

## **Section 1: Overview**

### **Introduction**

This section provides an overview of an HIV Rapid Testing workshop.

It contains information about:

- Workshop Goal
- Training Modules: Learning Objectives and Content Outline
- Learning Methods / Activities
- Recommended Certification Criteria

## Workshop Goal

Participants will gain the knowledge and skills to perform HIV rapid tests accurately and reliably in a safe and professional manner in an era of expanding programs

## Training Modules: Learning Objectives and Content Outline

	Module	Learning Objectives	Content Outline
1	Overview of HIV Infection        Duration: 30 min	<ul style="list-style-type: none"> <li>▪ Describe the difference between HIV infection and AIDS</li> <li>▪ Discuss the HIV epidemics globally, regionally, and locally in terms of number of people affected</li> <li>▪ Define the terms antibody and antigen</li> <li>▪ Explain how “window period” may affect HIV testing results</li> <li>▪ Describe the progression of HIV infection</li> </ul>	<ul style="list-style-type: none"> <li>▪ What is HIV?</li> <li>▪ What is AIDS?</li> <li>▪ The HIV pandemic</li> <li>▪ HIV transmission</li> <li>▪ Window period</li> <li>▪ Stages of HIV infection</li> </ul>
2	Integration of HIV Rapid Testing in HIV Prevention and Treatment Programs        Duration: 30 min	<ul style="list-style-type: none"> <li>▪ Recognize the need for HIV testing and counseling (T&amp;C) in HIV prevention programs</li> <li>▪ Describe the role of HIV rapid testing in supporting prevention and counseling programs</li> <li>▪ State the advantages of using HIV rapid tests in specific settings (e.g., VCT and PMTCT programs)</li> <li>▪ Describe the programs/settings where HIV rapid tests are used in your country</li> </ul>	<ul style="list-style-type: none"> <li>▪ Need for expanding access to HIV testing</li> <li>▪ Testing and counseling as an integral part of HIV prevention, care and support services</li> <li>▪ Client counseling and HIV rapid testing are a formidable combination in any HIV prevention strategy</li> </ul>

	<b>Module</b>	<b>Learning Objectives</b>	<b>Content Outline</b>
<b>3</b>	Overview of HIV Testing Technologies  Duration: 1 hour 5 min	<ul style="list-style-type: none"> <li>▪ Discuss settings where HIV testing will be part of service delivery during an era of expanded services</li> <li>▪ Discuss the spectrum of testing technologies for HIV</li> <li>▪ Explain the advantages and disadvantages of HIV rapid tests</li> <li>▪ Accurately recognize individual test result as reactive, non-reactive, or invalid</li> </ul>	<ul style="list-style-type: none"> <li>▪ Expansion of HIV rapid testing</li> <li>▪ Spectrum of HIV diagnostic tests</li> <li>▪ Challenges with HIV testing</li> <li>▪ Spectrum of HIV testing technologies</li> <li>▪ Advantages and disadvantages of HIV rapid testing</li> <li>▪ Three formats of rapid tests</li> <li>▪ Reading individual test results</li> </ul>
<b>4</b>	HIV Testing Strategies and Algorithms  Duration: 1 hour	<ul style="list-style-type: none"> <li>▪ Discuss the process for developing a national testing algorithm</li> <li>▪ Explain how sensitivity, specificity, positive/negative predictive value relate to development of an HIV rapid testing algorithm</li> <li>▪ Explain the HIV rapid testing algorithm approved in your country</li> <li>▪ Determine HIV status following a particular algorithm</li> </ul>	<ul style="list-style-type: none"> <li>▪ Testing strategies and algorithms</li> <li>▪ Developing national testing algorithm</li> <li>▪ Measuring performance of HIV rapid tests</li> <li>▪ Interpreting HIV status</li> </ul>
<b>5</b>	Assuring the Quality of HIV Rapid Testing  Duration: 1 hour 15 min	<ul style="list-style-type: none"> <li>▪ Explain the systems approach to lab quality and its benefits</li> <li>▪ Identify the essential elements of a lab quality system and how they apply to HIV rapid testing</li> <li>▪ Recognize key factors that may compromise the quality of HIV rapid testing</li> <li>▪ Describe your responsibilities in preventing and detecting errors before, during, and after testing</li> </ul>	<ul style="list-style-type: none"> <li>▪ The approach we take to achieve quality</li> <li>▪ Essential elements of a lab quality system</li> <li>▪ Quality assurance procedures at the HIV rapid testing site</li> <li>▪ How you can contribute to quality before, during, and after testing</li> </ul>

	Module	Learning Objectives	Content Outline
6	Safety at the HIV Rapid Testing Site  Duration: 45 min	<ul style="list-style-type: none"> <li>▪ Adhere to personal health and safety practices</li> <li>▪ Maintain a clean and organized workspace</li> <li>▪ Disinfect and dispose of infectious materials</li> <li>▪ Take appropriate actions following accidental exposure to potentially infectious specimen</li> <li>▪ Follow written safety procedures and keep proper safety records</li> </ul>	<ul style="list-style-type: none"> <li>▪ General safety practices <ul style="list-style-type: none"> <li>▪ Work habits (personal, work space, material)</li> <li>▪ Proper disposal of sharps and waste</li> <li>▪ Disinfection of work areas</li> </ul> </li> <li>▪ Safety documentation</li> </ul>
7	Preparation for Testing – Supplies and Kits  Duration: 50 min	<ul style="list-style-type: none"> <li>▪ List and identify all the supplies required for HIV rapid testing</li> <li>▪ List and identify all the components of test kits for HIV rapid testing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Supplies &amp; materials</li> <li>▪ Test kits</li> </ul>
8	Blood Collection: Finger prick  Duration: 2-2.5 hrs	<ul style="list-style-type: none"> <li>▪ Explain the preparation tasks required for rapid tests</li> <li>▪ Put a client at ease while collecting blood</li> <li>▪ Collect blood from a finger prick accurately and confidently</li> </ul>	<ul style="list-style-type: none"> <li>▪ Preparation for testing</li> <li>▪ Educating your client</li> <li>▪ Performing finger prick</li> </ul>
9	Performing HIV Rapid Tests: Demonstration and Practice  Duration: 5.5 hrs	<ul style="list-style-type: none"> <li>▪ Perform 3 HIV rapid tests according to SOP</li> <li>▪ Perform multiple tests simultaneously</li> <li>▪ Accurately interpret individual test results</li> <li>▪ Accurately determine HIV status</li> </ul>	<ul style="list-style-type: none"> <li>▪ Overview of testing procedures</li> <li>▪ Workstation setup</li> <li>▪ Demonstration</li> <li>▪ Practice session with known specimens</li> <li>▪ Practice session with blinded specimens</li> </ul>
10	Inventory: Managing Stocks at the HIV Rapid Testing Site  Duration: 1 hour	<ul style="list-style-type: none"> <li>▪ Maintain proper records</li> <li>▪ Maintain proper level of consumables</li> <li>▪ Use first-expiry-first-out concept when managing stocks</li> <li>▪ Inspect delivery of supplies before acceptance</li> <li>▪ Identify lot numbers and expiry dates</li> <li>▪ Keep kits and supplies in proper storage</li> </ul>	<ul style="list-style-type: none"> <li>▪ What is stock management?</li> <li>▪ Record keeping</li> <li>▪ Re-order levels</li> <li>▪ Receipt of consumables</li> <li>▪ Storage of consumables</li> </ul>

	Module	Learning Objectives	Content Outline
11	Use and Care of Equipment at the HIV Rapid Testing Site  Duration: 55 min	<ul style="list-style-type: none"> <li>▪ Specify your responsibilities related to equipment</li> <li>▪ Routinely monitor the temperatures of refrigerators and freezers</li> <li>▪ Confirm that auto pipettes deliver specified volumes</li> <li>▪ Properly use and maintain centrifuges</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rationale for using properly maintained equipment</li> <li>▪ Your responsibilities for equipment</li> <li>▪ Use and care of equipment at the HIV rapid testing site <ul style="list-style-type: none"> <li>○ Refrigerator and freezer</li> <li>○ Pipette</li> <li>○ Centrifuge</li> </ul> </li> </ul>
12	Quality Control  Duration: 45 min	<ul style="list-style-type: none"> <li>▪ Differentiate between internal and external controls</li> <li>▪ Use external quality controls at designated frequencies</li> <li>▪ Analyze common problems associated with invalid test results</li> </ul>	<ul style="list-style-type: none"> <li>▪ What is Quality Control (QC)?</li> <li>▪ Benefits of QC in rapid testing</li> <li>▪ Internal versus external quality control</li> <li>▪ Troubleshooting invalid results</li> <li>▪ Quality control records</li> </ul>
13	EQA: On-site Evaluation and Re-testing  Duration: 1 hour 30 min	<ul style="list-style-type: none"> <li>▪ Assess operations at test site to determine if quality requirements are met</li> <li>▪ Take corrective actions following External Quality Assessment (EQA)</li> <li>▪ Keep appropriate records related to EQA</li> <li>▪ Avoid common problems associated with EQA specimen management</li> </ul>	<ul style="list-style-type: none"> <li>▪ What is EQA and why is it important?</li> <li>▪ EQA Responsibilities</li> <li>▪ EQA Methods <ul style="list-style-type: none"> <li>○ Proficiency Testing</li> <li>○ On-Site Evaluation</li> <li>○ Re-testing</li> </ul> </li> <li>▪ How to implement EQA</li> </ul>
14	Blood Collection and Handling: DBS  Duration: 1.5 hours	<ul style="list-style-type: none"> <li>▪ Collect dried blood spots (DBS)</li> <li>▪ Package and store DBS in a way to maintain specimen integrity</li> <li>▪ Maintain DBS records</li> <li>▪ Distinguish between valid and invalid DBS</li> </ul>	<ul style="list-style-type: none"> <li>▪ Required supplies</li> <li>▪ How to collect and dry DBS</li> <li>▪ How to package and store DBS</li> <li>▪ Valid and invalid DBS</li> <li>▪ Hands-on practice</li> </ul>



## **Learning Methods / Activities:**

The HIV Rapid Testing workshop includes the following types of activities to aid in accomplishing workshop goals and objectives:

- **Presentations** will allow participants gain knowledge through didactic exchange of information.
- **Group discussions** will allow participants to share experiences and ideas.
- **Role plays** will allow participants to learn through simulated situations.
- **Video presentations** will introduce participants to the procedural steps for collecting blood specimens, performing tests, and interpretation of results.
- **Demonstrations** will allow participants to observe a particular procedure or test prior to individual performance.
- **“Hands-on” practice exercises** will allow participants to experience collecting specimens, and performing, and interpreting a variety of HIV rapid tests.
- **Energizer / Games** will reinforce teaching points in fun and lively environment

For further details on these activities, and detailed suggestions for facilitating each of the modules of instruction, refer to Section 4 of this guide: *Presentation Slides and Trainer Notes*.

### **Competency Certification Criteria:**

The following criteria are recommended for certification of individuals who perform HIV rapid testing. The criteria are based upon recommendations outlined in “*Guidelines for Assuring Accuracy and Reliability of HIV Rapid Testing: Applying a Quality System Approach.*” Please note: Certification criteria must reflect national policy.

A certificate of competency is awarded to participants upon meeting the requirements outlined below:

- 1) Successfully completing the HIV Rapid Testing training workshop by:
  - Daily attendance
  - Passing score of 80% on written post-workshop examination
  - Passing score of 100 % on final practical examination
  
- 2) 100% accuracy of first 50 specimens tested under direct supervision