

PEPFAR Cervical Cancer Prevention and Screening Regional Workshop Report

June 21, 2010

5 key words:

Cervical cancer

Prevention

Screening

visual inspection with acetic acid (VIA)

Cryotherapy

This report was made possible through support provided by the US Agency for International Development, under the terms of Contract Number GHH-1-00-07-00068-01. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the US Agency for International Development.

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The US President's Emergency Plan for AIDS Relief (PEPFAR) Cervical Cancer Prevention and Screening Regional Workshop

WORKSHOP REPORT

21 June 2010

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The US President's Emergency Plan for AIDS Relief (PEPFAR) Cervical Cancer Prevention and Screening Regional Workshop

WORKSHOP REPORT

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Led by Management Sciences for Health (MSH), the AIDSTAR-Two consortium brings the combined expertise, resources, and global reach of seven members to improve the organizational capacity of local implementing partners to lead, manage, and govern their organizations and produce enhanced health results.

Submitted to:

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Contract No.:

GHH-I-00-0700068-00

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ACRONYM LIST

AIDS- acquired immunodeficiency syndrome

CCPPZ- Cervical Cancer Prevention Program in Zambia

CDC- Centers for Disease Control

CIDRZ – Centre for Infectious Disease Research in Zambia

CIN- cervical intraepithelial neoplasia

DOD – Department of Defense

GAVI - Global Alliance for Vaccination and Immunization

HIV- human immunodeficiency virus

HPV – human papillomavirus

IARC- International Agency for Research on Cancer

LEEP- loop electrosurgical excision procedure

NAC- National AIDS Council

MOH- Ministry of Health

MSH – Management Sciences for Health

PEPFAR- President’s Emergency Plan for AIDS Relief

UNFPA- United Nations Population Fund

USAID – U.S. Agency for International Development

UTH- University Teaching Hospital

VIA – visual inspection with acetic acid

WHO- World Health Organization

EXECUTIVE SUMMARY

INTRODUCTION

The PEPFAR Cervical Cancer Prevention and Screening Regional Workshop was held in Lusaka, Zambia from 26-28 May 2010. Organized and funded by the PEPFAR Care and Support Technical Working Group with support from AIDSTAR-Two, a USAID-funded Central Task Order led by Management Sciences for Health (MSH), the workshop aimed to establish ways to improve or implement screening programs for cervical cancer. Representatives from World Health Organization (WHO), International Agency for Research on Cancer (IARC), Jhpiego, PEPFAR Care and Support Technical Working Group, and Ministries of Health and US Agencies based in 10 sub-Saharan African countries attended the workshop. Participants became familiar with current technical information about cervical cancer prevention and treatment among all women, components of a quality cervical cancer screening and treatment program, and the policy regarding funding support by PEPFAR for these programs.

Representatives from the Cervical Cancer Prevention Program in Zambia (CCPPZ) presented their program as an example of how to implement an effective prevention and treatment program in a low-resource setting. Participants also participated in several information-sharing activities including a poster activity and delivery of action plans on the last day of the workshop. (See **Annex 2** for the final workshop agenda.)

The workshop brought together US Government (USG) staff and representatives from Ministries of Health from across sub-Saharan Africa. The 40 participants came from Côte d'Ivoire, Ethiopia, Kenya, Mozambique, Namibia, Nigeria, Rwanda, Tanzania, Uganda, and Zambia. (See **Annex 3** for the final participant list.)

WORKSHOP GOAL

The goal of the work shop was to support the development of quality national policy and programs for cervical cancer screening and treatment in sub-Saharan African countries.

OBJECTIVES

1. To build and expand the capacity of USG staff and Ministry of Health (MOH) officials in 10 sub-Saharan African counties to
 - a. assess their need and readiness for cervical cancer prevention programs;
 - b. develop and/or refine the policies for these activities;
 - c. understand the components, maintenance, and monitoring of a quality cervical cancer screening and treatment program.
2. To ensure that the in-country USG representatives and MOH officials are equipped with up-to-date technical information about cervical cancer screening and treatment of both general populations of women and those who are HIV-infected.
3. To familiarize participants with PEPFAR policy regarding support for these programs.

OUTCOMES

Participants gained knowledge about recent scientific evidence, policy guidance based on WHO recommendations, and the implications for PEPFAR funding of cervical cancer programs. They learned the components of evaluating program gaps and capacity as well as how to implement a quality program for cervical cancer screening and treatment of both general populations and HIV-infected women.

DAY ONE: TECHNICAL UPDATES

Day one focused on providing technical updates on the screening and treatment of cervical pre-cancer and cancer in developing countries (including what is known about HIV-positive women), the importance and development of national policy and guidelines for cervical cancer screening and treatment, the key components that support cervical cancer prevention programs, and the PEPFAR policy on cervical cancer screening and treatment program funding.

CERVICAL CANCER PREVENTION THROUGH SCREENING IN DEVELOPING COUNTRIES AND THE IMPACT OF HIV – DR. HUGO DE VUYST | INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC)

Dr. De Vuyst gave a technical update on the science behind the screening and treatment of cervical pre-cancer and cancer in low-resource settings and discussed the implications for HIV-positive women in these areas.

- Dr. De Vuyst began his presentation by discussing the cause of cervical cancer—the sexually transmitted human papillomavirus (HPV). HPV subtypes 16 and 18 account for over 70 percent of cervical cancer cases worldwide. The HPV vaccination is considered a primary prevention strategy in preventing cervical cancer.
- Cervical cancer is the second leading cause of cancer deaths among women worldwide. Approximately 500,000 new cases are detected each year, the vast majority of which occur in developing countries.
- Secondary prevention of cervical cancer includes detection of pre-cancerous lesions or early stage cancer and treatment of these lesions. The different screening tests available for cervical cancer are the Pap smear/cytology, HPV DNA testing, and visual inspection with acetic acid (VIA). The choice of screening test usually depends on the resources available. Many developing countries are now using the single-visit approach which combines detection of lesions using visual inspection with acetic acid (ordinary vinegar), followed by immediate treatment if necessary. Cryotherapy¹ is used globally as a treatment for pre-cervical cancer lesions and has a cure rate of 85 percent.
- An HIV-positive woman is at greater risk of contracting HPV, having a persistent HPV infection, and being infected with multiple subtypes of HPV. Women living with HIV are four to five times more likely to develop cervical intraepithelial neoplasia (CIN) than an HIV-negative woman. There currently is not enough data on the safety of cryotherapy in HIV-positive women (with regard to viral shedding post-cryotherapy) in low-resource settings. It is still unclear what the best screening and treatment method is for HIV-positive women.
- Dr. De Vuyst was asked about the likelihood of overtreatment and false positives using VIA due to its low specificity. He responded that overtreatment is possible, but that conducting additional tests is unnecessary and expensive. Overtreatment might actually be an advantage in that it provides the false positives with protection prophylactically.

COMPREHENSIVE CERVICAL CANCER CONTROL WHO RECOMMENDATIONS – DR. NATHALIE BROUET | WORLD HEALTH ORGANIZATION (WHO)

During her presentation, Dr. Brouet discussed the importance of developing national policies for cervical cancer screening and treatment in countries with high HIV-prevalence. She also updated the participants on WHO recommendations, guidelines, and their ability to support the development of such policies.

¹ Cryotherapy destroys abnormal tissue on the cervix by freezing the area with a probe that has liquid carbon dioxide flowing through it.

² Workshop participants received four WHO publications on cervical cancer prevention on CD-ROMS. The materials are *PEPFAR Cervical Cancer Prevention and Screening Regional Workshop Report*

-
- WHO has a series of publications which serve as tools and guides for cervical cancer prevention and control.² Among the publications is the first-ever comprehensive guide on cervical cancer control, published in 2006, which increased awareness about cervical cancer prevention globally.
 - WHO recommends the use of Pap smears/cytology for large-scale cervical cancer screening programs if sufficient resources are available. Currently, WHO recommends visual screening methods followed by cryotherapy only in pilot projects, but this policy is being updated to extend this service to existing national screening programs.
 - Dr. Broutet discussed the different mechanisms to finance cervical cancer prevention programs that need to be considered by policy-makers. She recommends:
 - Involving different stakeholders in the decision-making process of national guidelines.
 - Taking advantage of the Global Fund's desire to increase the scope of reproductive health (i.e. countries should include cervical cancer prevention within their proposals).
 - Integrating cervical cancer prevention programs into other related programs such as HIV/AIDS programs and sexual reproductive health programs.
 - Utilizing Global Alliance for Vaccination and Immunization (GAVI) resources to finance HPV vaccines.

CERVICAL CANCER PREVENTION: USING NEEDS ASSESSMENT FOR EFFECTIVE PROGRAM DEVELOPMENT – DR. RICKY LU | JHPIEGO

Dr. Ricky Lu presented the key components of an effective cervical cancer prevention program and discussed how a national needs assessment can inform national policies and develop cancer prevention strategies.

- Dr. Lu described how effective prevention programs have two main components: 1) outreach and education, and 2) advocacy and policies.
- Conducting a needs assessment is an important part of the preparatory stage as it provides a snapshot of what is in place in order to identify necessary resources and challenges to overcome.
- Before conducting a needs assessment, a program needs to define its components and objectives, which involves preparation (readiness to implement), building (capability to support high quality cervical cancer prevention efforts), expansion (access to high quality VIA and cryotherapy at service delivery points) and sustainability (high quality program performance).
- A program needs a supportive environment made up of key stakeholders (representatives from NGOs, donors, private/public sector, and the community) who can be advocates and champion cervical cancer prevention.
- A needs assessment should include analysis of:
 - policies, guidelines, and norms;
 - program management issues;
 - health services, including facility background data, client volumes, staffing level and patterns, infection prevention practices, screening activity and performance standards, and referral mechanisms;
 - relevant information and education activities;
 - community perspectives and demographics;
 - quality and availability of infrastructure (e.g. laboratories), equipment, and supplies(e.g. acetic acid, carbon dioxide);
 - information systems.

² Workshop participants received four WHO publications on cervical cancer prevention on CD-ROMS. The materials are also available on www.who.int.

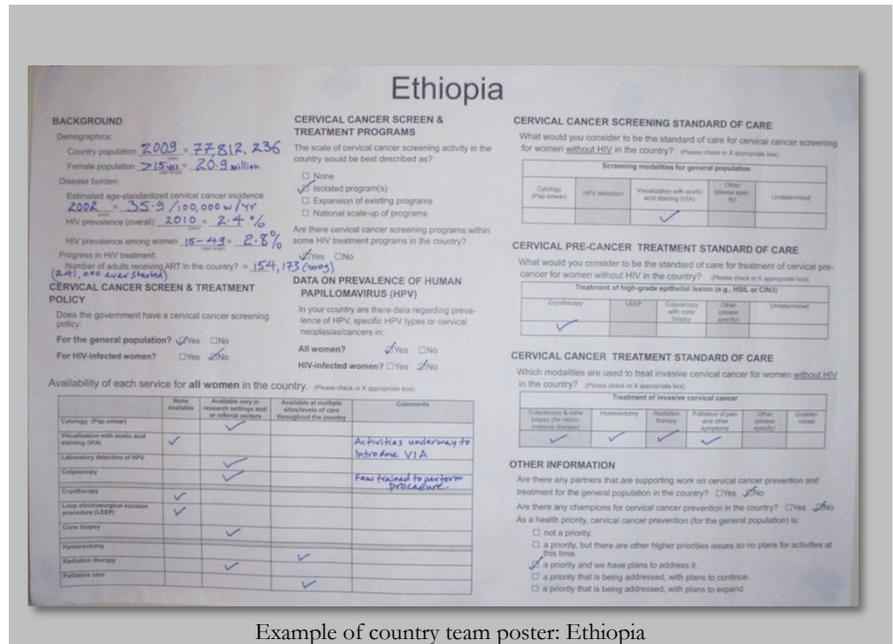
PEPFAR POLICY FOR CERVICAL CANCER SCREENING AND TREATMENT: SUPPORT AND FUNDING – DR. SARA FORHAN | CENTERS FOR DISEASE CONTROL AND PREVENTION, GLOBAL AIDS PROGRAM

Dr. Sara Forhan presented the current policy regarding PEPFAR funding support for cervical cancer screening and treatment programs, and informed workshop participants of the program components that would be eligible for PEPFAR funding.

- Dr. Forhan began her discussion by giving a brief history of PEPFAR; describing how it was established in 2003 to help reduce the burden of HIV/AIDS in developing countries by providing support for prevention, treatment, and care and support programs. Dr. Forhan also mentioned that the introduction of PEPFAR II³ has demonstrated a push towards sustainability, health systems strengthening, and country ownership.
- Since cervical cancer prevention falls under the clinical domain of PEPFAR’s care and support activities, these programs are competing for funding with other activities that fall under the same domain.
- In terms of available funding for cervical cancer prevention programs, PEPFAR can provide some support to programs that are integrated in HIV care and treatment settings, and for screening programs that are part of a comprehensive approach to opportunistic infections. PEPFAR will also offer technical assistance for prevention and screening programs.
- Dr. Forhan gave several examples of opportunities to integrate cervical cancer screening and HIV programs (e.g., HIV prevention activities are needed at cervical cancer screening centers in order to protect against HIV acquisition after treatment with procedures such as cryotherapy or LEEP⁴).
- Many participants asked if PEPFAR support for cervical cancer prevention targets only HIV-positive women. Dr. Forhan reminded participants that PEPFAR’s mandate is to target HIV-positive women, and women with unknown status should be tested and counseled for HIV. PEPFAR can provide HIV testing services at cervical screening centers.

COUNTRY ANALYSIS/POSTER ACTIVITY – DR. SARA FORHAN | CENTERS FOR DISEASE CONTROL AND PREVENTION, GLOBAL AIDS PROGRAM

During registration (the night before the start of the workshop), each country team was asked to complete a pre-designed poster on the demographics and status of cervical cancer prevention programs in their country. The goal of this activity was to share specific information on issues pertaining to cervical cancer prevention and treatment in the 10 African countries represented at the conference, and determine similarities and differences among the countries.



Example of country team poster: Ethiopia

³ The Tom Lantos and Henry J Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis and Malaria Reauthorization Act of 2008

⁴ The loop electrosurgical excision procedure (LEEP) uses a thin wire loop electrode to remove abnormal cervical tissue.

Participants were placed in five different groups and each group was instructed to collect certain information from the country posters. The findings from their poster analysis follow:

Table 1: Disease Burden Overview

| | | | | | |
|---------------------------|-------|----------|---|---------|----------|
| Cervical cancer incidence | | | HIV prevalence among women | | |
| Lowest | 12.8% | Namibia | Lowest | 2.8% | Ethiopia |
| Highest | 53.5% | Zambia | Highest | 17.8% | Namibia |
| HIV prevalence | | | Progress in HIV treatment: Number of adults receiving ART | | |
| Lowest | 2.4% | Ethiopia | Lowest | 69,000 | Namibia |
| Highest | 14.3% | Zambia | Highest | 340,000 | Zambia |

Table 2: Availability of Services for Cervical Cancer Prevention or Treatment

| Service | None available | Available only in research settings and/or referral centers | Available at multiple sites/levels of care throughout the country |
|--|------------------------|---|---|
| Cytology (Pap smear) | | Kenya Uganda Nigeria Ethiopia Zambia Rwanda Mozambique Côte d'Ivoire | Namibia Tanzania |
| Visualization with acetic acid staining (VIA) | Ethiopia Namibia | Rwanda Nigeria Côte d'Ivoire | Kenya Mozambique Uganda Zambia Tanzania |
| Laboratory detection of HPV | Tanzania Mozambique | Kenya Ethiopia Namibia Nigeria Uganda Rwanda Zambia Côte d'Ivoire | |
| Colposcopy | | All 10 counties | |
| Cryotherapy | Ethiopia Namibia | Rwanda Kenya Côte d'Ivoire Nigeria | Uganda Zambia Tanzania Mozambique |

| Service | None available | Available only in research settings and/or referral centers | Available at multiple sites/levels of care throughout the country |
|---|---------------------------------------|---|---|
| Loop electrosurgical excision procedure (LEEP) | Ethiopia Rwanda | Kenya Namibia Nigeria Uganda Zambia Tanzania Côte d'Ivoire Mozambique | |
| Cone biopsy | Kenya | Ethiopia Namibia Nigeria Uganda Zambia Rwanda Tanzania Côte d'Ivoire Mozambique | |
| | | | |
| Hysterectomy | | Côte d'Ivoire Tanzania Uganda | Kenya Ethiopia Namibia Nigeria Zambia Rwanda Mozambique |
| Radiation therapy | Rwanda Côte d'Ivoire Mozambique | Kenya Ethiopia Namibia Nigeria Uganda Zambia Tanzania | |
| Palliative care | Rwanda | Kenya | Ethiopia Namibia Nigeria Uganda Zambia Tanzania Côte d'Ivoire Mozambique |

Poster Information

Eight countries reported having partners supporting work on cervical cancer prevention and treatment for general population, and eight had a champion for cervical cancer prevention in the country. Country teams were asked to determine the priority level of cervical cancer in their country. One country responded that it is a priority, but there are other higher priority issues so there were no plans for activities at this time; two countries describe cervical cancer as a priority and have plans to address it; three countries responded that it is a priority that is being addressed, with plans to continue to do so; and four countries have plans to expand existing programs. Seven countries described the scale of cervical cancer screening activities in the country as isolated. Three described their activities as an

expansion of existing programs. Every country explained that they had cervical cancer screening programs within some HIV treatment programs.

Table 3: Standard of Care for Cervical Cancer Screening (for HIV-Negative Women)

| Cytology (Pap smear) | HPV detection | Visualization with acetic acid staining (VIA) | VIA and cytology |
|--|----------------------|--|-------------------------|
| Rwanda Tanzania Nigeria Namibia | n/a | Kenya Ethiopia Namibia Uganda Zambia Rwanda Côte d'Ivoire Mozambique | Nigeria Tanzania |

Table 4: Standard of Care for Treatment of Cervical Pre-Cancer (for HIV-Negative Women)

| Cryotherapy | LEEP | Colposcopy with cone biopsy | Undetermined |
|---|--|---|---------------------|
| Kenya Ethiopia Nigeria Uganda Zambia Côte d'Ivoire Mozambique | Kenya Namibia Tanzania Zambia | Namibia Nigeria Uganda Tanzania Côte d'Ivoire | Rwanda |

DAY TWO: A “SYSTEMS” APPROACH TO VIA-BASED CERVICAL CANCER PREVENTION – THE ZAMBIAN EXAMPLE

Day Two allowed participants to explore the components of a quality cervical cancer screening and treatment program and learn first-hand from doctors and nurses what steps should be taken to implement a similar program in other sub-Saharan African countries. Participants also visited one of four government clinics supported by the Centre for Infectious Disease Research in Zambia (CIDRZ).

BENEFITS AND CHALLENGES OF VIA-BASED SCREENING – DR. CARLA CHIBWESHA | CERVICAL CANCER PREVENTION PROGRAM IN ZAMBIA (CCPPZ)

- Dr. Chibwasha introduced the workshop participants to CCPPZ and reported on the impact of this program in reducing cervical cancer in the country.
- To overcome the barriers to cervical cancer screening (e.g., lack of specialized staff and resources), CIDRZ implemented the on-going and low-cost screen-and-treat program: CCPPZ. The program started in 2006 and is the first in any developing-country to specifically target HIV-positive women. CCPPZ aims to reduce the incidence of cervical cancer in Zambian women, specifically those infected with HIV.
- Clinic nurses use an approach called digital cervicography (using a specialized camera to photograph the cervix after application of acetic acid). The digital pictures are electronically sent to a gynecologist for telemedical consultations and are also documented. Depending on the severity of a pre-cancerous or cancerous lesion, certain cases will be referred to the University Teaching Hospital of Zambia.
- Challenges to this model include the low specificity of the VIA test and lack of pathology specimens to review. The advantages include the ability to have distance consultations and continuing education for nurses via a weekly peer review of complex cases.
- Dr. Chibwasha closed her presentation by citing a study carried out from 2006-2008, whereby the Zambian cryotherapy screening program prevented 233 cancer deaths among 6,572 HIV-infected women⁵.

HOW TO PROMOTE ACCEPTABILITY OF SCREENING AND CRYOSURGERY IN THE CLINIC AMONG WOMEN WHO HAVE NO PRIOR HISTORY OF CERVICAL CANCER SCREENING – ANNE NJOVU | CCPPZ

- Mrs. Njovu talked with the participants about the importance of counseling both before and after screening and treatment.
- Pre-screening counseling should review the benefits of screening, explain the steps of the procedure, and answer the client’s questions. Counseling before cryotherapy should include the benefits and risks of cryotherapy; post-cryotherapy instructions must be discussed and provided in writing. Health providers should encourage clients to abstain from sexual intercourse for four to six weeks after cryotherapy.
- Mrs. Njovu also discussed frequently cited reasons clients defer treatment. Among the most common is the need to inform their husbands before undergoing treatment because of the



Dr. Chibwasha with CCPPZ nurse at nearby clinic

⁵ Parham G et al. *Effectiveness of a program to prevent cervical cancer among HIV-infected women in Zambia*. Seventeenth Conference on Retroviruses and Opportunistic Infections, San Francisco, abstract 29, 2010

requirement to abstain from sexual activity after the procedure.

SUPPORTING HEALTHCARE PROVIDERS THROUGH DISTANCE CONSULTATION, MONITORING AND EVALUATION, AND A DATABASE – DR. MULINDI MWANAHAMUNTU |CCPPZ

- Dr. Mwanahamuntu began his presentation by discussing several factors that hinder cervical cancer screening in low-resource settings, some of which include:
 - Lack of awareness and health literacy in the communities about cervical cancer and its screening;
 - Competing health needs of the community, e.g., HIV prevention and treatment;
 - Complex nature of cytology/Pap smears.
- Screen-and-treat VIA-based programs may completely avoid these obstacles. Screening (within CCPPZ) is performed by nurses, provided in the community, and is free of charge for clients.
- Doctors provide support to the nurses carrying out the screening procedures through distance consultation, monitoring and evaluation through a weekly review of all clinical cases, and continuing medical education.
- A database is under construction as a component of monitoring and evaluation activities. This resource will also provide a foundation for policy and research development.

POTENTIAL BOTTLENECKS AND SOLUTIONS: LEEP, SURGERY, RADIATION, PATHOLOGY – DR. GROESBECK PARHAM |CCPPZ

- Dr. Parham reviewed several potential bottlenecks in cervical cancer prevention programs and offered several solutions. He sees LEEP, surgery, radiation, and pathology all as potential bottlenecks.
- LEEP is typically only used for cervical lesions which extend into the endocervical canal, occupy more than 75 percent of the transformation zone, contain abnormal blood vessels, and/or are larger than the cryoprobe tip. A potential bottleneck for conducting LEEP procedures is the difficulty in acquiring the appropriate instruments for procedures.
- A system should be in place to ensure clients are not lost due to follow-up. CCPPZ uses a team of tracking officers who are responsible for reminding clients of missed appointments. This is especially important for women living with HIV, since the recurrence rate of pre-cancerous lesions can be as high as 87 percent.
- Although women who require surgery and radiation treatment represent a minority, their care is complex and costly. Great attention should be focused on building local capacity for oncology specialists, pathology services, and palliative care and pain management.



Dr. Groesbeck Parham (CCPPZ), Dr. Kate Anteyi (CDC |Nigeria), Dr. Ricky Lu (Jhpiego), Philomena Irene (USAID |Nigeria)

SITE VISITS: KALINGALINGA, MATERO, GEORGE, AND CHILENJE CLINICS

Site visits were carried out at four CIDRZ-MOH clinics in Lusaka so that workshop participants could experience first-hand the different activities that take place at a screening center. The participants were shown the different screening rooms and equipment, and had a chance to witness sensitization campaigns being carried out at the centers by the peer educators. A group of participants also visited the LEEP clinic and staff offices, located within the grounds of the main referral hospital in Zambia, the University Teaching Hospital.

At the clinics, participants were able to talk with peer educators who gave an overview of their role in the sensitization and mobilization of women in the communities. The group of participants at Matero clinic listened to a cervical cancer talk given by peer educators to a group of men and women in the outpatient department. During these talks, peer educators give information related to cervical cancer (e.g., causes, risk factors, signs, and symptoms) and encourage women to visit the screening clinic. Similar sensitization talks are given in other HIV-related clinic departments (e.g., antiretroviral therapy and tuberculosis). The participants were also able to see the set-up of a screening clinic and the equipment required while the screening nurse explained how she conducts the screening procedure and generally runs her clinic.



The University Teaching Hospital in Zambia

A group of participants also had the opportunity to visit the main CIDRZ lab located at the Kalingalinga clinic, where clinical and research activities are conducted. At the LEEP clinic, Dr. Parham and a clinic assistant gave an overview of how LEEP is conducted, how the instruments used, how often the procedure is conducted, and how the data is entered.

A MOBILE TECHNOLOGY-BASED MODEL FOR PATIENT FOLLOW-UP – MRS. BIANCA MWANZA | CCPPZ

- Mrs. Mwanza, the Technical Liaison Officer at CCPPZ discussed the advantages of using distance consultation including the ability to facilitate community-based providers' communication with hospital-based experts and the development of a reference library for primary healthcare providers.
- CCPPZ uses an electronic system for distance consultation and includes a website that can be accessed by the nurse at the clinic and by the gynaecologist responding to the consultation. Once the nurse uploads the image, a text message is sent to the consultant's mobile phone. The consultant can then log on to the network and provide guidance to the nurse seeking consultation.
- Mrs. Mwanza also discussed how CCPPZ follows up with patients via mobile phone. For patients lost to follow-up, a tracking team is dispatched to track down the client. The team found that phone conversations were more effective than sending text messages.

COMMUNITY MOBILIZATION FOR CERVICAL CANCER SCREENING – MRS. SUSAN SIMFUKWE | CCPPZ

- Mrs. Simfukwe discussed the peer-education component of CCPPZ, a critical component in any cervical cancer prevention program.
- With the severe shortage of healthcare providers in Zambia, peer educators are an important link between medical staff and the community. As advocates and counselors, peer educators teach women about the services offered by the program and help women access the services.
- The target audience of the program is any woman of reproductive age, particularly those who are HIV-positive. Traditional counselors and church leaders are often respected by members of their communities and are therefore included in the target audience. Door-to-door sensitization in residential areas is also used to encourage women to visit the clinics.

THE CRITICAL ROLE OF SUPPLY CHAIN MANAGEMENT AND PERFORMANCE INDICATORS – DR. SHARON KAPAMBWE | CCPPZ

- Dr. Kapambwe presented her three-step guideline to supply chain management which includes a needs assessment, supply/equipment procurement, and avoiding stock-outs.
- Dr. Kapambwe recommends that each project identify a supply chain manager who is responsible for ensuring all necessary supplies are available. To avoid stock-outs, a system for emergency orders should be established. Forecasts can also be made using computerized inventory system.

-
- Challenges of supply management include unanticipated fluctuations in clinical volume, difficulty in procuring specialty medical equipment, high cost of supplies, and fraud.
 - Dr. Kapambwe discussed the use of key performance indicators for quality screening and management. Using indicators creates opportunities to expand successful projects and services, redefine goals and priorities when outcomes are not as expected, and improve planning and implementation.
 - Key indicators used to assess program progress include:
 - percentage of the target population with access to screening services
 - percentage of VIA-positive women treated appropriately
 - percentage of women with invasive cervical cancer who are referred for surgery or radiation therapy
 - the number of trained health workers
 - the number of screening centers opened since initiation of the program

DAY THREE: COUNTRY TEAM PRESENTATIONS and CCPPZ WEEKLY CASE REVIEW

On Day Three, each country team presented the status of cervical cancer prevention programs in their country as well as their challenges, strengths, and way forward. Each country gave a presentation with the exception of Zambia because participants had learned about Zambia's prevention program the day before. To close the workshop, CCPPZ doctors and nurses conducted their weekly case review at the workshop venue. Regrettably, the Minister of Health of Zambia had intended to give the official closing remarks for the conference but was unable to attend. A representative spoke on his behalf.

CÔTE D'IVOIRE COUNTRY TEAM PRESENTATION

The cervical cancer screening program in Côte d'Ivoire has been in place since October 2009. Strengths of the screening program include the availability of qualified human resources which includes pathologists and gynecologists. The program is integrated with other programs such as those catering to HIV, reproductive health, family planning, and noncommunicable diseases. Challenges include the many competing programs in the country, and the need to expand the program even further. The next step after this workshop is to have a debriefing with all partners. The Ivoirian participants also plan to hold workshops on cervical cancer.

ETHIOPIA COUNTRY TEAM PRESENTATION

Ethiopia currently does not have a national cervical cancer screening and treatment program or national cancer registry. Cervical cancer has, however, been recognized as a priority public health issue and cervical cancer prevention has been included in the National Reproductive Health Strategy. Some of the challenges include limited access to screening, unaffordable services, and low awareness of cervical cancer. In 2009, CDC/Ethiopia supported Pathfinder in implementing a five-year project targeting HIV-positive women. The project will establish services (single-visit approach with VIA and cryotherapy) in 14 health institutions. The Ministry of Health is making plans to scale up the intervention to a national level, ultimately increasing the general population's access to the single-visit approach.

KENYA COUNTRY TEAM PRESENTATION

Cervical cancer is the most common recorded cancer in the Nairobi cancer registry (2002). Some strengths of the program in Kenya include a strong political environment and policy environment. Challenges include the presence of vertical programs with earmarked resources, inadequate resources and competing priorities (e.g., HIV and malaria), low advocacy, difficulty in monitoring and evaluating, absence of organized screening; and inadequate funding of the health sector. The next step after this workshop will be to carry out a national survey, surveillance, and increased advocacy for resource allocation and national prioritization. Training and infrastructure should be scaled up for screening and management of pre-malignant lesions and invasive cancer.

MOZAMBIQUE COUNTRY TEAM PRESENTATION

In December 2009, the Ministry of Health launched the Cervical Cancer National Prevention and Control Program. The policy consists of screening and treatment using VIA and cryotherapy to all sexually active women aged 30 to 55 years. Currently the program is implemented in five provinces with ten health centers and six referral hospitals. Challenges the program has faced so far include a low detection rate, difficulty in setting up a quality data collection and report system, difficulties in acquisition of equipment for all selected health facilities, and limited human and financial resources. Next steps involve implementation of an expansion plan with extension to the remaining six provinces. With PEPFAR support, training services can be provided to all implementing partners.

NAMIBIA COUNTRY TEAM PRESENTATION

In Namibia cervical cancer is the second most common cancer in women after breast cancer. The government has put in place a cervical cancer screening policy with a program that offers cytology, hysterectomy, and palliative care at multiple sites. Colposcopy, LEEP, cone biopsy, radiation, and HPV detection are available at research settings and/or referral centers. VIA and cryotherapy are not currently offered. Strengths of the program include political and financial commitment, involvement of multiple partners, and the capacity to do Pap smears. Challenges include a shortage of skilled health workers to do Pap smears; a backlog of smear results from the public lab; and the lack of VIA, cryotherapy, and HPV vaccination. Next steps include conducting a national needs assessment in August 2010, strengthening of the capacity for performing Pap smears, advocating for VIA with digital cervicography and cryotherapy, and advocating for HPV vaccination.

NIGERIA COUNTRY TEAM PRESENTATION

In Nigeria, 40 million women above the age of 15 years are at risk of having cervical cancer. The prevalence rate of HPV infection in the general population is estimated at 26 percent. There is a draft national cervical cancer control policy in place which involves creation of awareness and capacity building for healthcare workers in selected sites. Strengths of the program include the enthusiasm among clients and service providers as well as the existence of other related health programs such as HIV programs and sexual/reproductive health programs that allow for easy integration. The program is facing a number of challenges such as a non-functional cancer registry, competition from parallel programs, human resources shortage, funding constraints, and the lack of a task-shifting policy. Next steps for Nigeria include integration of the program into national programs with national coordination, intensifying advocacy creation of awareness, implementation of a task shifting policy and costing of effective screening methods.

RWANDA COUNTRY TEAM PRESENTATION

A cervical cancer working group was recently set up by the Ministry of Health and a draft national strategy is being developed. Preliminary discussions with groups such as Merck and Qiagen for HPV vaccines and tests are being carried out. Cryotherapy and VIA are only available at private and university hospitals. Strengths of the program include a high level of commitment from the Ministry of Health, availability of financial support from CDC, the presence of strong supervision and reporting systems, and existence of HIV systems which act as a platform for establishing cervical cancer programs. Challenges include limited pathology capacity, untrained health staff with only a few trainers with the necessary skills available, very low level of awareness in the community and health workers, uncertainty in long-term financial support, and restrictions on the PEPFAR financial support which is limited to HIV-positive women. The delegates from Rwanda explained that the country plans to finalize the National Strategic Plan (2010–2015), conduct a cost analysis and mobilize funds, organize a training of trainers, and select sites for first phase of implementation and rolling out of the strategic plans.

TANZANIA COUNTRY TEAM PRESENTATION

Cervical cancer screening services (VIA + treat) are available in six pilot sites, three of which were established with support from the WHO, and the other three with support from the US government. The National Service Delivery Guidelines and Cervical Cancer Prevention Strategic Plan are being finalized. Strengths of the program include existence of a Ministry of Health unit for Reproductive Cancers, partnership with organizations that are willing to support the program (WHO, USG, UNFPA, IARC), and strong political will and support (support from the First Lady). Challenges the program is facing include a policy that does not allow for involvement of lay staff, limited financial support on cervical cancer prevention, and limitations of the PEPFAR support focusing only on HIV infected women. Next steps for Tanzania include scale up of cervical cancer prevention, extension of screening and treatment programs to all regions, integrating cervical cancer services into reproductive health

clinics and into HIV care and treatment clinics, and the strengthening of four zonal referral hospitals on cervical cancer treatment.

UGANDA COUNTRY TEAM PRESENTATION

A cervical cancer strategic plan (2010– 2014) was recently launched after more than two years of initial planning, with the opening of six new “see and treat” sites and the adaptation of a VIA training manual. Two of these screening sites are in high HIV-prevalence settings and there is one available at the Uganda Cancer Institute. An HPV vaccine demonstration project has been carried out and successful negotiations have been made for a GlaxoSmithKline vaccine marked down from US\$75 to US\$25 per dose. The strengths of the program include the presence of political will with support from the First Lady and support from the Ministry of Health. The challenges faced by Uganda include the failure to integrate cervical cancer prevention programs into other programs, limited supply of nitrous oxide for cryotherapy, lack of adequate palliative care services, difficulty in implementation of quality assurance, and inadequate resources.



CCPPZ WEEKLY CASE REVIEW SESSION

The monitoring and evaluation session that is carried out by CCPPZ weekly was conducted for the participants during the workshop. Nurses from different screening centers at the CIDRZ-MOH clinics in Lusaka presented cases they had screened that week with digital cervicogram images. Each nurse gave a summary of the client’s medical history, her impression of the VIA result, and what was done for the client. Consultant doctors, Dr. Mwanahamuntu and Dr. Parham, gave their own impression of each case, and after discussing the case, the management plan of the client was changed or maintained.

Example one:

Nurse: 37 year old woman, HIV positive, on HAART for 2 years and her last CD4 count was 420. She was VIA positive with mosaicism. She was referred to University Teaching Hospital for LEEP.

Dr Parham: Mosaicism is a sign of vascular changes (angiogenesis) associated with microinvasive cancer. This client was correctly referred for LEEP.

Dr Mwanahamuntu concurs.

Example two:

Nurse: 34 year old woman, HIV positive, on HAART for 4 years and her last CD4 count was 170. She was VIA positive with punctuations. She was referred to UTH for LEEP.

Dr Mwanahamuntu: Punctations are also a sign of vascular changes associated with microinvasive cancer. This woman was correctly referred for LEEP.

Dr Parham concurs.

ANNEX 1: Workshop Evaluations

Workshop Evaluations:

PEPFAR Cervical Cancer Prevention and Screening Regional Workshop

Lusaka, Zambia, May 26–28, 2010

Workshop Evaluation

1. **I am**

Ministry of Health official -- 12 (39%)

US government staff – 16 (52%)

Other -- 3 (10%)

2. **Did you feel that your background on cervical cancer prevention was appropriate for being a participant at this meeting?**

Yes- 31 (100%)

No --0

Unsure--0

Comments:

- Despite the fact that I'm new in this area and have some background, I learned more.
- Being a provider for VIA/cryotherapy, I had background information on cancer prevention.

3. **From the following workshop activities I learned information that will influence cervical cancer prevention efforts in my country:**

Lectures (Day 1)

Yes –31 (100%)

No--0

Unsure--0

Site visit (Day 2)

Yes—30 (100%)

No--0

Unsure--0

Participant information sharing session (Day 3)

Yes –29 (94%)

No--0

Unsure—2 (6%)

If yes, please tell us which information/lessons learned from the participant sharing session do you plan to apply in your country?

- VIA and cryotherapy is possible in remote clinics
- Advocate for HPV vaccination
- The need to advocate for MOH leadership/ownership in country
- The mentoring process using information technology
- Integrating cervical cancer services into the public health system and avoiding parallel systems
- Develop national guidelines for prevention of cervical cancer
- Data tracking system for patient follow up
- Second tier services (i.e. LEEP)
- Reevaluating frameworks for planning, evaluation, and monitoring
- Single visit approach
- Engaging communities in cervical cancer screening
- Scale up plan/advocacy for VIA and digital cervicography and cryotherapy
- Outreach programs
- Scientific presentations and practical experience
- A needs assessment
- Encouraging MOH to look for additional funding
- Advocacy for the involvement of non-medical professionals (task-shifting)

ANNEX 2: Workshop Agenda



USAID
FROM THE AMERICAN PEOPLE

AIDS Support and Technical
Assistance Resources



PEPFAR Cervical Cancer Prevention and Screening Regional Workshop: Agenda

Lusaka, Zambia
May 26–28, 2010

Objectives of workshop:

1. To build and expand the capacity of USG and Ministry of Health Staff in participant counties to
 - a. assess their need and readiness for cervical cancer prevention programs,
 - b. develop and/or refine the policies for these activities, and
 - c. understand the components, maintenance, and monitoring of a quality screening and treatment program.
2. To ensure that country (USG and MOH) staff have up-to-date technical information about cervical cancer screening and treatment of general populations of women, with emphasis of issues particular to HIV-infected women.
3. To ensure that USG staff are familiar with PEPFAR policy regarding support for these programs.

| Time | Presenter | Topic |
|--------------------------------|---|--|
| Wednesday, May 26, 2010 | | |
| 08:00 –08:30 | | <i>Registration & Poster set up</i> |
| 08:30 –09:00 | Dr. Sara Forhan (GAP/CDC-Atlanta) Dana Sandstrom Keating (AIDSTAR-Two, Zambia) | Welcome and Introductions Overview of Agenda |
| 09:00 –09:15 | Alyson Clark (AIDSTAR-Two) | Logistics |
| 09:15 –10:15 | Dr. Hugo de Vuyst (IARC) | Cervical Cancer Prevention through Screening in Developing Countries and the Impact of HIV <i>GOAL:</i> Give update on the science on screening and treatment of cervical (pre-) cancer in developing countries, including what is known in HIV-positive women. <i>SESSION OBJECTIVES:</i> <ul style="list-style-type: none"> • To understand screening and treatment methods for cervical precancer in developing countries, including the strengths and limitations of screening with VIA vs. cytology-based screening, vs. HPV testing and treating precancerous cervical lesions with cryotherapy vs. loop electrosurgical excision procedure (LEEP). • To recognize what is known and what is not known regarding screening and treatment of HIV-infected women. |
| 10:15-10:45 | | <i>Tea break</i> |



AIDSTAR-Two
capacity for impact

| | | |
|--------------|-----------------------------------|---|
| 10:45 –11:45 | Dr. Nathalie Broutet (WHO) | <p>Comprehensive cervical cancer control WHO recommendations</p> <p><i>GOAL:</i> Highlight importance and development of national policy and guidelines for cervical cancer screening and treatment in countries with high HIV-prevalence.</p> <p><i>SESSION OBJECTIVES:</i></p> <ul style="list-style-type: none"> • Identify importance of sound national policy and guidelines to influence and support sustainable cervical cancer screening and treatment programs. • To be aware of available WHO support for efforts to develop such national policy and guidelines. • To understand the policy implications for populations with high HIV prevalence. |
| 11:45 –12:45 | Dr. Ricky Lu (Jhpiego) | <p>Cervical Cancer Prevention: Using Needs Assessment for Effective Program Development</p> <p><i>GOAL:</i> To highlight key components that support cervical cancer prevention programs.</p> <p><i>SESSION OBJECTIVES:</i></p> <ul style="list-style-type: none"> • List the benefits and limitations of conducting a national needs assessment. • Discuss how the results of the national needs assessment can be used to inform national policies, develop cancer prevention and control strategies and influence program decision making. • Highlight components of a comprehensive national needs assessment for cervical cancer screening and treatment. • Identify the key program components supporting high quality cervical cancer prevention. |
| 12:45 –14:00 | <i>Lunch</i> | |
| 14:00 –14:30 | Dr. Sara Forhan (GAP/CDC-Atlanta) | <p>PEPFAR policy on support for cervical cancer screening and treatment projects</p> <p><i>GOAL:</i> Review of current policy regarding cervical cancer screening and treatment program funding support by PEPFAR.</p> <p><i>SESSION OBJECTIVES:</i></p> <ul style="list-style-type: none"> • Understand the history and decision-making of PEPFAR funding for cervical cancer prevention efforts. • Identify the components of a program that would be eligible for PEPFAR funding. |
| 14:30–15:15 | Country teams | <p>Poster Activity</p> <p><i>SESSION OBJECTIVES:</i> To learn about specific information and issues regarding cervical cancer screening and treatment in sub-Saharan countries and discuss similarities and differences.</p> |

| | | |
|--|--|---|
| 15:15–15:45 | <i>Tea break</i> | |
| 15:45 –17:00 | Country teams | Poster Activity (continued) |
| | | |
| 17:30 –19:30 | <p align="center">Welcome Reception (Club Lounge)</p> <p align="center">Join us for refreshments and hors d’oeuvres in the Club Lounge.</p> | |
| <p>May 27, 2010</p> <p>A “systems” approach to VIA-based cervical cancer prevention – the Zambian example</p> | | |
| <p><i>THURSDAY’S LEARNING OBJECTIVES:</i></p> <ul style="list-style-type: none"> • To learn the components of a quality cervical cancer screening and treatment program. • To understand the important issues, challenges, and ways to approach various aspects of such a program. • To observe a screening and treatment program in action. • To observe a cervical cancer screening and treatment program monitoring and evaluation program. | | |
| 08:30 –08:45 | Dana Sandstrom Keating (AIDSTAR-Two, Zambia) | Review of yesterday and overview of agenda |
| 08:45–10:00 | Dr. Carla Chibwasha (Research Fellow/Clinical Instructor) | Benefits and challenges of VIA-based screening |
| | Anne Njovu (CIDRZ Nurse) | How to promote acceptability of screening and cryosurgery in the clinic among women who have no prior history of cervical cancer screening |
| | Dr. Mulindi Mwanahamuntu (Co-Director CCPPZ) | Supporting healthcare providers through distance consultation, monitoring and evaluation and a database |
| | Dr. Groesbeck Parham (Co-Director CCPPZ) | Potential bottlenecks and solutions: LEEP, surgery, radiation, pathology |
| 10:00 –10:30 | <i>Tea break</i> | |
| 10:30 –13:30 | CIDRZ-supported MOH Site Visits | Buses leave from the front of the Taj Pamodzi promptly at 10:30 |
| 13:30 –14:45 | <i>Lunch</i> | |
| 14:45 –16:00 | Mrs. Bianca Mwanza (ICT Technical Liaison Officer CCPPZ) | A mobile technology-based model for patient follow-up |
| | Dr. Sharon Kapambwe (Program | The critical role of supply chain management and performance indicators |

| | | |
|--------------|---|---|
| | Manager) | |
| | Dr. Mulindi Mwanahamuntu (Co-Director CCPZ) | Principles of advocating at the top |
| | Mrs. Susan Chirwa (Community Coordinator) | A model for advocating on the ground |
| 16:00 –16:15 | <i>Tea break</i> | |
| 16:15 -17:00 | Dr. Sharon Kapambwe | Quality assurance |
| | Dr. Groesbeck Parham | What to expect when screening HIV-seropositive patients |

***Note: Tonight's homework is to prepare for Friday's country team 3-ppt-slide presentation.**

| May 28, 2010 | | |
|---|--|---|
| <i>FRIDAY'S LEARNING OBJECTIVES:</i> | | |
| To share cervical cancer screening and treatment program planning/implementation experiences and discuss barriers, challenges and solutions | | |
| | Mr. Kapembwa Simbao, Honourable Minister of Health, Zambia | Official Closing Day Remarks |
| 08:30 –11:00 | Country teams | Country team presentations: Countries present outlines of their plans for program implementation with an opportunity to discuss barriers, challenges and solutions |
| 11:00 –11:30 | <i>Tea break</i> | |
| 11:30 –13:00 | Country teams | Country team presentations (continued) |
| 13:00 –14:00 | <i>Lunch</i> | |
| 14:00 –16:00 | Dr. Groesbeck Parham | Zambian Cervical Cancer Prevention Program Monitoring and Evaluation session |

ANNEX 3: Participant List and Contact Information

| PEPFAR Cervical Cancer Prevention & Screening Regional Workshop Participant Contact Sheet | | | | | |
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