

Cervical cancer poses a serious threat to women in resource-limited settings, where an estimated 90% of all newly diagnosed cases develop.¹ Globally, approximately 570,000 women were diagnosed with cervical cancer in 2018, contributing an estimated 274,000 deaths annually. More than 90% of these deaths occur in low- and middle-income countries where a majority of women do not have access to primary prevention with the HPV vaccine, or secondary prevention with adequate screening and care that can prevent the onset of cervical cancer.² Once diagnosed, few women in low-resource settings have access to surgical and radiotherapy treatment due to resource constraints. As a result, cervical cancer incidence and mortality disproportionately burdens women living in resource-limited settings.



The effects of cervical cancer are often compounded by HIV. Human papillomavirus (HPV), the virus that causes the majority of cervical cancer cases, is more common and persists longer in women living with HIV (WLHIV). Additionally, WLHIV are more likely to be infected with more than one cancer causing type of HPV and are at higher risk of developing cervical pre-cancer. In WLHIV, the progression from cervical pre-cancer to cancer is more rapid than in women without HIV.³ The burden of cervical cancer in low- and middle-income countries is often overshadowed by competing health priorities such as HIV/AIDS, tuberculosis, and malaria. Consequently, few cervical cancer prevention and treatment programs have been implemented at scale in resource-limited settings. Continued investments in sustainable, scalable solutions are crucial to reduce cervical cancer mortality.

I-TECH CAPACITY

The International Training and Education Center for Health (I-TECH) has demonstrated capacity in workforce development and clinical mentoring in many disciplines in resource-limited environments, including HIV/AIDS and cervical cancer. Through high-quality curricula and training programs and direct service delivery, I-TECH strengthens and expands access to cervical cancer screening and treatment among WLHIV; updates national cervical cancer screening and treatment guidelines; and strengthens routine quality assurance, supervision, mentorship, and coordination of cervical cancer providers.

A History of Capacity Building

According to some estimates,[†] **Haiti** has the highest incidence and mortality rates of cervical cancer in the Western Hemisphere. From 2013 to 2014, I-TECH supported cervical cancer screening and treatment through the organization of trainings on visual inspection with acetic acid (VIA) and cryotherapy, which helped build the capacity of providers and contributed to risk reduction in cervical cancer, as well as early diagnosis and treatment. Over that period, 156 women were screened, of which 23 were found to have pre-cancerous lesions. Thirteen of these women received cryotherapy and another 10 had a cervical biopsy.

[†] Roger E1, Nwosu O. Diagnosing Cervical Dysplasia Using Visual Inspection of the Cervix with Acetic Acid in a Woman in Rural Haiti. *Int J Environ Res Public Health*. 2014 Nov 28;11(12):12304-11.

¹ WHO, *Comprehensive Cervical Cancer Control: A guide to essential practice*, Second edition. 2014. https://apps.who.int/iris/bitstream/handle/10665/144785/9789241548953_eng.pdf;jsessionid=04F3F8DADA5E2B549AE907EEB4FDEB16?sequence=1

² WHO, <https://www.who.int/cancer/prevention/diagnosis-screening/cervical-cancer/en/>

³ https://aidsinfo.nih.gov/contentfiles/lvguidelines/glchunk/glchunk_343.pdf

I-TECH Case Studies

In 2017, **Namibia's** Ministry of Health and Social Services (MoHSS) requested technical assistance from I-TECH in the development and dissemination of the national Cervical Cancer Prevention Guidelines including algorithms for screening, referral, post-cryotherapy instrument disinfection, and monitoring and evaluation tools. At the end of 2018, I-TECH supported the MoHSS in integrating cervical cancer screening and treatment with PEPFAR-supported HIV clinical service delivery leading the development of the national training curriculum for VIAC as well as facilitating the pilot and national scale-up trainings. As of August 2019, over 100 individuals across eight regions have received the national training for visual inspection with acetic acid and cerviography (VIAC). Additionally, I-TECH supported the development of the national cervical cancer M&E system, including refinement of the national M&E tools, VIAC certification processes and forms, and quality assurance supportive supervision tools. At the end of 2018, I-TECH established six "Screen and Treat" pilot sites in the Khomas region, expanding to 12 sites in June 2019 as well as helping to establish the regional LLETZ referral clinic to ensure women referred for large lesions are linked to care. During the first 9 months of implementation at I-TECH-supported sites in Khomas, 1,798 women total and 722 WLHIV were screened for cervical cancer, 15.7% screened positive for precancerous lesions, and 67.1% of those were referred and treated for pre-cancerous lesions. Expansion into additional regions is ongoing.

In **Malawi**, cervical cancer is the leading cause of cancer death among women.⁴ This is compounded by the high HIV prevalence rate of 11% among women ages 15-49. In response, the MoH developed the National Cervical Cancer Control Strategy 2016-2020. The strategy outlines comprehensive interventions, including the integration of cervical cancer screening services into HIV care. With the Department of Reproductive Health and the Department of HIV/AIDS in Malawi, I-TECH supported the review and update of the National Cervical Cancer Guidelines and the monitoring and evaluation (M&E) framework. In addition, the team convenes cervical cancer partner meetings to discuss draft standard operating procedures and the M&E framework, revise monitoring tools, and conduct situational analyses. The team supported a survey to establish which sites in the South West Zone had received equipment for cervical screening and treatment services from the MoH, and found that 45 health facilities offer services. I-TECH is working with the MoH to ensure same-day treatment or follow-up for all pre-cancerous lesions.

Starting in 2019, I-TECH began the expansion of cervical cancer screening for WLHIV aged 25-49 in **Zimbabwe** and conducted a district situational analysis resulting in identification of a provisional list of 89 sites for implementation of VIAC. The team recruited, trained, and deployed dedicated VIAC nurses to 29 sites and engaged a consultant gynecologist from the University of Zimbabwe to review suspected cancer images from I-TECH-supported sites for quality assurance. Equipment was procured to complement the existing quantities at all sites. I-TECH entered a memorandum of understanding (MOU) with a local laboratory for provision of histology services for all suspected cancers and following Loop Electrosurgical Excision Procedure (LEEP). Across all facilities, from the onset of screening services in March through June 2019, 9,664 HIV-positive women 25-49 years were screened for cervical cancer with 93% testing negative, 6% testing positive for lesions, and 1% having suspected cancer. Additionally, in an effort to improve service coverage in hard to reach areas without the necessary equipment, district teams carry VIAC equipment to outreach point facilities who have booked client appointments in advance.

⁴ Government of Malawi, National Cervical Cancer Control Strategy 2016-2020.



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August 2019