



# HPV, CERVICAL CANCER, AND API WOMEN: ELIMINATING HEALTH DISPARITIES

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On June 8, 2006, the Food and Drug Administration (FDA) approved Gardasil, a cervical cancer vaccine developed by Merck and Company, for safe use among girls and women ages 9-26. Gardasil is 100 percent effective in preventing the

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transmission of certain human papillomavirus (HPV) strains which cause 70 percent of all cervical cancer cases worldwide.<sup>1</sup> Asian and Pacific Islander (API) women will greatly benefit from this HPV vaccine given their high rates of cervical cancer, particularly among Vietnamese and Korean women.

However, the marketing and sale of the HPV vaccine also raises new questions about cost, accessibility, health care coverage, and how to address the politics of sexuality, particularly among young and teen girls. Health care providers,

advocates, and community leaders must collectively work to educate API girls and women about HPV, cervical cancer, and the benefits and shortcomings of the vaccine. In addition, they must also expand access to the health care system overall, regardless of socioeconomic or immigration status.

For API women, sexual and reproductive justice includes the fundamental right to access affordable, linguistically and culturally competent health care services that support their overall health and well-being. This issue brief discusses the link between HPV and cervical cancer and why the vaccine could dramatically reduce the high cervical cancer rates among certain groups of API women. The brief also outlines some concerns about the cost, long-term effects, and administration of the vaccine. It concludes with ways in which the public health community can support the health care needs of communities of color most at risk for cervical cancer.

## *Cervical Cancer and API Women*

With the widespread availability of Pap smears and screenings, the overall rates of cervical cancer development and mortality have declined over the past few years.<sup>2</sup> In the United States, cervical cancer rates for all major racial groups have fallen, except among Asian American women.<sup>3</sup>

Studies have found that the cervical cancer rate for Vietnamese American women is five times higher than that of white women, representing the highest rate for any racial or ethnic group.<sup>4</sup> Moreover, the cervical cancer rate for Korean American women is more than double that of white women.<sup>5</sup> Additionally, Native Hawaiian, Maori, and Polynesian women have

higher cervical cancer death rates than white women.<sup>6</sup> Another study found that invasive cervical cancer rates were much higher in Hmong women than other ethnic groups, and that diagnosis frequently occurred at advanced stages.<sup>7</sup>

Many factors contribute to the high rates of cervical cancer among API

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women including lack of health insurance, lack of knowledge about Pap smears and preventive care, and lack of culturally and linguistically appropriate services. The primary reason for this reproductive health disparity is that API women

underutilize preventive health screenings, particularly Pap smears. In 2003, 80.1 percent of white women reported having had a Pap test within the past three years. By contrast, only 67.8 percent of API women reported having a Pap test in the same time period.<sup>8</sup> One study found that 53 percent of the Vietnamese American women sur-

veyed had *never* received a Pap smear, compared to 6 percent of women in the general population.<sup>9</sup> Studies have also discovered that as many as 22 percent of Korean American women have never had a Pap test.<sup>10</sup>

## *Barriers to Cervical Cancer Screenings and Reproductive Health Services*

API women encounter significant obstacles to accessing the health care system and receiving necessary sexual and reproductive health care services. Lack of affordable and quality health insurance is a significant barrier for API women and other women of color. Studies show that having health insurance is a primary indicator of access and use of cancer screening services.<sup>11</sup> Approximately 17.7 percent of all Asian Americans and 21.8 percent of Pacific Islanders are uninsured, compared to 11.2 percent of whites. Korean Americans are among the least likely to be insured, with uninsurance rates as high as 52 percent among Korean Americans aged 18 to 64.<sup>12</sup>

In addition, language differences discourage many API women from

seeking cervical cancer screenings and care. According to the 2000 Census, 73 percent of Asian Americans and 35 percent of Pacific Island-

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ers spoke a language other than English at home, and 36 percent of Asian Americans and 12 percent of Pacific Islanders are limited English proficient (LEP). When these statistics are broken down further by subgroups, the rates increase greatly. More than 90 percent of the Hmong, Bangladeshi, Laotian, Vietnamese, Cambodian, Pakistani, and Taiwanese communities spoke a language other than English at home. Studies have found that individuals who require interpreters are less likely to be

insured and to receive preventive services such as Pap smears and mammograms.<sup>13</sup> These statistics and studies demonstrate the importance

of providing adequate culturally competent and interpretative services to API patients.

Cultural stigmas linked with reproductive health care further influence how API women perceive and utilize such services. Many API women will forego seeking care because of the cultural stigma associated with cancer, or because they have misconceptions about what a Pap smear entails or is used for.

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## *The Facts Behind HPV*

Human papillomavirus (HPV), the most common sexually transmitted disease in the U.S., has more than 100 different strains, over 30 of which can be transmitted from person to person through sexual contact. Approximately 20 million Americans are currently infected with HPV, and it is estimated that by the age of 50, at least 80 percent of women will have contracted the virus. The highest rates of new HPV infections occur among young adults between the ages of 15 and 24, which make-up about 74 percent of annual infections. HPV transcends racial and geographic boundaries, affecting men and women of all racial and ethnic backgrounds across the U.S.<sup>14</sup>

HPV is transmitted through direct skin-to-skin contact (usually from vaginal, oral, or anal sexual contact) with a person who is infected with

the virus. While there is no medical cure for HPV, most HPV infections come and go without the need for medical attention or cause for con-

*“Human papillomavirus (HPV), the most common sexually transmitted disease in the U.S...”*

cern. In other words, a person may be infected with HPV without ever developing symptoms, physical discomfort, or even knowing of their infection.<sup>15</sup>

### **The Link Between HPV and Cervical Cancer**

Of the more than 100 different strains of HPV, studies have identified at least 13 strains that have the potential to cause cervical cancer. In particular, strains 16 and 18 have been found to cause over 70 percent of all cervical cancer cases. These

strains cause abnormal cell growth of the cervix that can lead to cervical cancer if not treated or removed. In addition to being infected with these

HPV strains, other risk factors attributed to the development of cervical cancer include smoking, multiple sexual partners, daily stress, sexual activity at an early age, and never having received a Pap smear.<sup>16</sup>

HPV infections that lead to changes in the cervix are generally detected through a FDA-approved HPV test and Pap smears.<sup>17</sup> The FDA approved DNA Pap test from Digene, a maker of molecular diagnostic tests, combines the traditional Pap test with a DNA test that tests for the 13 strains of HPV associated with

cervical cancer. It is 99 percent accurate at identifying changes in cervical cells.<sup>18</sup>

Pap smears are used to detect abnormal cell growth or pre-cancerous changes of the cervix, and are the most common way to detect the early onset of cervical cancer. Generally, it is recommended that women receive a Pap smear at least once every three years.<sup>19</sup> Regular pap screenings have reduced cervical cancer incidence and deaths by 70 percent.<sup>20</sup>

Despite this decline in mortality rates overall, the American Cancer

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Society estimates that approximately 11,000 women in the U.S. will develop invasive cervical cancer in 2008 and nearly 4,000 women will die from it.<sup>21</sup>

While not 100 percent effective against HPV, safe condom use can

dramatically reduce HPV transmission. A study in 2006 found that reg-

ular condom use can reduce a young woman’s risk of contracting HPV by 70 percent. Even with regular condom use, regular Pap testing is still recommended as the most effective measure to protect oneself against developing cervical cancer.<sup>22</sup>

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### *The HPV Vaccine: New Hope for Preventing Cervical Cancer*

Developed by the pharmaceutical company Merck & Co., Inc (Merck) and approved by the FDA, Gardasil is a HPV vaccine that protects against four HPV strains: 16 and 18, which as mentioned above, are responsible for 70 percent of all cervical cancer cases worldwide, and 6 and 11, which are responsible for the development of 90 percent of genital wart infections. Gardasil is administered over the course of six months through a series of three separate injections. The vaccine has been found to prevent nearly 100 percent of precancerous cervical cell changes caused by HPV strains 16, 18, 6, and 11 for up to four years after vaccination. In other words, the vaccine prevents the infection and development of abnormal cell growth that can lead to cervical cancer. Even if fully administered, how-

ever, women should still get regular Pap tests.<sup>23</sup>

GlaxoSmithKline (Glaxo) developed a HPV vaccine called Cervarix which has not yet been approved by the FDA. Cervarix also protects against HPV strains 16 and 18 and has further been found to provide significant protection against strains 21, 45, and 52, which may also cause cervical cancer.<sup>24</sup> Like Gardasil, Cervarix has witnessed 100 percent effectiveness rates in clinical trials.<sup>25</sup>

Since HPV is most commonly sexually transmitted, experts argue that the vaccine should be administered before adolescents have had their first sexual encounter.<sup>26</sup> Approximately 28 percent of young women will have had sexual intercourse by the time they finish ninth grade.<sup>27</sup> As

such, the Center for Disease Control’s Advisory Committee on Immunization Practices (ACIP) recommends that females get vaccinated when they are 11 to 12 years old and has reported that the vaccine can be administered to females as young as 9 years old.<sup>28</sup> It is estimated that vaccinating all 12-year-old girls in the United States could prevent more than 1,300 deaths during this population’s lifetime.<sup>29</sup> A catch-up vaccination is recommended for females aged 13 to 26 years who have not yet been vaccinated.<sup>30</sup> Research indicates that women older than 26 and young men respond to the vaccine.<sup>31</sup> Thus, ACIP’s recommendations may eventually include males as well as women over 26.

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### *Concerns With the HPV Vaccine*

#### **Side Effects and Risks of Gardasil**

Like all vaccines, there are some side effects and risks associated with Gardasil. Common side effects include fainting, soreness of the injection site, nausea, and fatigue. The FDA reports that as of June 30,

2008, there have been 9,749 reports of adverse events following Gardasil vaccinations, of which 94% were classified as non-serious events and 6% as serious events.<sup>32</sup> While the FDA states that the serious events (which included 20 deaths) had no common pattern that would suggest

that Gardasil was the cause, it notes that Merck, Gardasil’s manufacturer, has committed to conducting a post-marketing study to further assess the vaccine’s safety.

Because Gardasil is so new, there are also possible unknown risks of Gar-

dasil. There is a lack of research on how long the vaccine remains effective and whether eliminating some strains of cancer-causing virus will decrease the body's natural immunity to other strains of the virus.<sup>33</sup>

### Mandated Vaccinations

One way to ensure that the HPV vaccine reaches adolescents is to mandate the vaccine upon school entrance.<sup>34</sup> At the end of 2007, legislators in at least 24 states and the District of Columbia, had introduced legislation to mandate the vaccination for school entrants.<sup>35</sup> Of these, only two successfully passed. In 2007, Virginia passed a school vaccine requirement and is currently considering a bill postponing the requirement.<sup>36</sup> The District of Columbia also passed legislation to mandate the HPV vaccine for schools.<sup>37</sup> Currently every state, even those with mandates, has some type

of the HPV vaccine discourages abstinence and encourages teens who receive the vaccine to engage in more risky sexual behavior. However, there are no published data or reports to support this concern. In fact, the CDC reports that it is unlikely that sexual activity will increase among teens as a result of the vaccine.<sup>40</sup>

While the HPV vaccine has not been mandated for all U.S. citizens, in July 2008, it became required of immigrant girls and women between the ages of 11 and 26. The U.S. Citizenship and Immigration Services (USCIS) added Gardasil to their list of mandatory vaccinations for green card applicants and immigrants applying to become U.S. citizens. The policy went into effect on July 1, 2008 and advocates in the immigrant rights and public health movements called for a reversal because it created additional cost barriers (See

the cost of the treatment alone creates an enormous barrier to accessing the vaccine for a significant percentage of API women who lack health insurance. Uninsured women who lack access to benefits are the most vulnerable to cervical cancer, and the least likely to obtain the vaccine.<sup>44</sup> Health insurance and government programs must consider the financial impact of the vaccine in order to reach those most in need.

Moreover, the cost of the vaccine creates an additional financial burden for immigrant women and girls who are now required to get the HPV vaccination. Green card applicants are already required to pay more than \$1,000 in fees, in addition to the cost of meeting over a dozen other mandatory immigrant vaccination requirement.<sup>45</sup>

cal costs of dealing with cancer.<sup>46</sup> This will only happen, however, if we promote policies that provide API women and girls with true access

*“Uninsured women who lack access to benefits are the most vulnerable to cervical cancer, and the least likely to obtain the vaccine.”*

of opt-out procedure. In most states, parents can opt out of having their children vaccinated fairly easily for moral, philosophical, or religious reasons.<sup>38</sup> Some groups, however, do not support such mandates because HPV is sexually transmitted and the vaccine is therefore unlike other existing mandated vaccines.<sup>39</sup> For some, adolescent HPV vaccination requirements have raised concerns about teen sexuality and promiscuity. According to some conservative parent groups, the widespread availabil-

**Financial Considerations** below) for young immigrant women and their families and unfairly forces immigrant women to subject their bodies to a vaccine that is new to the market and has unknown long-term efficacy rates.<sup>41</sup>

### Financial Considerations

The full treatment of the HPV vaccine costs a minimum of \$360, or \$120 per dose, excluding the fees and costs of administering the vac-

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### Looking Ahead...

Despite the challenges, the HPV vaccine brings tremendous hope to lowering cervical cancer rates among API women. The vaccine could

reduce the need for expensive medical care, invasive surgeries, biopsies, follow-up visits, and reduce overall health care costs and the psychologi-

cal costs of dealing with cancer.<sup>46</sup> This will only happen, however, if we promote policies that provide API women and girls with true access

to the vaccine and the health care system.

### Administering the Vaccine

There are some practical challenges to administering the HPV vaccine to young API women. The HPV vaccine requires a series of three shots over the course of six months, yet adolescents often do not regularly visit their physicians and have minimal contact with health care providers. API teens are no exception. Anecdotal evidence from community clinic providers show that many API teen girls do not seek health care or support until they are already in crisis. In order to promote preventive care, programs to raise awareness among the API teen population around issues of sex and sexuality are important, particularly in light of the lack of dialogue around these issues in API households or families.

### Education and Outreach

Given the significant percentage of API women who lack knowledge and carry misunderstandings about Pap smears and preventive screenings, educating API women and their families about HPV and cervical cancer is critically important. Although HPV is the most common sexually transmitted infection in the

U.S., only 40 percent of women ages 18 to 75 have heard of HPV and less than half of those women know that it is associated with cervical cancer.<sup>47</sup> In order to effectively reach API women, the National Cancer Institute (NCI) and API community-based

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organizations have partnered to develop culturally sensitive materials about cervical cancer, preventive care, and HPV. For instance, NCI worked with the Health is Gold – Vietnamese Community Health Promotion Project and the Vietnamese American Medical Association to produce a pamphlet, “Cervical Cancer: What Vietnamese Women Should Know,” in Vietnamese and English.<sup>48</sup> The Center for Disease Control (CDC) also completed HPV outreach materials tailored for Korean, Vietnamese, and Filipino communities with the goal of dispelling some common misconceptions associated with the vaccine. In addition, outreach targeting API parents is necessary for widespread acceptance of the HPV vaccine. Several surveys found that parents who were initially reluctant about administering the HPV vaccine to teen girls changed their minds after learning more about the connection

between HPV and cervical cancer.<sup>49</sup> Research suggests that physician recommendations can influence how parents view the HPV vaccine too.<sup>50</sup> Family planning clinics may also help with acceptability of the vaccine by educating adults and children

about cervical cancer and the development of the HPV vaccine. In order to gain parental acceptance of the vaccine within the API community, counseling and outreach materials will not only need to address the cultural stigma around cancer and disease, but also the challenges around openly discussing issues related to sexuality and reproductive health care.

It is critically important that discussions and next steps do not become overshadowed or stalled by the politics around teen sexuality. Communities of color, particularly API women, could benefit immensely from the widespread accessibility of the vaccine without making it a requirement for certain populations. Through effective education, outreach, and public policies we will have the ability to close the health care gap and improve the overall health care status of all API women.

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