American Cancer Society®

Mission: HPV CANCER FREE

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

Saving Lives Through Cancer Prevention

HPV vaccination prevents infection with high-risk types of human papillomavirus, or HPV, that cause the majority of cervical, vaginal, vulvar, anal, penile, and throat cancers. Each year in the US, more than 35,000 men and women will receive a diagnosis of cancer caused by HPV.[1] In addition to cancers, each year hundreds of thousands of individuals with a cervix undergo treatment for new cases of pre-cancerous, high-grade cervical dysplasia.[2]

The HPV vaccine is cancer prevention and helps prevent infection from virus types that cause the vast majority of these cancers and precancers. That's why the American Cancer Society (ACS) recommends that boys and girls get vaccinated against HPV between ages 9 and 12.

The **majority of US parents** have chosen to protect their children from HPV cancers with the HPV vaccine, but this number still lags far behind other adolescent vaccines. Too many boys and girls in the US are not getting the HPV vaccination series and are missing the protection it could provide.

By prioritizing HPV vaccination, **you are a key part of ACS' Mission: HPV Cancer Free** initiative. This nationwide public health initiative aims to increase US adolescent HPV vaccination rates to 80% by 2026. Health care systems play a key role in leading the nation toward this ambitious goal. **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 cancer burden in your community. We need your help to achieve a world that is free from HPV cancers. We can help you achieve your goals and provide valuable tools and resources to make engagement – and results – easier.

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:

- 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

AMERICAN CANCER SOCIETY RECOMMENDATIONS

- HPV vaccination works best when given between ages 9 and 12.
- Children and young adults age 13 through 26 who have not been vaccinated, or who haven't gotten all their doses, should get the vaccine as soon as possible. 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.
- People with a cervix who have been vaccinated should continue to follow cervical cancer screening recommendations.

1. https://www.cdc.gov/cancer/hpv/statistics/cases.htm.
2. Schiffman M, Solomon D. Findings to date from the ASCUS-LSIL Triage Study (ALTS). *Arch Pathol Lab Med.* 2003;127:946–949.

Increasing HPV Vaccination: An Overview

Step 1 Assemble a Team

Identify an HPV vaccination champion.

Form a quality improvement team for HPV vaccination.

- Identify clinical and non-clinical staff to serve as change agents.
- Agree on team tasks.

Identify external organizations and resources like ACS to support your efforts.

- ACS may have **trained staff in your area** to assist you.

Your clinic system may not initially tackle every step.

Steps 1-3 can help you build capacity to implement the evidence-based strategies in **Step 4.**

Consider starting with one or two strategies that are most realistic for your clinic.

Step 2 Make a Plan

Identify opportunities to increase HPV vaccination.

- Complete an inventory of HPV vaccination systems and strategies.
- Map your current vaccination process with your team.
- Share the results with staff.

Determine baseline vaccination rates.

- Calculate rates for patients who have received vaccination for each HPV dose, Tdap, and MenACWY before their 13th birthday.
- Improve accuracy of the baseline rates.

Design your clinic's HPV vaccination strategy and/or consider implementing new evidence-based interventions.

- Choose multiple strategies that build on past quality improvement successes.
- Create an HPV vaccination policy.
- Incorporate staff feedback into strategy design and implementation.

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.
- Use human interest stories to increase staff investment.

Prepare the clinic system.

- Modify your EHR system to accommodate the needs of your plan.
- Ensure your vaccine supply and storage needs are met.

Prepare the parent and patient.

- Provide targeted education materials.

Prepare the clinicians.

- Train clinicians on how to effectively communicate with parents and patients.
- Provide targeted provider education materials.

Step 4 Get Your Patients Vaccinated by Their 13th Birthday

Make an effective recommendation.

- Recommend the HPV vaccine for all boys and girls between ages 9 and 12 the same day and same way you recommend other vaccines.

Prompt the health care provider.

- Ensure clinicians know that a specific patient is due or overdue for HPV vaccination using electronic (EHR) and/or physical reminders.

Increase access.

- Incorporate standing orders into clinic procedures.
- Provide walk-in or immunization-only appointments.

Track series completion and follow-up.

- Remind parents when it's time for the next dose of vaccine or when the vaccine is overdue for their child.

Measure and improve performance.

- Conduct PDSA cycles to test small changes before scaling.
- Measure the number of missed opportunities.
- Ensure that providers know their individual rates.

Tools for Your Practice

Visit the Step 1 web page to access downloadable quality improvement tools. This page includes links to best practices in forming QI teams and using immunization champions and links to state and national HPV vaccination initiatives and resources.

http://bit.ly/VACsStep1

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 vaccination 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 (e.g., one medical and one administrative or one champion in each clinic location).

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.
- Use 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) Program is an American Cancer Society initiative with staff across the country working with health systems and state partners to increase HPV vaccination rates.
- The American Academy of Pediatrics, the American Pediatric Association, the Centers for Disease Control and Prevention, the National AHEC Organization, and the National Association of County and City Health Officials have specific HPV vaccination programs and may have initiatives within your community.
- The National HPV Vaccination Roundtable is a coalition of approximately 70 organizations working at the intersection of immunization and cancer prevention. They have a **library of resources** on their website.
- Depending on your clinic and community, it may be important to engage school nurses and others who might initiate the vaccine 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 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. Root cause analysis is the process of discovering the root causes of problems in order to identify solutions. Plan-Do-Study-Act cycles test a change before scaling it broadly.

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 time period for baseline to identify active patients.
3. Identify patients ages 9-13 during the measurement year.
4. Assess the patients who have received vaccination for each HPV dose, Tdap, and MenACWY. (Tdap and MenACWY vaccination rates are key comparison measurements for HPV vaccination.)
5. Calculate your vaccination rates.

Take continuous and sustainable 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 but 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 and previous successes 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.
- Start vaccination at 9 years old.
- Utilize standing orders.
- Schedule second dose before patient leaves the clinic.

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 web page to access downloadable tools and materials. This page includes 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

Tools for Your Practice

Visit the Step 3 web page to access downloadable staff engagement and training tools, videos of HPV cancer survivors, and effective parent and patient education tools.

http://bit.ly/VACsStep3

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. Include content on the HPV virus and vaccination as well as communication strategies like the bundled adolescent vaccine recommendation. 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 Vaccines for Children 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 cancer is a powerful tool to overcoming negative perceptions of the vaccine. In addition to survivors and caregivers, oncologists can also be a good resource for powerful messages your staff can share.

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

Identify 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, including how to make an effective recommendation using the announcement approach or bundled approach and providing 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 By 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 between ages 9 and 12 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 them from meningitis, HPV cancers, and whooping cough."*

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

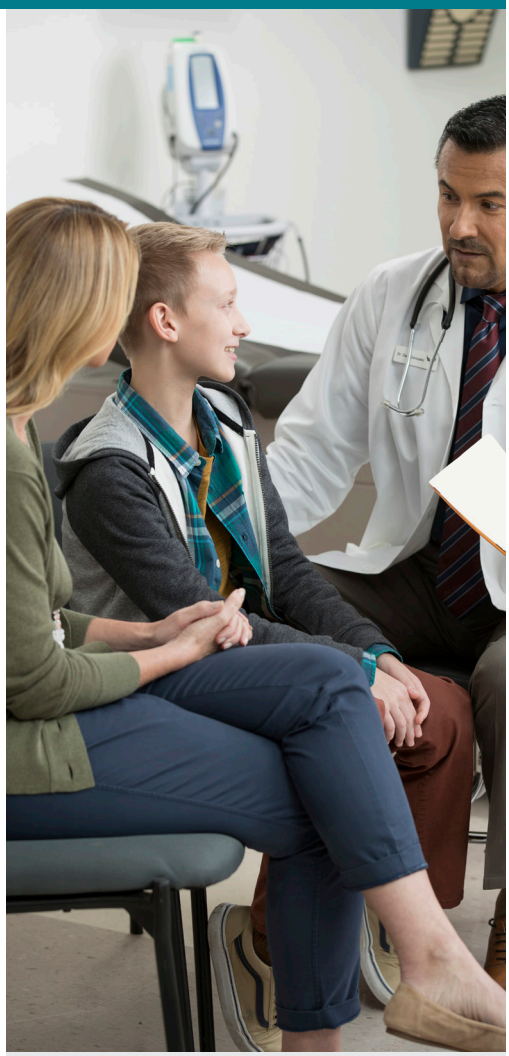
Assess the need for and administer the HPV vaccine at every opportunity. Consider the following types of encounters: well child visits, sick visits, sports physicals, and nurse-only visits. Incorporate standing orders into clinic procedures. Provide walk-in or immunization-only appointments.

Track Series Completion and Follow-up

Schedule follow-up appointments for the next dose before the patient leaves your clinic. Remind parents when it's time for the next dose 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 web page to access downloadable strategy implementation tools. This page includes resources for making an effective HPV vaccine recommendation, sample standing orders, sample HPV vaccination PDSA cycles, and tools for provider-, clinic-, and system-level data.

http://bit.ly/VACstep4

Disclaimer

This guide was supported by CDC Cooperative Agreement Number 5H231P000953-02. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

We gratefully acknowledge the contributions of the following individuals:

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Rebecca Perkins, MD, MSc, Boston Medical Center; associate professor, Boston University School of Medicine; steering committee, National HPV Vaccination Roundtable

Debbie Saslow, PhD, managing director, HPV and GYN cancers, American Cancer Society

Amelia Sloan, program manager, interventions and implementation, American Cancer Society

Tools for Your Practice

Visit the WhatWorks web page 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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