

HPV in the United States and Developing Nations: A Problem Of Public Health or Politics?

By Cynthia Dailard

The global AIDS bill signed into law in May (see related story, page 1) requires an analysis of the prevalence of human papillomavirus (HPV) in Sub-Saharan Africa and a study of the impact of condom use on the spread of HPV in Sub-Saharan Africa. Genital HPV is a sexually transmitted viral infection that is linked to cervical cancer, and the author of the requirement, Rep. Jo Ann Davis (R-VA), portrayed it as a means to combat high rates of cervical cancer in Sub-Saharan Africa.

Davis's focus on HPV prevalence is misplaced. It ignores the fact that the most important risk factor for invasive cervical cancer in women is not the presence of HPV infection per se, but rather a failure to receive timely screening and, if necessary, treatment of precancerous cervical lesions. In the United States and other developed countries, where Pap tests are widely available and easily accessible, deaths from cervical cancer have plunged in recent decades, even in the presence of high HPV rates. Death rates remain high in developing countries because women lack access to Pap tests or other effective screening programs. The evidence strongly suggests, then, that while keeping the focus on HPV and its sexual transmission may be politically useful in advancing a morality-based, abstinence-until-marriage agenda, a more realistic campaign against cervical cancer deaths would focus on increasing access to cervical cancer screening among women around the world.

HPV and Cervical Cancer

In the United States...

Genital HPV is an extremely common viral infection. (Of the more than 100 known HPV strains, 30 are sexually transmissible and are considered genital HPV.) Approximately 5.5 million new genital HPV transmissions occur in this country every year, representing about one-third of all new STD infections, and an estimated 20 million men and women are thought to have genital HPV at any given time. According to a 1997 *American Journal of Medicine* article, nearly three in four Americans between the ages of 15 and 49 have been infected with genital HPV at some point in their life.

HPV infection, which is usually asymptomatic, is also usually harmless. The vast majority of cases are transient: The body's immune system fights off the infection, which then either becomes inactive or resolves on its own. Certain HPV strains lead to genital warts. These warts can be removed, but because the virus typically remains in the body, symptoms may reappear. Other HPV strains are deemed "high-risk" because they occasionally develop into a persistent infection that can progress to cervical cancer if left untreated, usually over the course of decades. Virtually all cases of cervical cancer are associated with these 13 high-risk strains.

The incidence of cervical cancer in the United States has been on the decline for some time, and today cervical cancer is relatively rare. The American Cancer Society esti-

mates that 12,200 cases will occur to American women this year, resulting in 4,100 deaths (which represents one percent of all cancer deaths among women). The major reason cervical cancer rates in this country are so low today—despite high rates of HPV infection—is the widespread availability of Pap tests. Pap tests can detect not only early-stage cervical cancer, which is highly treatable, but also cervical dysplasia—precancerous changes of cervical cells which can linger for years—allowing for the removal of affected tissue long before invasive cancer sets in. Since the introduction of the Pap test in the 1950s, cases of cervical cancer in the United States have decreased dramatically—by 74% between 1955 and 1992. As cited in a 2000 article in the *Journal of the American Medical Association*,

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more than half of the women diagnosed with cervical cancer in this country have not had a Pap test in the last three years. Indeed, according to the American Social Health Association (ASHA), almost all new cases of cervical cancer, and cervical cancer deaths, could be prevented with regular Pap screening.

...and in Developing Countries

Despite the remarkable progress made in reducing the incidence of cervical cancer in this country (and in developed countries generally), globally it remains the third most common cancer. Around the world, 466,000 women are reported to develop cervical cancer each year, and 225,000 die from the disease.

Eighty to eighty-five percent of these deaths occur to women in developing countries. Most of these deaths occur in Sub-Saharan Africa, South Asia and Latin America.

The single most important reason that cervical cancer remains so deadly in these regions is women's lack of access to the cervical cancer screening programs found in developed countries. Campaigns against cervical cancer in developed countries can trace their success to the availability and accessibility of trained clinicians and modern laboratories and medical equipment, and to pervasive and sustained public education campaigns targeting women and health care providers emphasizing the importance of regular and routine screening. Much of this is largely nonexistent in extremely poor countries with little existing public health infrastructure, where women lack basic health education and often have to travel great distances for services. In fact, a 2001 study by the World Health Organization (WHO) found no organized cervical cancer screening programs in many Latin American countries, any of the high-risk Sub-Saharan African countries or India. Because women in these areas typically do not receive care until their disease is well advanced, it is usually fatal.

WHO estimates, however, that even once-in-a-lifetime screening, optimally performed on women in their thirties or forties, could reduce the risk of cervical cancer by 25–30%. Accordingly, researchers are seeking to develop low-cost, easy-to-implement options to screen for and treat cervical cancer in these low-resource settings. The most promising current option appears to be “visual inspection with acetic acid” (VIA). The procedure involves washing the cervix with vinegar, examining it with a flashlight and freezing any white spots that appear with liquid carbon dioxide. The white spots may be precancerous lesions, and

freezing them effectively destroys the potentially harmful cells. A great advantage of VIA is that both screening and treatment can be performed in a single visit. Researchers are also exploring other options, such as the development of a test for the high-risk strains of HPV that could be read on site or even self-administered. (A test for high-risk HPV strains currently exists, but it is relatively expensive and must be processed by a laboratory.)

An HPV vaccine may ultimately provide the answer, since vaccination programs are far less expensive and easier to implement than cancer

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screening programs. Currently, a vaccine is in development that would provide immunity against the HPV strains that cause about 70 percent of the world's cervical cancers. Preliminary results from clinical trials are extremely encouraging, according to a study published in November 2002 in the *New England Journal of Medicine*. The vaccine will not be available for at least 3–5 years, and some experts estimate that even if all goes well, it is unlikely to be common in the developing world for at least a decade. Nonetheless, this would represent a tremendous advance for women around the world and for women in developing countries in particular—one that holds the promise of greatly reducing the incidence of cervical cancer worldwide.

Politics vs. Public Health

Certainly, cervical cancer remains a serious public health problem in Sub-Saharan African and many other parts of the developing world.

But while the Davis amendment was ostensibly designed to combat the high rates of cervical cancer in Sub-Saharan Africa, nowhere does the provision actually mention the term “cervical cancer.” Instead, it seeks only to determine the prevalence of HPV in Sub-Saharan Africa and requests a study to assess the impact that condom use has had on the spread of HPV there. Davis contends that condoms “facilitate the spread of the virus and contribute to the death of women from cervical cancer” because they do not protect against HPV and, therefore, give women a false sense of security. According to this rationale, only a “risk-elimination” strategy that involves abstinence outside of marriage and lifelong monogamy within marriage can fully protect women against HPV and death from cervical cancer.

It is true that because HPV is spread through skin-to-skin contact, not through an exchange of bodily fluids (like HIV), genital HPV cannot be entirely prevented by condom use. There is some evidence, however, that correct and consistent condom use can lower the incidence of cervical cancer. Moreover, latex condoms are scientifically proven to be an effective barrier against the transmission of HIV and gonorrhea, an easily transmissible STD that can facilitate the spread of HIV, and are presumed to be effective against a number of other STDs. Accordingly, encouraging sexually active people to use condoms correctly and consistently remains vital to HIV and other STD prevention strategies, and any effort to undermine global confidence in condoms places women and men around the world at tremendous risk of contracting a number of potentially debilitating and deadly diseases (“Public Health Advocates Say Campaign to Disparage Condoms Threatens STD Prevention Efforts,” *TGR*, March 2003, page 1).

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HPV...

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The Davis amendment, then, is based on two questionable presumptions. The first of these is that reducing HPV prevalence is key to reducing deaths from cervical cancer.

However, the dramatic reductions in cervical cancer deaths observed in developed countries—even in the face of high HPV rates—strongly suggest that the real and more pragmatic answer is increased access to cervical cancer screening. The second presumption is that exaggerating the imperfections of condoms will dissuade people from having sex rather than the more likely alternative, which is to discourage protective behavior when people do have sex.

Using HPV as the centerpiece of a morality-based agenda to undermine confidence in condoms as a means of promoting abstinence outside of marriage is not new. The Davis effort is reminiscent of efforts on the domestic front in 1999 by then-Rep. Tom Coburn (R-OK) to require reporting of all HPV cases to the U.S. federal government and to mandate a cigarette-type warning label on condoms that condoms do not protect against HPV and that HPV is linked to cervical cancer (“Wanted: A Balanced Policy and Program Response to HPV and Cervical Cancer,” *TGR*, December 1999, page 1). The Davis effort represents the first time, however, that the U.S. politics of HPV is being exported overseas. This could have enormous and

potentially grave implications for U.S.-supported prevention programs designed to stem the tide of HIV/AIDS in Sub-Saharan Africa. At the same time, it is nonresponsive to the immediate problem at hand—a lack of access to cervical cancer screening—and ultimately does nothing to bring to the world’s poorest women the services they need to combat cervical cancer. ☉

This is the second in a series of articles examining emerging issues in sex education and related efforts to prevent unintended pregnancy and sexually transmitted diseases. The series is supported in part by a grant from the Program on Reproductive Health and Rights of the Open Society Institute. The conclusions and opinions expressed in these articles, however, are those of the author and The Alan Guttmacher Institute.



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