

# Strategies for Eliminating Cervical Cancer: Recommendations for a Collaborative Approach

Findings from the 2005 HPV  
& Cervical Cancer Summit





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## Abstract

With the development of preventive vaccines and more sophisticated diagnostic screening, we are on the threshold of an incredible era in which cervical cancer can be eliminated. Having new technologies, however, is not enough, and no single group or approach can solve the myriad challenges associated with eradicating this number two cancer-killer of women worldwide. Rather, all stakeholders must use a collaborative approach to address the key public health opportunities and challenges presented: reaching underserved women, incorporating new and emerging technologies into prevention programs, and educating women about the disease and the virus that causes it.

Given the tremendous need to overcome educational, screening, and other barriers, coupled with the interest and enthusiasm of policymakers, public health advocates, agency representatives, and the medical community, Women In Government convened its first annual “HPV & Cervical Cancer Summit” in November 2005 to outline a national strategy for eliminating cervical cancer. As a result, the organization has developed a framework for collaborative action that results in a paradigm shift in how to approach healthcare, and offers recommendations for increasing disease awareness and mobilizing individuals to seek screening and preventive services. In this paper, Women In Government outlines five recommended strategies for collaboration wherein stakeholders, regardless of their primary interests, can join forces to effect change.

## Introduction

Worldwide, cervical cancer kills almost a quarter-million women each year.<sup>1</sup> In the United States, cervical cancer rates have decreased significantly over the last 60 years due to widespread use of the Pap test.<sup>2</sup> Despite this progress, in 2006, an estimated 9,710 women will be diagnosed with and 3,700 women will die of cervical cancer.<sup>3</sup>

The current climate around cervical cancer prevention, including advances in technology, political will for preventive healthcare, and social momentum directed at finding a cure for cancer, has opened a window to policy opportunities. Significant efforts towards a systematic and comprehensive approach to cervical cancer prevention are underway through a variety of programs in the United States. However, women are still inadequately educated about and/or screened for this disease, resulting in thousands of women diagnosed with cervical cancer each year.

In 2004, Women In Government, a national 501(c)(3), nonprofit, bipartisan educational association for women state legislators, launched the *Challenge to Eliminate Cervical Cancer Campaign*. The *Campaign* established cervical cancer prevention as an organizational priority, with a focus on outreach and educational initiatives for state policymakers. The *Campaign* has achieved tremendous success in its two-year history; as of April 20, 2006, 45 states have introduced legislative measures targeting cervical cancer prevention and 39 states have enacted these measures. In an effort to provide policymakers with ongoing support around this issue, Women In Government launched the Human Papillomavirus (HPV) and Cervical Cancer Policy Resource Center, providing state legislators with educational and policy materials, legislative toolkits, partnership opportunities, key state advocacy contacts, media outreach, and special events support. In 2005, Women In Government released its first state-by-state report to document and assess progress on cervical cancer prevention efforts nationwide. A second report was released in 2006.

As part of the *Campaign*, Women In Government has developed a framework to eliminate cervical cancer wherein stakeholders, regardless of their primary interests, can join forces to effect positive change. This model is the result of Women In Government's three-day Annual HPV & Cervical Cancer Summit in Atlanta, Georgia in November 2005. The Summit marked the largest gathering in the United States to date of state legislators, public health advocates, medical experts, and public policy experts, including those from the Centers for Disease Control and Prevention (CDC), assembled to address this important disease. Summit attendance included 33 state legislators, 35 state agency representatives, 38 representatives from advocacy groups, 19 members of federal agencies, and 11 businesses, representing 48 states and the District of Columbia (see Appendix A for a complete list of participants).

## Purpose of Paper

In this paper, Women In Government recommends five strategies to guide policymakers, health advocates, federal and state agency representatives, the medical community and others in achieving the public health milestones necessary for eliminating cervical cancer. These recommendations are derived from the Women In Government Summit and were guided by the following points of consideration:

1. How can stakeholders overcome racial and socioeconomic disparities to reach rarely and never-screened women?
2. How can new and emerging technologies be effectively incorporated into existing prevention programs?
3. How can we educate women about HPV, cervical cancer, and the need for prevention and screening?

The following strategies and tactics reflect recommendations of Summit participants for reaching the goal of cervical cancer elimination.

## Background

Cervical cancer is the uncontrolled growth of abnormal cell changes in the cervix, or the lower part of the uterus, which opens into the vagina. Nearly all cervical cancer is caused by 10 to 15 high-risk types of a common sexually transmitted virus, human papillomavirus.<sup>4</sup> In most cases, the virus disappears without symptoms or treatment.<sup>5,6</sup> In a small percentage of women, however, the virus persists and normal cervical cells gradually change into abnormal, precancerous cells (also called cervical lesions). If HPV is not detected—and precancerous cells are not detected, monitored, and treated—cervical cancer can develop over a long period of time. Yet nearly all cases of cervical cancer can be prevented if women are appropriately screened and receive follow-up healthcare services as needed.<sup>7</sup>

Key barriers exist in preventing and eliminating cervical cancer. First, the disease disproportionately affects minority women and those with lower incomes (often the uninsured) because they are less likely to have access to routine screening. Hispanic women over 30, for example, are twice as likely to be diagnosed with cervical cancer as non-Hispanic Caucasians. Approximately half of all cervical cancers occur in women who have never been screened, and 10 percent are in women who have not been screened in the last five years.<sup>8</sup> Thus, despite the high level of preventive care offered in the United States, we must do more to extend appropriate and accurate screening to all women.

Second, cervical cancer screening tests are imperfect; some are more sensitive and less specific and some are less sensitive and more specific. In the U.S., three types of screening tests are routinely used to detect cervical precancerous lesions, cervical cancer, or HPV; these are the conventional Pap test, the liquid-based cytology, and the HPV test.

Although sensitivity rates vary from study to study, one government study conducted by the Agency for Healthcare Research and Quality found conventional Pap test sensitivity rates of 51 percent.<sup>9</sup> Another large study found rates of 68.1 percent for the conventional Pap test, 87.8 percent for liquid-based cytology, and nearly 100 percent for combined liquid based Pap and HPV testing.<sup>10, 11, 12</sup> In terms of specificity, the two cytology methods (conventional Pap test and liquid-based cytology) were more specific than the HPV test at identifying women needing early intervention, while HPV testing was more sensitive. There is currently one HPV test which is manufactured by Digene Corporation, is approved by the Food and Drug Administration (FDA), and is used in conjunction with a Pap test in women aged 30 and older to detect high-risk types of HPV. Additional HPV tests are currently in development.

Further, vaccines for HPV could be approved by the FDA in the near future. Preventive vaccines have been shown in clinical trials to be 100 percent effective at preventing the HPV types that cause approximately 70 percent of cervical cancers.<sup>13</sup> Thus, they could contribute significantly to reducing the prevalence of cervical cancer, as part of a comprehensive strategy that includes vaccination and screening. Women In Government believes that every woman must be informed and educated about HPV and cervical cancer, and have access to scientifically advanced and medically appropriate prevention strategies, regardless of socioeconomic status.

## Key Public Health Opportunities and Challenges

### *Reaching rarely or never screened women*

Studies have found economic, racial, and ethnic disparities in both cervical cancer incidence and mortality rates. Alaska Native, Korean, and Hispanic women have higher rates of cervical cancer incidence (15 cases per 100,000 women) as compared with Caucasian women in the United States.<sup>14</sup> However, Vietnamese women register the highest incidence rates at 43 cases per 100,000 women. The highest cervical cancer mortality rates are found among foreign-born women.<sup>15</sup> Additionally, researchers have identified women along the Texas-Mexico border, Caucasian women in Appalachia, American Indians in the Northern Plains, Vietnamese women, and Alaska natives as highest risk populations in this country.<sup>16</sup>

Once vulnerable women are located, educated, and provided access to screening, decisions remain as to the most appropriate and effective screening approaches to employ. Several researchers have conducted studies to test the impact of various screening technologies and approaches in low resource settings such as “screen and treat” strategies. “Screen and treat” strategies employ a single visit to screen patients and, in that same visit, treat those women with abnormalities. Some “screen and treat” approaches have tried abandoning traditional cytological methods (screening using the conventional Pap test or liquid-based cytology) and have opted instead for primary screening with visual inspection with acetic acid (when a physician visually inspects the cervix, then uses a syringe to wash the cervix with the acetic acid and then observes any acetowhite areas<sup>17</sup>) or with HPV tests. In settings where concerns are raised about patients’ ability to return for repeat visits and follow-up services, the “screen and treat” model may be effective for reaching rarely- and never-screened women.

It has been suggested that in public programs where funding is a concern, such as the Centers for Disease Control and Prevention’s (CDC), National Breast and Cervical Cancer Early Detection Program (NBCCEDP), the use of advanced screening technologies may prove more cost-effective and efficient for screening women at highest risk for developing cervical cancer.<sup>18</sup> It is clear, however, that without additional financial support, these screening programs will not be able to expand their services to keep up with advances in technology.

One approach for cost-effective cervical cancer prevention is to evaluate the interval at which women are screened for the disease. NBCCEDP revised its practices of providing annual Pap tests in 2001 to adjust to a system of screening women every three years if they have had three consecutive annual Pap tests with normal findings. This decision enabled funding for screening thousands of women who were previously unscreened.<sup>19</sup>

Stakeholders must direct special attention to educating vulnerable populations of women and their providers to overcome barriers that currently hinder adequate screening of these women and reduce their rates of cervical cancer.

## *Incorporating new and emerging technologies into prevention programs*

Leading medical organizations recommend cervical cancer screening for women within three years of becoming sexually active, or at age 21, whichever comes first. Screening should continue until a woman is between 65 and 70, depending on individual factors, such as previous screening test results or a hysterectomy.<sup>20</sup>

Screening technologies for cervical cancer include the traditional Pap test (also known as the conventional Pap smear or cytology), which consists of collecting a small sample of cells from the cervix, placing them on a slide, and examining them under a microscope; liquid-based cytology, a more recent and advanced form of the Pap test, which consists of placing the collected cells into a liquid medium and sending them to a laboratory for review; and, HPV testing, which uses advanced, molecular technology to detect the presence of one or more high-risk HPV types.<sup>21,22</sup>

HPV testing is FDA-approved for use with a Pap test in routine cervical cancer screening for women age 30 and older and for women of all ages as follow-up on inconclusive Pap test results, known as ASC-US (atypical squamous cells of undetermined significance).

The need for preventive cervical cancer vaccines has been based on the consistent number of cases still identified in the developed world, social and economic burdens of disease, and the preventability of cervical cancer.<sup>23</sup> Two companies, Merck and GlaxoSmithKline (GSK), have prophylactic vaccines in development, aimed at protecting women against the two subtypes of HPV (16 and 18) which cause 70 percent of cervical cancers.<sup>24</sup> In late 2005, Merck released clinical trial results showing that its vaccine demonstrated 100 percent efficacy in preventing high-grade cervical pre-cancers and non-invasive cervical cancers associated with HPV types 16 and 18.<sup>25</sup> Merck's vaccine is quadrivalent, providing protection against four HPV subtypes: 6, 11, 16 and 18. HPV subtypes 6 and 11 are the cause of 90 percent of genital warts.<sup>26</sup> Similarly, clinical trial results for GSK's vaccine, which protects against HPV infection types 16 and 18, demonstrated 100 percent efficacy against all histological abnormalities associated with HPV 16 and 18.<sup>27</sup> Research is currently underway to determine the duration of protection offered by a vaccine against HPV.

Several challenges await the successful implementation of HPV vaccines. Significant questions remain as to age and gender of the candidates for vaccination, and when and where vaccination should take place. Some experts involved in the clinical trials of these vaccines have indicated that for a prophylactic vaccine to be maximally effective, it would need to be given to children before the onset of sexual activity.<sup>29</sup> Other challenges facing stakeholders responsible for implementation include storage issues, surveillance for vaccine effectiveness, and the need for boosters, all of which are necessary components to a successful immunization program.<sup>30</sup> Moreover, recommendations and input from the federal Advisory Committee for Immunization Practices, the CDC, professional societies, public health departments, and individual physicians will be necessary for immunization programs to be successful.

A comprehensive prevention strategy that includes screening and vaccination must be developed. HPV vaccines currently in development and before the FDA will prevent up to 70 percent of cervical cancer cases, but will not protect women who have already been affected with the virus.<sup>31</sup>

### *Educating women about HPV, cervical cancer, and opportunities for prevention*

Cervical cancer education for vulnerable populations should be a priority for states and public health advocates. These populations may not understand the healthcare system, available options for preventive services or the risks associated with various diseases. These complications are key barriers to acceptance of preventive healthcare. Public programs, such as the NBCCEDP, explicitly support public education and outreach as an important component to clinical services specifically for low-income women.<sup>32</sup>

Awareness among women of HPV and its link to cervical cancer is vital to the success of eliminating this preventable disease. A recent study by the Association of Reproductive Health Professionals demonstrated the lack of knowledge among women about HPV and cervical cancer. The study found that: 47 percent of women did not talk to their provider about HPV, and 81 percent said that their healthcare provider has never talked to them about the connection between HPV and cervical cancer. Only 49 percent of women had heard of HPV, despite the fact that 80 percent of sexually active adults will be exposed to the virus at some point in their lives, and only 23 percent of women correctly identified HPV as the primary cause of cervical cancer.<sup>33</sup>

Many stakeholders have employed innovative approaches to public education across the country to sustain successful preventive healthcare programs. By establishing coalitions and collaborative activities, stakeholders can ensure that women receive the adequate education necessary to increase awareness of HPV and cervical cancer. It is hoped that this education will then motivate women to seek screening and other prevention services that will ultimately reduce cervical cancer incidence and mortality rates.

Educating women is not the only step necessary in eliminating this preventable disease, however. Men must also be educated to complete a comprehensive outreach program. Increasing awareness of HPV and cervical cancer among men could lead to an increase in women who will seek healthcare screening services at the urging of male partners, family, and friends.

## Women In Government’s Recommended Strategies and Tactics

Working from the key health opportunities and challenges outlined previously, and discussions between participants at the Summit, Women In Government developed the following five recommended strategies for a collaborative approach to cervical cancer elimination. These strategies are followed by tactics for federal and state legislators, health agencies, the medical community, and advocacy organizations to employ in their outreach efforts.

### Recommended Strategies

#### **Strategy #1: Build coalitions among stakeholders to implement comprehensive cervical cancer elimination strategies, which include FDA-approved vaccines and screening to reach vulnerable populations.**

Reaching rarely or never screened populations of women in the United States—those at highest risk of developing cervical cancer—is the most important effort in the fight against this preventable disease. A study by Partridge and colleagues observed that in minority communities, individuals tend to turn first to trusted individuals in the community for information and assistance.<sup>34</sup> By building coalitions and partnerships, groups can work together using innovative strategies to reach high-risk populations with screening and treatment services, leading to the elimination of cervical cancer.

#### **Two Successful Examples of Collaborative Efforts to Reach At-Risk Women**

The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) helps low-income, uninsured, and under-served women gain access to lifesaving screening programs for early detection of breast and cervical cancers. The NBCCEDP was established by public law in 1990 and is funded through congressional appropriation. The NBCCEDP is administered by CDC’s Division of Cancer Prevention and Control through cooperative agreements with grantee programs. Since 1991, the program has grown to include all 50 U.S. States, 4 U.S. Territories, the District of Columbia, and 13 American Indian/Alaska Native organizations. In addition to providing screening services to under-served women, the comprehensive NBCCEDP approach ensures that all women gain from educational activities and quality assurance standards. Since 1991, NBCCEDP has screened 1.9 million women, provided 4.6 million screening examinations, and diagnosed 17,009 breast cancers, 61,474 precancerous cervical lesions and 1,157 cervical cancers.<sup>35</sup>

New York State offers a novel example of how various stakeholders in the cervical cancer arena have joined efforts to strengthen the state’s outreach efforts around this important issue. In 2005, legislation was initially introduced to create a statewide cervical cancer elimination task force. However, in a move to integrate existing programs in New York with the legislative goals behind the original bills, a new act was introduced instead to amend the state’s current breast cancer advisory council. Members of the state Department of Health, policymakers and other experts and advocates collaborated to expand the existing council to become the “Breast and Cervical Cancer Detection and Education Program Advisory Council.” The council was expanded to incorporate experts in the cervical cancer prevention and detection fields. This collaboration utilized existing state resources and coinciding goals to form the new advisory council. By combining their efforts, the Breast and Cervical Cancer Detection and Education Program Advisory Council can focus their attention on rarely and never screened women in conjunction with the New York Breast and Cervical Cancer Early Detection Program.

<b>Tactics</b>	<b>Policymakers</b>	<b>Agency Representatives</b>	<b>Advocacy Groups</b>	<b>Medical Community</b>
1. Partner with state breast and cervical cancer early detection programs to disseminate educational information to constituents.	✓	✓		
2. Partner with women’s clubs, sororities, advocacy groups, faith-based organizations and membership associations to use their expertise and outreach for reaching women.	✓	✓	✓	
3. Engage state employee health plans to disseminate educational information to employees and establish comprehensive health education in schools.	✓	✓		
4. Collaborate with comprehensive cancer control plans to ensure that each state is addressing advances in cervical cancer prevention.	✓	✓	✓	
5. Encourage the State Children’s Health Insurance Program (SCHIP) to disseminate information to parents about vaccination.	✓	✓		
6. Ensure funding for existing state Offices of Women’s Health and establish offices in states that do not have one.	✓			
7. Create funding for mobile screening programs.	✓			
8. Identify and recruit members of the medical community willing to perform volunteer screening services.				✓

Tactics	Policymakers	Agency Representatives	Advocacy Groups	Medical Community
9. Cultivate financial support from local banks, chambers of commerce, and other community partners for outreach programs.		✓	✓	
10. Partner with the private sector to fund outreach and educational activities.		✓	✓	
11. Enlist the support of policymakers to support cervical cancer prevention efforts, funding and legislation.		✓	✓	✓
12. Disseminate disease and screening information to locations where women gather (e.g., hair and nail salons, schools, on public transportation, etc.).		✓	✓	
13. Use opportunities with second generation daughters to educate immigrant mothers.		✓	✓	
14. Enlist immigrant women leaders for outreach to vulnerable populations.		✓	✓	
15. Assess what it would take to get rarely or never screened women screened by surveying vulnerable populations of women.		✓	✓	
16. Go door-to-door in communities that are medically underserved.		✓	✓	
17. Connect with religious communities and faith based organizations to educate and reach women with important healthcare messages.		✓	✓	

## Strategy #2: Heighten awareness of HPV, cervical cancer, the need for screening, and potential benefits of vaccination.

For screening and immunization programs to be effective, the general public must be aware of and educated about HPV and cervical cancer. Furthermore, new groups of stakeholders, such as pediatricians, family practitioners, school systems, and parents are likely to become engaged in the elimination of cervical cancer with the approval of an HPV vaccine. Extending educational programs to these new stakeholders, while maintaining important messages about screening will be vitally important to the successful eradication of cervical cancer.

### An Example of Successful Educational Outreach

Christine Baze, a cervical cancer survivor and musician developed the national “Yellow Umbrella Tour,” as part of her organization Popsmeat.org. PopSmear.org is a Boston-based non-profit organization whose purpose is to raise awareness and money to fight Cervical Cancer. PopSmear.org was created in 2002, and recruits help from musicians around the country to perform benefit concerts to raise awareness about HPV and cervical cancer, and the modern technologies available to help prevent the disease.

During the 2004 and 2005 Yellow Umbrella Tours, Christine Baze and her band traveled with other musicians to over 40 U.S. cities and reached thousands of women with educational messages about HPV and cervical cancer, and the importance of screening.<sup>36</sup>

Tactics	Policymakers	Agency Representatives	Advocacy Groups	Medical Community
1. Simplify messages regarding HPV and cervical cancer when speaking with constituents.	✓	✓	✓	✓
2. Focus educational outreach efforts on cervical cancer prevention and removing the stigma of HPV.	✓	✓	✓	
3. Utilize the media to mainstream educational messages for constituents and colleagues.	✓	✓	✓	

Tactics	Policymakers	Agency Representatives	Advocacy Groups	Medical Community
4. Create and execute public information campaigns through legislative action.	✓			
5. Create and disseminate educational brochures and other marketing materials.	✓	✓	✓	✓
6. Educate and empower women/constituents/patients to take responsibility of their own health.	✓	✓	✓	✓
7. Educate parents about the link between HPV and cervical cancer and the prevalence of the virus.		✓	✓	✓
8. Partner with men to ensure they are educated about HPV and cervical cancer and supportive of women assessing screening services.		✓	✓	✓
9. Educate the medical community by including the topics of HPV and cervical cancer in core curricula for medical and nursing schools and offer accredited continuing education programs on cervical cancer prevention for physicians, nurses, and other health educators.				✓

### **Strategy #3: Ensure reimbursement for and access to Pap testing, HPV testing, and HPV vaccination when available.**

The implementation of new technologies clearly plays an important role in the prevention of cervical cancer. In the United States, the introduction and successful use of the Pap test has led to a significant reduction in cervical cancer incidence and mortality rates. Most states cover the cost of routine Pap tests for women, and we must ensure that this service remains available to all women. Many states now also cover reimbursement in public and private screening programs for the HPV test, for use as indicated by leading medical organizations. However, some state Medicaid programs and some private payers do not cover this technology. Moreover, the opportunities available with emerging HPV vaccines depend highly on the establishment of appropriate infrastructure and stakeholder preparedness for implementation.

## Recent Legislative Outreach

State legislative action in 2005 and 2006 was aimed at increasing access to screening services using scientifically advanced technologies, in accordance with guidelines from leading medical organizations, such as the American College of Obstetricians and Gynecologists.

Policymakers in Texas introduced legislation mandating coverage for HPV testing in accordance with guidelines for any individual, group, blanket or franchise insurance policy, group hospital service contract, individual or group evidence of coverage offered by an insurance company, group hospital service corporation, fraternal benefit society, health maintenance organization, Lloyd’s plan, stipulated premium company, nonprofit, multiple employer, welfare, or small employer. The Texas legislation was signed by the Governor at the close of the 2005 legislative session.

In 2006, California introduced a similar measure for the coverage of HPV testing. Specifically, this bill would require that the coverage for an annual cervical cancer screening test provided by a healthcare service plan or a health insurance policy that is issued, amended, or renewed on or after January 1, 2007, include the HPV test, upon referral by the patient’s healthcare provider, in addition to the Pap test and the option of any FDA-approved cervical cancer screening test. While both the Texas and California legislation are aimed at all health insurance policies, most private insurers already cover the HPV test. For example, Kaiser Permanente of Northern California was among the first private providers to cover HPV testing for recommended patients.

Tactics	Policymakers	Agency Representatives	Advocacy Groups	Medical Community
1. Provide legislative support for reimbursement (public and private, including Medicaid coverage) of screening services.	✓			
2. Advocate for and ensure that all patients have a medical “home.”	✓	✓	✓	✓
3. Work with states to address public funding of vaccines if approved by the FDA.	✓	✓	✓	

4. Coordinate efforts of legislators, department of health officials, and public health advocates to ensure the implementation of immunization programs for an HPV vaccine, in addition to continued collaboration to enhance current screening programs.	✓	✓	✓	
5. Establish medically advanced nursing practices, with physician oversight, especially in rural areas.				✓
6. Create and work with physicians to ensure that screening and vaccination services are carried out as recommended by clinical practice guidelines.				✓
7. Ensure flexibility in healthcare services (hours of operation, payment options, etc).		✓		✓
8. Coordinate collaborative meetings with insurance providers.			✓	✓

### **Strategy #4: Create comfortable and supportive educational tools and screening environments.**

A study conducted by McGarvey and colleagues identified that screening programs “need to reflect cultural, socioeconomic and health beliefs of the women in the intended community.”<sup>37</sup> By identifying high-risk populations and assessing barriers to screening, stakeholders can work together to reduce barriers, as well as market and implement programs in culturally appropriate ways.

#### **Building Successful Outreach Programs for Women in their Communities**

One example of an innovative approach to increasing education about HPV and cervical cancer in a comfortable and supportive setting is the successful “ISIS Project,” an initiative of the Balm in Gilead organization. The mission of the “ISIS Project” is to educate and empower Black women about cervical cancer and HPV, and the need for regular screening to ensure early diagnosis and treatment. Their vision is to create optimal health and wellness throughout the lifecycle of Black women, taking into account the physical, emotional, mental and spiritual components of African American women’s lives. The “ISIS Project” accomplishes this vision by bringing Black women from various neighborhoods together for three hours of honest dialog about spirituality and sexuality in collaboration with historically African American churches.<sup>38</sup>

Tactics	Policymakers	Agency Representatives	Advocacy Groups	Medical Community
1. Disseminate information to women/constituents on how to track their own medical records and information.	✓	✓	✓	✓
2. Educate constituents/patients about having health buddies to build relationships and encourage women to obtain regular screening.	✓	✓		✓
3. Ensure that informational materials are linguistically and culturally sensitive.		✓	✓	✓
4. Establish patient navigation programs.		✓		✓
5. Strengthen refugee health programs to expand women's health access.		✓	✓	
6. Utilize peer-to-peer opportunities in medical and educational settings to avoid mistrust.		✓	✓	✓

**Strategy #5: Improve data collection quality to evaluate programs and services**

Data serves many purposes in public health programs. Improving data quality and collection to include new measures for HPV testing and immunization will assist state programs in assessing awareness levels of HPV and cervical cancer and acceptability of new preventive techniques by women and their providers. Furthermore, by improving data quality and collection, public health programs can more efficiently evaluate the success of screening and preventive services.

### An Example of a Data Collection System, to Serve as a Model

One example of a data source that provides a comprehensive collection of healthcare information is the National Women’s Health Indicators Database (NWHID). The NWHID is a searchable, interactive website maintained by the federal Office of Women’s Health. The database contains comparative, county-level data for the United States, the District of Columbia, and all US territories. Data are organized into categories that include: prevention; demographics; access to care; and reproductive health. The NWHID enables anyone interested in healthcare practices to obtain comprehensive data from the best state and national sources. For more information, visit: <http://www.healthstatus2010.com/owh/index.html>.

Tactics	Policymakers	Agency Representatives	Advocacy Groups	Medical Community
1. Create a state-specific inventory of cervical cancer prevention programs and stakeholders, including a speaker’s bureau for outreach efforts.	✓	✓		
2. Work with state cancer registries, the CDC and state health departments to improve the quality of data collection among women receiving screening services.	✓	✓	✓	✓
3. Survey women to assess understanding of HPV and cervical cancer, Pap and HPV tests, and eventually, an HPV vaccine.		✓	✓	
4. Measure vaccination and screening rates in each state to evaluate outcomes of educational campaigns.		✓	✓	

## Conclusion

Women In Government aims to eliminate cervical cancer. This paper provides strategies to support the collaborative efforts of all stakeholders in achieving this goal, as well as important background information.

We have recommended five priority strategies in order to reach the goal of cervical cancer elimination:

- 1) Build coalitions among all stakeholders.
- 2) Heighten awareness of this disease, screening, and prevention technologies among all stakeholders.
- 3) Improve financial support (reimbursement) for screening and potentially vaccination.
- 4) Create comfortable and supportive educational environments and materials for women.
- 5) Evaluate data, programs and services.

Collaboration is necessary to streamline communications, to advance comprehensive strategies and tactics, and to produce the necessary infrastructure to prevent and eventually eliminate cervical cancer. By initiating a discussion, stakeholders can come together and create an open dialogue about the barriers each group faces and how to collectively overcome these challenges. Collaboration means working together, sharing resources and information, being open to new ideas, concepts, and strategies. By creating a comfortable environment for the exchange of information and dialogue, stakeholders can join forces to advance a new public health agenda of prevention. Women In Government provided a forum for this dialogue to take place by hosting the Summit, and will continue to serve as a conduit for this dialogue, but encourages stakeholders to advance this conversation in their own states. Additionally, opportunities exist at medical conferences, women's caucuses, policy meetings and strategy meetings and should be utilized to move forward a collaborative and comprehensive agenda. Visit our website for current information: [www.womeningovernment.org/prevention](http://www.womeningovernment.org/prevention).

Women In Government will continue to gather support for these strategies through ongoing outreach and educational efforts, including the Second Annual HPV and Cervical Cancer Summit to be held in Fall 2006. Finally, Women In Government will continue to monitor and evaluate national progress through our annual state report on cervical cancer prevention, legislative successes across the nation and increased education and awareness.

## Appendix A

### *Participants of the Women In Government*

#### *2005 HPV & Cervical Cancer Summit*

### Legislators

Representative Denise Barnard (D)  
Vermont State Legislature-District 4

Representative Catherine Barrett (D)  
Ohio State Legislature District 2

Senator Joyce Broadsword (R)  
Idaho State Legislature-District 2

Senator Bettye Davis (D)  
Alaska State Legislature-District K

Representative Dianne White Delisi (R)  
Texas State Legislature-District 55

Senator Katie Dorsett (D)  
North Carolina State Legislature-District 28

Representative Anne Gannon (D)  
Florida State Legislature-District 86

Senator Mary Jane Garcia (D)  
New Mexico State Legislature-District 36

Representative Linda Gentile (D)  
Connecticut State Legislature-District 104

Assemblywoman Aurelia Greene (D)  
New York State Legislature-District 77

Senator Deborah Halvorson (D)  
Illinois State Legislature-District 40

Senator Beverly Hammerstrom (R)  
Michigan State Legislature-District 17

Representative Michele Henson (D)  
Georgia State Legislature-District 87

Representative Shirley Hinson (R)  
South Carolina State Legislature-District 92

Senator Connie Lawson (R)  
Indiana State Legislature-District 24

Representative Wilhelmina Lewellen (D)  
Arkansas State Legislature-District 34

Representative Lisa Tessier Marrache, M.D.  
(D)  
Maine State Legislature-District 100

Representative Rosemary Marshall (D)  
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- 1 Pan American Health Organization, "Preventing Cervical Cancer Worldwide," *World Health Organization* accessed from < <http://www.paho.org/common/Display.asp?Lang=E&RecID=8296>>, 27 Feb 2006.
- 2 Devesa SS, DT Silverman, JL Young Jr, et al. "Cancer incidence and mortality trends among whites in the United States, 1947-84." *J. Natl. Cancer Inst.* 1987;79:701-70.
- 3 American Cancer Society. *Cancer Facts and Figures 2006*. Atlanta, GA: American Cancer Society, 2006.
- 4 Centers for Disease Control and Prevention. "Genital HPV Infection Factsheet, 2004" available from <<http://www.cdc.gov/std/HPV/STDFact-HPV/htm>>, accessed 13 Oct 2005.
- 5 American Cancer Society. "Detailed Guide: Cervical Cancer, 2004," available from <[http://www.cancer.org/docroot/CRI/content/CRI\\_2\\_4\\_1X\\_What\\_is\\_cervical\\_cancer\\_8.asp](http://www.cancer.org/docroot/CRI/content/CRI_2_4_1X_What_is_cervical_cancer_8.asp)>, accessed 13 Oct 2005.
- 6 Centers for Disease Control and Prevention. "Genital HPV Infection Factsheet, 2004."
- 7 American Cancer Society. *Cancer Facts and Figures 2004*. Atlanta, GA: American Cancer Society, 2004.
- 8 Centers for Disease Control and Prevention, "Invasive Cervical Cancer Among Hispanic and Non-Hispanic Women—United States 1992-1999," available at <[www.cdc.gov/mmwr/preview/mmwrhtml/mm5147a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5147a2.htm)>.
- 9 Agency for Healthcare Research and Quality, "Evaluation of Cervical Cytology. Summary." Evidence Report/Technology Assessment: Number 5, Jan 1999. *Agency for Health Care Policy and Research*, Rockville, MD, available at <<http://www.ahrq.gov/clinic/epcsums/cervsumm.htm#Analyses>>, accessed 20 Apr 2006.
- 10 Clavel C, Masure M, Bory J-P, et al. Human papillomavirus testing in primary screening for the detection of high-grade cervical lesions: a study of 7932 women. *Brit J Cancer*, 2001; 89 (12): 1616-1623.
- 11 Solomon, D. "Comparison of Three Management Strategies for Patients with Atypical Squamous Cells of Undetermined Significance: Baseline Results from a Randomized Trial, *Journal of the National Cancer Institute*, vol. 93, no. 4 (Feb 2001), 293-299.
- 12 Lorincz A.T. , Richart, R.M. "Human Papillomavirus DNA testing as an adjunct to cytology in cervical screening programs. *Arch Pathol Lab Med*, vol. 123 (2003), 959-968.
- 13 Lowry DR, Kirnbauer R, Schiller JT, "Genital human papillomavirus infection." *Proc Natl Acad Sci USA*, 1994; 91:2436-2440.
- 14 Women In Government. *Progress Report 2006: The "State" of Cervical Cancer Prevention in America*. Washington, DC, 2006, 7.
- 15 Seeff LC, McKenna MT. "Cervical cancer mortality among foreign-born women living in the United States, 1985-1996." *Cancer Detect Prev.* 2003; 27: 203-208.
- 16 Loc. cit.
- 17 Nazeer, Saloney. "Cervical cancer screening training module 2: Aided Visual Inspection of the Cervix 'Acetic Acid Test,'" Geneva Foundation for Medical Education and Research, available at <[http://www.gfmer.ch/Books/Cervical\\_cancer\\_modules/Aided\\_visual\\_inspection.htm](http://www.gfmer.ch/Books/Cervical_cancer_modules/Aided_visual_inspection.htm)>, accessed 20 Apr 2006.
- 18 Loc. cit.
- 19 Cooper, Crystale Purvis , Saraiya, Mona McLean, Teresa Abend, Hannan, Judy, et al. "Pap Test Intervals Used by Physicians Serving Low-Income Women through the National Breast and Cervical Cancer Early Detection Program." *Journal of Women's Health*, vol. 14, no. 8 (8 Nov., 2005), 676.
- 20 Ibid, 6.
- 21 Digene Corporation, "Role of the Pap & HPV Tests," available from <[www.thehpvtest.com](http://www.thehpvtest.com)>, accessed 14 Feb 2006.
- 22 Lorincz, A.T. and Richart,R.M. 959-968.
- 23 Padilla-Paz, Louis Alfonso, "Human Papillomavirus Vaccine: History, Immunology, Current Status, and Future Prospects." *Clinical Obstetrics and Gynecology*, vol. 48, no. 1, 235.
- 24 Lowry DR, 2436-2440.
- 25 Mao, Constance, Koutsky, Laura A., Ault, Kevin A., Wheeler, Cosette M, et al, "Efficacy of Human Papillomavirus-16 Vaccine to Prevent Cervical Intraepithelial Neoplasia, *Obstetrics and Gynecology*, vol. 107, no. 1 (Jan 2006), 18-27.
- 26 Greer CE, Wheeler CM, Ladner MB, et al. "Human Papillomavirus (HPV) type distribution and serological response to HPV type 6 virus-like particles in patients with genital warts." *J Clin Microbiol.* 1995; 33; 2058-2063.
- 27 Harper, Diane M., Franco, Eduardo, Wheeler, Cosette, Ferris, Daron G., et al. "Efficacy of bivalent L1 virus-like particle vaccine in prevention of infection with human papillomavirus types 16 and 18 in young women: a randomized controlled trial." *The Lancet*, vol. 364 (13 Nov., 2004), pp. 1757-1765.

- 28 Centers for Disease Control and Prevention; STD Facts: HPV <http://www.cdc.gov/std/HPV/STDFact-HPV-vaccine.htm>
- 29 Constance Mao, 23.
- 30 Harper, Diane M. "Are We Closer to the Prevention of HPV-related Diseases?" *The Journal of Family Practice*, Jul., 2005, 14.
- 31 Shaw, Alan R. "Human Papillomavirus vaccines in development: If they're successful in clinical trials, how will they be implemented?" *Gynec Oncol*, 99 (2005), available online 5 Oct 2005, Elsevier Inc., S246-S248.
- 32 Orians, Carlyn E., Erb, Julie, Kenyon, Kathryn L., Lantz, Paula M., et al. "Public Education Strategies for Delivering Breast and Cervical Cancer Screening in American Indian and Alaska Native Populations." *Journal of Public Health Management and Practice*, vol. 10, no. 1 (2004), 49.
- 33 Association of Reproductive Health Professionals, "Executive Summary," *Association of Reproductive Health Professionals National Cervical Cancer Prevention Survey*, available at [www.arhp.org/hpvsurvey](http://www.arhp.org/hpvsurvey).
- 34 Partridge, Edward E., Fouad, Mona N., Hinton, Agnes W., Hardy, Claudia M., et al. "The Deep South Network for Cancer Control, Eliminating Cancer Disparities Through Community-Academic Collaboration." *Family Community Health*, vol. 28, no. 1 (23 Nov., 2004), 17.
- 35 Centers for Disease Control and Prevention. *National Breast and Cervical Cancer Early Detection Program*. Atlanta, GA: Centers for Disease Control and Prevention, available from <http://www.cdc.gov/cancer/nbccedp/sps/index.htm>, accessed 28 Mar 2006.
- 36 Popsmeat.org, "The Organization," available from <http://popsmeat.org/organization.html>, accessed on 30 Mar 2006.
- 37 McGarvey, Elizabeth L., Clavet, Gail J., Johnson, James B., Butler, Audrey, et al. "Cancer Screening Practices and Attitudes: Comparison of Low-income Women in Three Ethnic Groups." *Ethnicity & Health*, vol. 8, no. 1, (2003), 71.
- 38 Balm in Gilead, "The ISIS Project," accessed from <http://www.theisisproject.org/home.asp>, 27 Feb 2006.