Cervical Cancer Prevention
HPV Testing and Thermal Ablation Clinical Training: Learner 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.

Published by:
Jhpiego Corporation
Brown’s Wharf
1615 Thames Street
Baltimore, Maryland 21231-3492, USA
www.jhpiego.org

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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.
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>Session 1</td>
<td>Advancing Cervical Cancer Prevention</td>
<td>30 min</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></td>
<td>• Strategic interventions for elimination of cervical cancer</td>
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<td></td>
<td>• Country situation and plans on cervical cancer prevention</td>
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<tr>
<td>Session 2</td>
<td>Overview on Cervical Cancer</td>
<td>30–60 min</td>
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<tr>
<td></td>
<td>• Anatomy and physiology of the female reproductive system</td>
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<td></td>
<td>• Pathophysiology and natural history of cervical cancer</td>
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<td></td>
<td>• HPV and HIV infection and cervical cancer</td>
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<td></td>
<td>• Risk factors for developing cervical cancer</td>
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<tr>
<td>Session 3</td>
<td>HPV Testing as an Effective Method of Screening</td>
<td>60 min</td>
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<tr>
<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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<tr>
<td></td>
<td>• HPV testing for cervical cancer screening</td>
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<td></td>
<td>• Essential supplies for HPV testing</td>
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<tr>
<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></td>
<td>• How the HPV tests will be processed and results provided</td>
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<td></td>
<td>• What a HPV test result, positive or negative, means</td>
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<tr>
<td>Session 4</td>
<td>Counseling Women for HPV Testing Screening</td>
<td>30–60 min</td>
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<tr>
<td></td>
<td>• The characteristics of a good counselor</td>
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<td></td>
<td>• Techniques for counseling women on sexual health matters, such as HPV infection and testing</td>
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<td></td>
<td>• The key points to convey about HPV infection, HPV testing, and cervical cancer prevention</td>
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<td></td>
<td>• General information about pre- and post-counseling for HPV testing</td>
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<td></td>
<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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<td>Session #</td>
<td>Topic</td>
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<tr>
<td>Session 1</td>
<td>Communicating HPV test results to women and potential options for treatment and follow-up</td>
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<td>Session 5</td>
<td><strong>Thermal ablation treatment for cervical precancer lesions</strong></td>
<td>90 min</td>
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<td>• Screen-and-treat algorithm, ensuring single visit approach when possible</td>
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<td></td>
<td>• Visual assessment of the cervix for treatment (VAT) and its purpose</td>
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<td></td>
<td>• Treatment/management options</td>
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<td></td>
<td>• General information on thermal ablation procedure</td>
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<td></td>
<td>• Eligibility criteria for thermal ablation</td>
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<tr>
<td></td>
<td>• Pre-/post-counseling of clients for thermal ablation</td>
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<tr>
<td></td>
<td>• The thermal ablation technique</td>
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<td></td>
<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>
<td></td>
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<td></td>
<td>• Link and refer clients to other services</td>
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<tr>
<td>Session 6</td>
<td><strong>Essential Infection Prevention Practices</strong></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></td>
<td>• Instrument processing and storage</td>
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<td>• Waste disposal and safe workplace</td>
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<tr>
<td>Session 7</td>
<td><strong>Monitoring and Evaluation</strong></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></td>
<td>• How to use data to inform necessary service course corrections</td>
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<tr>
<td>Session 8</td>
<td><strong>Planning for the Introduction of HPV Testing and Thermal Ablation at health service</strong></td>
<td>40–60 min</td>
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<tr>
<td>Session 9</td>
<td><strong>Demonstration and Practice with Anatomic Model</strong></td>
<td>4–8h</td>
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<tr>
<td>Session 10</td>
<td><strong>Guided Clinical Practice with Client</strong></td>
<td>12–16h</td>
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</tbody>
</table>
## Course Schedule – 5 Day Training

(For learners with no previous experience in providing cervical cancer prevention service)

<table>
<thead>
<tr>
<th>Day</th>
<th>AM (4 hours) Introductory Activities</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Welcome, introductions and opening remarks</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></td>
<td>Course overview: goal and objectives, materials, schedule, instructions for action plan preparation</td>
<td>Session 6: Essential Infection Prevention Practices</td>
<td>Group Education</td>
<td>Group Education</td>
<td>Group Education</td>
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<td></td>
<td>Expectations and group norms</td>
<td>Session 7: Monitoring and Evaluation</td>
<td>Clinical Practice: Observe and provide services in the clinic under supervision</td>
<td>Clinical Practice: Observe and provide services in the clinic under supervision</td>
<td>Clinical Practice: Observe and provide services in the clinic under supervision</td>
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<td></td>
<td>Initial knowledge assessment</td>
<td>Small Group: Practice with Anatomic Model</td>
<td>• Counseling</td>
<td>• Counseling</td>
<td>• Counseling</td>
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<td></td>
<td>Identify individual and group learning needs</td>
<td>Group 1: Counseling</td>
<td>• HPV testing</td>
<td>• HPV testing</td>
<td>• HPV testing</td>
</tr>
<tr>
<td>Session 1: Advancing Cervical Cancer Prevention</td>
<td>Group 2: HPV test sample collection + VIA/VAT</td>
<td>Thermal ablation</td>
<td>Thermal ablation</td>
<td>Thermal ablation</td>
<td>Thermal ablation</td>
</tr>
<tr>
<td>Session 2: Overview of Cervical Cancer</td>
<td>Group 3: VAT/thermal ablation using anatomic model and checklist</td>
<td>• Documentation</td>
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<tr>
<td>Session 3: HPV Testing as an Effective Method of Screening</td>
<td></td>
<td>Review of Clinical Practice</td>
<td>Retake of mid-course knowledge assessment and cervical images assessment as needed</td>
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<tr>
<td>Day 1</td>
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<td>Warm-Up</td>
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<tr>
<td>Session 4: Counseling of</td>
<td>Small Group (cont.)</td>
<td>Small Group (cont.)</td>
<td>Review of Clinical Practice</td>
<td>Action Plans Presentation</td>
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<tr>
<td>Women for HPV Testing</td>
<td>Group 1: Counseling</td>
<td>Group 1: Counseling</td>
<td>(discuss clinical observation</td>
<td>and Discussion</td>
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<td></td>
<td>Group 2: HPV test sample</td>
<td>Group 2: HPV test sample</td>
<td>and additional practice on</td>
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<td>collection + VIA/VAT</td>
<td>collection + VIA/VAT</td>
<td>model as needed)</td>
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<td></td>
<td>Group 3: VAT/thermal</td>
<td>Group 3: VAT/thermal</td>
<td>Review of Clinical Practice</td>
<td>Course Evaluation</td>
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<td>ablation using anatomic</td>
<td>ablation using anatomic</td>
<td>(discuss clinical observation</td>
<td>Closing and Award of</td>
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<td></td>
<td>model and checklist</td>
<td>model and checklist</td>
<td>and additional practice on</td>
<td>Certificates</td>
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<td></td>
<td>Small Group: Action plan</td>
<td>Small Group: Action plan</td>
<td>model as needed)</td>
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<td>preparation</td>
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<td>Clinical Practice</td>
<td>Clinical Practice</td>
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<td></td>
<td>Review of the Day/Plans</td>
<td>Review of the Day/Plans</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>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
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</thead>
<tbody>
<tr>
<td><strong>Chairperson:</strong></td>
<td><strong>Chairperson:</strong></td>
<td><strong>Chairperson:</strong></td>
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<tr>
<td><strong>Timekeeper:</strong></td>
<td><strong>Timekeeper:</strong></td>
<td><strong>Timekeeper:</strong></td>
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<tr>
<td><strong>AM (4 hours)</strong></td>
<td><strong>AM (4 hours)</strong></td>
<td><strong>AM (4 hours)</strong></td>
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<tr>
<td><strong>Introductory Activities</strong></td>
<td><strong>Welcome to the Clinic and Plan for the Day</strong></td>
<td><strong>Welcome and Plan for the Day</strong></td>
</tr>
<tr>
<td>● Welcome, introductions, and opening remarks</td>
<td>● Group Education</td>
<td>● Group Education</td>
</tr>
<tr>
<td>● Course overview: goal and objectives, materials, schedule</td>
<td>● Clinical Practice: Observe and provide services in the clinic under supervision:</td>
<td>● Clinical Practice: Observe and provide services in the clinic under supervision:</td>
</tr>
<tr>
<td>● Expectations and group norms</td>
<td>● Counseling</td>
<td>● Counseling</td>
</tr>
<tr>
<td>● Precourse knowledge assessment</td>
<td>● HPV testing</td>
<td>● HPV testing</td>
</tr>
<tr>
<td>● Identify individual and group learning needs</td>
<td>● Thermal ablation</td>
<td>● Thermal ablation</td>
</tr>
</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

<table>
<thead>
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<tbody>
<tr>
<td><strong>PM (3 hours)</strong></td>
<td><strong>PM (3 hours)</strong></td>
<td><strong>PM (3 hours)</strong></td>
</tr>
<tr>
<td><strong>Warm-Up</strong></td>
<td><strong>Review of Clinical Practice</strong></td>
<td><strong>Result of Mid-Course Knowledge Assessment</strong></td>
</tr>
<tr>
<td><strong>Session 5:</strong> Key Monitoring and Evaluation Practices</td>
<td><strong>Review of Clinical Practice</strong> (discuss clinical observation and additional practice on model as needed)</td>
<td>Discussion on how to incorporate HPV testing and thermal ablation into existing cervical cancer prevention services</td>
</tr>
<tr>
<td>Small Group Activity: Demonstration and Practice with Anatomic Model</td>
<td><strong>Mid-Course Knowledge Assessment</strong></td>
<td>Course Evaluation</td>
</tr>
<tr>
<td>Group 1: Counseling</td>
<td></td>
<td>Closing and Award of Certificates</td>
</tr>
<tr>
<td>Group 2: HPV test sample collection + VIA/VAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3: VAT/thermal ablation</td>
<td></td>
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</tr>
</tbody>
</table>

**Preparation for Clinical Practice**  
**Review of the Day/Plans for Tomorrow**
## 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></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>
<td></td>
</tr>
<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>
</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></td>
<td></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></td>
<td></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></td>
<td></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></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>
</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></td>
<td></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

<table>
<thead>
<tr>
<th><strong>Steps/Tasks</strong></th>
<th><strong>Cases (Rate ✓, X or N/O)</strong></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>
</tbody>
</table>

#### Performing provider collection of sample as needed

<table>
<thead>
<tr>
<th>Step</th>
<th>Task Description</th>
<th>Cases (Rate ✓, X or N/O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>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.</td>
<td>Check that she has emptied her bladder.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>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.</td>
<td>Arrange instruments and supplies on a clean tray.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Observe infection prevention principles: sanitize hands and put on two pairs of gloves.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Explain to the woman what you will do.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Perform bimanual examination.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Insert the speculum and fix blades so that entire cervix can be seen.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Move the light source so that the cervix can be seen clearly.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>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.</td>
<td>Obtain a sample from the cervix with the brush.</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Place the brush in the vial.</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Gently remove the speculum.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>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.</td>
<td>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.</td>
<td>Remove gloves and dispose of them in a hazardous waste bag.</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>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>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate ✓, X or N/O)</th>
</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 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 management, when result will be available and how result will be 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

*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 VIA / VAT

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases (Rate ✓, X or N/O)</th>
</tr>
</thead>
<tbody>
<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>
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</tbody>
</table>
### Checklist for VIA / VAT

<table>
<thead>
<tr>
<th>Steps/Tasks</th>
<th>Cases [Rate ✓, X or N/O]</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

1. Inspect external genitalia for vulvar lesions, lichen sclerosus, infectious disorders.
2. Perform the bimanual examination.
3. Explain to the woman what you will do and insert speculum and fix blades so that entire cervix can be seen.
4. Move light source so cervix can be seen clearly.
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.
6. Identify the cervical os, SCJ and transformation zone.
7. Apply 3–5% acetic acid to cervix and wait 1 minute. Dispose of swab.
8. Check if cervix bleeds easily. Check for any raised and thickened white plaques or acetowhite epithelium.
9. Remove any remaining acetic acid from the cervix and vagina with a swab. Dispose of swab.
10. Analyze the VIA/VAT result (positive or negative) and proceed accordingly.
   - If there is need for ablative treatment and the women is already counselled 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
   - If there is no need for treatment of treatment will not be conducted immediately, gently remove the speculum.

#### Post-VIA Tasks

1. Check if the woman is well and have her get dressed.
2. Place used speculum and instruments in a properly marked leakproof container (with tight-fitting lid) or plastic bag.
3. Wipe the examination table, other equipment/instruments (e.g., the light source if contaminated) with 0.5% chlorine solution or alcohol.
4. Remove gloves and dispose of them in a hazardous waste bag.
5. Wash hands thoroughly with soap and water and dry with a paper towel or air dry, or sanitize hands with alcohol-based sanitizer.

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.*

**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.

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<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>
<tr>
<td>Steps/Tasks</td>
<td>Cases (Rate √, X or N/O)</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<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

Goal: __________________________________________________________ Facility Name: ____________________________________________________

<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>
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</tbody>
</table>

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

**Page 25**
# Training Course Evaluation

Please rate each statement below according to the following scale:

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

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

Figure 1: Overview of programmatic interventions over the life course to prevent HPV infection and cervical cancer

- Prevention: Vaccination
- Primary prevention: HPV vaccination
- Secondary prevention: Early detection and management
- Tertiary prevention: Treatment of advanced disease
- Calls for action: Accelerating progress to achieve the global targets
- IMPACTS: HPVs, HPV, and cervical cancer

2020-2060: Cervical cancer elimination timeline

- Interventions: Vaccination and screening
- 2020: Introduction of HPV vaccination
- 2030: Universal HPV vaccination
- 2040: Universal HPV screening
- 2050: Cervical cancer control
- 2060: Cervical cancer elimination
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

2020 Targets

- 90% of public health facilities will provide HPV testing and cervical cancer
  screening.
- 70% of women are screened with high performance tests.
- 90% of women treated with cervical disease.
- 50% reduction in mortality from cervical cancer
  Sustainable Development Goal 2030 Target 3.4: 50% reduction in mortality from
  non-communitable diseases.

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

- Increased coverage of HPV vaccination.
- Increased coverage of screening and treatment of precancer lesions.
- Increased coverage of diagnosis and treatment for invasive cancer and palliative care.

Current WHO Recommendation for Cervical Cancer Screening and Treatment

Screening

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

Ablative treatment (of women screened positive and eligible)

- Thermal ablation
- Cryotherapy
- Eversion treatment
- LLETZ (Large loop excision of the transformation zone)LEEP (LEEP electrosurgical excision procedure)
- Cold knife conization/hysterectomy

Primary Prevention: HPV Vaccines

- Characteristics of different types of currently available vaccines

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Bivalent (2)</th>
<th>Quadrivalent (4)</th>
<th>Ninevalent (9)</th>
</tr>
</thead>
</table>
| Manufacturer | GlaxoSmithKline | Merck | Merck
| HPV type | 16, 18 | 6, 11, 16, 18 | 6, 11, 16, 18, 31, 33, 45, 52, 58
| Age group | Females 9–26 years | Females 9–26 years (priority 9–13 years) | Females 9–26 years (priority 9–13 years)
| Dose series | 2 doses, 0 and 6–12 months | | |

Based on the global context of the GAPACTV clinical program and several meta-analyses
https://www.who.int/immunization/cervical_cancer/vaccine_treatment?lang=en
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 (self collection)</td>
<td>90%–95%</td>
<td>80%–95%</td>
</tr>
<tr>
<td>VIA (Immediate result and low cost)</td>
<td>41%–50%</td>
<td>40%–55%</td>
</tr>
<tr>
<td>Pap smear (cytology) (need follow-up)</td>
<td>38%–83%</td>
<td>60%–95%</td>
</tr>
</tbody>
</table>

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

Comparison of Treatment Options

<table>
<thead>
<tr>
<th>Cryotherapy</th>
<th>Loop Excision</th>
<th>Thermal Ablation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>65%–85%</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Safety</td>
<td>Low risk for cervical infection</td>
<td>Low risk for bleeding, infection</td>
</tr>
<tr>
<td>Acceptability</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Costs</td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>Provider</td>
<td>Nurse or Doctor</td>
<td>Doctor (anesthetist)</td>
</tr>
<tr>
<td>Other</td>
<td>Ablative biopsy, WHO recommended</td>
<td>Tissue ablation, WHO recommended</td>
</tr>
</tbody>
</table>


Remarks on Effective CECAP Program Components

For a Program to be effective...

- Priority should be given to maximising screening coverage and treatment, rather than maximising 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 hardest 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 CECAP Programs — Main Components and Objectives

1. PREPARE — readiness to start implementation: national policies and guidelines, equipment and supplies, preimplementation and logistics
2. BUILD — capability to support the implementation of planned activities: training & supportive supervision; monitoring & 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

cervical-resource-centre/publications/sr_2019_1?language=en
termal-ablation-for-cervical-cancer/en/
termal-ablation-for-cervical-cancer/en/

Jhpiego Additional Resources and Tools/Kits for Cervical Cancer Prevention

english-french-spanish/
acid-english-french-spanish/

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

Acting now to stop cervical cancer!
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: internal area
- Ectocervix: external area
- Cervical canal
- External os

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 vasovagal (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 (SCI)
  - SCI: 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

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)

Squamocolumnar Junction (SCJ): Normal Cervix

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)

Review Exercise 1: Cervical Anatomy

Common Variations and Abnormalities of the Cervix
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

- Mucous-filled lumps on the surface of the cervix
  - Progressive or visible balls set in the surface of the cervix, pushing outward
  - Usually only a few millimetres in diameter, but can grow 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
  - Elsewhere, 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
  - Often have the shape of a spindrop or grape
  - 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

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

Nearly all cervical cancers are linked to infection with HPV.

- Most HPV infections are transient.
- Only HPV that persists can lead to cancer.
- On cervix, HPV tends to infect cells in the squamocolumnar junction (SCJ) or transformation zone (TZ).
- Progression to cancer usually takes 10 years or more.
- Precancerous stage provides an opportunity to prevent progression with effective treatment.
Questions or Comments?

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

Screening as a Key Intervention for the Elimination of Cervical Cancer

Threshold for elimination as a public health problem: age-adjusted incidence rate <4 per 100,000 women years

2030 Targets

- 90% of girls fully vaccinated with HPV vaccine by 15 years of age
- 70% of women screened with HPV screening test by 30 years of age and again by 60 percent age
- 90% of women identified with abnormal cervical precursor lesions through a prompt referral system or patient care management

Sustainable Development Goal 2030 Target 3.4: 30% reduction in mortality from communicable diseases

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 (self-collection)</td>
<td>50%–90%²</td>
<td>80%–85%²</td>
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<tr>
<td>VIA (Immediate result and low cost)</td>
<td>41%–90%²</td>
<td>40%–95%²</td>
</tr>
<tr>
<td>Pap smear (cytology) (read follow up)</td>
<td>30%–83%²</td>
<td>60%–95%²</td>
</tr>
</tbody>
</table>

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

WHO Screen and Treat Recommendations (2013/14)

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

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

Target Population

- HIV Negative
  - Priority to women aged 30–49 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. Use appropriate preservative solution
2. Store and transport at room temperature 15°C–30°C
3. 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

Storage and Transport of Specimen

1. Label of specimen vial
2. Use appropriate preservative solution
3. Store and transport at room temperature 15°C–30°C
4. 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>
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</thead>
<tbody>
<tr>
<td>P3</td>
<td>HPV 31, 33, 35, 52, 58, 59</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.
  2. 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.
- Provider contacts the woman by phone when the HPV test results are available and allows her to receive her results, positive or negative (and in rare cases, negative results), 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 or
  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 3 years if HIV negative
  - Rescreen in 5 years if HIV positive
- **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/Abative 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 acetic 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>B. HPV DNA (e.g., Cervista, Xpert, Abbott, Roche Cobas, Osangen, others)</td>
</tr>
<tr>
<td>C. Cervicovaginal smear</td>
<td></td>
<td>B. mRNA (Hologic Aptima)</td>
</tr>
<tr>
<td>C. Cervicovaginal smear</td>
<td></td>
<td>B. Protein biomarkers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HPV antibodies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Oncoproteins (e.g., OncoVAX/TriScan)</td>
</tr>
</tbody>
</table>

Nucleic Acid Testing Overview

- HPV NAT testing of oncogenic HPV types has been proven to allow earlier detection of persistent high-grade precancer compared to conventional cytology and VIA.
- Currently available tests detect high-risk HPV infections (hrHPV) including:
  - 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68
- NAT platforms are classified as:
  - Point-of-care
  - Near-point-of-care
  - Conventional
- Conventional platforms typically demonstrate higher throughput and lower pricing, however, require more advanced laboratory infrastructure and technician capacity while often reducing or deferring results return.

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 (IARC 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 where 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):
  - Cobas HPV - ROCHE Diagnostic Systems
  - Abbott - RealTime High Risk (Hybritech) HPV – 14x300 copies
  - Abbott - Allosys or High Risk (BR) HPV
  - Alphatron HPV – Pathogenetics
  - Corbett HPV 2000 – Corbett CTA
  - Digene HPV 2000 – Digene CTA
  - Digene HPV 2000 – Digene CTA

- Near-Point-of-Care
  - Xpert HPV – Cepheid
  - GeneXpert HPV – Cepheid

- Point-of-Care — in the pipeline

Essential HPV Test Commodities

- Sample collection device: device for collection of cervical or vaginal specimens through either self-collection or health worker collection
- Sample collection medium: collection medium required to transport/store/prep the sample
- HPV test reagents and consumables: test reagents plus any controls/laboratory consumables
- Generic laboratory consumables: lab coats, personal protective equipment (gloves, lab gowns), bleach, 70% alcohol, etc.

Good Lab Practices

- PCR Laboratory Setup & Flow
  - Regularly cleanse disaster plan, educate personnel, and train on contamination

- Storage of Reagents and Samples
  - Store reagents and samples separately to avoid contamination

- Calibration and Maintenance of Point Reader
  - Monitor Xpert reader regularly as per manufacturer's guidelines

- Bench Maintenance
  - Store clean work space daily with 2.5 liter of household bleach solution and 70% alcohol
  - Keep backup of the instrument out of reach

HPV Detection on GeneXpert

- The Xpert is a qualitative, real-time PCR assay for the detection of HRV DNA
- Detects the E6/E7 region of the viral DNA genome from 14 high-risk HPV type in one run
- Tests HPY specifically identifies types 16 and 18 HPV in 18/52 in direct detection channels
- Reports 11 other high-risk types as a pooled result

HPV Xpert Kit Contents

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

- HPV cartridges should be stored at 2°C-28°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 cartridge if it is perfectly sealed and does not look damaged.
- When handling cartridge do NOT touch the reaction tube.

**Cartridge Preparation**

**Running a Test**

**What Happens in the Cartridge During the Test?**

- Video: [2mins 16 sec]
  
  [Link to video](https://www.youtube.com/watch?v=mi9Blvp508t&list=...)

**Quality Controls**

- System check control
- Check optic, modulator temperatures, and mechanical integrity of each cartridge and give ERROR if they fail.
- Internal Controls
  - Probe Check Controls (PCR): done before PCR starts, checks if fluorescent signals on all probes are comparable to factory settings to monitor bead hydration, dye stability, probe integrity.
  - Sample Adequacy Controls (SAKC): NMT (hypromethylсyclodextrine) used, ensures that enough human sample has been added to sample chamber of cartridges. 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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>Vaginal anti itch cream</td>
<td>0.25% w/v (weight/volume)</td>
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<tr>
<td>Thick creams</td>
<td>&gt;0.25% w/v</td>
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<tr>
<td>Whole blood</td>
<td>0.25% w/v</td>
</tr>
<tr>
<td>Vagi-Gard moisturising gel</td>
<td>0.5% w/v</td>
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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?

Right to Information
- Results of test and time frame for treatment
- Procedure to be used, as well as risks and benefits
- Her consent for treatment

Right to Discussion and Confidentiality
- Right to discussion:
  - A woman should feel safe and confident to openly discuss her concerns and condition.

Right to Privacy
- All procedures should be discussed in advance of performing them.

Right to Express Her Views
- 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?

- 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.

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?

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 not treated.
3. There are safe, effective treatments for these early changes.
4. All HIV-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. HIV-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.
- Greet 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.
- Address 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 asks the client to come to the facility to receive the results in person.
- 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 pain
  - Little bleeding, less than periods bleeding
  - Explain to client not worry about these signs and symptoms.
  - Do NOT have sex for 1 month (if cannot abstain, 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 need to return to the clinic and the need to return immediately if she has any warning sign.
Preparing Clients 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 a woman 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.

Questions or Comments?

Thank You!
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

- **Ablative:** 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

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<thead>
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<th>Patient must be Informed</th>
<th>Consent</th>
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Comparison of Treatment Options

- **Cryotherapy**
- **LLETZ/LEEP**
- **Thermal Ablation**

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<tr>
<th>Effectiveness</th>
<th>Cryotherapy</th>
<th>LLETZ/LEEP</th>
<th>Thermal Ablation</th>
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<td>+ Ablative/ excision</td>
<td>+ Tissue obtained</td>
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<td>+ Ablative/ excision</td>
</tr>
<tr>
<td>+ WHO recommended</td>
<td>+ WHO recommended</td>
<td>+ WHO recommended</td>
<td>+ WHO recommended</td>
</tr>
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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 dilated 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; over-treatment may occur; treatment costs may be higher)
- Triage with VIA (or other methods)
  - Treat those VIA positive
  - Retest those 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

Primary HPV DNA Screening Followed by Triaging With VIA

HPV DNA testing
- Negative
  - VIA negative: no lesion seen
  - VIA/ VAC negative: no lesion seen
  - VIA/ VAC positive: lesion seen, eligible for ablative treatment (thermal ablation or cryotherapy)
  - VIA/ VAC positive: large lesion seen, treat with LLETZ/LEEP
  - VIA/ VAC suspect cancer: refer for biopsy and further management
- Positive
  - VIA positive: no lesion seen
  - VIA/ VAC positive: lesion seen, eligible for ablative treatment (thermal ablation or cryotherapy)
  - VIA/ VAC positive: large lesion seen, treat with LLETZ/LEEP
  - VIA/ VAC suspect cancer: refer for biopsy and further management

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**

[Image of VIA/VAT negative result]

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

[Image of VIA/VAT positive result]

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

[Image of VIA/VAT result with large lesion]

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

[Image of VIA/VAT result with suspicious lesion]

---

**Discuss Results and Treatment/Management Options**

- Record VIA results in cervical cancer forms/register
- If eligible for ablative treatment, offer thermal ablation/cryotherapy during the same visit
- If eligible for LLETZ/LEEP, 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
(largc-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

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 prevent good application of the probe tip
- Client is not pregnant
- Client is more than 6 weeks postpartum
- Client does not have severe cervicitis

Infection Prevention

- Detach thermo-probe from handle
- Clean/wipe down handle with alcohol
- Clean probe and shaft (soap) water, soft cloth/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

General Considerations for Thermal Ablation

- It is an ablative treatment
- Effective to treat CIN 2-3
- Took 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/wire source: portability, reportedly lasts for 30 treatments/day

Technique: Thermal Ablation

- Outpatient – clinic/mobile clinic
- Confirm not pregnant
- Obtain informed consent
- No anesthetic required
- Perform visual inspection (VIS): 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

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 5-10 min following procedure, give a mild pain reliever (i.e., Ibuprofen, paracetamol)
- Rarely, clients may feel faint or experience breathing 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
  - Severe pain or cramping after procedure
  - Fever, with or without chills
  - Severe lower abdominal pain
- Mild infections (occur in less than 50% of clients)
  - If needed, possible antibiotics: regimens include metronidazole (400 mg 3 times daily for 7 days) or cefuroxime (100 mg 2 times daily for 7 days)
- Ablative treatment does not affect pregnancy outcomes; no evidence indicates that it affects fertility.

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.
Gloves, Aprons, and other PPE

- The provider must wear an apron and gloves to protect against contact with the client's body fluids and bodily fluids.
- 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 kept under water using approved plain or enzymatic detergent for 1–4 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 papillot, 2 cotton swabs, 1 speculum, 1 forceps.
  - 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.

Autoclaving Instruments (cont.)

- 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 soap and water then rinse off all soap.
  - Soak the probes/tips in:
    - 0.5% orthophthaldehyde for 12 minutes or
    - 2% glutaraldehyde solution (GDEP) for 20 minutes
  - If not available use ethyl or isopropanol 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 leak-proof 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 isopropanol 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 Specific Key Indicators

1. Screening Time: percentage of women aged 30-69 years screened through HPV test in a 12-month period

2. Self-Sampling: percentage of HPV testing tests conducted using self-collected sample

3. Result Timeliness: percentage of women who received HPV test screening result (positive or otherwise)

4. Sample Submissions Time: number of days between sample collection and receipt of sample in laboratory

5. Laboratory Processing Time: number of days between laboratory receipt of sample and return of results to facility

6. Results Turnaround Time: number of days from sample collection to receipt of results by client

7. Screening Attendance: percentage of women who were invited to HPV test screening

8. HPV Positive: percentage of women who were invited to HPV test screening and were tested

9. HPV Positive Tests: percentage of women who were invited to HPV test screening and were tested

10. HPV Positive Tests: percentage of women who were invited to HPV test screening and were tested

11. Total Cancer Rate: percentage of HPV tested women with an HPV indicating confirmed or clinical cancer (biopsy was 0%)

12. False-Negative: percentage of HPV tested women who were missed by the HPV test screening

Example of HPV Testing Key Service Delivery Indicators with Benchmarks

- 95% of women screened through HPV test in a 12-month period
- 80% of women who received HPV test screening result (positive or otherwise)
- 30 days between sample collection and receipt of sample in laboratory
- 75% of HPV test screening tests conducted using self-collected sample
- 10% of women who were invited to HPV test screening and were tested
- 85% of women who were invited to HPV test screening and were tested
- 5% of women who were invited to HPV test screening and were tested
- 99% of women who were invited to HPV test screening and were tested
- 0% of women who were invited to HPV test screening and were tested
- 0% of women who were invited to HPV test screening and were tested
- 0% of women who were invited to HPV test screening and were tested
- 0% of women who were invited to HPV test screening and were tested

Data Collection: Standard Cervical Cancer-Related Data Collection Tools

- Data collection can be done using an electronic medical record to capture client-level cervical cancer prevention program data
- Response-controlled settings can use paper-based tools
- Additional tools include: referral form, client record, client consent form, link registry

Data are everyone’s business!
Screening Form: Key Features

- Single form per client for any screening modality (HPV test, VIVA, other)
- Collects:
  - Client demographic information
  - History
  - HPV status
  - HPV testing information (only applicable to those screening with HPV test)
  - Visit types including HPV
  - Physical examination
  - VAl or VAl ref results
  - Treatment
  - Lateral

Individual Exercise: Case Studies

- Session Objectives:
  - Practise filling out the sample cervical cancer screening form
  - Discuss challenges and share ways other participants may have handled/overcome 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 forms, ask for three volunteers to present their experience completing the forms for each of the 3 clients
  - 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
- Manny, 40 years old, is a RAI, lives in Income, near Orange Clinic—visited the clinic 2 weeks ago (April 30, 2008), and self-collected HPV sample. She has now returned for HPV result. She is pregnant and in the 3rd trimester. Her last screening period was 1 month ago. She has no history of any abnormal bleeding or contact bleeding. She has never been screened for cervical cancer before and has no visible lesions. Physical and bimanual exam was completed and no abnormalities were detected. VAl shows she has a larger abnormal lesion and is referred to a LLTF treatment service.

Client Case Study #2
- Mary, 45 years old, was treated with LLETZ 1 year ago. She has returned for her follow-up screening visit. VAl was done and she was VAl negative.

Client Case Study #3
- Ayesha, 42 years old, is a RAI, lives in Tovar—screened for cervical cancer 3 years ago with a VAl negative result. She offered counseling and she accepted to get HPV screening. Self-collection of sample was completed.

Register—Key Features

- Subject of screening form (patient record)
- Visit Types
- Referral
- Treatment

Monthly Summary Form—Key Features

- Tracks all the 9 key indicators monthly
- Calculated using a register
- disaggregated by Ht, 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.

Example of Data Flow and Reporting

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 referral 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.

Dimensions of Data Quality

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Definition</th>
<th>Data Source</th>
<th>Data Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Data correctly represent the true state of the subject</td>
<td>Data entered, data analysis, data report</td>
<td>Data analysis, decision making, action planning</td>
</tr>
<tr>
<td>Reliability</td>
<td>Data collected in a consistent and repeatable manner</td>
<td>Data collection methods, data presentation formats</td>
<td>Data analysis, decision making, action planning</td>
</tr>
<tr>
<td>Integrity</td>
<td>Data collected accurately, correctly, and in a consistent manner</td>
<td>Data collection methods, data presentation formats</td>
<td>Data analysis, decision making, action planning</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Data collected in a timely manner</td>
<td>Data collection methods, data presentation formats</td>
<td>Data analysis, decision making, action planning</td>
</tr>
<tr>
<td>Completeness</td>
<td>Data collection ensures all relevant data are collected</td>
<td>Data collection methods, data presentation formats</td>
<td>Data analysis, decision making, action planning</td>
</tr>
<tr>
<td>Consistency</td>
<td>Data collected in a consistent manner</td>
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</tbody>
</table>

For more information on these dimensions and their further elaboration, refer to the full guidelines and resources provided by the MOH.
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/mentorship data 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 collection and aggregation tool—before the 7th of the next month

Using Data for Monitoring Trends and Informing Corrective Action
- Promote the use of data using multiple approaches including:
  - Data visualization dashboards/inequality charts using data reported in the national HMIS
  - Paper-based data posters (PDF/trusts) to project-supported facilities—all service areas
- Build the capacity of both data producers and data users to interpret the data
- Present data in easy-to-understand visual 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 isolated

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 us answer:
  - Are we doing the right things?
  - And are we doing things right?
Facility-Level Data Use Posters

- Key, actionable indicators
- Sample graphs with easy-to-complete calculations
- References to monthly summary form for each calculation
- Target ranges embedded on graph
- Realizable (wipe on and wipe off)

Indicator Calculation

- **HPV Positivity Rate:**
  \[
  \left(\frac{\text{Number of HPV screen-positive women}}{\text{Total number of women with HPV sample collected and results received}}\right) \times 100
  \]
- **VAT Positivity Rate:**
  \[
  \left(\frac{\text{Number of HPV screen-positive women with a positive VAT result}}{\text{Number of HPV screen-positive women}}\right) \times 100
  \]
- **VAT Positive Treatment Rate:**
  \[
  \left(\frac{\text{Number of VAT positive women who were treated with thermal ablation, cryotherapy, or LLETZLEEP}}{\text{Number of HPV screen-positive women with a positive VAT result}}\right) \times 100
  \]

Interpreting Progress Against Cervical Cancer Screening Targets: What Does This Mean? Over/Under Target?

**Number of New Cervical Cancer Screenings, 2013**

- HPV Screening Target: 200
- Direct VAT Screening Target: 100

Practice Interpreting VAT Positive Treatment Rates: What do the trends mean?

- **Based on Performance**
  - How is the facility performing?
  - How does the VAT treatment rate for January compare to other months’ VAT+ treatment rates?
  - Is any of the data outside of the expected range (outside of the range)
  - What are possible reasons for the trends being observed?

Practice Interpreting Results Turnaround Time: Identifying Corrective Action

**Average Monthly HPV Test Results Processing and Turnaround**

- How is the facility performing?
- What does this trend suggest?
- What are possible reasons for the trends being observed?
- What corrective activities and follow-up actions are needed?
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.

Questions or Comments?
Thank You!