRAFT

## APPENDIX C: REFERENCES

- Centers for Disease Control and Prevention (2006). *Provisional procedural guidance for community-based organizations*: Revised April 2006. Atlanta, GA: Author. Retrieved March 14, 2007, from [http://www.cdc.gov/hiv/topics/prev\\_prog/AHP/resources/guidelines/pro\\_guidance.pdf](http://www.cdc.gov/hiv/topics/prev_prog/AHP/resources/guidelines/pro_guidance.pdf)
- Centers for Disease Control and Prevention (2008a). *Evaluation capacity building guide*. Draft in preparation. Developed for the Centers for Disease Control and Prevention under contract number 200-2006-18987. Atlanta, GA: Author.
- Centers for Disease Control and Prevention. (2008b). National HIV Prevention Program Monitoring and Evaluation Data Set. Retrieved September 16, 2008, from <http://team.cdc.gov>
- Centers for Disease Control and Prevention (2008c). *Program Evaluation and Monitoring System (PEMS) user manual*. Atlanta, GA: Author.
- Centers for Disease Control and Prevention (2008d). *National monitoring and evaluation guidance for HIV prevention programs*. Draft in preparation. Developed for the Centers for Disease Control and Prevention under contract number 200-2003-01926. Atlanta, GA: Author.
- SISTA, WILLOW, WILLOW Diffusion Team. (2009). *WILLOW Implementation Manual*. Atlanta, GA: Centers for Disease Control and Prevention, Division of HIV/AIDS Prevention, Capacity Building Branch.
- Wingood, G. M., DiClemente, R. J., Mikhail I., Lang, D. L., Hubbard-McCree, D., Davies, S. L., et al. (2004). A randomized controlled trial to reduce HIV transmission risk behaviors and STDs among women living with HIV: The WILLOW Program. *Journal of Acquired Immune Deficiency Syndromes*, 37, S58-S67.