



Steps for Increasing
HPV Vaccination
in Practice

An Action Guide to Implement Evidence-based Strategies for Clinicians*

*Includes pediatricians, family physicians, general internists, obstetrician-gynecologists, nurse practitioners, physician assistants, nurses, medical assistants, and their office managers

HPV VACs

Vaccinate Adolescents against Cancers



Saving Lives through Cancer Prevention

Nearly all cases of cervical cancer are caused by infection with high-risk types of human papilloma virus (HPV). The virus also has been linked to cancers of the vagina, vulva, anus, penis, and oropharynx (back of the throat). Each year in the US, an estimated 30,700 men and women will receive a diagnosis of cancer caused by HPV.¹ In addition to cancers, each year there are 330,000 women who undergo treatment for new cases of pre-cancerous, high-grade cervical dysplasia.²

The HPV vaccine is cancer prevention. It prevents infection by virus types that cause the vast majority of these cancers and genital warts. The vaccine is most effective when given before age 13 to achieve the best immune response, and it provides the most complete coverage against cancer-causing strains of HPV. That's why the American Cancer Society recommends that boys and girls get the HPV vaccine at age 11 or 12.

Despite the power of HPV vaccination to prevent cancers caused by HPV, in 2014, less than 40% of girls and boys had completed the three-dose series. Too many boys and girls in the US are not getting the HPV vaccine and are missing the protection it could provide.

The biggest predictor of HPV vaccination uptake is an effective recommendation from a health care provider. You have the power to make a lasting impact on HPV vaccination and help reduce the HPV-related cancer burden in your community. On the pages that follow, you will find detailed steps, evidence-based strategies, and tools for your clinic to increase HPV vaccination. In addition, follow the links provided in the Tools for Your Practice section of each step to access numerous valuable resources to support your practice's quality improvement efforts to increase HPV vaccination rates.

Benefits to Your Health System Include:

- More patients who come into your clinic and leave vaccinated
- Parents who are motivated to get their child vaccinated against cancer
- Interventions that are evidence-based and, when used consistently, can improve overall vaccination rates
- Cancer prevention integrated into existing systems of care



1. Saslow, D., Andrews, K. S., Manassaram-Baptiste, D., Loomer, L., Lam, K. E., Fisher-Borne, M., Smith, R. A., Fontham, E. T. H. and on behalf of the American Cancer Society Guideline Development Group (2016), Human papillomavirus vaccination guideline update: American Cancer Society Guideline endorsement. CA: A Cancer Journal for Clinicians. doi: 10.3322/caac.21355

2. Schiffman M, Solomon D. Findings to date from the ASCUS-LSIL Triage Study (ALTS). *Arch Pathol Lab Med.* 2003;127:946-949.



AMERICAN CANCER SOCIETY RECOMMENDATIONS

- Girls and boys should begin the HPV vaccine series at age 11 or 12. The vaccine can be given starting as early as age 9.
- Girls ages 13-26 and boys ages 13-21 who have not been vaccinated or who have not completed the series should get vaccinated. Men ages 22-26 may get the vaccine. Health care providers should inform men and women ages 22-26 that getting the HPV vaccine at older ages is less effective in lowering cancer risk.
- HPV vaccines are also recommended through age 26 for men who have sex with men and for women and men with weakened immune systems who did not get vaccinated previously or did not complete the vaccine series.
- Women who have been vaccinated should continue to follow cervical cancer screening recommendations.

Increasing HPV Vaccination: An Overview





Step 1: Assemble a Team

Identify an HPV Vaccination Champion

Having an HPV vaccination clinic champion who advocates for practice change is an important component to the initiation and sustainability of efforts to increase HPV rates. This individual serves in a leadership role for the program and on the quality improvement (QI) team. They should be enthusiastic about the work, have the authority to implement practice changes, and have scheduled administrative time to guide the initiative. To ensure full coordination, consider having multiple champions (i.e., one medical and one administrative or one champion in each clinic location).

Tools for Your Practice

Visit the Step 1 webpage to access downloadable quality improvement tools. This page includes links to Plan-Do-Study-Act templates, best practices in forming QI teams and utilizing immunization champions, as well as maps linking you to state and national HPV vaccination initiatives and resources.

<http://bit.ly/VACsStep1>

Form a Quality Improvement Team for HPV Vaccination

A team-based approach to quality improvement is key for continued improvement. Members of a QI team focused on increasing HPV vaccination rates should represent different roles within the vaccination process. This group will be a driving force for practice change and continuous improvement.

Successful QI teams:

- Meet regularly.
- Include clinical and non-clinical staff.
- Utilize the Model for Improvement and a PDSA (Plan-Do-Study-Act) process.
- Review rates and set benchmarks.
- Engage staff by regularly collecting feedback.
- Create and update office policies.

Identify External Organizations and Resources to Support Your Efforts

The American Cancer Society, in addition to many other organizations, is committed to increasing HPV vaccination rates and has developed tools and resources to support your clinic's efforts. Consider the following external organizations and resources:

- The HPV VACs (Vaccinate Adolescents against Cancers) Project is a Society program with staff across the country working with federally qualified health centers and state partners to increase HPV vaccination rates.
- AFIX (Assessment, Feedback, Incentives, and eXchange) is a quality improvement program created by the Centers for Disease Control and Prevention where state Immunization Programs work with Vaccines for Children providers to raise general immunization rates.
- American Academy of Pediatrics, American Pediatric Association, Centers for Disease Control and Prevention, National AHEC Organization, and National Association of County and City Health Officials have specific HPV vaccination programs and may have initiatives within your community.
- Depending on your clinic and community, it may be important to engage school nurses and others who might initiate the three-dose series, but need your clinic to finish the series.



Step 2: Make a Plan

A strategic plan is key for creating sustainable systems change. Once your plan is developed, document it and share it with everyone in your clinic.

Identify Opportunities to Increase HPV Vaccination

Inventory your existing HPV vaccination policy and practices. A clear picture of existing systems allows you to identify strengths and the most impactful opportunities to increase rates. Process mapping is a proven tool to increase understanding of practice level process and identify opportunities for systems change.

Consider the following when conducting your inventory: Provider behaviors, electronic health record (EHR) system capabilities, patient flow, and staff capacity.

Determine Vaccination Rates for Your Patients

Determining your baseline rates is critical to measuring practice improvement at the end of the implementation process. This requires a few steps:

1. Determine the best data sources: EHR, chart audit, and/or Immunization Information System (registry).
2. Determine the 12-month period for baseline.
3. Identify patients who turned 13 during the measurement year.
4. Identify the patients who have received vaccination for each HPV dose, Tdap, and Meningococcal by their 13th birthday.
5. Calculate your vaccination rates.

Take continuous steps to improve the accuracy of the clinic's baseline. Even after incorporating data from multiple sources, there will be patients who received HPV vaccine who are missing documentation. Establish a protocol for data entry and verification to ensure vaccination records are accurate.

Design Your Clinic's Vaccination Strategy

Leverage your clinic's strengths when choosing the best approach to increase HPV vaccination rates. To maximize the impact of your efforts, choose multiple evidence-based interventions that build on past quality improvement successes. Create a policy with a standard course of action for HPV vaccination. Consider including the following when creating or updating your HPV vaccination policy:

- Assess vaccination status and recommend HPV vaccination at every opportunity.
- Follow an agreed upon vaccination schedule.
- Start using a vaccine refusal form, and recommend HPV vaccination again at future visits.

Document the clinic's HPV vaccination policy, share it with clinical and non-clinical staff, incorporate a regular collection of staff feedback, and check on adherence to the policy.



Tools for Your Practice

Visit the Step 2 webpage to access downloadable tools and materials. This page includes adolescent vaccination schedules, vaccination refusal forms, and tools to help you determine patient vaccination rates, inventory and map your practice systems, and choose an intervention that will be successful in your clinic setting.

<http://bit.ly/VACsStep2>



Step 3: Engage and Prepare All Staff

Engage All Clinical and Non-clinical Staff in Your Efforts

Train all staff to ensure consistent positive message delivery to parents and patients. Even if a staff member is not directly engaged in the process of recommending or administering the HPV vaccine, they can potentially impact the process by delivering misinformation to patients and parents. Understand the HPV vaccine administrative schedule, insurance, and VFC regulations that may create administrative barriers.

Provide human-interest stories in addition to statistics to increase staff investment. A connection to a survivor of an HPV-related cancer is a powerful tool to overcoming negative perceptions of the vaccine. In addition to survivors and caregivers, oncologists are resources for providing powerful messages.

Tools for Your Practice

Visit the Step 3 webpage to access downloadable staff engagement and training tools, including presentation slides, links to CME/CEU and webinar replays, videos of HPV cancer survivors, a database of survivor speakers, and effective parent and patient education tools.

<http://bit.ly/VACsStep3>

Prepare the Clinic System

Modify your EHR system to ensure effective data collection and reporting. Your EHR system should track each dose of vaccine administered. When implementing new EHR functionality, training staff on how to enter and extract data is a key step. Regularly collecting feedback and sharing data with staff will prevent inaccurate data from being entered into the system.

Your efforts will increase the need for the vaccine and vaccine storage. Ensure you have adequate supply and storage for all HPV vaccine doses to prevent potential access barriers.

Prepare the Parent and Patient

Decide on the parent and patient educational materials that are best suited for your clinic setting. Consider the following:

- Create an official procedure for how these materials are distributed and displayed. Incorporate this procedure into your HPV vaccination policy.
- Determine the clinical and non-clinical staff who will distribute the materials and at which point in the patient's office visit they will be distributed.

Prepare the Clinicians

Provide clinician training through multiple formats. Consider the following when developing your training plan:

- Conduct on-site training opportunities to increase skills and team camaraderie.
- Incorporate provider-, clinic- and system-level data to make training content specific and relevant to your staff.
- Provide continuing medical education credits to motivate health care providers to complete training.
- Disseminate prerecorded webinars to add a flexible training option.
- Ensure key training topics are covered: how to make an effective recommendation using the bundled approach and evidence why the vaccine is best before a patient's 13th birthday.

In addition to training sessions, you can prepare your clinicians by incorporating HPV vaccination into your daily team huddle to ensure that the patients who arrive in your clinic leave vaccinated. This huddle time can be used to ensure logistical needs are met and all staff members are aware of their role in the vaccination reminder, recommendation, and administration process.



Step 4: Get Your Patients Vaccinated Before Their 13th Birthday

Make an Effective Recommendation

A recommendation from a health care provider is the single most persuasive reason children get vaccinated. To increase the effectiveness of an HPV vaccine recommendation, consider the following:

- Recommend the HPV vaccine for all boys and girls at 11 or 12 years of age the same day, same way you recommend other vaccines.
- Try saying, *“Your child needs 3 vaccines today: Tdap, HPV, and meningococcal”* or *“Today your child should have 3 vaccines. They’re designed to protect him from the cancers caused by HPV, meningitis, tetanus, diphtheria, and pertussis.”*

Prompt the Health Care Provider

Ensure clinicians know that a specific patient is due or overdue for HPV vaccination. Patient-specific prompts can come from your EHR, nursing staff, or both. Prompts can take many forms. Consider the following when developing your prompting system: EHR automatic popups, EHR visit task lists, highlighted text in EHR chart, sticky notes in chart, checklists, preprinted note in client’s chart, or a highlighted current procedural terminology code on a visit summary.

Increase Access

Assess the need for, and administer the HPV vaccine at every opportunity. Consider the following types of encounters: well child visits, sick visits, sports physicals, and nurse-only visits. Incorporate standing orders into clinic procedures. Provide walk-in or immunization-only appointments.

Track Series Completion and Follow-up

Schedule follow-up appointments for the next doses before the patient leaves your clinic. Remind parents when it’s time for the next doses of the vaccine or the vaccine is overdue for their child. Ensure your privacy statement includes: phone, mail, email, and text message as options for communication.

Measure and Improve Performance

A program measures its success by demonstrating an improvement from baseline rates. Some programs have found it helpful to provide monthly reports for the clinic system, clinic, and individual health care providers with vaccination rates and data on missed opportunities. Systematically solicit feedback from staff, providers, and parents to refine and improve the impact of your efforts. Conducting PDSA cycles will streamline the implementation of a practice change into a strategy that meets the individual needs of a practice and providers.



Tools for Your Practice

Visit the Step 4 webpage to access downloadable strategy implementation tools. This page includes resources for making an effective HPV vaccine recommendation, sample standing orders, parent reminder templates, sample HPV vaccination PDSA cycles, and tools for provider-, clinic-, and system-level data.

<http://bit.ly/VACsStep4>



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Tools for Your Practice

Visit the WhatWorks webpage to access a list of general tools that focus on multiple topics that may be helpful in increasing HPV vaccination rates in your practice.

<http://bit.ly/VACsSteps>

*This guide was adapted from the **Steps for Increasing Colorectal Cancer Screening Rates: A Manual for Community Health Centers**, an impactful tool created by the National Colorectal Cancer Roundtable and the American Cancer Society.*



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