

How State and Local Immunization Programs Can Help Improve HPV Vaccination Rates to Reduce Future Cancers

Immunization coverage with HPV vaccine in the US has stagnated over the past three years at unacceptably low levels. Only 54% of girls aged 13-17 years in 2012 initiated vaccination with the three-dose HPV vaccine series compared with over 80% vaccination coverage with Tdap and over 70% coverage with meningococcal vaccine. **Three-dose HPV vaccine coverage is only 33%**, virtually unchanged from 2010 and 2011. **Missed HPV vaccination opportunities are high:** 84% of unvaccinated adolescent girls had at least one healthcare encounter where non-HPV vaccines were administered (but HPV vaccine was not). State and local immunization programs can play a key role in increasing the number of girls and boys vaccinated and protected against HPV-associated cancers.

The track record of the HPV vaccines is highly encouraging:

- They **prevent infection from 2 types of HPV that cause cancer**; both the quadrivalent (HPV4) and the bivalent (HPV2) vaccine prevent cervical cancer and its precursors. HPV4 is also licensed for the prevention of vulvar and vaginal cancers (as well as their precancerous endpoints) among women and, among both men and women, anal cancer.
- Clinical trials have demonstrated **very high efficacy** against precancerous endpoints and HPV4 also prevents genital warts.
- Population based studies in the US have demonstrated measurable impact of vaccination against HPV infection.
- Vaccine safety reviews have consistently demonstrated an **excellent safety profile** with over 57 million doses distributed in the US.
- Adolescents should be immunized at **ages 11-12** because:
 - In order to receive full benefit, the vaccine series should be completed prior to exposure to HPV.
 - Immunization of early adolescents takes advantage of robust immune systems which have a more vigorous response to the HPV vaccine compared to later in life.
 - CDC and the American Academy of Pediatrics recommend a preventive health care visit for this age group, making it an ideal opportunity for administration of HPV vaccine as well as other preventive vaccines recommended for children aged 11-12 years.
 - Later in adolescence, there are generally fewer healthcare encounters making vaccination less likely to occur.

- Research has demonstrated that vaccination against HPV **does not promote or increase sexual activity**.

Research has also demonstrated that the most significant factor in parents' decisions to vaccinate their children with HPV vaccine is a **clear, brief and strong recommendation from the child's healthcare provider**. State and local immunization programs are **critical stakeholders** with capacity to increase initiation and completion rates of the HPV vaccine series by making HPV vaccination a program priority and developing a state strategy to increase HPV vaccination. **Partnering between immunization programs and cancer prevention programs** such as state Comprehensive Cancer Control Programs can build upon common goals to increase coverage with HPV vaccine in your state and should be included in the state strategy. Additionally, programs can utilize informational materials from the CDC website on HPV, cervical cancer, and HPV vaccine for your programs, outreach to providers, and parents.

<http://www.cdc.gov/vaccines/vpd-vac/hpv/default.htm>

Below is a list of '**Action Areas**' that state and local immunization programs can implement to help protect both boys and girls against HPV-associated cancers in the future. Consider your program resources when considering which of these actions are appropriate in your setting.

ACTION AREA #1: SUPPORT HEALTHCARE PROVIDERS IN RECOMMENDING HPV VACCINE FOR ADOLESCENT GIRLS AND BOYS

- **Educate providers about their critical role in recommending HPV vaccination and increasing acceptance of HPV vaccine among adolescents and their parents.**
 - Remind providers about the importance of making a strong, clear and concise recommendation to parents and focusing on cancer prevention.
 - Strongly encourage providers to recommend HPV vaccine series in the same manner they recommend the other adolescent vaccines. For example, "Your child needs these shots today," and name the all of the vaccines recommended for the child based on age and prior vaccination history.
 - A clinician-specific web portal is available at www.cdc.gov/vaccines/youarethekey with resources for clinicians and their patients.
 - Offer healthcare professionals the Tips and Time-Savers for Talking with Parents About HPV Vaccine information sheet at www.cdc.gov/vaccines/hpv-tipsheet.
 - Ensure that your state and local health department websites are syndicated to CDC HPV web pages to provide the most up-to-date materials for providers.
- **Educate providers on how to reduce missed opportunities for HPV vaccination**
 - Encourage providers to implement a system to check the vaccination status of each adolescent patient and offer all indicated vaccines at every visit. This may involve

assigning specific staff to check the immunization information system (IIS) and/or EHR/EMR to determine needed vaccines and placing a note on the chart for the provider.

- Encourage scheduling visits for the remaining two doses of HPV vaccine before children leave the clinic setting after receipt of the first dose. At a minimum, parents should be educated about the need for the second and third doses and should be provided with reminders. The Vaccine Information Sheet can be a useful tool for this purpose.
- **Encourage providers' use of IIS for documenting administration of vaccines.**

ACTION AREA #2: INCREASE HPV VACCINE COVERAGE IN YOUR STATE OR LOCAL AREA BY USING YOUR DATA TO DRIVE PROGRAM DECISION MAKING

- **If data on adolescent vaccination from your state immunization registry are robust, assess vaccination coverage levels and evaluate the frequency of missed opportunities.**
 - Analyze data on eligible teens to identify providers with low HPV vaccination coverage and/or high frequency of missed opportunities for HPV. Use these data to target healthcare plans and/or providers for outreach and education.
 - Utilize IIS to conduct reminder/recall for adolescents (implemented at either the program level or provider level).
- **Use models like the AFIX quality improvement strategy to raise immunization coverage levels and improve standards of practices at the provider level**
(<http://www.cdc.gov/vaccines/programs/afix/index.html>).
 - Incorporate adolescent AFIX into existing VFC/AFIX site visits; feed data back to individual providers and also share aggregate results with area health plans and coalitions.
- **Evaluate VFC ordering data to determine if HPV vaccine is being ordered in at least the same quantities as Tdap or meningococcal vaccines (should be at least the same, if not 2 or 3 times the amount of Tdap ordered).**
 - Contact providers who are “under-ordering” and provide them with information about the importance of HPV vaccination. CDC materials for providers and parents are available at <http://www.cdc.gov/vaccines/who/teens/for-hcp/hpv-resources.html>.

ACTION AREA #3: DEVELOP NEW PARTNERSHIPS AND LEVERAGE EXISTING PARTNERSHIPS WITH STATE BASED ORGANIZATIONS TO ADVOCATE FOR HPV VACCINATION

- **Develop strong partnerships with cancer prevention groups who can advocate for HPV-related cancer prevention through HPV vaccination.**
 - The American Cancer Society is one of the largest cancer prevention advocates in the US in addition to being a highly trusted brand by cancer patients and survivors. They have many local chapters which can be located on this website: <http://www.cancer.org/myacs/index>. Their members and volunteers can help with cervical cancer prevention advocacy and provide education to parents and adolescents.
 - State based comprehensive cancer control (CCC) programs exist in 50 states, the District of Columbia, seven tribes and tribal organizations, and seven US territories. These coalitions are highly motivated to work on HPV vaccination as a tool for cancer prevention. Enlist your local or state cancer coalition to assist in reaching parents and providers with messages on the importance of HPV vaccination. You can contact your local CCC program using this website: http://apps.nccd.cdc.gov/dcpc_Programs/default.aspx?NPID=2
 - The National Breast and Cervical Cancer Early Detection Program provides access to breast and cervical cancer screening services to underserved women in 50 states, the District of Columbia, 5 US territories and 11 tribes. They are also strong advocates and can serve as partners in reaching out to primary care providers. You can contact a local NBCCEDP program using this website: http://apps.nccd.cdc.gov/dcpc_Programs/default.aspx?NPID=1 and their partnership development toolkit is found here: <http://www.cdc.gov/cancer/nbccedp/toolkit.htm>
- **Strengthen outreach to providers through local chapters of professional associations such as the American Academy of Pediatrics and the American Academy of Family Practitioners**
 - Facilitate partnerships between professional associations for vaccinators (AAP and AAFP) and professional associations for oncologists such as the American Society of Clinical Oncology (ASCO) and the Society of Gynecologic Oncology (SGO).
 - Encourage oncologists to interact with vaccinators through talks at state and local Chapter meetings, Grand Rounds, letters, and other modes of communications regarding the importance of cancer prevention.
- **Leverage relationships with state and local immunization coalitions to increase outreach to providers and parents about HPV vaccine**
 - If your local immunization coalition is not focused on adolescent immunization, especially HPV vaccination, offer training and education on the importance of vaccines recommended for adolescents and why HPV vaccination is so important. The

Immunization Action Coalition's website has many resources for health clinics, providers, and parents which can be found here: <http://www.immunize.org>

- **Work with multi-sector partners such as schools, faith-based, and community-based organizations to promote HPV vaccination**
 - Educate school nurses about the recommended vaccines for adolescents and diseases they prevent. Encourage school nurses to review the resources available from the National Association of School Nurses at www.nasn.org including an online presentation "The HPV Vaccine - Enhancing School Nurse Knowledge to Support Informed Vaccine Decision-making."
 - Work with faith-based and community-based organizations to incorporate HPV messaging and information into adolescent health and well-being promotion and activities.
 - Provide educational materials to schools and organizations that can be disseminated to parents. Include VFC information in these packets and reminders that access to the VFC-provided vaccines ends at the 19th birthday.
- **Leverage relationships with local and state media to increase awareness and educate about HPV vaccination**
 - Develop and disseminate HPV messages to trusted sources including health department staff, health care providers, partners, and key opinion leaders to ensure clear and consistent messaging.
 - Identify and train media spokespeople within the immunization program or provider community to conduct proactive media outreach as appropriate. CDC-developed materials can be used to support media activities.
 - Utilize existing resources from CDC such as digital media ads, ready-to-use matte articles, print, and audiovisual materials. Many of these can be 'tagged' or customized with your agency's logo or information. Free materials are available at www.cdc.gov/vaccines/teens (choose multimedia materials).