

# Preventing Cervical Cancer—Jhpiego Innovates to Save Lives

Cervical cancer is the third most common cancer in women and the fourth leading cause of cancer deaths in women worldwide, with 530,232 new cases and an estimated 265,000 deaths reported each year.<sup>1</sup> Approximately 85% of cervical cancer cases and deaths occur in developing countries, where more than 95% of women have never been screened for the disease.<sup>2</sup> Many of these cases can be avoided through early screening and treatment, and now also through vaccination against human papillomavirus (HPV), the virus that can lead to cervical cancer.

For over a decade, Jhpiego has been working with low- and middle-income countries worldwide to provide them with low-cost, effective solutions to help save women's lives by preventing cervical cancer. Working with stakeholders and partners, Jhpiego champions the single visit approach (SVA), a unique, medically safe, acceptable and effective approach to cervical cancer prevention. The SVA consists of visual inspection using vinegar or dilute acetic acid (VIA) to detect cervical precancerous lesions, followed by the offer for treatment using a freezing technique (cryotherapy), in the same visit. Jhpiego is currently developing a practical and inexpensive way of providing cryotherapy, called CryoPop (an innovation under development). The World Health Organization considers pairing screening and treatment of the cervix as one of the "best buys" for addressing non-communicable diseases.<sup>3</sup>



Jhpiego's innovative cryotherapy device.

## Jhpiego's Approach to Cervical Cancer Prevention and Treatment

An international health organization affiliated with The Johns Hopkins University, Jhpiego is recognized as a global leader in strengthening health systems for high-quality service delivery for women and families in low-resource settings. Within the field of reproductive health, cervical cancer prevention in low-resource settings is one of Jhpiego's key areas of expertise.

Jhpiego first conducted early clinical trials of VIA in Zimbabwe in 1995. Subsequently, we implemented projects to assess the safety, acceptability, feasibility and effectiveness of the SVA and found that it is a cost-effective intervention that can be practically implemented in low-resource settings. Jhpiego has since provided technical assistance to establish and scale up cervical cancer prevention programs in Burkina Faso, Côte d'Ivoire, Ghana, Guyana, Haiti, Indonesia, Kenya, Malawi, Mozambique, Peru, Philippines, South Africa, Tanzania, Thailand and Uganda, and has participated in advocacy initiatives in Ethiopia, Rwanda and Nepal. Jhpiego has developed training materials that have been adapted for use in a number of countries, and has conducted regional training courses in Asia and Africa.



Photo by Ricky Lu

A woman receives counseling for cervical cancer screening in Côte d'Ivoire.

Jhpiego implements a comprehensive approach to cervical cancer programming with the following key components:

- Policy and advocacy: raising awareness, galvanizing governments and funders to take action, and assisting in the development of policies and guidelines to support activities to prevent cervical cancer
- Human resource development: developing training resources and conducting competency-based training for health care providers and supervisors

<sup>1</sup> Ferlay J, Shin HR, Bray F, et al. 2010. *GLOBOCAN 2008 v1.2, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 10* [Internet]. International Agency for Research on Cancer: Lyon, France. Available at: <http://globocan.iarc.fr>, accessed on 07/November/2011.

<sup>2</sup> *The Lancet*. 2010. Moving cancer up the global health agenda [Editorial]. 375(9371): 2051.

<sup>3</sup> World Health Organization (WHO) and World Economic Forum (WEF). 2011. *From Burden to "Best Buys": Reducing the Economic Impact of Non-Communicable Diseases in Low- and Middle-Income Countries*. WEF: Geneva.

- Service delivery: working with local stakeholders to build a sustainable service delivery system that addresses procurement, repair and maintenance of equipment; and supervision for consistent quality of services
- Monitoring and evaluation: adapting standard data collection, analysis and use tools that address over 15 key performance indicators to help facilities, districts and national stakeholders guide programmatic and policy decisions
- Referral systems: strengthening linkages within the health system to ensure that women receive the appropriate follow-up and treatment
- Outreach and education: developing culturally appropriate materials for community education and mobilization, and training community outreach workers to effectively promote screening
- Documentation and data: strengthening documentation and the quality and use of data to drive program management and expansion

To date, cervical cancer prevention efforts have been focused on the general population. A specific focus on HIV-positive women represents a new frontier. Globally, an estimated 50% of adults infected with HIV are women, and they have higher incidence, greater prevalence and longer persistence of HPV infection.<sup>4</sup> Consequently, they also have a higher risk of developing precancerous lesions, and may have more rapid progression to cancer than women who are not HIV-infected. Jhpiego is supporting implementation of programs that integrate screening with existing HIV care and treatment services including provider-initiated testing and counseling (PITC).

From 2011–2012, with funding from Merck and in partnership with Chulalongkorn University (Thailand) and the Cancer Institute Foundation (Philippines), Jhpiego successfully implemented an HPV vaccination demonstration project, the “Mother-Daughter Initiative,” in which 8,005 girls were vaccinated in one year at health facilities with well-established cervical cancer screening platforms. Over 85% of the girls in both countries returned for all three doses of the vaccine.

### Highlights from Jhpiego’s Cervical Cancer Portfolio

Jhpiego has implemented cervical cancer prevention activities in 14 countries, adapting programs to meet each setting’s unique needs, goals and resources. In some countries, breast cancer screening is integrated. Following are selected highlights from this work:

**Côte d’Ivoire:** Since 2009, Jhpiego has provide technical assistance to the Ministry of Health for the development of national cervical cancer prevention guidelines, and implementation of services in 20 health facilities, with a focus on HIV-positive women. As of June 2012, 9,246 new women had been screened (72% of these women had HIV); 7% (644) of the women screened positive for precancerous lesions, and 75% of VIA-positive women eligible for cryotherapy received treatment on the same day.

**Mozambique:** Since 2009, Jhpiego has partnered with the Ministry of Health to establish the foundation for a national comprehensive cervical cancer prevention program, integrated with sexual reproductive health services. A national strategic plan and guideline for prevention have been developed, as well as national training and information, education and communication materials, which were subsequently used to train 131 health care providers in VIA and cryotherapy, and 20 providers were trained in the loop electrosurgical excision procedure, used to treat large lesions. As of June 2012, 20,735 women had been screened, and 9% (1,791) were found to be VIA-positive.

**Tanzania:** Jhpiego has supported the Ministry of Health and Social Welfare to develop national guidelines and training materials, and is directly supporting provision of cervical cancer screening and treatment at 10 health facilities in the Morogoro and Iringa Regions, and providing technical assistance and training to another 90 health facilities supported by other implementing partners. Since April 2010, 7,405 new women have been screened, with 24% (1,782) of them HIV-positive. In a unique approach that ensures linkages in the health system, expands access to HIV testing and follows the Government of Tanzania’s PITC policy, women accessing screening services are offered PITC. In four clinics during the period of September 2010–April 2011, 1,161 HIV-negative women with tests older than one year or HIV unknown status were offered PITC as part of their screening, and 89% agreed to be tested, with 60 women testing positive.

<sup>4</sup> Evander M, Edlund K, Gustafsson A, et al. 1995. Human papillomavirus infection is transient in young women: A population-based cohort study. *Journal of Infectious Diseases* 171: 1026–1030; Parham GP, et al. 2006. Prevalence and predictors of squamous intraepithelial lesions of the cervix in HIV-infected women in Lusaka, Zambia. *Gynecologic Oncology* 103: 1017–1022.