There is broad recognition of the growing and inequitable burden of cervical cancer in low-resource countries, and uptake of new screening and treatment alternatives for adult women and human papillomavirus (HPV) vaccines for young adolescent girls is on the rise. For the first time in history the elimination of the disease is within reach, and on May 19, 2018, WHO Director-General, Dr. Tedros Adhanom Ghebreyesus made a global call for action on cervical cancer elimination.

Over the past three decades PATH has witnessed dramatic changes in attitudes about cervical cancer control. We began to focus on the problem in 1991 and over the past 27 years, our portfolio has expanded tremendously to cover the full range of technologies and approaches for the prevention of cervical cancer. This fact sheet summarizes PATH’s current work and future priorities.

Over the past three decades, PATH has witnessed dramatic changes in attitudes about cervical cancer control.

Screening for cervical cancer and precancer

**VIA.** Cervical precancer is highly treatable, yet in most developing countries few women receive the screening needed to detect precancer before it advances to full-blown cervical cancer. Visual inspection with acetic acid (VIA) is a relatively low-cost procedure that—with the right training—is effective when offered by physicians, nurses, or paramedical staff.

While VIA is not as sensitive as new molecular technologies, it saves lives and is an important starting point for clinics that are building their capacity for pelvic examination and precancer treatment—services that are required before implementing HPV-DNA testing. The goal of PATH’s **Cervical Cancer Prevention project** is to increase access to screening by VIA and precancer treatment through the dissemination of up-to-date information, use of decision-modeling to answer critical questions about program design (in collaboration with Harvard University), and targeted technical assistance to countries to develop national strategies and design effective and efficient programs. PATH also worked with the Uganda Cancer Institute to create an African regional training center for screening and precancer treatment.

**HPV-DNA tests.** A new possibility for increasing the accuracy and cost-effectiveness of screening programs is the use of molecular tests to detect HPV infection. For years, HPV-DNA testing was available only in well-resourced settings, but PATH has partnered with several organizations and private companies to make HPV testing available and affordable for areas with limited resources. Now, it is even possible to do HPV-DNA testing in very basic settings, such as rural areas of low-resource countries.

PATH’s **Scale-Up project** worked with several Central American countries to introduce large-scale HPV-DNA testing in their national programs and to update national policies and guidelines. The team continues to provide assistance to governments as they plan for long-term expansion and sustainability. Scale-Up is also working to incorporate these tests into a regional pooled procurement mechanism. Additionally, the project conducted a landscape analysis for the introduction of HPV-DNA testing in three East African countries.

One of the most exciting strategies using the molecular tests is vaginal self-sampling without a pelvic exam. Empowering women to take their own samples is transforming screening programs in low-resource settings and may finally be what is needed to bring universal, population-scale testing to reality.

**Treatment of cervical precancer**

Even the best screening programs have no impact unless women who need treatment receive it in a timely fashion.
Fortunately, two low-cost and simple treatments are available: cryotherapy (to freeze affected tissue) and thermal ablation (to destroy the tissue with heat). Access to refrigerant gas is the main limiting factor for expanding the introduction of cryotherapy; for this reason, PATH partnered with two private companies to develop non-gas treatment devices. We are leading a clinical study in Honduras with one of these devices, the HTU-110 Thermodoagulator (Cure Medical), to evaluate the safety and acceptability of its use. In a separate effort, we analyzed the dynamics of the precancer treatment equipment market, including developing a tool that countries are using to plan for procurement and deployment of treatment devices.

**HPV vaccination**

PATH was among the first organizations to assess the acceptability and feasibility of vaccinating young adolescent girls against HPV in low-resource countries. Data generated in Africa, Asia, and Latin America—along with planning and evaluation tools—are freely available to guide program strategies and implementation.

Currently, in collaboration with Gavi, the Vaccine Alliance, and the World Health Organization, PATH offers low- and middle-income countries (LMICs) technical assistance to help ensure that their HPV vaccination programs are successful. Interested governments should contact PATH.

**Analyses of the cost of prevention**

Costing studies comparing different screening tests and algorithms, or assessing various strategies to vaccinate young adolescents, are a critical part of PATH’s work to help decision-makers. To this end, we published a paper estimating the costs of establishing comprehensive screening and precancer treatment in 23 high-burden African countries using VIA and cryotherapy.

PATH also collaborated with the Cervical Cancer Prevention Initiative (or CCPI, formerly called Cervical Cancer Action) and the American Cancer Society on a modeling study to estimate the total investment required to offer both vaccination and screening/treatment to all the girls and women in LMICs who need it.

**Information and advocacy**

PATH’s RHO Cervical Cancer website (www.rho.org), a comprehensive online library, offers a host of documents and tools published by the world’s leading HPV experts and organizations. PATH also sends “HPVflash” email updates to share timely information around the globe—please feel free to subscribe to HPVflash.

Finally, as co-chair of CCPI, PATH is raising awareness, mobilizing political will, and fostering positive policy change worldwide, in part through our maps showing global uptake of HPV vaccine, VIA, and HPV-DNA testing.

**Priorities for 2018–2020**

2. Provide technical assistance to support LMICs in adopting and scaling up HPV vaccine.
3. Develop improved screening and precancer treatment technologies, from design to commercialization, ensuring these technologies are widely available at accessible prices in the markets where they are most needed.
4. Host a global learning network to support the exchange of lessons learned.
5. Provide advocacy leadership to build political support and increase international and national investment for cervical cancer prevention.

**Cervical cancer prevention resources**

(available from www.rho.org)

- Cervical Cancer Prevention: Recent Progress and the Unfinished Agenda in Low and Middle-income Countries
- Cervical Cancer Prevention at PATH: Two Decades of Progress Toward a World Free of HPV-Related Cancers
- Cervical Cancer Prevention: Practical Experience Series
- BBC documentary on cervical cancer in Uganda (“Kill or Cure: The Real Lady Killer”)

**For more information**

Dr. Vivien Tsu vtsu@path.org
Dr. Silvia de Sanjose sdesanjose@path.org