Cervical Cancer Prevention
HPV Testing and Thermal Ablation Clinical Training:
Facilitator Guide

December 2020
Jhpiego is an international, non-profit health organization and Johns Hopkins University affiliate. For more than 40 years, Jhpiego has empowered frontline health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of health care services for women and their families. By putting evidence-based health innovations into everyday practice, Jhpiego works to break down barriers to high-quality health care for the world’s most vulnerable populations.

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Introduction

General Considerations and Training Approach

This clinical training course will be conducted in a way that is different from traditional training courses. First of all, it is based on the assumption that people participate in training courses because they:

- Are interested in the topic.
- Wish to improve their knowledge or skills, and thus their job performance.
- Desire to be actively involved in course activities.

For these reasons, all of the course materials focus on the learner. For example, the course content and activities are intended to promote learning, and the participant is expected to be actively involved in all aspects of that learning.

Second, in this training course, the clinical trainer and the learner are provided with a similar set of educational materials. By virtue of their previous training and experiences, the clinical trainer works with the participants as an expert on the topic and guides the learning activities. In addition, the clinical trainer creates a comfortable learning environment and promotes those activities that assist the learner in acquiring the new knowledge, attitudes, and skills.

Finally, the training approach used in this course stresses the importance of the cost-effective use of resources and application of relevant educational technologies including humanistic training techniques. The latter encompasses the use of anatomic models and audiovisual materials to minimize risk to the woman and facilitate learning.

Components of the Learning Package

This clinical training course is built around use of the following components:

- Need-to-know information contained in a reference manual and presentation graphics.
- A course guide for learners containing validated knowledge assessment tools and checklists, which break down the skills or activities into their essential steps.
- A facilitator’s guide, which includes knowledge assessment answer keys and detailed information for conducting the course.
- Well-designed learning aids, such as cervical images, anatomic models, and other educational materials.

Using the Learning Package

In designing the training materials for this course, particular attention has been paid to making them “user friendly” and to permit the learners and clinical trainer the widest possible latitude in adapting the training to the learners’ (group and individual) needs. For example, at the beginning of each course, an assessment is made of each participant’s knowledge. The results of this precourse assessment are then used jointly by the participants and clinical trainer to adapt the course content as needed so that the training focuses on acquisition of new information and skills.
A second feature relates to the use of the reference manual and course presentation graphics. The reference manual is designed to provide all of the essential information needed to conduct the course in a logical manner. The presentation graphics also highlight the key information related to the course.

The course learner guide, on the other hand, serves a dual function. First, and foremost, it is the road map that guides the learner through the course. Second, it contains the course schedule, as well as all supplemental printed materials (precourse knowledge assessment, individual and group assessment matrix, checklists, and the course evaluation form) needed during the course.

The facilitator’s guide contains the same material as the course learner guide and specific material for the facilitator. This includes the course session plans, precourse knowledge assessment answer key, mid-course knowledge assessment, mid-course image assessment and answer keys, and competency-based qualification checklists.
Cervical Cancer Prevention
HPV Testing and Thermal Ablation Clinical Course

SECTION ONE: GUIDE FOR LEARNERS
Clinical Course Overview

Course Description
This course is designed to provide the learning and practice opportunity that health care providers need to develop competency to deliver high-quality cervical cancer prevention services using HPV testing for screening and thermal ablation treatment. It aims to enable providers to easily integrate HPV testing and thermal ablation technologies into existing cervical cancer prevention programs. This course builds on each learner’s knowledge and experience and takes advantage of their interest and motivation to accomplish the learning tasks in the minimum time possible. The training emphasizes doing, not just knowing, and uses competency-based evaluation of performance. The course is very interactive and participatory and uses a variety of educational approaches to maximize learning.

Course Goals
- To influence in a positive way the learner’s attitudes toward the benefits and appropriate use of HPV testing and thermal ablation.
- To provide the learner with counseling skills needed to talk with women about cervical cancer screening using HPV testing and outpatient treatment of precancerous cervical lesions with thermal ablation.
- To provide the learner with the knowledge and skills needed to support the HPV testing of self-collection or provider collection of sample and, if indicated, thermal ablation treatment.
- To provide the learner with the knowledge needed to manage side effects or other problems related to the treatment of precancerous cervical lesions with thermal ablation.

Learning Objectives
By the end of this training course, the learner will be able to do the following:
- Describe key aspects to advancing cervical cancer prevention.
- Explain the pathophysiology and natural history of cervical cancer.
- Communicate information about HPV testing for cervical cancer screening and options for treatment, as needed, in clear and understandable language.
- Assess women for HPV testing and thermal ablation treatment.
- Counsel women on HPV testing of self-collection of sample and appropriately communicate HPV test results.
- Ensure follow-up care is provided to women, according to the HPV testing result and national protocol.
- Perform visual assessment of the cervix for treatment (VAT) for eligible women and make decision about necessary treatment and follow-up according to established protocols.
- Perform thermal ablation treatment and manage potential side effects and complications.
- Implement appropriate infection prevention practices related to HPV testing and thermal ablation.
- Demonstrate proper handling, storage, and maintenance of equipment, instruments, and supplies used for HPV testing and thermal ablation.
• Refer and link clients to other services.
• Actively register, analyze, and use data to track key performance indicators at sites and to inform necessary service course corrections to achieve targets defined for cervical cancer prevention.
• Apply quality standards and implement quality assurance mechanisms in cervical cancer prevention services and program.

**Learner Selection Criteria**
Participants for this training should be clinicians (physicians, nurses, or midwives) working in a health care facility (health center, clinic, or hospital) that provides or is able to provide cervical cancer prevention services.

**Learning Methods**
- Virtual training before the in-person course using e-Learning tools including interactive exercises to review cervical images
- Interactive sessions and group discussions
- Individual and group exercises (case studies, role play)
- Simulated practice with anatomic models
- Guided clinical practice with clients in health services

**Methods of Evaluation**

**Learner**
- Precourse Knowledge Assessment
- Final Course Knowledge Assessment
- Cervical Images Assessment
- Clinical Skills Assessment Using Checklists for HPV Testing and Thermal Ablation

**Course Evaluation**
All participants will complete the course evaluation at the end of training.

**Suggested Clinical Course Composition**
- 15 health care professionals (maximum)
- Three clinical trainers (one trainer for five participants)

**Note:** The number of participants and trainers will depend on the number of clients expected in the clinic (both normal and abnormal), the number of examining tables and availability of supplies and equipment (e.g., thermal ablation units). In general, no more than three participants can assess a client at any one time, and usually, no more than three clients can be seen per hour during clinical practice for screening, VAT, and treatment.
Learning Materials

- National cervical cancer prevention guidelines


- World Health Organization (WHO): WHO guidelines for the use of thermal ablation for cervical pre-cancer lesions. (2019) [https://apps.who.int/iris/handle/10665/329299](https://apps.who.int/iris/handle/10665/329299)


- Jhpiego Cervical Image CD-ROM – “Visual Inspection of Cervical Images: Interactive Training Tool” which includes interactive exercises and tools for learning and to evaluate visual capacity to identify cervical images

- Jhpiego Cervical Image Flash Cards [https://resources.jhpiego.org/system/files/resources/cecap_flashcards_0.pdf](https://resources.jhpiego.org/system/files/resources/cecap_flashcards_0.pdf)

- HPV self-sampling kit

- Thermal ablation device

- Monitoring and evaluation tools (registers, client card)
## Course Essential Content and Sessions

### Course Duration

- 5-day course for learners with no previous experience in providing cervical cancer prevention service using visual inspection with diluted acetic acid (VIA) and cryotherapy
- 3-day course for learners with experience in providing cervical cancer prevention services using VIA and cryotherapy

<table>
<thead>
<tr>
<th>Session #</th>
<th>Topic</th>
<th>Average Duration</th>
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<tbody>
<tr>
<td><strong>Session 1</strong></td>
<td><strong>Advancing Cervical Cancer Prevention</strong></td>
<td><strong>30 min</strong></td>
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<tr>
<td></td>
<td>• Cervical cancer as a public health problem</td>
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<td></td>
<td>• Considerations on principles and key approaches to advance cervical cancer prevention</td>
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<td>• Strategic interventions for elimination of cervical cancer</td>
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<td>• Country situation and plans on cervical cancer prevention</td>
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<tr>
<td><strong>Session 2</strong></td>
<td><strong>Overview on Cervical Cancer</strong></td>
<td><strong>30–60 min</strong></td>
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<tr>
<td></td>
<td>• Anatomy and physiology of the female reproductive system</td>
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<td>• Pathophysiology and natural history of cervical cancer</td>
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<td>• HPV and HIV infection and cervical cancer</td>
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<td>• Risk factors for developing cervical cancer</td>
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<td><strong>Session 3</strong></td>
<td><strong>HPV Testing as an Effective Method of Screening</strong></td>
<td><strong>60 min</strong></td>
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<td></td>
<td>• General consideration for cervical cancer screening</td>
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<td></td>
<td>• Populations that need to be screened, recommended ages for screening, and frequency of screening</td>
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<td>• HPV testing for cervical cancer screening</td>
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<td>• Essential supplies for HPV testing</td>
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<td></td>
<td>• Collection of sample for HPV testing (self or provider collection)</td>
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<td></td>
<td>• The process for storage and transportation of HPV test samples</td>
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<td>• How the HPV tests will be processed and results provided</td>
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<td>• What a HPV test result, positive or negative, means</td>
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<td><strong>Session 4</strong></td>
<td><strong>Counseling Women for HPV Testing Screening</strong></td>
<td><strong>30–60 min</strong></td>
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<tr>
<td></td>
<td>• The characteristics of a good counselor</td>
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<td>• Techniques for counseling women on sexual health matters, such as HPV infection and testing</td>
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<td>• The key points to convey about HPV infection, HPV testing, and cervical cancer prevention</td>
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<td>• General information about pre- and post-counseling for HPV testing</td>
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<td>• Giving women instructions on HPV testing using self-sampling</td>
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<td>• Demonstrate to women how to self-collect samples for HPV testing</td>
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<td>• How and what to communicate to women about their HPV test result</td>
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<tr>
<td>Session 5</td>
<td>Thermal ablation treatment for cervical precancer lesions</td>
<td>90 min</td>
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<td>• Communicating HPV test results to women and potential options for treatment and follow-up</td>
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<td>• Screen-and-treat algorithm, ensuring single visit approach when possible</td>
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<td>• Visual assessment of the cervix for treatment (VAT) and its purpose</td>
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<td>• Treatment/management options</td>
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<td>• General information on thermal ablation procedure</td>
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<td>• Eligibility criteria for thermal ablation</td>
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<td>• Pre-/post-counseling of clients for thermal ablation</td>
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<td></td>
<td>• The thermal ablation technique</td>
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<td>• Demonstration on how to perform the thermal ablation procedure</td>
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<td></td>
<td>• Manage clients presenting with side effects or complications post-thermal ablation treatment</td>
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<td>• Link and refer clients to other services</td>
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<tr>
<td>Session 6</td>
<td>Essential Infection Prevention Practices</td>
<td>30–40 min</td>
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<td></td>
<td>• How/what is the risk in health care work</td>
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<td>• Maintenance of a safe environment</td>
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<td>• Personal protection and hand hygiene</td>
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<td>• Instrument processing and storage</td>
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<td>• Waste disposal and safe workplace</td>
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<td>Session 7</td>
<td>Monitoring and Evaluation</td>
<td>60–90 min</td>
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<td></td>
<td>• Explain key performance indicators for cervical cancer prevention</td>
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<td>• Data collection system and clinical reporting forms</td>
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<td>• How to completely fill the data collection tools, including laboratory forms to ensure patient follow-up and program monitoring</td>
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<td>• Manage data according to monitoring and evaluation standards</td>
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<td>• How to use data to inform necessary service course corrections</td>
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<tr>
<td>Session 8</td>
<td>Planning for the Introduction of HPV Testing and Thermal Ablation at health service</td>
<td>40–60 min</td>
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<tr>
<td>Session 9</td>
<td>Demonstration and Practice with Anatomic Model</td>
<td>4–8h</td>
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<tr>
<td>Session 10</td>
<td>Guided Clinical Practice with Client</td>
<td>12–16h</td>
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# Course Schedule – 5 Day Training
*(For learners with no previous experience in providing cervical cancer prevention service)*

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<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
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<tr>
<td>AM (4 hours) Introductory Activities</td>
<td>AM (4 hours) Recap and Day Agenda</td>
<td>AM (4 hours) Welcome to the Clinic and Plan for the Day</td>
<td>AM (4 hours) Welcome and Plan for the Day</td>
<td>AM (4 hours) Welcome and Plan for the Day</td>
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<tr>
<td><em>Welcome, introductions and opening remarks</em>&lt;br&gt;<em>Course overview: goal and objectives, materials, schedule, instructions for action plan preparation</em>&lt;br&gt;<em>Expectations and group norms</em>&lt;br&gt;<em>Initial knowledge assessment</em>&lt;br&gt;<em>Identify individual and group learning needs</em>&lt;br&gt;&lt;strong&gt;Session 1:&lt;/strong&gt; Advancing Cervical Cancer Prevention&lt;br&gt;&lt;strong&gt;Session 2:&lt;/strong&gt; Overview of Cervical Cancer&lt;br&gt;&lt;strong&gt;Session 3:&lt;/strong&gt; HPV Testing as an Effective Method of Screening</td>
<td><em>Session 6: Essential Infection Prevention Practices</em>&lt;br&gt;<em>Session 7: Monitoring and Evaluation</em>&lt;br&gt;&lt;strong&gt;Small Group:&lt;/strong&gt; Practice with Anatomic Model&lt;br&gt;&lt;strong&gt;Group 1:&lt;/strong&gt; Counseling&lt;br&gt;&lt;strong&gt;Group 2:&lt;/strong&gt; HPV test sample collection + VIA/VAT&lt;br&gt;&lt;strong&gt;Group 3:&lt;/strong&gt; VAT/thermal ablation using anatomic model and checklist</td>
<td><em>Group Education</em>&lt;br&gt;&lt;strong&gt;Clinical Practice:&lt;/strong&gt; Observe and provide services in the clinic under supervision:&lt;br&gt;  - Counseling&lt;br&gt;  - HPV testing&lt;br&gt;  - Thermal ablation&lt;br&gt;  - Documentation</td>
<td><em>Group Education</em>&lt;br&gt;&lt;strong&gt;Clinical Practice:&lt;/strong&gt; Observe and provide services in the clinic under supervision:&lt;br&gt;  - Counseling&lt;br&gt;  - HPV testing&lt;br&gt;  - Thermal ablation&lt;br&gt;  - Documentation</td>
<td><em>Group Education</em>&lt;br&gt;&lt;strong&gt;Clinical Practice:&lt;/strong&gt; Observe and provide services in the clinic under supervision:&lt;br&gt;  - Counseling&lt;br&gt;  - HPV testing&lt;br&gt;  - Thermal ablation&lt;br&gt;  - Documentation</td>
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<td><strong>PM (3 hours)</strong></td>
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<td><strong>Warm-Up</strong></td>
<td><strong>Warm-Up</strong></td>
<td><strong>Continuation of Clinical Practice</strong></td>
<td><strong>Review of Clinical Practice</strong></td>
<td><strong>Action Plans Presentation and Discussion</strong></td>
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<tr>
<td><strong>Session 4: Counseling of Women for HPV Testing</strong></td>
<td><strong>Small Group (cont.)</strong></td>
<td><strong>Review of Clinical Practice</strong> (discuss clinical observation and additional practice on model as needed)</td>
<td><strong>Review of Clinical Practice</strong></td>
<td><strong>Course Evaluation</strong></td>
</tr>
<tr>
<td><strong>Session 5: Thermal Ablation Treatment</strong></td>
<td><strong>Group 1: Counseling</strong></td>
<td><strong>Review Cervical Images</strong></td>
<td><strong>Cervical Images Assessment</strong></td>
<td><strong>Closing and Award of Certificates</strong></td>
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<tr>
<td><strong>Small Group Activity:</strong> Demonstration and Practice with Anatomic Model</td>
<td><strong>Group 2: HPV test sample collection + VIA/VAT</strong></td>
<td><strong>Mid-Course Knowledge Assessment</strong></td>
<td><strong>Mid-Course Assessment Result</strong></td>
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<tr>
<td><strong>Group 1: Counseling</strong></td>
<td><strong>Group 3: VAT/thermal ablation using anatomic model and checklist</strong></td>
<td><strong>Wrap-Up and Closing</strong></td>
<td><strong>Wrap-Up and Closing</strong></td>
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<td><strong>Group 2:</strong> HPV test sample collection + VIA/VAT</td>
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<td><strong>Group 3:</strong> VAT/thermal ablation</td>
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<td><strong>Small Group: Action plan preparation</strong></td>
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<tr>
<td><strong>Preparation for the Clinical Practice</strong></td>
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<tr>
<td><strong>Review of the Day/Plans for Tomorrow</strong></td>
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## Course Schedule – 3 Day Training
(For learners with previous experience in providing cervical cancer prevention service)

<table>
<thead>
<tr>
<th>AM (4 hours)</th>
<th>Introductory Activities</th>
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<tbody>
<tr>
<td>- Welcome, introductions, and opening remarks</td>
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<tr>
<td>- Course overview: goal and objectives, materials, schedule</td>
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<tr>
<td>- Expectations and group norms</td>
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<tr>
<td>- Precourse knowledge assessment</td>
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<tr>
<td>- Identify individual and group learning needs</td>
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</tbody>
</table>

### Session 1: Advancing Cervical Cancer Prevention
### Session 2: HPV Testing as an Effective Method of Screening
### Session 3: Counseling of Women for HPV Testing
### Session 4: Thermal Ablation Treatment

### AM (4 hours) Welcome to the Clinic and Plan for the Day

**Group Education**

**Clinical Practice**: Observe and provide services in the clinic under supervision:
- Counseling
- HPV testing
- Thermal ablation
- Documentation

### AM (4 hours) Welcome and Plan for the Day

**Group Education**

**Clinical Practice**: Observe and provide services in the clinic under supervision:
- Counseling
- HPV testing
- Thermal ablation
- Documentation

### Review of Clinical Practice

### LUNCH

### PM (3 hours) Warm-Up

**Session 5**: Key Monitoring and Evaluation Practices

**Small Group Activity**: Demonstration and Practice with Anatomic Model

**Group 1**: Counseling

**Group 2**: HPV test sample collection + VIA/VAT

**Group 3**: VAT/thermal ablation

### Preparation for Clinical Practice

### Review of the Day/Plans for Tomorrow

### LUNCH

### PM (3 hours) Continuation of clinical practice

**Review of Clinical Practice** (discuss clinical observation and additional practice on model as needed)

**Mid-Course Knowledge Assessment**

**Review of the Day/Plans for Tomorrow**

### LUNCH

### PM (3 hours) Result of Mid-Course Knowledge Assessment

**Discussion on how to incorporate HPV testing and thermal ablation into existing cervical cancer prevention services**

**Course Evaluation**

**Closing and Award of Certificates**

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**HPV Testing and Thermal Ablation Clinical Training: Facilitator Guide**

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11
## Precourse Knowledge Assessment

**Date:** ____________________  
**Code:** ____________________

**Instructions:**  
For items 1–20 below, tick in the correct column to mark each statement as true or false.

<table>
<thead>
<tr>
<th>Item</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cervical Cancer, HPV, and Risk Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Many distinct HPV genotypes exist, but only small subsets are oncogenic or “high-risk” and HPV type 16 is the most oncogenic.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>2. On the cervix, HPV tends to infect cells in the columnar epithelium of the endocervix, which is more vulnerable.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>3. In an HIV-positive woman, antiretroviral drugs improve her quality of life but cannot prevent progression of precancerous lesions to cancer.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>4. Most of the high-grade cervical squamous intraepithelial lesions regress and just a few of them will progress to cancer.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td><strong>Counseling</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The woman should be informed about the different types of HPV during counseling.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>6. During counseling, the woman should be told about the relationship between HPV and the risk of cervical cancer.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>7. Ablative treatment is 100% effective for the treatment of dysplasia, and the patient should receive this information during pre-treatment counseling.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td><strong>Infection Prevention</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The provider should wear a sterile cap and mask when performing thermal ablation treatment.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>9. After the procedure, thermal ablation handheld probes can be processed by chemical, high-level disinfection for 20 minutes.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td><strong>Screening – HPV Testing and VIA/VAT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. VIA/VAT is a procedure used to identify stages of cervical cancer and assess for treatment.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>11. To effectively prevent cervical cancer, any sexually active HIV-positive woman should have a cervical cancer screening with HPV testing every year.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>12. For HPV testing, there is high agreement between self- and provider-collected samples.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>13. HPV specimen should be stored and transported at 0 to 10 degrees.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>14. A woman who is HIV (negative), high-risk HPV (HrHPV) (positive), and VAT (negative) should be treated or rescreened in 1 year.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>Item</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Treatment and Follow-Up</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Thermal ablation and cryotherapy are practical, safe, and effective methods of treatment of cervical precancerous lesions.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>16. Thermal ablation is an ablative treatment that consists of applying a heated probe (60°C) for 2 minutes to the cervix to treat cervical precancer lesions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. It is important to administer small doses of anesthesia before the thermal ablation procedure to prevent pain.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Immediately after thermal ablation and cryotherapy, one of the follow-up warning signs includes fever.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Monitoring and Evaluation System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. The cervical cancer screening positivity rate among the population of HIV-positive women is around 5–25%.</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>20. It is a good data collection practice to complete your register at the end of each month.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Checklist for HPV Testing

Counseling women for HPV testing and providing instructions for the self-collection of sample, and performing provider collection of sample

*Checklist is to be used by the learner for practice and by the facilitator during the assessment.*

**Learner:** Use this tool to learn about and practice the correct steps needed to perform this clinical skill. Ask your colleagues to use this tool to follow along as you practice with anatomic models and gain experience with clients. Your colleagues should offer specific feedback using this tool to guide their observations.

**Facilitator:** Use this tool when the learner is ready for an assessment of competency of this clinical skill.

Rate the performance of each step or task performed using the following rating scale:

- ✓ = **Satisfactory:** Performs steps or tasks according to the standard procedure or guidelines
- X = **Unsatisfactory:** Unable to perform the steps or tasks according to the standard procedure or guidelines
- N/O = **Not observed:** Step, task, or skill not performed by learner during evaluation by trainer

## Checklist for HPV Testing

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate ✓, X or N/O)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Counseling on HPV testing and for self-collection of sample</strong></td>
<td></td>
</tr>
<tr>
<td>1. Welcome the woman respectfully and with kindness (greet her and offer a seat) and introduce yourself.</td>
<td></td>
</tr>
<tr>
<td>2. Ask about last normal menstrual period and family planning (determine possibility of pregnancy).</td>
<td></td>
</tr>
<tr>
<td>3. Find out how much the woman knows about HPV and HPV testing.</td>
<td></td>
</tr>
<tr>
<td>4. Explain HPV testing to the woman and how the sample can be collected (self-collection or provider collection).</td>
<td></td>
</tr>
<tr>
<td>5. Respond to the woman’s needs and concerns about the HPV testing. Encourage questions.</td>
<td></td>
</tr>
<tr>
<td>6. Determine that the woman has decided to have HPV test done. Obtain verbal informed consent.</td>
<td></td>
</tr>
<tr>
<td><strong>Counseling the woman for self-collection of sample</strong></td>
<td></td>
</tr>
<tr>
<td>1. Allow the woman to see and touch the HPV testing sample collection materials to reduce anxiety.</td>
<td></td>
</tr>
<tr>
<td>2. Explain how to proceed with the self-collection following the steps included in the related instructional material (HPV self-sampling instructions included at the end of this checklist).</td>
<td></td>
</tr>
</tbody>
</table>
### Checklist for HPV Testing

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate ✓, X or N/O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Give the woman the kit for self-collection of sample and respond to any questions or concerns she may have.</td>
<td></td>
</tr>
<tr>
<td><strong>Performing provider collection of sample as needed</strong></td>
<td></td>
</tr>
<tr>
<td>1. Confirm that the woman does not have the conditions needed to perform self-collection or opted for the provider collection of sample.</td>
<td></td>
</tr>
<tr>
<td>2. Check that she has emptied her bladder.</td>
<td></td>
</tr>
<tr>
<td>3. Ask her to remove her underwear or to undress from the waist down and wrap a sheet around herself, and assist her on to the examination table.</td>
<td></td>
</tr>
<tr>
<td>4. Arrange instruments and supplies on a clean tray.</td>
<td></td>
</tr>
<tr>
<td>5. Observe infection prevention principles: sanitize hands and put on two pairs of gloves.</td>
<td></td>
</tr>
<tr>
<td>6. Explain to the woman what you will do.</td>
<td></td>
</tr>
<tr>
<td>8. Perform bimanual examination.</td>
<td></td>
</tr>
<tr>
<td>9. Insert the speculum and fix blades so that entire cervix can be seen.</td>
<td></td>
</tr>
<tr>
<td>10. Move the light source so that the cervix can be seen clearly.</td>
<td></td>
</tr>
<tr>
<td>11. Check the cervix for cervicitis, ectropion, cancer, nabothian cysts, or ulcers and clean the cervix with a cotton swab. Dispose of the swab. If cancer is suspected, skip to step 14.</td>
<td></td>
</tr>
<tr>
<td>12. Obtain a sample from the cervix with the brush.</td>
<td></td>
</tr>
<tr>
<td>13. Place the brush in the vial.</td>
<td></td>
</tr>
<tr>
<td>14. Gently remove the speculum.</td>
<td></td>
</tr>
<tr>
<td>15. Place used speculum and instruments in a properly marked leakproof container (with tight-fitting lid) or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>16. Wipe the examination table, other equipment/instruments (e.g., the light source if contaminated) with 0.5% chlorine solution or alcohol.</td>
<td></td>
</tr>
<tr>
<td>17. Remove gloves and dispose of them in a hazardous waste bag.</td>
<td></td>
</tr>
<tr>
<td>18. Sanitize hands with alcohol-based sanitizer, or wash hands thoroughly with soap and water and dry with a paper towel or air dry.</td>
<td></td>
</tr>
</tbody>
</table>
## Checklist for HPV Testing

<table>
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<tr>
<th>Steps/Tasks</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Post-HPV testing sample collection tasks</strong></td>
<td></td>
</tr>
<tr>
<td>1. Label the collection container with the woman’s first name, second</td>
<td></td>
</tr>
<tr>
<td>name, and the identity number.</td>
<td></td>
</tr>
<tr>
<td>2. Write on the woman’s chart that the HPV sample was taken.</td>
<td></td>
</tr>
<tr>
<td>3. Instruct the woman about when to return to receive her test results.</td>
<td></td>
</tr>
<tr>
<td>4. Record the procedure and necessary follow-up in the woman’s record.</td>
<td></td>
</tr>
<tr>
<td>5. Counsel the women about possible result of test and potential</td>
<td></td>
</tr>
<tr>
<td>management, when result will be available and how result will be</td>
<td></td>
</tr>
<tr>
<td>communicated.</td>
<td></td>
</tr>
</tbody>
</table>
**HPV Self-Sampling Instructions**

**How to collect your sample**

Before you start, make sure that your kit has:

- A vial with liquid in it.
- Two plastic bags.

Next, follow these steps...

1. Wash your hands well and dry them.

2. Uncap the vial. **Do not pour the liquid out.** Save the lid.

3. Open the envelope with the brush in it. Remove the brush. Try not to touch the white brush tip with your hands.

   *Keep the envelope to put the used brush back in to be discarded.*

4. Stand, sit, or lie down in a comfortable position.

   Some women find it helpful to squat with their legs apart.

5. Relax and gently push the brush into your vagina until you feel resistance.
6. Turn the brush around 5 full times while it is high inside your vagina.

7. Slowly pull out the brush. **Try not to touch the white brush tip with your fingers.**

8. Thoroughly rinse the brush in the vial of fluid.

9. Place used brush back into its envelope and into one clear plastic bag (*not* with the vial) and close the bag.

10. Screw the cap on the vial tightly. Place the vial into the second clear plastic bag and close the bag.

**You are done!**

Please give the bag with the vial and the bag with the brush inside its envelope to the nurse.

Thank you!
HPV Testing Flow Chart

Health worker informs and educates women
- Complete laboratory request form
- Label the specimen container
- Enter details in the registers

Sample collection**
- Woman self-collect sample
- Health worker collects if client opts

** sample collection can be collected at facility or community

Packaging (facility or community)
- Check the samples and ensure the container is well closed
- Place container into a plastic zip-lock bag
- Place the request form in the second pocket of the plastic zip-lock bag
- Place the bag into a cooler box
- Enter details in the courier registers

Send samples to laboratory

HPV results received—give results to client

Inform client on positive result
- Arrange for her review at facility
- Give an appointment for visual assessment for treatment (VAT)

Inform client on negative result
- Give results and review after 3–5 years (pending HIV status)
- Give routine appointment date
**Checklist for VIA / VAT**

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<table>
<thead>
<tr>
<th>Checklist for VIA / VAT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steps/Tasks</strong></td>
<td><strong>Cases (Rate ✓, X or N/O)</strong></td>
</tr>
<tr>
<td><strong>Pre VIA / VAT Counseling</strong></td>
<td></td>
</tr>
<tr>
<td>1. Welcome the woman respectfully and with kindness (greet her and offer a seat) and introduce yourself.</td>
<td></td>
</tr>
<tr>
<td>2. If counseling not done, counsel patient prior to performing pelvic examination and VIA/VAT.</td>
<td></td>
</tr>
<tr>
<td>3. Assess woman’s knowledge about VIA/VAT test.</td>
<td></td>
</tr>
<tr>
<td>4. Describe the procedure and what to expect.</td>
<td></td>
</tr>
<tr>
<td>5. Respond to the woman’s needs and concerns about the VIA/VAT test. Encourage questions.</td>
<td></td>
</tr>
<tr>
<td>6. Determine that the woman has decided to have VIA/VAT test done. Obtain verbal informed consent.</td>
<td></td>
</tr>
<tr>
<td><strong>Getting Ready</strong></td>
<td></td>
</tr>
<tr>
<td>1. Check that instruments, supplies, and light source are available and ready for use.</td>
<td></td>
</tr>
<tr>
<td>2. Check that the woman has emptied her bladder and washed and rinsed her genital area if necessary.</td>
<td></td>
</tr>
<tr>
<td>3. Have the woman undress from the waist down. Help her get on to examining table and drape her.</td>
<td></td>
</tr>
</tbody>
</table>
### Checklist for VIA / VAT

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Observe infection prevention principles: sanitize hands and put on two pairs of gloves.</td>
<td></td>
</tr>
<tr>
<td>5. Arrange instruments and supplies on high-level disinfected tray or container.</td>
<td></td>
</tr>
</tbody>
</table>

#### Performing the Visual Inspection with Acetic Acid

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inspect external genitalia for vulvar lesions, lichen sclerosus, infectious disorders.</td>
<td></td>
</tr>
<tr>
<td>2. Perform the bimanual examination.</td>
<td></td>
</tr>
<tr>
<td>3. Explain to the woman what you will do and insert speculum and fix blades so that entire cervix can be seen.</td>
<td></td>
</tr>
<tr>
<td>4. Move light source so cervix can be seen clearly.</td>
<td></td>
</tr>
<tr>
<td>5. Check the cervix for cervicitis, ectropion, tumors, nabothian cysts, or ulcers and clean cervix with cotton swab if necessary. Dispose of swab. If cancer is suspected, skip to step 10.</td>
<td></td>
</tr>
<tr>
<td>6. Identify the cervical os, SCJ, and transformation zone.</td>
<td></td>
</tr>
<tr>
<td>7. Apply 3–5% acetic acid to cervix and wait 1 minute. Dispose of swab.</td>
<td></td>
</tr>
<tr>
<td>8. Check if cervix bleeds easily. Check for any raised and thickened white plaques or acetowhite epithelium.</td>
<td></td>
</tr>
<tr>
<td>9. Remove any remaining acetic acid from the cervix and vagina with a swab. Dispose of swab.</td>
<td></td>
</tr>
<tr>
<td>10. Analyze the VIA/VAT result (positive or negative) and proceed accordingly.</td>
<td></td>
</tr>
<tr>
<td>- If there is need for ablative treatment and the women is already counseled and consents, proceed with the ablative treatment OR if the woman is not ready, gently remove the speculum, place it on tray or container and proceed with counseling and preparation for the ablative treatment</td>
<td></td>
</tr>
<tr>
<td>- If there is no need for treatment of treatment will not be conducted immediately, gently remove the speculum.</td>
<td></td>
</tr>
</tbody>
</table>

#### Post-VIA Tasks

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Check if the woman is well and have her get dressed.</td>
<td></td>
</tr>
<tr>
<td>2. Place used speculum and instruments in a properly marked leakproof container (with tight-fitting lid) or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>3. Wipe the examination table, other equipment/instruments (e.g., the light source if contaminated) with 0.5% chlorine solution or alcohol.</td>
<td></td>
</tr>
<tr>
<td>4. Remove gloves and dispose of them in a hazardous waste bag.</td>
<td></td>
</tr>
</tbody>
</table>
### Checklist for VIA / VAT

<table>
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<tr>
<th>Steps/Tasks</th>
<th>Cases [Rate ✓, X or N/O]</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Wash hands thoroughly with soap and water and dry with a paper towel or air dry, or sanitize hands with alcohol-based sanitizer.</td>
<td></td>
</tr>
</tbody>
</table>

### Post-VIA/VAT Counseling

1. Discuss the results of pelvic examination and VIA/VAT test with woman, make necessary recommendation and answer any questions.

2. Assure woman that she can return for advice or medical attention at any time.

3. Provide follow-up instructions.

4. Record the procedure and necessary follow-up in the woman’s record.
# Checklist for Thermal Ablation Treatment

*Checklist to be used by the learner for practice and by the facilitator during assessment.*

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<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate ✓, X or N/O)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Counseling and getting ready for thermal ablation treatment</strong></td>
<td></td>
</tr>
<tr>
<td>1. Greet the woman respectfully and with kindness and introduce yourself.</td>
<td>✓</td>
</tr>
<tr>
<td>2. Ask about last normal menstrual period and family planning method (exclude possibility of pregnancy).</td>
<td>✓</td>
</tr>
<tr>
<td>3. Find out how much the woman knows about treatment of cervical lesion.</td>
<td>✓</td>
</tr>
<tr>
<td>4. Explain the thermal ablation treatment.</td>
<td>✓</td>
</tr>
<tr>
<td>5. Respond to the woman’s needs and concerns about the treatment. Encourage questions.</td>
<td>✓</td>
</tr>
<tr>
<td>6. Determine that the woman has agreed to have thermal ablation treatment done. Obtain informed consent.</td>
<td>✓</td>
</tr>
<tr>
<td>7. Check that instruments and supplies are available.</td>
<td>✓</td>
</tr>
<tr>
<td>8. Ensure that the light source is available and ready to use.</td>
<td>✓</td>
</tr>
<tr>
<td>9. Check that thermal ablation instrument is ready to use (electricity/battery).</td>
<td>✓</td>
</tr>
<tr>
<td>10. Check that the woman has emptied her bladder.</td>
<td>✓</td>
</tr>
<tr>
<td>11. Ask her to remove her underwear or to undress from the waist down and wrap a sheet around herself, and assist her onto the examination table.</td>
<td>✓</td>
</tr>
<tr>
<td>12. Wash hands thoroughly with soap and water and dry with clean, dry cloth or air dry.</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Checklist for Thermal Ablation Treatment

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate √, X or N/O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Put two pairs of new examination gloves on both hands.</td>
<td></td>
</tr>
<tr>
<td>14. Arrange instruments and supplies on sterile or high-level disinfected trolley, if not already done.</td>
<td></td>
</tr>
<tr>
<td>15. Perform bimanual and speculum examination.</td>
<td></td>
</tr>
<tr>
<td>16. Perform VIA/VAT to confirm presence, size, location of lesion (determine eligibility for thermal ablation).</td>
<td></td>
</tr>
<tr>
<td><strong>Performing thermal ablation treatment</strong></td>
<td></td>
</tr>
<tr>
<td>1. Connect the power plug into the power supply.</td>
<td></td>
</tr>
<tr>
<td>2. Make sure that the power button shows a green light. Then press the heating ON/OFF button in order to activate the heating (a green light is blinking during the heating of the thermo-probe. When the blinking stops, the distal end of thermo-probe has reached the treatment temperature and shows a constant green LED light).</td>
<td></td>
</tr>
<tr>
<td>3. Test the device: Turn on timer by pressing the timer button and wait for around 60 seconds. (Blue LED light is illuminated and a single beep sound occurs. The blue LED light goes off and a double beep sound occurs. There will be three sequential beeps, with the last being a double beep sound. Device is ready to use.)</td>
<td></td>
</tr>
<tr>
<td>4. Make sure the green led light of the heating button is illuminated constantly.</td>
<td></td>
</tr>
<tr>
<td>5. Move slider into the frontal position ensuring that the hot probe tip is protected.</td>
<td></td>
</tr>
<tr>
<td>6. Introduce the thermal ablation probe into the vagina while holding the slider in position.</td>
<td></td>
</tr>
<tr>
<td>7. Place slider on to desired area trying to cover lesion and the transformation zone. Retract slider at the handle to allow contact between thermo-probe and tissue.</td>
<td></td>
</tr>
<tr>
<td>8. Gently press handle forward to ensure good contact between thermo-probe and tissue.</td>
<td></td>
</tr>
<tr>
<td>9. Press timer button until a single beep sound occurs (blue led light flashing indicating timer has been activated).</td>
<td></td>
</tr>
<tr>
<td>10. Hold device in position until the timer stops (there will be three beeps at first at 30 seconds, then at 45 seconds, then last double beep sound at 60 seconds Double beep sound is heard, and blue led light stops flashing.).</td>
<td></td>
</tr>
<tr>
<td>11. Move slider forward to detach probe from the cervix. Remove probe from vagina with slider in the frontal position.</td>
<td></td>
</tr>
<tr>
<td>12. Switch off by pressing the heating button. Disconnect from power supply and place the thermo-probe unit on the stand to cool down for 1 minute.</td>
<td></td>
</tr>
</tbody>
</table>
### Checklist for Thermal Ablation Treatment

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate ✓, X or N/O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Inspect cervix for bleeding. If there is bleeding, apply pressure to area using clean cotton swab. Dispose of swab in a leakproof container or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>14. Gently remove the speculum and place used speculum and instruments in a properly marked leakproof container (with tight-fitting lid) or plastic bag.</td>
<td></td>
</tr>
</tbody>
</table>

**Post-thermal ablation treatment tasks**

1. Provide post-treatment instructions and follow-up to the client.
2. Detach thermo-probe from handle and clean/wipe down handle with alcohol.
3. Clean probe and shaft with soapy water and gauze.
4. Soak chemical high-level disinfectant handheld probes in chemical disinfectant (2–4% glutaraldehyde for 20 minutes) or (ortho-phthalaldehyde 0.55%/ortho-phthalaldehyde for 12 minutes).
5. Rinse with sterile or boiled water and dry the probes with sterile cloth.
6. Cover the probe and store in high-level disinfectant or sterile container for the next treatment.
7. Wipe the examination table, other equipment/instruments (e.g., the light source if contaminated) with 0.5% chlorine solution or alcohol.
8. Remove gloves and dispose of them in a hazardous waste bag.
9. Wash hands thoroughly with soap and water and dry with a paper towel or air dry, or sanitize hands with alcohol-based sanitizer.
10. Record the procedure and necessary follow-up in the woman’s record.

* Using Wisap Thermal Ablation device
# Action Plan Template

<table>
<thead>
<tr>
<th>AREA/OBJECTIVE</th>
<th>ACTIVITIES</th>
<th>RESOURCE NEEDED</th>
<th>DEADLINE</th>
<th>PERSON/S RESPONSIBLE</th>
<th>NOTES/COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Goal: __________________________________________ Facility Name: __________________________

---

HPV Testing and Thermal Ablation Clinical Training: Facilitator Guide 26
# Training Course Evaluation

Please rate each statement below according to the following scale:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>3</td>
<td>No opinion</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Rating (circle one)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The objectives of the training were achieved.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The training interactive presentation sessions were useful for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>my understanding about HPV testing screening and thermal ablation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for cervical cancer prevention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sufficient time was allocated for each activity (interactive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>presentations, practicing with models, working as a group, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>counseling) during the training.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The total time allotted for the training was sufficient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The venue selected for the training was adequate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The training overall had good logistics and organization, with</td>
<td></td>
<td></td>
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<tr>
<td>food even provided.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I am now confident to support the introduction of HPV testing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and thermal ablation for cervical cancer prevention.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What did you **enjoy** most about the training?

How could the training be **improved**? (Please use the back of this page to complete your responses if necessary.)

*Thank you for completing this evaluation!*
Cervical Cancer Prevention
HPV Testing and Thermal Ablation Clinical Course

SECTION TWO: GUIDE FOR FACILITATORS
Course Sessions Plans

The course lesson plans are presented here as a model plan of the training to be delivered. The model plan presents topics for presentations and supporting activities needed to accomplish the learner learning objectives. For each topic or activity, there are suggestions regarding appropriate learning activities and resources and materials needed. The facilitator may develop other practice activities and prepare case studies, role plays, or other learning situations that are specific to the country or group of learners.

The course sessions plans are divided into four columns.

Time
This section of the lesson plans indicates the approximate amount of time to be devoted to each learning activity.

Remember: There are two versions of the Model Course Schedule and Lesson Plans presented in this package: a 5-day version and a 3-day version. Both versions of the course are designed to prepare the learner to become competent in performing HPV testing and thermal ablation. However, the 3-day course is more streamlined and may be more practical in situations where learners already have previous experience in providing cervical cancer prevention services using other methods for screening and treatment.

Topics/Activities
This column lists the presentation topics and learning activities. Because the presentation topics outline the sequence of training, the topics are presented here in order. The combination of the topics and activities (e.g., introductory activities, small-group exercises, clinical practice, breaks) outlines the flow of training.

Training/Learning Methods
This column describes the various methods, activities, and strategies to be used to deliver the content and skills related to each topic.

Resources/Materials
The fourth column in the course outline lists the resources and materials needed to support the learning activities.

Note that the course lesson plans is based on the course schedule and that changes or modifications to one should be reflected in the other. The following course lesson plans is for a 5-day course schedule. If needed, it can be adjusted for a 3-day course schedule.
## Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPICS/ACTIVITIES</th>
<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Day 1, AM (4 hours)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 min</td>
<td><strong>Activity:</strong> Welcome and opening remarks</td>
<td>Welcome by representatives of the organization(s) sponsoring the training course.</td>
<td></td>
</tr>
<tr>
<td>20 min</td>
<td><strong>Activity:</strong> Facilitate introductions of participants and identify learner</td>
<td>Participants divide into pairs, interview, and then introduce each other sharing their</td>
<td>Flip chart: To record learner expectations. Attach the flip chart page</td>
</tr>
<tr>
<td></td>
<td>expectations</td>
<td>partner’s name, position, unique characteristics and expectations. The clinical trainers</td>
<td>to the wall for reference.</td>
</tr>
<tr>
<td>15 min</td>
<td><strong>Activity:</strong> Provide an overview of the course: Goal &amp;</td>
<td>Review the course syllabus and schedule. Discuss course goals, learner learning</td>
<td>Course equipment and materials: Reference manuals, Learner Guide</td>
</tr>
<tr>
<td></td>
<td>objectives, Materials, Schedule, Instructions for Action Plan preparation</td>
<td>objectives, and schedule. Distribute, review, and discuss materials used in this course.</td>
<td>and other relevant training materials</td>
</tr>
<tr>
<td>5 min</td>
<td><strong>Activity:</strong> Identify group norms</td>
<td>Brainstorm on group norms. Record their responses on the flip chart. Attach the flip</td>
<td>Flip chart: To record group norms. Attach it to the wall for reference.</td>
</tr>
<tr>
<td>30 min</td>
<td><strong>Activity:</strong> Assess participants’ precourse knowledge</td>
<td>chart page to the wall for reference throughout the course.</td>
<td>Handbook: Initial Knowledge Assessment form</td>
</tr>
<tr>
<td>30 min</td>
<td><strong>SESSION 1: Advancing cervical cancer prevention</strong></td>
<td>Brainstorm on what the country has been doing to reduce cervical cancer. Conduct</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>interactive presentation including the following:</td>
<td>Session 1 PPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cervical cancer as a public health problem</td>
<td>Computer and projector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consideration of principles and key approaches to advance cervical cancer prevention</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CECAP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strategic interventions for elimination of cervical cancer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Country situation and plans for CECAP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Open discussion and summary: Highlight key strategic interventions to advancing CECAP</td>
<td></td>
</tr>
<tr>
<td>15 min</td>
<td><strong>BREAK</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

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<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 min</td>
<td><strong>Activity:</strong> Identify learning needs</td>
<td>Group grades Initial Knowledge Assessment, completes Individual and Group Assessment Matrix.</td>
<td>Assessment Matrix Pretest Answer Key</td>
</tr>
</tbody>
</table>
| 50 min | **SESSION 2:** Overview on cervical cancer | Interactive presentation using graphics and flip charts. Main topics covered in this session are:  
- Anatomy and physiology of the female reproductive system—a game can be used: Prepare stickers with the names of the parts of genitalia, the female reproductive organ, and the cervix. Ask the learners to stick the label on the correct part. Ask the learner to explain the part and its function. Summarize anatomy with key points on the parts of the cervix  
- Pathophysiology and natural history of cervical cancer  
- HPV and HIV infection and cervical cancer  
- Risk factors for developing cervical cancer  
Exercise using VIA atlas and cervical images flash cards  
Question and answer (Q&A) | Flip chart and markers Session 2 PPT Computer and projector VIA atlas and cervical images flash cards |
| 50 min | **SESSION 3:** HPV testing as an effective method of screening | Interactive presentation using graphics and flip charts. Main topics covered in this session are:  
- General consideration on cervical cancer screening  
- Recommended ages and frequency for screening  
- HPV testing: self or provider collection, how the tests will be processed and results provided  
- Storage and transportation of HPV test samples  
- What an HPV test result, positive or negative, means  
Question and answer (Q&A) | Flip chart and markers Session 3 PPT Computer and projector HPV testing kit |
## Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
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<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1, PM (3 hours)</td>
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<tr>
<td>5 min</td>
<td><strong>Warm-Up</strong></td>
<td>One learner plans and conducts an energizing and interactive activity or warm-up</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Session 4 PPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Computer and projector</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VIA atlas and information, education, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>communications materials</td>
</tr>
<tr>
<td>35 min</td>
<td><strong>SESSION 4: Counseling of women for HPV testing</strong></td>
<td>Brainstorm on characteristics of a good counselor</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interactive presentation including the following:</td>
<td>Session 4 PPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Techniques for counseling</td>
<td>Computer and projector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The key points to convey information about HPV infection, HPV testing, and CECAP</td>
<td>VIA atlas and information, education, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• General information on pre- and post-counseling</td>
<td>communications materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Instructions on HPV testing of self-collection of sample</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Communicating HPV test results to women and potential options for treatment and follow-up</td>
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<td></td>
<td></td>
<td>Demonstration of Counseling for HPV Testing</td>
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<td></td>
<td></td>
<td>Open discussion</td>
<td></td>
</tr>
<tr>
<td>60 min</td>
<td><strong>SESSION 5: Thermal ablation treatment</strong></td>
<td>Interactive presentation using graphics. Main topics covered in this session are:</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Screen-and-treat algorithm</td>
<td>Session 5 PPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• VAT and its purpose</td>
<td>Computer and projector</td>
</tr>
<tr>
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<td></td>
<td>• Treatment/management options</td>
<td>Thermal ablation unit</td>
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<td></td>
<td>• General information on thermal ablation procedure</td>
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<td></td>
<td>• Pre-/post-counseling of clients for thermal ablation</td>
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<td></td>
<td>• The thermal ablation technique</td>
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<td></td>
<td>• Manage clients presenting with side effects or complications post-thermal ablation</td>
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<td></td>
<td></td>
<td>treatment</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Demonstration of thermal ablation procedure</td>
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<td></td>
<td></td>
<td>Question and answer (Q&amp;A)</td>
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</tbody>
</table>
# Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPICS/ACTIVITIES</th>
<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| 80 min | **Small Group Activity**          | Demonstration and Practice with anatomic model  
Group 1: Counseling  
Group 2: HPV test sample collection + VIA/VAT  
Group 3: VAT/thermal ablation | Flip chart and markers  
Equipment and needed materials for practical training stations  
Checklist |
| 10 min | **Summary of the Day/Plans for Tomorrow** | Involve participants in review and discussion of the topics and events covered during the day.  
Review assignments listed in the course schedule. | |
|        | **Day 2, AM (4 hours)**           |                                                                                          |                                                |
| 10 min | **Activity: Recap and day agenda** | Participants use the course schedule to develop the agenda on the flip chart and present it.  
One or more of the participants plans and conducts an opening activity or warm-up. | Course schedule  
Flip chart and markers |
| 60 min | **SESSION 6: Essential infection prevention practices** | Brainstorm on what health care providers have been doing to prevent infection in the provision of health care.  
Interactive presentations include the following:  
• How/what is the risk in provision of health care?  
• Maintenance of a safe environment  
• Personal protection and hand hygiene  
• Instrument processing and storage  
• Waste disposal and safe workplace  
Demonstration of key CECAP service infection prevention practices  
Open discussion | Flip chart and markers  
Session 6 PPT  
Computer and projector  
Equipment and needed materials for infection prevention demonstration |
| 20 min | **Break**                         |                                                                                          |                                                |
### Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

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<tr>
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<th>TOPICS/ACTIVITIES</th>
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</tr>
</thead>
</table>
| 90 min | **SESSION 7: Monitoring and evaluation** | Brainstorm on what the country has been doing to reduce cervical cancer. Interactive presentations include the following:  
- Explain key performance indicators for CECAP  
- Data collection system and clinical reporting forms  
- How to completely fill out the data collection tools, including laboratory forms  
- Manage data according to monitoring and evaluation standards  
- How to use data to inform decisions  
- Open discussion  
  Activity: Completion of the screening forms:  
- Divide the participants into small groups  
- Give each group a case study and a blank screening form  
- Ask the groups to read the case study and then use the information to complete the screening form  
- Move the groups around and guide them as they complete the tool  
- Talk about their experiences in completing the form  
- Highlight the importance of complete, accurate, and reliable data  
  Activity: Data use poster  
Using completed monthly summary form, participants calculate key performance indicators  
Learners map key indicators on the data use poster  
Summary: Highlight the importance of using data for program improvement | Flip chart and markers  
Session 7 PPT  
Computer and projector  
Monitoring and evaluation tools  
Flip chart prepared in advance with case studies  
Screening form  
Monthly summary  
Data use poster |
| 60 min | **Small Group Activity**            | Demonstration and practice with anatomic model  
**Group 1: Counseling**  
**Group 2: HPV test sample collection + VIA/VAT**  
**Group 3: Thermal ablation procedure** | Flip chart and markers  
Equipment and needed materials for practical training stations and checklists |
## Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

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<td><strong>Day 2, PM (3 hours)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 min</td>
<td>Warm-Up</td>
<td>Energizing and interactive activity</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td>90 min</td>
<td>Small Group Activity</td>
<td>Demonstration and Practice with anatomic model</td>
<td>Equipment and needed materials for stations</td>
</tr>
<tr>
<td></td>
<td><strong>Group 1</strong>: Counseling</td>
<td></td>
<td>Checklists</td>
</tr>
<tr>
<td></td>
<td><strong>Group 2</strong>: HPV test sample collection + VIA/VAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Group 3</strong>: Thermal ablation procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 min</td>
<td>Small Group Activity</td>
<td>Action plan preparation</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td></td>
<td><strong>Action plan template</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 min</td>
<td><strong>Preparation for the Clinical Practice</strong></td>
<td>Clinical trainer facilitates group discussion of norms and conduct of participants during clinical practice. Only participants who demonstrated competence in performing procedures on models and counseling in role plays will be allowed to begin providing services with clients under supervision.</td>
<td>Flip chart and markers</td>
</tr>
<tr>
<td>10 min</td>
<td><strong>Review of the Day/Plans for Tomorrow</strong></td>
<td>Summary of the day and preparation for the next day</td>
<td></td>
</tr>
<tr>
<td><strong>Day 3, AM (4 hours)</strong></td>
<td></td>
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</tr>
<tr>
<td>240 min</td>
<td><strong>Activity</strong>: Clinical practice</td>
<td>Welcome to the Clinic and Plan for the Day</td>
<td>Checklists</td>
</tr>
<tr>
<td></td>
<td>Clinical trainers will divide the group into smaller groups. Each group will take turns rotating in the clinic for assigned clinical practice. Some participants can continue to practice on models or accompany another clinical trainer to a separate clinic location. Participants observe the clinical trainer or assist in performing the following activities using checklists:</td>
<td>EPI</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Group education</td>
<td>Cervical VIA atlas and Flash card</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Counseling</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Support women for HPV testing collection of sample</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Thermal ablation treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Documentation</td>
<td></td>
</tr>
</tbody>
</table>
## Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
<thead>
<tr>
<th>TIME</th>
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<th>RESOURCES</th>
</tr>
</thead>
</table>
| Day 3, PM  | **Activity:** Continuation of clinical practice | Participants observe the clinical trainer or assist in performing the following activities using checklists:  
- Group education  
- Counseling  
- Support women for HPV testing collection of sample  
- Thermal ablation treatment  
- Documentation | Checklists  
EPI  
Cervical VIA atlas |
| 90 min     | **Review of Clinical Practice and Cervical Images** | Discuss clinical observation, revise service data from the day, and provide opportunity for the revision of cervical images and additional practice on anatomic model as needed. | Cervical VIA flash card |
| 35 min     | **Mid-Course Knowledge Assessment** | Give each learner a copy of the Mid-Course Knowledge Assessment and answer sheet. Review the instructions printed on the form. | Copies of the Mid-Course Knowledge Assessment and answer sheet |
| 30 min     | **Wrap-Up and Closing/Plans for Tomorrow** | Summary of the day and preparation for the next day | |
| 10 min     |                                         |                                                                                           |                            |
## Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPICS/ACTIVITIES</th>
<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 4, AM (4 hours)</td>
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</table>
| 240 min | **Activity:** Clinical practice | Welcome to the Clinic and Plan for the Day  
Participants divided into small groups will continue to take turns rotating in the clinic for assigned clinical practice.  
• Participants under clinical trainer supervision will assist in performing the following activities using checklists:  
  • Group education  
  • Counseling  
  • Support women for HPV testing collection of sample  
  • Thermal ablation treatment  
  • Documentation | Checklists  
EPI  
Cervical VIA atlas and Flash card |
| Day 4, PM (3 hours) | | | |
| 90 min | **Activity:** Continuation of clinical practice | Participants under clinical trainer supervision will continue to assist in performing the following activities using checklists:  
  • Group education  
  • Counseling  
  • Support women for HPV testing collection of sample  
  • Thermal ablation treatment  
  • Documentation | Checklists  
EPI  
Cervical VIA atlas and Flash card |
| 30 min | **Review of Clinical Practice** | Discuss clinical observation and revise service data from the day. | |
### Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
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<tr>
<th>TIME</th>
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<th>RESOURCES</th>
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</thead>
<tbody>
<tr>
<td>30 min</td>
<td>Cervical Images Assessment</td>
<td>Distribute copies of the Mid-Course Image Assessment answer sheet. Clinical trainer will</td>
<td>Image assessment answer sheet</td>
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<td></td>
<td></td>
<td>show Mid-Course Questionnaire Image Assessment to participants. Clinical trainer will</td>
<td>Cervical image CD-ROM</td>
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<td></td>
<td></td>
<td>review the results of the assessment with participants. Those not scoring at least 80%</td>
<td>Mid-Course Image Assessment Answer Key</td>
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<tr>
<td></td>
<td></td>
<td>will have an opportunity to review images they have identified incorrectly and repeat</td>
<td>and Individual Assessment Matrix</td>
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<td></td>
<td></td>
<td>the assessment the next day.</td>
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<tr>
<td>20 min</td>
<td>Result of Mid-Course Knowledge Assessment</td>
<td>Clinical trainer should have mid-course Knowledge Assessment scored and share results</td>
<td>Mid-Course Knowledge Assessment Answer Key</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with learners. Participants scoring less than 80% should spend additional study time and</td>
<td>and Individual Assessment Matrix</td>
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<td></td>
<td></td>
<td>then retake the mid-course assessment the next day.</td>
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<tr>
<td>10 min</td>
<td>Wrap-Up and Closing/Plans for Tomorrow</td>
<td>Summary of the day and preparation for the next day</td>
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</table>

**Day 5, AM (4 hours)**

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPICS/ACTIVITIES</th>
<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 min</td>
<td>Activity: Clinical practice</td>
<td>Welcome to the Clinic and Plan for the Day</td>
<td>Checklists</td>
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<tr>
<td></td>
<td></td>
<td>Participants divided into small groups will continue to take turns rotating in the clinic</td>
<td>EPI</td>
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<td></td>
<td></td>
<td>for assigned clinical practice. Participants under clinical trainer supervision will</td>
<td>Cervical VIA atlas and Flash card</td>
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<tr>
<td></td>
<td></td>
<td>assist in performing the following activities using checklists:</td>
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<tr>
<td></td>
<td></td>
<td>• Group education</td>
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<tr>
<td></td>
<td></td>
<td>• Counseling</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Support women for HPV testing collection of sample</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Thermal ablation treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Documentation</td>
<td></td>
</tr>
<tr>
<td>30 min</td>
<td>Review of Clinical practice</td>
<td>Discuss clinical observation and revise service data from the day</td>
<td></td>
</tr>
</tbody>
</table>
## Model HPV Testing and Thermal Ablation Clinical Course Outline (5-Day Training)

<table>
<thead>
<tr>
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<th>TRAINING/LEARNING METHODS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30min</td>
<td>Retaking of Mid-Course Questionnaire and Cervical Images Assessment</td>
<td>Retaking of mid-course knowledge assessment and <strong>cervical images assessment as needed</strong> (for participants who scored less than 80%)</td>
<td>Copies of Mid-Course Knowledge Assessment and Image Assessment answer sheet; Cervical Image CD-ROM</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>Day 5, PM (3 hours)</td>
<td></td>
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</tr>
<tr>
<td>90 min</td>
<td><strong>Action Plans</strong> Presentation and Discussion</td>
<td>Participants are to share their implementation plans describing how they will implement services and overcome any potential challenges. The clinical trainer should provide positive feedback and encourage the participants to work closely with their supervisors during implementation. The clinical trainer/ supervisors should try and schedule follow-up visits at the site of each participant.</td>
<td>Flip chart Markers</td>
</tr>
<tr>
<td>65 min</td>
<td><strong>Course Evaluation</strong></td>
<td>Learners are to complete the course evaluation form. Clinical trainer may want to make copies of the form so participants do not have to remove theirs from their learner guide.</td>
<td>Learner Guide: Course evaluation</td>
</tr>
<tr>
<td>10 min</td>
<td><strong>Closing and Award of Certificates</strong></td>
<td>Learners should receive their statements of qualification indicating they are qualified to provide CECAP services using HPV testing and thermal ablation.</td>
<td>Certificates</td>
</tr>
</tbody>
</table>
Additional Small Group Activities

The following small group activities can be used, according to the time available, to make the session more participatory.

Precourse Skills Assessment Activity

Objective: initial assessment of learner’s skills

Assess each learner’s counseling and pelvic examination skills using role play and anatomic models. Complete a checklist for each learner and review results individually.

- The clinical trainer will need to set up the room for the skill assessments in advance. It is recommended that at least three stations be set up to assess all of the participants as quickly as possible.
- Divide participants into small groups of two to three people. One learner plays the provider, one plays the client seated at the head of the ZOE pelvic model, and the other observes and follows along with the checklist.
- The role play should begin with the client already sitting on the examining table having consented to being examined. The role play should end with the client being given the results (normal) of her examination.

Anatomy and Physiology of the Cervix Exercise (20 minutes)

The goal is for learners to draw an easily understandable representation of the anatomic features of the cervix at different ages: adolescent, adult women, post-menopausal woman:

- Learners are divided into small groups. On a piece of flip chart paper each group is asked to draw a cervical map of a woman of an assigned age and label potential elements of the cervix as follows:
  - Cervical os
  - Columnar epithelium
  - Squamous epithelium
  - Squamocolumnar junction
  - Transformation zone
- Learners display the flip chart with the drawing of the cervix and explain each part.
- Facilitator summarizes on the flip chart or PPT, the parts and functions of the cervix.

Counseling Demonstration and Practice

Objective: provide opportunity for demonstration and practice of counseling for cervical cancer screening:

- Ask volunteers to be the client and provider for demonstration of counseling
- Prepare instructions for the volunteers
- Use checklist to observe the counseling session
• Provide specific feedback
• Ask all the learners to practice

**Demonstration and Practice with Anatomic Model**
Objective: provide opportunity for demonstration and practice of clinical procedures for cervical cancer screening and treatment.

• Prepare all required equipment and supplies to set up the station and perform the procedure
• Request a volunteer to be the client
• Use checklist to be followed during demonstration of the procedure
• Ask all the learners to practice using checklist
• Provide specific feedback

**Exercise: Identifying Cervical Conditions**
Objective: provide opportunity for practice and assessment of skill for cervical visual inspection. Learners are asked to volunteer to come to the screen at the front of the class. Cervical images from CD-ROM are projected. They use the pointer to identify the following cervical anatomy:

• Cervical os
• Squamocolumnar junction
• Squamous epithelium
• Columnar epithelium
• Transformation zone
• Other anatomical features

Learners may also be asked if the cervix is suspicious for cancer, if it is VIA-positive or VIA-negative and what would be their next step in caring for the client. The depth of questions will depend on the participants’ understanding of the material. The focus should be to familiarize the participants with the VIA images and continue to reinforce the basics of cervical anatomy.
# Precourse Knowledge Assessment – Answer Key

<table>
<thead>
<tr>
<th>Item</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cervical Cancer, HPV, and Risk Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Many distinct HPV genotypes exist, but only small subsets are oncogenic or “high-risk” and HPV type 16 is the most oncogenic.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>2. On the cervix, HPV tends to infect cells in the columnar epithelium of the endocervix, which is more vulnerable.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3. In an HIV-positive woman, antiretroviral drugs improve her quality of life but cannot prevent progression of precancerous lesions to cancer.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4. Most of the high-grade cervical squamous intraepithelial lesions regress and just a few of them will progress to cancer.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Counseling</strong></td>
<td></td>
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<tr>
<td>5. The woman should be informed about the different types of HPV during counseling.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>6. During counseling, the woman should be told about the relationship between HPV and the risk of cervical cancer.</td>
<td></td>
<td>✓</td>
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<tr>
<td>7. Ablative treatment is 100% effective for the treatment of dysplasia, and the patient should receive this information during pre-treatment counseling.</td>
<td></td>
<td>✓</td>
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<tr>
<td><strong>Infection Prevention</strong></td>
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<tr>
<td>8. The provider should wear a sterile cap and mask when performing thermal ablation treatment.</td>
<td></td>
<td>✓</td>
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<tr>
<td>9. After the procedure, thermal ablation handheld probes can be processed by chemical, high-level disinfection for 20 minutes.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Screening – HPV Testing and VIA/VAT</strong></td>
<td></td>
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<tr>
<td>10. VIA/VAT is a procedure used to identify stages of cervical cancer and assess for treatment.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>11. To effectively prevent cervical cancer, any sexually active HIV-positive woman should have a cervical cancer screening with HPV testing every year.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>12. For HPV testing, there is high agreement between self- and provider-collected samples.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>13. HPV specimen should be stored and transported at 0 to 10 degrees.</td>
<td></td>
<td>✓</td>
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<tr>
<td>14. A woman who is HIV (negative), high-risk HPV (HrHPV) (positive), and VAT (negative) should be treated or rescreened in 1 year.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Item</td>
<td>True</td>
<td>False</td>
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<tr>
<td>----------------------------------------------------------------------</td>
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<tr>
<td><strong>Treatment and Follow-Up</strong></td>
<td></td>
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<tr>
<td>15. Thermal ablation and cryotherapy are practical, safe, and effective methods of treatment of cervical precancerous lesions.</td>
<td>☑</td>
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<tr>
<td>16. Thermal ablation is an ablative treatment that consists of applying a heated probe (60°C) for 2 minutes to the cervix to treat cervical precancer lesions.</td>
<td>☑</td>
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<tr>
<td>17. It is important to administer small doses of anesthesia before the thermal ablation procedure to prevent pain.</td>
<td>☑</td>
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<tr>
<td>18. Immediately after thermal ablation and cryotherapy, one of the follow-up warning signs includes fever.</td>
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<tr>
<td><strong>Monitoring and Evaluation System</strong></td>
<td></td>
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<tr>
<td>19. The cervical cancer screening positivity rate among the population of HIV-positive women is around 5–25%.</td>
<td>☑</td>
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<tr>
<td>20. It is a good data collection practice to complete your register at the end of each month.</td>
<td>☑</td>
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</tbody>
</table>
## Knowledge Assessment Course Matrix

<table>
<thead>
<tr>
<th>Course: __________________________</th>
<th>Dates: __________</th>
<th>Facilitator(s): __________________________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Question Number</th>
<th>CORRECT ANSWERS (Participants)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>10</th>
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<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
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<tbody>
<tr>
<td>1.</td>
<td>Cervical Cancer, HPV, and Risk Factors</td>
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<td>2.</td>
<td>Counseling</td>
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<td>3.</td>
<td>Infection Prevention</td>
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<td>4.</td>
<td>Screening – HPV Testing and VIA/VAT</td>
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<td>Treatment and Follow-Up</td>
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<td>6.</td>
<td>Monitoring and Evaluation</td>
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Mid/Final Course Knowledge Assessment

Name: ___________________________________________________ Date: _____________

Instructions: For items 1–20 below, circle the one best answer for each item.

Cervical Cancer, HPV, and Risk Factors

1. Cervical cancer:
   a. Is a rapidly progressing disease with little chance for early detection
   b. Nearly all cervical cancers are linked to infection with HPV
   c. Has same progression independently of HIV status
   d. Is more common in women who have never had sexual intercourse

2. The squamocolumnar junction (SCJ) is the place on the cervix where:
   a. The columnar epithelium meets the squamous epithelium
   b. The vagina meets the cervix
   c. The exocervix meets the cervical os
   d. None of the above

3. Risk factor(s) for cervical cancer include:
   a. Multiple pregnancies, smoking, mother with uterine cancer
   b. Multiple pregnancies, uncircumcised partner, early age of sexual intercourse
   c. Multiple sexual partners, smoking, early age of sexual intercourse
   d. Multiple sexual partners, uncircumcised partner, mother with ovarian cancer

4. The abnormal changes of the cervix, such as dysplasia, almost always develop in the:
   a. Ectocervix
   b. Transformation zone close to the SCJ
   c. Endocervix
   d. Cervical os

Counseling

5. During initial counseling, the woman should be told about:
   a. The importance of screening, testing, and treatment options
   b. The comparative effectiveness of HPV testing versus colposcopy
   c. The different types of HPV and how they affect treatment
   d. All of the above

6. If screening with HPV testing, specific instruction to be provided include:
   a. What genotypes of HPV are more oncogenic
   b. The sensitivity and specificity of HPV testing
   c. How to perform the self-collection of vaginal sample
   d. How the HPV testing is processed in the laboratory
7. Following ablative treatment (thermal ablation or cryotherapy), the woman should be instructed about self-care at home and to immediately return to the health care center:
   a. After 1 week if she has watery discharge
   b. After 2 years if she has no problems
   c. Any time there are warning signs
   d. Any time after her watery vaginal discharge subsides

Infection Prevention

8. An important step in protecting health care workers is:
   a. Using antiseptics, such as 1% Savlon, for decontaminating instruments
   b. Routine handwashing for 10–15 seconds before and after patient contact
   c. Surgical hand scrub with 0.5% chlorhexidine gluconate before any procedure
   d. Wearing sterile cap, eye goggles, and mask before any procedure

9. After thermal ablation procedure, thermal ablation handheld probes can be processed by using or cleaning with:
   a. 70% ethyl alcohol solution
   b. Chemical high-level disinfection for 5 minutes
   c. 0.5% chlorine solution for 15 minutes
   d. Chemical high-level disinfection for 20 minutes

Cervical Cancer Screening

10. To prevent cervical cancer, any sexually active woman in the general population should be screened with HPV testing every:
    a. Year
    b. 2 years
    c. 3 years
    d. 5 years

11. The most important precancerous lesions are:
    a. Warty lesions because if not treated they would rapidly progress to cancer
    b. Polyps because if not treated they will almost certainly progress to cancer
    c. High-grade lesions because there is more chance they will progress to cancer
    d. Lesions with severe inflammation (cervicitis) because they will always progress to cancer

12. When performing VIA/VAT:
    a. It is important to inspect the cervix immediately after washing the cervix with dilute acetic acid
    b. The cervix should not actually be touched with the swab or the abnormal cells might be wiped away
    c. One should wait about 1 minute before inspecting the cervix after washing it with dilute acetic acid
    d. One should wait about 3 minutes before inspecting the cervix after washing it with dilute acetic acid

13. When screening with HPV testing, it is correct to affirm that:
    a. Specimen for HPV test should be stored and transported at 0–10 degrees
    b. There is high agreement between self- and provider-collected samples
    c. HPV test results should never be provided to the woman by phone
    d. Provider-collected sample is much more effective than self-collected sample
14. A woman who is VIA/VAT positive should be referred for further consultation if:
   a. The lesion occupies less than 75% of the cervix
   b. The lesion is suspect for cancer
   c. The lesion is located in the SCJ
   d. The woman has had multiple sexual partners

Treatment and Follow-Up

15. Safe and effective methods of treatment for precancerous cervical lesions include:
   a. Thermal ablation
   b. Cryotherapy
   c. Large loop excision of the transformation zone (LLETZ)/loop electrosurgical excision procedure (LEEP)
   d. All of the above

16. A woman with test-positive VIA/VAT findings is eligible for ablative treatment if:
   a. The lesion extends onto the vaginal wall
   b. The lesion extends into the endocervical canal
   c. The lesion occupies less than 75% of the cervix
   d. She is more than 20 weeks pregnant

17. When performing thermal ablation:
   a. Administer anesthesia before the procedure to prevent pain
   b. Apply heated probe (100°C) to cervix to cover lesion and transformation zone
   c. Apply heated probe (60°C) for 2 minutes to cervix to cover lesion and transformation zone
   d. Never reapply the heated probe to cervix to prevent overlapping treatments

18. After ablative treatment of a precancerous cervical lesion, the most common side effect is:
   a. Moderate to heavy bleeding
   b. Vaginal spotting
   c. Moderate cramping
   d. Watery vaginal discharge

Monitoring and Evaluation System

19. Treatment rate is:
   a. Percentage of screened women aged 30–49 years with a positive test result
   b. Percentage of screened-positive women previously treated who return for re-screening
   c. Percentage of screened-positive women treated during the same visit
   d. Percentage of screened-positive women receiving treatment in the previous 12 months

20. It is a good data collection practice to complete your register:
   a. At the same time or by the end of the day
   b. At the end of each month
   c. Quarterly
   d. At the end of each semester
Mid/Final Course Knowledge Assessment – Answer Key

Instructions: For items 1–20 below, circle the one best answer for each item.

Cervical Cancer, HPV, and Risk Factors

1. Cervical cancer:
   a. Is a rapidly progressing disease with little chance for early detection
   b. Nearly all cervical cancers are linked to infection with HPV
   c. Has same progression independently of HIV status
   d. Is more common in women who have never had sexual intercourse

2. The squamocolumnar junction (SCJ) is the place on the cervix where:
   a. The columnar epithelium meets the squamous epithelium
   b. The vagina meets the cervix
   c. The exocervix meets the cervical os
   d. None of the above

3. Risk factor(s) for cervical cancer include:
   a. Multiple pregnancies, smoking, mother with uterine cancer
   b. Multiple pregnancies, uncircumcised partner, early age of sexual intercourse
   c. Multiple sexual partners, smoking, early age of sexual intercourse
   d. Multiple sexual partners, uncircumcised partner, mother with ovarian cancer

4. The abnormal changes of the cervix, such as dysplasia, almost always develop in the:
   a. Ectocervix
   b. Transformation zone close to the SCJ
   c. Endocervix
   d. Cervical os

Counseling

5. During initial counseling, the woman should be told about:
   a. The importance of screening, testing, and treatment options
   b. The comparative effectiveness of HPV testing versus colposcopy
   c. The different types of HPV and how they affect treatment
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   a. What genotypes of HPV are more oncogenic
   b. The sensitivity and specificity of HPV testing
   c. How to perform the self-collection of vaginal sample
   d. How the HPV testing is processed in the laboratory

7. Following ablative treatment (thermal ablation or cryotherapy), the woman should be instructed about self-care at home and to immediately return to the health care center:
   a. After 1 week if she has watery discharge
   b. After 2 years if she has no problems
   c. Any time there are warning signs
   d. Any time after her watery vaginal discharge subsides
Infection Prevention

8. An important step in protecting healthcare workers is:
   a. Using antiseptics, such as 1% Savlon, for decontaminating instruments
   b. **Routine handwashing for 10–15 seconds before and after patient contact**
   c. Surgical hand scrub with 0.5% chlorhexidine gluconate before any procedure
   d. Wearing sterile cap, eye goggles, and mask before any procedure

9. After thermal ablation procedure, thermal ablation handheld probes can be processed by using or cleaning with:
   a. 70% ethyl alcohol solution
   b. Chemical high-level disinfection for 5 minutes
   c. 0.5% chlorine solution for 15 minutes
   d. **Chemical high-level disinfection for 20 minutes**

Cervical Cancer Screening

10. To prevent cervical cancer, any sexually active woman in the general population should be screened with HPV testing every:
    a. Year
    b. 2 years
    c. 3 years
    d. 5 years

11. The most important precancerous lesions are:
    a. Warty lesions because if not treated they would rapidly progress to cancer
    b. Polyps because if not treated they will almost certainly progress to cancer
    c. **High-grade lesions because there is more chance they will progress to cancer**
    d. Lesions with severe inflammation (cervicitis) because they will always progress to cancer

12. When performing VIA/VAT:
    a. It is important to inspect the cervix immediately after washing the cervix with dilute acetic acid
    b. The cervix should not actually be touched with the swab or the abnormal cells might be wiped away
    c. **One should wait about 1 minute before inspecting the cervix after washing it with dilute acetic acid**
    d. One should wait about 3 minutes before inspecting the cervix after washing it with dilute acetic acid

13. When screening with HPV testing, it is correct to affirm that:
    a. Specimen for HPV test should be stored and transported at 0–10 degrees
    b. **There is high agreement between self- and provider-collected samples**
    c. HPV test results should never be provided to the woman by phone
    d. Provider-collected sample is much more effective than self-collected sample

14. A woman who is VIA/VAT positive should be referred for further consultation if:
    a. The lesion occupies less than 75% of the cervix
    b. **The lesion is suspect for cancer**
    c. The lesion is located in the SCJ
    d. The woman has had multiple sexual partners
Treatment and Follow-Up

15. Safe and effective methods of treatment for precancerous cervical lesions include:
   a. Thermal ablation
   b. Cryotherapy
   c. Large loop excision of the transformation zone (LLETZ)/loop electrosurgical excision procedure (LEEP)
   d. All of the above

16. A woman with test-positive VIA/VAT findings is eligible for ablative treatment if:
   a. The lesion extends onto the vaginal wall
   b. The lesion extends into the endocervical canal
   c. The lesion occupies less than 75% of the cervix
   d. She is more than 20 weeks pregnant

17. When performing thermal ablation:
   a. Administer anesthesia before the procedure to prevent pain
   b. Apply heated probe (100°C) to cervix to cover lesion and transformation zone
   c. Apply heated probe (60°C) for 2 minutes to cervix to cover lesion and transformation zone
   d. Never reapply the heated probe to cervix to prevent overlapping treatments

18. After ablative treatment of a precancerous cervical lesion, the most common side effect is:
   a. Moderate to heavy bleeding
   b. Vaginal spotting
   c. Moderate cramping
   d. Watery vaginal discharge

Monitoring and Evaluation System

19. Treatment rate is:
   a. Percentage of screened women aged 30–49 years with a positive test result
   b. Percentage of screened-positive women previously treated who return for re-screening
   c. Percentage of screened-positive women treated during the same visit
   d. Percentage of screened-positive women receiving treatment in the previous 12 months

20. It is a good data collection practice to complete your register:
   a. At the same time or by the end of the day
   b. At the end of each month
   c. Quarterly
   d. At the end of each semester
Mid-Course Image Assessment

This image assessment is designed to help the learners monitor their progress during the course. By the end of the course, all participants are expected to achieve a score of 80% or better. For those scoring less than 80% on their first attempt, the clinical facilitator should review the results with the learner individually and give them opportunity to practice with additional images. Learners scoring less than 80% can retake the assessment at any time during the remainder of the course.
Mid-Course Image Assessment Answer Sheet

**Instructions:** For each of the 20 images shown, assume that acetic acid was applied and 1 minute has passed. Look at the images and choose one of the VIA classifications below. Based on the VIA classification, choose a management option below. Fill in the best response for diagnosis and management according to the patient data provided. Use the following response options to indicate your answers.

<table>
<thead>
<tr>
<th>POSSIBLE VIA CLASSIFICATIONS</th>
<th>POSSIBLE MANAGEMENT OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspicious for cancer</td>
<td>No treatment</td>
</tr>
<tr>
<td>Positive VIA</td>
<td>Treat with cryotherapy</td>
</tr>
<tr>
<td>Negative VIA</td>
<td>Refer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMAGE NUMBER</th>
<th>VIA CLASSIFICATION</th>
<th>MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td>20</td>
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</table>
### Mid-Course Image Assessment – Answer Key

<table>
<thead>
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<th>IMAGE NUMBER</th>
<th>VIA CLASSIFICATION</th>
<th>MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Negative</td>
<td>No treatment</td>
</tr>
<tr>
<td>2</td>
<td>Cancer</td>
<td>Refer</td>
</tr>
<tr>
<td>3</td>
<td>Negative</td>
<td>No treatment</td>
</tr>
<tr>
<td>4</td>
<td>Negative</td>
<td>No treatment</td>
</tr>
<tr>
<td>5</td>
<td>Positive</td>
<td>Cryotherapy</td>
</tr>
<tr>
<td>6</td>
<td>Negative</td>
<td>No treatment</td>
</tr>
<tr>
<td>7</td>
<td>Positive</td>
<td>Refer</td>
</tr>
<tr>
<td>8</td>
<td>Negative</td>
<td>No treatment</td>
</tr>
<tr>
<td>9</td>
<td>Positive</td>
<td>Refer</td>
</tr>
<tr>
<td>10</td>
<td>Cancer</td>
<td>Refer</td>
</tr>
<tr>
<td>11</td>
<td>Positive</td>
<td>Refer</td>
</tr>
<tr>
<td>12</td>
<td>Negative</td>
<td>No treatment</td>
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<tr>
<td>13</td>
<td>Positive</td>
<td>Refer</td>
</tr>
<tr>
<td>14</td>
<td>Negative</td>
<td>No treatment</td>
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<tr>
<td>15</td>
<td>Positive</td>
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<td>16</td>
<td>Negative</td>
<td>No treatment</td>
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<tr>
<td>17</td>
<td>Cancer</td>
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</tr>
<tr>
<td>18</td>
<td>Positive</td>
<td>Refer</td>
</tr>
<tr>
<td>19</td>
<td>Negative</td>
<td>No treatment</td>
</tr>
<tr>
<td>20</td>
<td>Positive</td>
<td>Refer</td>
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</table>
### Mid-Course Image Assessment Matrix

<table>
<thead>
<tr>
<th>Image Number</th>
<th>CORRECT ANSWERS (Participants)</th>
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<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>VIA</td>
</tr>
<tr>
<td>2</td>
<td>VIA</td>
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<tr>
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<td>VIA</td>
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<td>VIA</td>
</tr>
<tr>
<td>20</td>
<td>VIA</td>
</tr>
</tbody>
</table>
Session 1: Advancing Cervical Cancer Prevention

Session Objectives

- Overview of cervical cancer as a public health problem
- Considerations on key approaches to advance cervical cancer prevention
- Share strategic interventions toward elimination of cervical cancer
- Discuss country situation and plans for cervical cancer prevention

Background: The Growing Inequities of Cervical Cancer

Overview of Programmatic Interventions Over the Life Course to Prevent HPV Infection and Cervical Cancer

MAY 2018: WHO Director-General’s Call to Action to Eliminate Cervical Cancer

Cervical Cancer Elimination: Conceptual Framework
2020–2030 Acceleration Plan Toward Elimination

Vision: A world where cervical cancer is eliminated as a public health problem.

Goal: Below 4 cases of cervical cancer per 100,000 woman-years

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>30% reduction in mortality from cervical cancer and Sustainable Development Goal 2030 Target 3.4: 30% reduction in mortality from non-communicable diseases</td>
</tr>
</tbody>
</table>

90% of girls fully vaccinated with HPV vaccines by 15 years of age
70% of women one screened with a high performance test by 35 years of age and again by 65 years of age
90% of cancers detected at an early stage through screening

WHO November 2020

- Launch of the Global Strategy to Accelerate the Elimination of Cervical Cancer as a public health problem

Moving Towards Elimination of Cervical Cancer

Feasible approaches:
- Increased coverage of HPV vaccination
- Increased coverage of screening and treatment of pre-cancer lesions

Sustainable Foundations:
- Monitoring and evaluation
- Sustainable financing
- Institutional strengthening

Current WHO Recommendation for Cervical Cancer Screening and Treatment

- Screening:
  - HPV DNA-based tests
  - VIA (visual inspection of the cervix with acetic acid)
  - Cytology

- Ablative treatment (at women screened positive and eligible):
  - Cryotherapy
  - Laser ablation
  - Loop electrosurgical excision procedure (LEEP)
  - Cold knife conisation/hysterectomy

Primary Prevention: HPV Vaccines

Characteristics of different types of currently available vaccines

<table>
<thead>
<tr>
<th>Rotary (1)</th>
<th>Quadrivalent (4)</th>
<th>Nonvalent (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer: Glaxo</td>
<td>Merck</td>
<td>Merck</td>
</tr>
<tr>
<td>HPV type: 16,18</td>
<td>6,11,16,18</td>
<td>6, 11, 16, 18, 26, 31, 33, 45, 52, 58</td>
</tr>
<tr>
<td>Age group: Females 0–25</td>
<td>Females 0–26 years (priority 0–13 years)</td>
<td>Females 9–26 years (priority 9–13 years)</td>
</tr>
<tr>
<td></td>
<td>(priority 9–13 years)</td>
<td></td>
</tr>
<tr>
<td>Dose rate (doses): 2 doses</td>
<td>0 and 6–12 months</td>
<td></td>
</tr>
</tbody>
</table>

Based on the global column of the OCEAXS *cervical program* and several meta-analyses

https://www.wbko.com.tw/series/issue/14/55/132221/
### Current Screening Methods’ Sensitivity and Specificity

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV DNA testing</td>
<td>90%–95%</td>
<td>60%–85%</td>
</tr>
<tr>
<td>(self-collection)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Self-collected</em> (Cervix)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Self-collected</em> (Vulva)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA (immediate result and</td>
<td>41%–90%</td>
<td>40%–55%</td>
</tr>
<tr>
<td>low cost)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pap smear (cytology)</td>
<td>38%–83%</td>
<td>60%–95%</td>
</tr>
<tr>
<td>(repeat follow-up)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Accuracy tends to be lower in HIV-positive women.*

### Comparison of Treatment Options

<table>
<thead>
<tr>
<th></th>
<th>Cryotherapy</th>
<th>Laser</th>
<th>Thermal Ablation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>&gt;95%</td>
<td>&gt;95%</td>
<td>&gt;90%–95%</td>
</tr>
<tr>
<td>Safety</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td><em>Cervical infection</em></td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td><em>Blinding infection</em></td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Acceptability</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Costs</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Provider</td>
<td>Nurse or Doctor</td>
<td>Doctor (primary)</td>
<td>Nurse or Doctor</td>
</tr>
<tr>
<td>Other considerations</td>
<td>Ablation/other tissue WHO recommended</td>
<td>Tissue ablation WHO recommended</td>
<td>Ablation/other tissue WHO recommended</td>
</tr>
</tbody>
</table>

### Remarks on Effective CE CAP Program Components

For a program to be effective:
- **Priority should be given to maximizing screening coverage and treatment, rather than maximizing the number of screening tests in a woman’s lifetime.**
- **Testing must be linked to treatment.**
- **Equity—pre-cancer screening and treatment should be accessible to all women in the target age group, including the poorest, most vulnerable, and hard to reach.**
- **Cervical cancer screening and treatment must be integrated with existing reproductive health care and HIV services.**
- **Effective service delivery systems must be established.**

### Introduction of HPV Testing and Thermal Ablation to Existing CE CAP Programs — Main Components and Objectives

1. **PREPARE** — readiness to start implementation: national policies and guidelines, equipment, supplies, procurement, and logistics.
2. **BUILD** — capability to support the implementation of planned activities: training and supportive supervision; monitoring and evaluation, quality assurance.
3. **EXPAND** — access to high-quality service delivery points.
4. **SUSTAIN** — high-quality program performance.

### Country Situation on Cervical Cancer Prevention

- To revise epidemiological data
- Main current interventions for cervical cancer prevention including data on coverage of HPV vaccination, screening, and treatment

### Country Plans for Advancing Cervical Cancer Prevention

- **Main target**
- **Main planned interventions**
WHO Resources for Cervical Cancer Prevention


Jhpiego Additional Resources and Tools/Kits for Cervical Cancer Prevention

- Visual inspection of the cervix (VIA) (English, French and Spanish). http://www.jhpiego.org/program/50555
- HPV screening (DNA and mRNA) (English, French and Spanish). http://www.jhpiego.org/program/50599
- Clinical examination of the cervix (Clinical examination of the cervix with Jaccard test (VIA), English, French and Spanish). http://www.jhpiego.org/program/50599
- Jhpiego Cervical Cancer Prevention Learning Resource Package (This handout provides a comprehensive overview of cervical cancer prevention, including: http://www.jhpiego.org/program/50599

Summary

- There is a call to move toward elimination of cervical cancer.
- HPV vaccination plus screen and treat is key in prevention of cervical cancer.
- HPV-positive women should be prioritized due to acceleration of progression to precancer and cancer.
- Innovation is needed to expand screening and treatment options for precancerous lesions with the introduction of HPV testing and thermal ablation.

Thank You
Session 2: Overview on Cervical Cancer

Session Objectives

- Brief review of anatomy of the female reproductive system
- Basic pathophysiology and natural history of cervical cancer
- Highlights on HPV and HIV infection and cervical cancer
- Review risk factors for developing cervical cancer
**Endocervix and Ectocervix**

- Endocervix
- Ectocervix
- Internal os
- External os
- Endocervical canal

**Nervous System of Pelvic Region**

- **Ectocervix**: few sensory nerve endings
  - Procedures involving only ectocervical area are well tolerated without anesthesia (e.g., biopsy, cryotherapy)
- **Endocervix**: many sensory nerve endings
  - Women often feel pain during procedures involving endocervical area (e.g., endocervical curettage, injury, stretching)
  - Network of autonomic nerves are present within the cervix
  - Procedures can stimulate vasovaginal (fainting) reaction

**Cervix: Anatomy and Physiology**

**Small Group Activity**
- In your small group, draw a cervix with its elements according to the instructions:
  - Group 1: cervix of a teenager nulliparous
  - Group 2: cervix of a woman 30 years old parous
  - Group 3: cervix of a menopausal woman

**Cervix: Anatomy**

- **Squamocolumnar Junction (SCJ)**
  - SCJ: the place where the squamous epithelium meets the columnar epithelium
  - Changes location over time as a woman ages
  - Younger women have more columnar cells exposed, increases vulnerability to HPV

**Normal Cervix: Histology**

- Histological structure of normal cervix

**Squamous Metaplasia (1)**

- **Metaplasia** occurs when one type of adult tissue replaces another type.
- With age, the squamous epithelium on a cervix gradually replaces the columnar epithelium.
- This gradual replacement is called squamous metaplasia.
Squamous Metaplasia (2)

Transformation Zone

- Area between the old SCJ and the current SCJ
- Precancerous changes in the cervix almost always develop in the transformation zone (TZ)
- Specifically on or near the squamocolumnar junction (SCJ)

Squamocolumnar Junction (SCJ): Normal Cervix

Common Variations and Abnormalities of the Cervix

Review Exercise 1: Cervical Anatomy
**Cervical Ectopy**

- A condition in which the ectocervix contains columnar cells
  - Usually, ectocervix is covered in multiple layers of squamous cells
  - Columnar cells are only one layer thick
  - The blood vessels underneath them are closer to the surface
  - Studies suggest women with ectopy are more prone to sexually transmitted infections and HIV

**Nabothian Cysts**

- Mucus-filled lumps on the surface of the cervix
  - Appearance of yellowish balls beneath the surface of the cervix, pushing outward
  - Usually only a few millimetres in diameter, but can grow to as large as 3 cm or 4 cm in diameter
  - Form during squamous metaplasia, when squamous epithelium grows on top of columnar epithelium
  - The new squamous epithelium covers and blocks the openings of glands in the columnar epithelium, trapping mucus
  - May push blood vessels outward, making blood vessels visible on the surface of the cysts
  - Feel smooth and NOT irregular on bimanual exam

**Cervical Polyps**

- Growths on the ectocervix or endocervix
  - Endocervical polyps are much more common than ectocervical polyps
  - Most are benign and asymptomatic
  - Vary in size and shape
    - Most are small, between 2 mm–30 mm in length
  - Causes are not well understood
  - Associated with previous cervical infection or inflammation
  - Common, occurring in 2%–5% of adult women
  - Most women with polyps are 40–65 yrs
Review Exercise 3: Common Cervical Conditions

HPV Testing and Thermal Ablation Clinical Training: Facilitator Guide

Natural History of Cervical Cancer

HPV and Cervical Cancer

Risk Factors for Developing Cervical Cancer

HIV and Cervical Cancer

All women who have had sexual intercourse are at risk, but risk increases with:

- Early sexual intercourse
- Multiple sexual partners
- HIV (or other immunosuppression)
- Smoking

In HIV endemic populations, 15%–20% (or even higher) of women screen positive for precancer.

In women infected with HIV:

- Higher rates of HPV persistent infection
- Accelerated progression to precancer and cancer
- More difficult to treat HPV-associated diseases (larger lesions, higher recurrence rates)
- Antiretroviral drugs improve quality of life and may slow progression of precancer
- May live longer with HIV, but die from cervical cancer if not screened and treated appropriately
Questions or Comments?

Thank You!
Session 3A: HPV Testing—An Effective Screening Method

Session Objectives

- Review general consideration on cervical cancer screening
- Target ages and frequency of screening
- Relevant aspects on HPV testing for cervical cancer screening
- Describe self-collection and provider collection of sample
- Discuss the process for storage and transportation of HPV test samples
- Communicating HPV testing results to clients

Current Screening Methods: Sensitivity and Specificity

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV DNA testing</td>
<td>59.0%–95.0%</td>
<td>80.0%–95.0%</td>
</tr>
<tr>
<td><em>Self-collected (price: $5)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA (immediate result and low cost)</td>
<td>43.0%–90.0%</td>
<td>40.0%–95.0%</td>
</tr>
<tr>
<td>Papsmear (cytology) (repeat follow-up)</td>
<td>30.0%–83.0%</td>
<td>60.0%–95.0%</td>
</tr>
</tbody>
</table>

Note: Accuracy tends to be lower in HIV-positive women.

Screening as a Key Intervention for the Elimination of Cervical Cancer

- 2030 Targets
  - 90% of girls fully vaccinated by age 15 years
  - 70% of women screened with HPV testing every 3 years and age 15-69 years
  - 90% of women identified with clinical cervical precancer treated
  - (Sustainable Development Goal 2030 Target 3A: 30% reduction in mortality from non-communicable diseases)

WHO Screen and Treat Recommendations (2013/14)

Use a strategy of screen with HPV test and treat, over:

- Screen with VIA and treat
- Screen with cytology followed by colposcopy (with or without biopsy) and treat

Screening: Target Population and Frequency (WHO)

Target Population

- HIV Negative
  - Priority to women aged 30–40 years
- HIV Positive
  - Girls and women regardless of age, once sexually exposed

Frequency

- HIV Negative
  - HPV testing: every 5 years
- HIV Positive
  - VIA: within 3 years
  - HPV testing: within 3 years
Why Are Many Women Unable or Reluctant to Go to a Health Facility for Cervical Cancer Screening?

- Lack of awareness/knowledge of cervical cancer
- Distance/cost/time
- Fear or uncomfortable having speculum or pelvic exam
- Lack of respect, dignity, privacy, empathy at health facility and/or from health worker

Why HPV Testing Over Other Screening Methods?

- Quality: test is accurate and reproducible and overcomes challenges of interobserver variability (high sensitivity)
- Potential for improved coverage
  - Self-collection
- Improved efficiency with self-collection: fewer women need to undergo speculum examination
- Ability to scale-up to achieve population-level coverage and meet needs

HPV and Cervical Cancer

- More than 200 distinct HPV genotypes exist, but only small subset (at least 13) are oncogenic or “high-risk”
- HPV16, 18, 31, 35, 39, 45, and 59 most often detected oncogenic types
- HPV16 and 18 account for 70% of cases globally
- HPV 16 is the most oncogenic
- Tests for presence of HPV DNA exist, but not usually available in low- and middle-income countries

Why HPV Self-Collection?

- Accuracy of HPV self-collection has improved
  - High agreement between self- and provider-collected samples
- Facility-based, community-based, or hybrid approach
- Task shifting: HPV testing and machine maintenance can be done by a trained general nurse
- Improved efficiency with self-collection
  - Fewer women need to undergo speculum examination

Steps of Self-Collection of Vaginal Sample for HPV Testing

1. Insert self-collection kit into vagina
2. Collect sample
3. Seal container

Storage and Transport of Specimen

- Label of specimen vial
- Use appropriate preservative solution
- Store and transport at room temperature 15°C–30°C (transport to the laboratory does not require refrigeration)
- Run HPV test as soon as possible
  - Storage up to 14 days
  - Vials can be preserved for around 2–3 weeks at room temperature
  - In the laboratory, samples can be preserved for up to one additional week at 4°C and up to 3 months at -20°C
Timing of Performing HPV Test

- Lab technician (or other qualified personnel) checks proper labeling and enters into the clinic/lab specimen tracking log.
- Following arrival at clinic/lab, all self-collected vaginal samples should have HPV testing performed that day, if possible, but no later than the end of the next working day.
- Conduct HPV testing during normal laboratory working hours according to platform capacity (i.e., GeneXpert 1–4 tests per run).
- Store specimens in a vial of PreservCyt solution at 2°C–30°C until ready to conduct HPV testing on the sample.

HPV Types Detected by GeneXpert HPV Test

- HPV 16 and 18 are the most oncogenic.
- Important to report if HPV 16 and/or HPV 18/45 are detected.
- Can have multiple HPV types present in a single specimen.
- P3 – P5 are considered “other” but are still high-risk HPV types.

<table>
<thead>
<tr>
<th>Panels</th>
<th>High-risk HPV types detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3</td>
<td>HPV 31, 33, 35, 52, 58</td>
</tr>
<tr>
<td>P4</td>
<td>HPV 51, 59</td>
</tr>
<tr>
<td>P5</td>
<td>HPV 39, 56, 66, 68</td>
</tr>
</tbody>
</table>

Recording HPV Test Results

- Negative
- Positive
- 16
- 18/45
- Other
- Invalid/Error

Communicating HPV Test Results

- At the time of sample collection, in accordance with local policies and context, the health worker asks the woman, and documents in data forms, if she prefers to be contacted for her results: by phone or in person at the facility.
- Alternative ways for client to get her results:
  1. Client returns to the facility in around 30 days or less to get her results in person.
     - This time is based on the history of getting results back to a particular facility.
     - Provider contacts the woman by phone when the HPV test results are available and asks the client to come to the facility to receive the results in person.
  2. Provider contacts the woman by phone when the HPV test results are available and informs her of her results, negative or positive (and in rare cases, unclear/no result), and next steps.

Notifying by Phone

- After verification of client information, and in accordance with client’s documented wishes and country norms, either
  1. An appointment is made to review her results in person
  2. HPV test results are given over the phone

Number and Timing of Attempted Contacts

(must be in accordance with local policies and context)

- If client misses her appointment or wishes to receive her results by phone, the health worker will try to contact her by phone up to 3 times over a 3-day period.
- Each attempt is documented in the data base.
- After that, a community mobilizer can be sent to the client’s home on 2 separate occasions to tell the client “your results are available at the clinic.”

Note: Client must agree to, and be documented in database, that she would allow a community mobilizer to come to her home to deliver that message.
HPV Test Results and Next Steps

- HPV Negative:
  - Rescreen in 5 years if HIV negative
- HPV Positive: provide VAT (visual assessment for treatment) at the clinic and triages accordingly
- Invalid or No Result: inform client that test could not be completed and recommend to have VIA or pap smear performed.

Steps From Sample Collection to Result Management

Steps From Sample Collection to Notification of Results

- Collect the sample
- Store and transport
- Check for results
- Get results to woman (according to country norms)
  - By Phone
  - By Phone followed by in person
  - In person
- Missed calls or appointments

Steps From Notification of Results to VAT

- Schedule VAT
- Days VIA/Ablative treatment are offered
- Scheduling process
- Confirm VAT and necessary treatment completed or referral

Questions or Comments?
Thank You!
Session 3B: Running HPV DNA Testing

Session Objectives
- Describe relevant aspects of HPV DNA testing
- Describe proper storage and handling of the HPV test cartridge and sample collection kits
- Follow proper laboratory safety precautions
- Explain the appropriate specimen types and specimen transport
- Perform the cartridge set up and run the assay
- Interpret the results
- Explain assay control strategy
- Report the various software generated results

Cervical Cancer Screening Methods

<table>
<thead>
<tr>
<th>Cytologic</th>
<th>Visual Inspection</th>
<th>Molecular</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Conventional Pap smear</td>
<td>A. Visual inspection with acetoc acid (VIA) or with Lugol’s iodine</td>
<td>A. Nucleic acid tests (NAT)</td>
</tr>
<tr>
<td>B. Liquid-based cytology</td>
<td>B. Digital imaging approaches (i.e., automated visual evaluation)</td>
<td>+ HPV DNA (e.g., Orphield Xper, Abbott; Roche Cobas, Roche, others)</td>
</tr>
<tr>
<td>C. Cervixcopy + biopsy</td>
<td></td>
<td>+ mRNA (Roche Aptima)</td>
</tr>
</tbody>
</table>

Advantages and Drawbacks of HPV NAT Testing

Advantages:
- Higher sensitivity allows longer interval between tests, reducing the burden on the system and women.
- Reduction in cancer and related mortality is greater than using VIA due to increased sensitivity (WHO guidelines).
- Compatible with self-sampling, which has been shown to be more acceptable and preferable to pelvic exam in several settings, enabling the possibility of increased screening coverage.

Limitations:
- High cost compared to current cytologic or visual-based methods
- Creates increased demand on laboratory services whose personnel may be limited
- Needs follow-up mechanism to deliver results and treatment
NAT Product Overview (main tests currently available on the market)

- Conventional HPV NAT Tests (Advanced Lab):
  - Roche: Cobas®4800/4800/4800/4800
  - Abbott: RealTime High Risk (HR) HPV, m2000
  - Abbott: truTriage High Risk (HR) HPV
  - Agilent: HPV—PapNet
  - Cervion HPV 5500/7000: Cervion i-Path
  - Invitrogen: VI-M2 High Risk HPV—Real Capture System—Eiken
  - Roche: HPV Test—Vista 7—IQ

- Near-Point-of-Care
  - Xpert® HPV—Core Kit
  - Cobas®4800/4800/4800/4800
  - Cervion HPV—Core Kit—Cobas®
  - Invitrogen HPV—Real Capture System
  - Roche HPV Test—Vista 7—IQ
  - Roche: HPV Test—Vista 7—IQ

- Point-of-Care in the pipeline

Characteristics of some HPV NAT on Market

| Assay | Platform (GenEx, PF) | RealTime High Risk (HR) HPV | Cobas® 4800/4800 HPV | HPV GenEx
|-------|----------------------|-----------------------------|-----------------------|------------------|
| HPV   | GenEx                 | RealTime High Risk (HR) HPV | Cobas® 4800/4800 HPV | HPV GenEx
| HPV   | GenEx                 | RealTime High Risk (HR) HPV | Cobas® 4800/4800 HPV | HPV GenEx
| HPV   | GenEx                 | RealTime High Risk (HR) HPV | Cobas® 4800/4800 HPV | HPV GenEx
| HPV   | GenEx                 | RealTime High Risk (HR) HPV | Cobas® 4800/4800 HPV | HPV GenEx
| HPV   | GenEx                 | RealTime High Risk (HR) HPV | Cobas® 4800/4800 HPV | HPV GenEx

HPV Detection on GeneXpert

- The Xpert is a quantitative, real-time PCR assay for the detection of HPV DNA
- Detects the E6/E7 region of the viral DNA genome from 14 high-risk HPV types in one run
- Xpert HPV specifically identifies types HPV 16 and HPV 18/45 in distinct detection channels
- Reports 11 other high risk types as a pooled result

Good Lab Practices

- Washing of Reagents and Samples
- Storage of Reagents and Samples
- Wear protective equipment
- Calibrate and maintain equipment

HPV Xpert Kit Contents

- 10 cartridges
- 10 transfer pipettes
- Each cartridge contains:
  - Reagent beads (primers, probes)
  - Wash reagent, binding reagent, liquid reagent
  - CD: assay definition file, package insert, assay import instructions
HPV Xpert Kit Handling

- HPV cartridges should be stored at 2°C–8°C.
- Open the cartridge only when ready to add sample and test within 30 minutes of adding sample.
- Do not shake the cartridge.
- Do not use cartridges that have been dropped when outside their packaging.
- Only use a cartridge if it is perfectly sealed and does not look damaged.
- When handling cartridge do NOT touch the reaction tube.

Cartridge Preparation

What Happens in the Cartridge During the Test?

- Video: (7mins 16 sec)
  https://www.youtube.com/watch?v=mbR1w5j16d4

Running a Test

Quality Controls

- System check control
  - Checks optics, module temperatures, and mechanical integrity of each cartridge and signals ERROR if they fail.
- Internal Controls
  - Probe Check Controls (PCC): done before PCR starts, checks if fluorescent signals on all probes are comparable to factory settings to monitor dye stability, probe integrity.
- Sample Adequacy Controls (SAC): HMB (Hydroxymethylbilane synthez) used, ensures that enough Human sample has been added to sample chamber of cartridge. Must be positive in a negative sample.
- External Quality Controls
  - Known positive and negative controls available commercially.

Daily Maintenance

- Xpert instrument is sensitive to dust and heat.
- Wipe surface of instrument and bench area with bleach followed by 70% alcohol.
- Remove any cartridges from the instrument modules.
- Perform self test.
Monthly Maintenance

- Wipe surface of instrument and bench area with bleach followed by 70% alcohol
- Carefully wipe inside modules with bleach and alcohol
- Clean the reaction vents within each module using optical brushes
- Remove filter and wash with soap, air dry and carefully replace

Results Interpretation

Factors that May Affect Results

- Improper sample collection, storage, or transport
- Not following standard operation procedure
- Presence of interfering substances in sample may give false negative or invalid results

Interfering Substances

As detailed in the package insert, interference may be observed in the presence of:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal anti-itch cream</td>
<td>0.25% w/v</td>
</tr>
<tr>
<td>Thick cream</td>
<td>0.2% w/v</td>
</tr>
<tr>
<td>Whole blood</td>
<td>0.25% w/v</td>
</tr>
<tr>
<td>Vag-Gard moisturizing gel</td>
<td>0.5% w/v</td>
</tr>
</tbody>
</table>

Summary

- HPV testing of self-sampling has higher sensitivity, can reduce the burden on the health system and women, and enables the possibility of increased screening coverage.
- There are several types of molecular tests currently available on the market with different characteristics.
- Good laboratory practice must be maintained to avoid contamination and ensure quality.
- Following standard operating procedures for sample collection, transport and testing is essential to getting accurate results.
Questions or Comments?

Thank You!
Session 4: Counseling Women for HPV Testing and Screening

Session Objectives

- Review client rights and key messages for cervical cancer prevention focusing on HPV testing
- Give client instructions on HPV testing self-sampling
- Explain HPV test results and follow-up care for clients
- Review key messages for counseling before and after thermal ablation
- Demonstration and practice of counseling clients for HPV testing

General Consideration

- Women need accurate information about cervical cancer prevention, testing, and treatment.
- Counseling allows women to make an informed decision about being screened and treated (if indicated).

What are client rights?

Client Rights (cont.)

- Right to information: Results of test and time frame for treatment
- Procedure to be used, as well as risks and benefits
- Consent for treatment
- Right to discussion: A woman should feel safe and confident to openly discuss her concerns and condition.
- All procedures should be discussed in advance of performing them
- Right to express her views: Client opinions and suggestions for improvements about services received are important in ensuring quality of care.
Client Rights (cont.)

- Right to confidentiality:
  - All client information should be kept confidential (except in case of emergency).
  - Health care staff not directly involved in the woman’s care should not have access to her records.
  - The woman’s wishes about whether to share information with a spouse/partner should be respected.
- Right to privacy:
  - Use a separate counseling area to encourage open communication.
  - Draw curtains around treatment area.
  - Use drapes to cover woman during examinations and procedures.

Making Decisions About Health

- Women have a right to make their own decisions about their health. To make informed decisions, women need accurate information.
- Women may wish to involve their partners or families in their decision-making.
- Although screening for cervical cancer and treatment of precancer are highly recommended, women should know they are free to refuse any test or treatment.

What are the key messages for counseling before and after screening for cervical cancer?

Counseling Women Before and After HPV Testing

Group Discussion:
1. What are some effective methods to inform, educate, and mobilize women to screen for cervical cancer?
2. Describe how to address a lack of information and how to address myths and misconceptions around cervical cancer and its prevention.
3. What are key messages for women about HPV testing and how to perform self-collection of vaginal samples for HPV testing?

General Consideration on Counseling

- Always verify that the client has understood what was discussed by having her repeat the most important messages or instructions.
- Encourage the woman to ask questions and answer in a way that she can understand.
- Help the client come to a decision by providing clear information.
- Respect the client’s choices.
- Invite the client to return if and when she wishes.

Five Key Messages on Cervical Cancer Prevention

1. Cervical cancer is a preventable disease, caused by HPV.
2. There are tests to detect early changes in the cervix, known as precancers, that may lead to cancer if left untreated.
3. There are safe, effective treatments for these early changes.
4. All HPV-negative women aged 30 to 49 should be screened for cervical cancer at least once—and preferably every 3–5 years, depending on the test used. HPV-positive women should start screening at earlier age.
5. There is a vaccine for girls that can help prevent cervical cancer.
General, Important Points to Cover in Counseling

- What and where the cervix is
- What is cervical cancer and how it is detected
- What causes cervical cancer and the risk factors for developing it
- What can be done to prevent cervical cancer
- A brief description of the screening test

Talking Points: Screening and Treatment

- There are screening tests for cervical cancer that can detect early changes of the cervix (precancer lesion).
- The screening tests for cervical precancer are simple, quick, and do not hurt.
- If a screening test is positive, it means that there could be precancer lesion that can be treated.
  - A positive screening test result DOES NOT mean cancer.
- To prevent cervical cancer, all women with positive screening test results should be assessed and receive appropriate treatment.
- All women who receive treatment for precancer need to be re-screened after 1 year (regardless of HIV status).

Counseling Steps Prior to Screening

- Greet the woman respectfully and with kindness and introduce yourself.
- Count the client prior to performing cervical cancer screening.
- Describe the procedure, possible results, and needed treatment.
- Assess the woman's comprehension about the screening test.
- Respond to the woman's needs and concerns about the screening test. Encourage questions.
- Determine whether the woman has decided to have a screening test done and obtain verbal informed consent.
- If screening with a self-collected HPV test, provide specific instructions about the self-collection of vaginal sample.

Self-Collection of Vaginal Sample for HPV Testing

Communicating HPV Test Results

- At the time of self-collection, in accordance with local policies and context, the health provider asks the woman, and documents in data forms, if she prefers to be contacted for her results by phone or in person at the facility.
- Alternatives for a client to get her results:
  1. Client returns to the facility in 10 days or less to get her results in person.
  2. This time is based on the history of getting results back to a particular facility.
  3. Provider contacts the woman by phone when the HPV test results are available and informs her of her results, negative or positive (and in rare cases, invalid/no result), and next steps.

Post-Treatment Counseling After Thermal Ablation or Cryotherapy Procedure

- What to expect after ablative treatment:
  - Watery discharge up to four weeks
  - Pain similar to period pains
  - Little bleeding, less than period bleeding.
  - Exploits in client not worry about these signs and symptoms.
  - DO NOT have sex for 1 month (if cannot ablate, use condoms)
  - Warning signs:
    - Discharge from vagina smells bad
    - Bleeding more than period bleeding
    - Chills or fever
    - Extremely severe abdominal pain.
  - Follow-up: inform women when she needs to return to the clinic and the need to return immediately if she has any warning sign.
Prepping for Referral

- Explain why, where, and when the client must go, and who she will see. Write the appointment in her health passport.
- Stress the importance of keeping the appointment.
- Answer any questions the client has.
- Invite the client to return if she has any questions or concerns about the appointment.
- Respond to any questions or concerns.

Demonstration and Practice of Counseling

- Demonstration on how to counsel women for HPV testing with self-collection of sample.
- Practice how to inform and educate women to do self-collection of vaginal samples for HPV testing.
Session 5: Treatment for Cervical Cancer Lesions with a Focus on Thermal Ablation

Session Objectives

- Brief review on rationale and treatment options for precancer cervical lesions
- Describe cervical cancer screen and treatment algorithm
- Explain the management of clients who test positive for HPV
- Describe how to perform visual assessment of the cervix for treatment (VAT) and its purpose
- Perform treatment of precancerous lesion using thermal ablation
- Manage side effects and complications of thermal ablation

Principle:
For a program to be effective... testing should be linked to treatment.

Treatment Methods

- Abative: destroying abnormal tissues by burning or freezing
  - No tissue is obtained: cryotherapy and thermal ablation
- Excisional: surgically removing abnormal tissue
  - Tissue is obtained: LLETZ/LEEP, cone biopsy, and hysterectomy

Each choice has eligibility criteria that should be met before treatment

Choice of Treatment

- Benefit and harm of the method
- Extent and location of the disease
- Cost and resource required to provide the treatment
- Training and experience of provider

Comparison of Treatment Options

<table>
<thead>
<tr>
<th></th>
<th>Cryotherapy</th>
<th>LLETZ/LEEP</th>
<th>Thermal Ablation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>85%–95%</td>
<td>&gt; 90%–95%</td>
<td>&gt; 90%–95%</td>
</tr>
<tr>
<td>Safety</td>
<td>Lowest</td>
<td>Low risk</td>
<td>Lower risk</td>
</tr>
<tr>
<td></td>
<td>• Cervical infection</td>
<td>• Bleeding, infection</td>
<td>• Bleeding, infection</td>
</tr>
<tr>
<td>Acceptability</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Costs</td>
<td>Low</td>
<td>Moderate</td>
<td>Lowest</td>
</tr>
<tr>
<td></td>
<td>*Co's</td>
<td>*Consumables</td>
<td></td>
</tr>
<tr>
<td>Provider</td>
<td>Nurse or Doctor</td>
<td>Doctor (usually)</td>
<td>Nurse or Doctor</td>
</tr>
<tr>
<td>Other considerations</td>
<td>*Ablation/no tissue</td>
<td>*Tissue obtained</td>
<td>*Ablation/no tissue</td>
</tr>
<tr>
<td></td>
<td>*VIA recommended</td>
<td>*VIAO recommended</td>
<td></td>
</tr>
</tbody>
</table>

Screening Women Who Test Positive for High-Risk HPV

Alternatives for management
- Screen and Treat approach with primary HPV DNA test screening:
  Determine eligibility for treatment with visual inspection with diluted acetic acid and treat all HPV-positive women. (This may lead to more women being treated, and fewer women being lost to follow-up care; overtreatment may occur; treatment costs may be higher)
- Triage with VIA (or other methods)
  - Treat those VIA positive
  - Follow-up these VIA negative in 1 year if no lesions seen
  - Treat all HPV16/18 positives according to eligibility for treatment and triage with VIA for other high-risk HPV positives

Screen and Treat Approach with Primary HPV DNA Test Screening

Primary HPV DNA Screening Followed by Triaging With VIA

HPV Screening and Treatment for HPV16/18 Positives and VIA Triage for Non-HPV16/18 Positives

What is VAT?

- Visual assessment of the cervix for treatment for women testing HPV positive
- Perform VIA to determine what type of treatment the woman is eligible for
- Only providers who have been formally trained and/or assessed to be competent in VIA should be allowed to perform VAT
- VAT can be performed in outreach activities in a mobile clinic

VAT Procedure and Potential Results

- Perform VIA according to standards

Results
- VIA/VAT negative: no lesion seen
- VIA/VAT positive: lesion seen, eligible for ablative treatment (thermal ablation or cryotherapy)
- VIA/VAT positive: large lesion seen, treat with LLETZ/LEEP
- VIA/VAT suspect cancer: refer for biopsy and further management
**VIA/VAT Negative: No Lesion Seen**

**VIA/VAT Positive: Lesion Seen, Eligible For Ablative Treatment**

**VIA/VAT Positive: Large Lesion Seen, Treat With LLETZ/LEEP**

**VIA/VAT Positive, Suspect Cancer: Refer for Biopsy and Further Treatment**

---

**Discuss Results and Treatment/Management Options**

- Record VAT results in cervical cancer forms/register
- If eligible for ablative treatment, offer thermal ablation/cryotherapy during the same visit
- If eligible for LEEP/LLETZ, refer if treatment is not possible at that site
- If suspicious for cancer, refer woman to referral site where biopsy is obtained and further management is arranged

**Ablative Treatment**

- **Cryotherapy**
  - Freezing process that destroys cervical precancerous tissue
- **Thermal Ablation**
  - Heating process that destroys cervical precancerous tissue
LLETZ/LEEP
(large loop excision of the transformation zone/loop electrosurgical excision procedure)

- Outpatient procedure that uses a thin wire loop heated with electricity to excise the abnormal tissue of the cervix.

General Considerations for Thermal Ablation

- It is an ablative treatment.
- Effective to treat CIN 2-3.
- Task shifting; procedure can be performed by physicians or nurses.
- Can perform biopsies before treatment if needed.
- Power source: direct electrical (desktop) vs. battery (handheld)
- Desktop: desktop, variety of tips/thermo-probes
- Battery/shank source: portability; reportedly less for 30 treatments/day

Eligibility Criteria for Thermal Ablation (very similar to cryotherapy)

- Lesion not suspicious for cancer.
- Can see the entire extent of the lesion; lesion does not extend into the endocervical canal.
- Lesion occupies less than 75% of the cervix.
- No polyps or anatomical deformity of the cervix that prevents good application of the thermal probe tip.
- Client is not pregnant.
- Client is more than 6 weeks postpartum.
- Client does not have severe cervicitis.

Technique: Thermal Ablation

- Outpatient – clinic/mobile clinic.
- Confirm not pregnant.
- Obtain informed consent.
- No anesthesia required.
- Perform visual inspection (VIA) confirm presence, size, location of lesion (eligibility for thermal ablation).
- Apply heated probe (100°C) to cervix to cover lesion and transformation zone.
- Treat for 45-60 seconds (minimum of 30 seconds).
- Repeat as needed (up to 5x) to cover entire lesion and transformation zone (overlapping treatments).
- Review post-treatment instructions and follow-up.

Infection Prevention

- Detach thermo-probe from handle.
- Clean/wipe down handle with alcohol.
- Clean probe and shaft (soapy water, soft brush/gauze).
- Heat sterilize/autoclave – desktop probes.
- Chemical high-level disinfection (20 mins) or sterilization – handheld probes.
- Rinse with sterile water and dry with sterile cloth.
- Cover and store for next treatment.

Possible Complications: During and After Ablative Procedure

- Thermal ablation and cryotherapy procedures rarely cause pain.
- Some women may experience lower abdominal discomfort and cramps.
- If cramping continues for more than 4-10 min following procedure, give a mild pain reliever (i.e., ibuprofen, paracetamol).
- Rarely, clients may feel faint or experience bleeding during the procedure.
- Apply direct pressure to the cervix to stop the bleeding.
- Pink, yellow, or white discharge from the vagina for 4-5 weeks after procedure.
- Discharge may develop a slightly foul odour.
- Light bleeding from the vagina may occur, and the client may experience mild pain.
Possible Complications: After Ablative Procedure

- Severe complications are very rare but require immediate treatment. Symptoms:
  - Extremely foul-smelling vaginal discharge
  - Fever/thought mental illness
  - Severe lower abdominal pain
  - Severe pain or cramping after procedure
- Results from cervical stenosis (narrowing of the endocervical canal) due to tissue destruction
- Requires referral to gynecologist or specialist medical officer to remove necrotic tissue
- Mild infections (occur in less than 10% of clients)
  - If needed, possible antibiotics: trimethoprim 400 mg 3 times daily for 7 days or erythromycin 100 mg 2 times daily for 7 days
- Ablative treatment does not affect pregnancy outcomes; no evidence indicates it affects fertility

Questions or Comments?

Training on thermal ablation in Namibia September 2019

Questions or Comments?

Thank You!
Session 6: Essential Infection Prevention Practices

Session Objectives

- Explain the importance of infection prevention and control with focus in health services (IPC)
- Describe standard precautions
- Describe how to prevent cross contamination during the procedures
- Demonstrate infection prevention steps in HPV self-sampling and thermal ablation

Importance of Infection Prevention and Control

- Stops the spread of HIV and other diseases from one client to another and helps protect providers
- Helps clients trust the service provided by the clinic
- Helps staff feel the work environment is clean, effective, and safe
- Prevents rumours about uncleanliness that could negatively impact the program

What are “Standard Precautions”?

- Set of practices for health care workers and health facilities
- Designed to protect health workers and patients from infection with a range of pathogens, including bloodborne viruses
- Used when caring for all patients regardless of diagnosis; applied universally

Standard Precautions to Make Health Care Safer

Health care workers can stay safer by appropriately complying with standard precautions, including:

- Hand hygiene
- Use of personal protective equipment (PPE)
- Respiratory hygiene and cough etiquette
- Safe injection practices
- Cleaning and disinfection of patient care items
- Processing reusable textile items (processing linens)
- Waste disposal

Hand Washing

- Improper hand washing causes the majority of infections contracted in health facilities.
- The provider must wash hands with soap and water before putting on and after removing gloves.
- Wash hands for 40–60 seconds before and after contact with patients.
- Use hand sanitizer or wash with soap and water.

How to Handwash?
Gloves, Aprons, and other PPE

- The provider must wear an apron and gloves to protect against contact with the client’s body fluids and blood.
- Except for the client, every person present in the room during screening should wear an apron.
- Aprons, gloves, protective glasses/goggles, masks, can be worn to protect the skin and mucous membranes from splashes or contact with blood or body fluids.

Cleaning Examination Area Between Clients

- Wipe down the exam table between every procedure with 0.5% chlorine solution; or thoroughly cleaning with a soap and disinfection solutions and allowing it to dry.
- Wipe down all surfaces (table tops, examination lights, etc.) that may have come in contact with body fluids.
- Ethyl or isopropyl alcohol (70% to 90%) can be used instead, but is more expensive.

Cleaning Instruments

- Wear heavy-duty gloves to protect your hands.
- Thoroughly wipe blood and body fluids from the instruments using sterile gauze and sterile water.
- Thoroughly clean instruments, keeping them under water using approved plain or enzymatic detergent for 1–5 minutes.
- Clean instruments with a brush (clean, old toothbrushes work well) and soapy water.
- After cleaning, rinse items thoroughly with water to remove detergent residue, which can interfere with chemical disinfection.
- Once cleaned rinse and dry instruments thoroughly.

Autoclaving Instruments

- Autoclave instruments and cotton materials in packets.
  - One packet = instruments needed for one client
  - Each packet to be autoclaved consists of: 1 gauze pad, 3 cotton shoulds, 1 spongia, 1 linen cap.
  - Wrap in a cloth and secure with autoclave tape.
  - Label tape with date of autoclaving.
  - Follow manufacturer’s instructions for operating the autoclave.
  - After autoclaving, allow sufficient time to dry and cool.

Storage of Instruments

- Store instruments in a covered, sterilized tray.
- Store for no more than 21 days.
  - After 21 days, repeat autoclaving.
High-Level Disinfection Options

- Chemical disinfection for cryo tips and thermal ablation probe
  - Wash probes or tips in soapy water then rinse off all soap.
  - Soak the probes/tips in:
    - 70% isopropyl alcohol for 12 minutes
    - 2% glutaraldehyde solution (Cidex) for 20 minutes
    - 70% isopropyl alcohol (70%-90%) for 20 minutes
  - Rinse thoroughly in sterile water then air-dry and store in a closed container.
  - These chemicals may be corrosive, and can reduce the useful life of instruments that are repeatedly disinfected with them.
  - To prevent unnecessary corrosion, take care not to process instruments longer than recommended.

Hazardous Waste

- After completing speculum examination, VIA, or ablative treatment of the cervix, and while still wearing gloves, dispose of contaminated objects (swabs and other waste items) in a properly marked, leakproof container (with a tight-fitting lid) or plastic bag.
- Appropriate procedures for the sorting and disposal of hazardous waste must be followed according to the infection prevention and control guidelines.

Daily Preparation

Before the first client arrives each day:
- Prepare containers of 0.5% chlorine solution, ethyl or isopropyl alcohol (70%–90%), solution for high-level disinfection and soapy water.
- Place necessary disposable gloves and aprons.
- Keep individual packets of autoclaved equipment closed to prevent exposure to dust and bacteria.
- Clean the examination table and area.
- Place the hazardous-waste basket and container with soapy water within easy reach of the provider.

Screening/Examination Room

Thermal Ablation Infection Prevention Process

- Detach thermo probe from handle
- Clean/wipe down handle with alcohol
- Clean probe and shaft (soapy water, soft brush/gauze)
- Desktop probes—heat sterilize/autoclave
- Handheld probes—chemical high-level disinfection (HLD) for 20 minutes or sterilization
- Rinse with sterile water and dry with sterile cloth
- Cover and store for next treatment

Cleaning and Disinfecting Demonstration

- Cleaning and disinfecting equipment
- Thermal ablation unit care
Questions or Comments?

Thank You!
Session 7: Monitoring and Evaluation for Cervical Cancer Prevention Services

Introduction to M&E—Definitions

Monitoring: routine tracking of priority information about a program and its intended inputs, outputs, and/or outcomes.
- Are we doing the right things to achieve our goals?

Evaluation: measures changes over time in program implementation processes and/or outcomes. Impact evaluations further measure the extent to which the changes can be attributed to the program interventions.
- Are we doing things right (with adequate coverage quality and equity) to achieve our goals?

M&E: Why Do We Do it?

- Improve public health program implementation, management, and decision-making by identifying gaps and finding solutions
- Use information for policy and program advocacy
- Ensure accountability
- Allocate resources appropriately
- Evaluate progress toward established goals
- Ensure that reporting requirements are met

Reasons to Invest In and Improve Data Collection and Reporting

- What gets measured, gets done.
- If you don’t measure results, you can’t tell success from failure and you can’t identify gaps and find solutions.
- If you can’t see success, you can’t learn from it and share it.
- If you can’t see success, you can’t reward it.
- If you can’t reward success, you probably are rewarding failure.
- If you can’t recognize failure, you can’t correct it.
- If you can demonstrate feasible and effective results, you can scale up.

Elements of Cervical Cancer Program M&E System and Metrics

- Standard cervical cancer indicators, including definitions, calculations, and targets
- Data collection tools (screening form, daily register, and monthly summary form)
- Human resources for data entry, analysis, synthesis, interpretation
- Strengthening M&E training for providers
- Step-by-step process for data cleaning, analysis, visualization, and use
- Ongoing supervision, monitoring, data use support visits
- Facility-level hard copy data use posters and/or electronic dashboards, as appropriate to level of facility, facility staff, and hardware resources
HPV Testing and Thermal Ablation Clinical Training: Facilitator Guide
Screening Form: Key Features
- Single form per client for any screening modality (HPV test, VIA, others)
- Collects:
  - Client demographic information
  - History
  - HPV status
  - HPV testing information (not applicable to those screening with HPV test)
  - Visit type (e.g., VIA)
  - Physical examination
  - VIA or HPV results
  - Treatment
  - Referral

Individual Exercise: Case Studies
- Session Objectives:
  - Practice filling out the sample cervical cancer screening form
  - Discuss challenges and share ways other participants may have handled/solved the challenges

Individual Exercise
- Read Case Study 1, 2, and 3 (next slide)
- Using the sample cervical cancer screening form, individually complete for the simulated clients
- After all of the participants have had a chance to complete the form, ask for three volunteers to present their experience completing the forms for each one of the case studies:
  - How did they complete the forms for each of the 3 clients?
  - What, if any, challenges did they encounter?
  - Facilitator leads discussion

Case Study
Client Case Study #1
- Mary’s lawyers—40 years old, an HIV, lives in Xux-xux, Yyz is a member of a clinic visited the clinic 2 weeks ago (April 20, 2020) and self-collected an HPV smear. She has not returned for HPV positive results and is offered VIA today. She is in a continuous relationship and had an menstrual period 5 month ago. She has no history of any abnormal bleeding or contact with any person with cervical cancer. She is asymptomatic and has no other symptoms. A VIA smear was taken using a small brush and referred to a LITF treatment center.

Client Case Study #2
- Mary’s lawyers—57 years old, has been treated with LITF 1 year ago. She has returned for her follow-up screening visit. VIA was done and she was VIA-negative.

Client Case Study #3
- Agnes, 40, married, lives in Xux-xux—screened for cervical cancer 3 years ago with a VIA negative result. She refused counseling, and she opted to get HPV screening. Self-collection of sample was completed.

Register—Key Features
- Tracks all 9 key indicators monthly
- Calculated using a register
- Disaggregated by HPV age, and visit types

Monthly Summary Form—Key Features
- Tracks all the 9 key indicators monthly
- Calculated using a register
- Disaggregated by HPV age, and visit types
Data Management: General Considerations

- In order to direct available resources and evaluate progress toward goals, data must be:
  - Accurate
  - Reliable
  - Precise
  - Complete
  - Timely
- Nothing can be done at the central level to improve data quality if poor data are collected at the site level.
- Most problems with data need to be corrected at the source of the problem (often at the facility during initial data recording).

Good Data Collection Practices

- Complete registers, client forms, and monthly summary reports in blue or black ink.
- Complete all questions or blanks on the form unless instructed to skip certain questions.
- Complete screening form at the time of client visit.
- Complete register at the same time as screening form or by the end of the day.
- Record in the margin, bottom of the form, or back of the form if additional space is needed.
- Record each visit by a patient on separate screening form and enter visit into the register separately.
- Specify the reason when “other” is marked.

Good Data Collection Practices (cont.)

- Mark “initial screening” if this is the client’s first screening.
- Note when the client should return for follow-up on the bottom of the screening form.
- Document outcome of the referral on the screening form.
- Do not skip lines in the register.
- Start a new page in the register on the first day of the new month.
- Complete page totals at the bottom of each page of the register.

Data Management

- Electronic medical record (EMR) and mHealth decision support tools may be used at facility level for data entry and patient level longitudinal tracking of clients from screening through treatment and referrals out. Implementation considerations—including national guidelines and procedures and existing national data collection forms—should direct use of additional platforms.
- Paper-based tools: a back-up stock of data collection tools should be made available at all sites, this may also supplement facilities where electronic data collection or mHealth solutions are not available.
- Data aggregation will be done using standard HMIS monthly reports (following the national HMIS data flow process) and supplemental forms approved by the MOH.
- Standard operating procedures (SOPs) should be used to guide routine data management (collection, aggregation, reporting) and use.

Example of Data Flow and Reporting

Data Management: Summary

- Data Collection: Data are collected at the point of care using electronic medical record (EMR) and mHealth decision support tools.
- Data Transmission: Data are transmitted to the central level using secure and reliable communication channels.
- Data Storage: Data are stored in a secure and accessible manner.
- Data Analysis: Data are analyzed to identify trends and patterns.
- Data Reporting: Data are reported to the national level for monitoring and evaluation purposes.

Dimensions of Data Quality

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Definition</th>
<th>Level of Measurement</th>
<th>Data Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Data values are close to the true values.</td>
<td>Physical, nominal</td>
<td>Data values, data management, and clinical performance</td>
</tr>
<tr>
<td>Reliability</td>
<td>Data values are consistent and repeatable.</td>
<td>Physical, nominal,</td>
<td>Data values, data management, and clinical performance</td>
</tr>
<tr>
<td>Integrity</td>
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<td>Physical, nominal,</td>
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</tr>
<tr>
<td>Fidelity</td>
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<td>Coverage</td>
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<tr>
<td>Completeness</td>
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<td>Physical, nominal,</td>
<td>Data values, data management, and clinical performance</td>
</tr>
<tr>
<td>Representativeness</td>
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<td>Physical, nominal,</td>
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<tr>
<td>Validity</td>
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<tr>
<td>Precision</td>
<td>Data values are consistent and repeatable.</td>
<td>Physical, nominal,</td>
<td>Data values, data management, and clinical performance</td>
</tr>
</tbody>
</table>

Updated: [Date]
Data Quality Initiatives

Data Verification:
- Provincial or district focal points should conduct routine quarterly data verification exercises.
- The data verification process will ensure alignment of reported results with primary data sources (registers, EMR, HMIS).
- Physical file counts of client's records will also be conducted.
- Validation criteria should be established within EMR to prevent errors.

Data Quality Initiatives (cont.)
- Data Quality Assessments (DQA):
  - Conducted in a sample of facilities by national, provincial/regional, or district-level focal points.
  - Conducted periodically (semi-annually) to monitor data management systems across all supported HMIS.
  - Results to be incorporated into other supervisory/monitoring tools to sites.
- All recommendations from the DQA will be compiled into a summary report of findings.
- All sites where DQAs were conducted will receive an individual site brief and action plan.
- DQA findings will also be shared with district, provincial directors, and national leadership.
- Findings will inform programmatic actions to improve data quality.

Reporting Timelines
- Screening and treatment form—at each client visit
- Register—at each client visit
- Monthly summary report—before the end of the next month
- Electronic data collation and aggregation tool—before the 7th of the next month

Using Data for Monitoring Trends and Informing Corrective Action

Why are accuracy, completeness, and timeliness in data collection important?
- Data represent actual provider-client interactions and outcomes of visits.
- Client details are represented in the information analyzed.
- Good data can show correctable problems and inform decisions about service delivery and operations management.
- Improves quality of services provided and patient outcomes.
- Helps to answer:
  - Are we doing the right things?
  - And are we doing things right?

Data Visualization and Use
- Promote the use of data using multiple approaches including:
  - Data visualization dashboards/summaries using data reported in the national HMIS.
  - Paper-based data posters (charts/thumbnails) in project-supported facilities—all service delivery points.
  - Build the capacity of both data producers and data users to interpret the data.
  - Present data in easy-to-interpret, accessible formats to facilitate discussions to make programmatic adaptations.
- Facility teams will review data monthly using their data poster or by visualizing HMIS data through charts and graphs.
- The program will hold quarterly performance review meetings with the national cervical cancer coordinating committee and technical working groups to review program performance and quality with prompt course corrections.
Summary

- Benchmarks (targets) help to interpret the quality of services based on the data.
- Health service delivery data have to be analyzed and used at the service delivery level where it is collected; a subset of the data should be reported up to the next level of the health system.
- Most problems with data need to be corrected at the source of the collection (often at the facility in initial data recording).
- Nothing can be done at the central level to improve data quality if poor data are collected at the point-of-care level.