

Cancer Prevention Through HPV Vaccination:

An Action Guide for Physicians, Physician Assistants/Physician Associates, and Advanced Practice Nurses



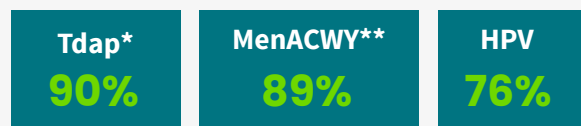
HPV Cancer Prevention Starts With You

By implementing changes to improve human papillomavirus (HPV) vaccination uptake starting at age 9, physicians, physician assistants/physician associates (PAs), and advanced practice nurses in your practice can help reduce the burden of HPV cancers and the financial hardships associated with them.

HPV vaccination rates lag behind other preteen vaccines.

The HPV vaccine is a powerful tool to help prevent multiple cancers, yet HPV vaccination rates are lower than those of other preteen vaccines.

Percent of teens ages 13 to 17 years who had received ≥ 1 vaccine dose in 2022ⁱ



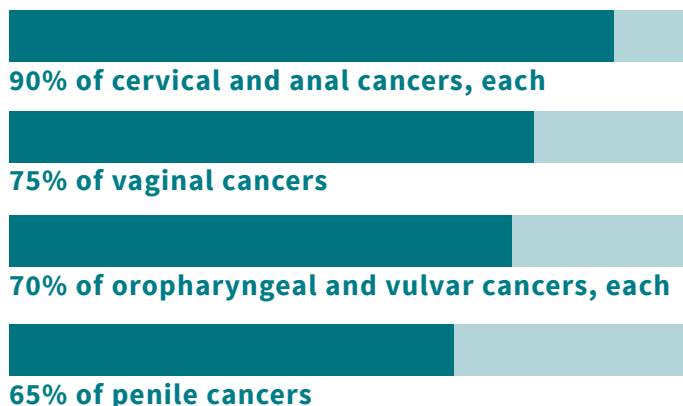
*Tdap (tetanus, diphtheria, pertussis vaccine)

**MenACWY (meningococcal ACWY vaccine)

HPV vaccination is cancer prevention.

HPV causes about 37,000 cases of cancer in men and women each year in the United States.ⁱⁱ

HPV is linked to:ⁱⁱ



The HPV vaccine protects against the virus types that cause most HPV cancers and genital warts. It's estimated that HPV vaccination can help prevent over 90% of all HPV cancersⁱⁱⁱ and that it could virtually eliminate cervical cancer, which takes the lives of over 4,000 womenⁱⁱⁱ in the US each year.

HPV vaccination should begin at age 9 and should be completed by age 13 for boys and girls.^{iv} The vaccine is most effective when given before age 13.

HPV vaccination works. Studies have reported a 70% reduction in high-grade anal precancers and cancers among women who received the HPV vaccine before age 17,^v likely, in part, due to herd immunity.^{vi}



A 65% reduction in cervical cancer cases was observed from 2012–2019 among women ages 20–24, who were among the first cohort of preteens to receive the vaccine.^{vii}

Missed opportunities for vaccination could contribute to low HPV vaccination rates.

Implementing a consistent and evidence-based approach to HPV vaccination recommendations is key to improving vaccination uptake and reducing disparities.^{viii}

Make it an organizational goal to vaccinate every age-eligible child in the communities your practice serves. This guide features actionable steps your practice can take to increase HPV vaccination uptake.

Actions at-a-Glance

Click the Action icon associated with each item below for detailed guidance.



Strategies to Increase HPV Vaccination

Action 1

Engage your team in HPV vaccination efforts.

Action 2

Make effective HPV vaccination recommendations.

Action 3

Use recommended strategies to answer questions.

Action 4

Reduce missed opportunities for vaccination through evidence-based interventions.

Action 5

Evaluate, sustain, and celebrate success.

If you are reading a printed version of this guide, please see the Appendix for full links to hyperlinked words, as indicated by superscript numbers (e.g., [a whole-office approach¹](#)).

Actions You Can Take

Action 1: Engage your team in HPV vaccination efforts.

A [whole-office approach](#)¹ to HPV vaccination establishes a pro-vaccination environment and is key for improving HPV vaccination rates.

- Schedule time to teach all relevant staff about [how the HPV vaccine protects against cancers](#)² and [methods to improve vaccine delivery](#).³
- Repeat trainings as needed or offer [continuing education \(CE\)](#)⁴ opportunities for health professionals.
- Establish vaccination messaging to be used by all staff who are presenting the information.
- Develop a process with all office staff to flag patients who are due for vaccination. For example:
 - During pre-clinic team meetings, review which patients are due for vaccination and pull records.
 - When patients check in, review their HPV vaccination status. If the patient is due, decide which staff members will begin the discussion about HPV vaccination.
- Establish [standing orders](#)⁵ to facilitate efficient delivery of vaccines to patients by properly trained medical staff.
 - Ensure that all staff who administer vaccines [receive competency training](#)⁶ on immunization delivery.

Action 2: Make effective HPV vaccination recommendations.

Your vaccination recommendation is powerful. Clinician recommendations are the number one reason parents or guardians choose to vaccinate their children.

Parents or guardians want their kids to get the HPV vaccine. Studies have shown that [parents view the HPV vaccine positively](#)⁷ and that they rate the HPV vaccine to be [as important as other vaccines](#).⁸ Still, about **1 in 5** parents reported [not receiving an HPV vaccination recommendation from 2019-2021](#).⁹

- Make [presumptive recommendations](#),¹⁰ which are brief statements that assume parents or guardians are ready to have their children vaccinated. These are more effective than open-ended discussions.
- [Use every opportunity](#)¹² to emphasize the need to [complete the vaccination series](#).¹³

“Your child is 9 years old. That means we’ll give them their HPV vaccine today to help protect them against six types of cancers.”

“We need to schedule a follow-up appointment in six months for your child to get their last dose of the HPV vaccine. Once they’re fully vaccinated, they’ll have lifelong protection against six types of cancer.”

- Make [bundled recommendations](#)¹¹ if patients are eligible for multiple vaccinations.

“Your child is due for vaccinations to help protect against meningitis, HPV cancers, pertussis, and the flu. We’ll give them those shots during today’s visit.”



Action 3: Use recommended strategies to answer questions.

Build trust by effectively answering questions from parents or guardians about the HPV vaccine. Using [research-backed strategies](#)¹⁴ to answer questions can make the difference of whether parents or guardians choose to protect their kids from HPV cancers.

Research-tested Answers to Questions About HPV Vaccination

The [main reasons](#)¹⁵ parents refuse HPV vaccination for their children are they don't think it's **necessary** or they don't think it's **safe**. Review these resources and prepare answers to the most common questions and concerns about the HPV vaccine.

By providing research-tested answers and strong vaccination recommendations, you can be the reason parents or guardians choose to protect their children from HPV cancers.

- **American Academy of Pediatrics:** [FAQs About HPV](#)¹⁶
- **CDC:** [Talking with Parents about HPV Vaccination](#)¹⁷ and [HPV Educational Tools and Resources](#)¹⁸
- **American Cancer Society:** [HPV Vaccines](#)¹⁹



Some steps to follow include:

- Actively listen to their concerns to build trust. Identify their [primary concern](#)²⁰ and restate it to show you are listening.

“You mentioned that you’re worried about the safety of the vaccine. Would you say that’s your biggest concern?”

- Address the concern using research-tested methods.

“The HPV vaccine is very safe. The Centers for Disease Control and Prevention has extensively researched its safety and has not identified any concerns. Like other medications, vaccines can cause side effects, like pain and swelling where the shot was given. That’s normal for the HPV vaccine too and will go away in a day or two.”

- Show urgency by using the words “recommend” and “today.”

“The American Academy of Pediatrics recommends that HPV vaccination starts at age 9 because at this age it’s most effective in preventing six types of cancers. That’s why I strongly recommend that your child gets that vaccine today.”

- Try again if HPV vaccination is declined.

“I’m making a note to revisit this topic at your child’s next checkup. I want to make sure they have the chance to be protected against HPV cancers.”

Action 4: Reduce missed opportunities for vaccination through evidence-based interventions.

Review these evidence-based interventions to see which ones may best help your practice improve HPV vaccination rates.

- Provide vaccination-only visits, or offer weekend clinic hours for vaccination.
- Use [electronic health records \(EHRs\)](#)²¹ to send [patient reminders](#)²² and give [provider prompts](#).²³
 - Optimize EHRs to identify which patients need vaccination and to capture all doses.
- Connect to your state's [immunization information system \(IIS\)](#)²⁴ and ensure that [current vaccination records are captured accurately](#)²⁵ in both systems.
- Establish [patient reminder and recall strategies](#)²⁶ and consider how to optimize your efforts via text messaging, mail, email, social media and/or phone calls.
 - Reference the **Resource Center** on [page 7](#) for ready-made graphics.



Expert-recommended QI Strategies

There are a wide variety of quality improvement (QI) strategies to improve HPV vaccination rates. Explore and test strategies that may work best for your practice.

- American Cancer Society National HPV Vaccination Roundtable: [Promising Best Practices: An Illustrated Guide](#)²⁷
- American Academy of Pediatrics: [Improving HPV Vaccination Rates Using Maintenance of Certification Requirements](#)²⁸
- CDC: [Immunization Quality Improvement for Providers \(IQIP\)](#)²⁹, which offers programs to implement strategies to give [strong vaccine recommendations](#)³⁰ and to [strengthen vaccine communications](#).³¹
- HPV IQ: [QI Tools](#)³²
- Merck Vaccines: [Vaccination Program Tools](#)³³
- Institute for Healthcare Improvement: [QI Essentials Toolkit](#)³⁴

Action 5: Evaluate, sustain, and celebrate success.

Monitor your practice's progress to keep your cancer prevention mission on track and to thank your staff for their efforts.

Evaluate.

Identify a “[champion](#)”³⁵ among your practice to establish ways to regularly evaluate the ongoing success of your efforts.

- They should determine your practice's HPV vaccination rates and compare them to state and national rates.
- This person should have scheduled administrative time to guide the initiative.

Give providers and office staff feedback on their performance.

Sustain.

Leverage [IIS](#)³⁶ to inform assessments of vaccination uptake in your practice or across racial or ethnic subgroups. IIS can also help identify missed vaccination opportunities, as well as facilitate inventory management and accountability.

Celebrate success.

Recognize clinicians, medical assistants, nurses, or administrative staff members whose efforts are successful in increasing HPV vaccination rates.

Share Your Story!

Let us know what lessons you learned from your efforts to improve HPV vaccination rates. What worked? What strategies needed to be revisited? Send your story to

HPV.Vaccination.Roundtable@cancer.org

Resource Center

Posters, Flyers, and Graphics to Create a Pro-vaccination Environment

- American Cancer Society: [HPV VACS](#)³⁷ flyer
- California Department of Public Health: [Vaccines for Your Preteen](#)³⁸ flyers, graphics, and posters available in multiple languages
- American Cancer Society National HPV Vaccination Roundtable: [Flyers and posters](#)³⁹ and [Co-brandable “Start at Age 9” Social Media Graphics](#)⁴⁰
- US Department of Health and Human Services: [HPV Vaccine Graphics](#)⁴¹



Additional Resources

- [Start HPV Vaccination at Age 9](#)⁴²
 - [2023 Human Vaccines & Immunotherapeutics Collection Toolkit](#)⁴³
 - [HPV Vaccination at 9 – 12 Years of Age: An Evidence Summary](#)⁴⁴
 - [Start at Age 9 Print On-demand Toolkit](#)⁴⁵
 - [Why Age 9? Fact Sheet](#)⁴⁶
- [2024 ACS National HPV Vaccination Roundtable Impact Report and Action Plan](#)⁴⁷
- [ACS National HPV Vaccination Roundtable Resource Center](#)⁴⁸
- [ACS National HPV Vaccination Roundtable Video Collection](#)⁴⁹
- [ACS Recommendations for HPV Vaccines](#)⁵⁰
- [ACS HPV Information and Resources for Patients and Parents](#)⁵¹
- [ACS HPV Vaccine Information for Health Professionals](#)⁵²
- [American Academy of Pediatrics: Adolescent Immunization Discussion Guides](#)⁵³
- [CDC: HPV Resources](#)⁵⁴
- [HPV Data Sources](#)⁵⁵
- [Immunize.org: Vaccine Apps for Health Care Providers](#)⁵⁶



Follow the American Cancer Society National HPV Vaccination Roundtable.

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References

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- ii. Centers for Disease Control and Prevention. Cancers Linked With HPV Each Year. September 18, 2024. Accessed October 3, 2024. <https://www.cdc.gov/cancer/hpv/cases.html>
- iii. Centers for Disease Control and Prevention. Cancers Caused by HPV. September 30, 2024. Accessed October 3, 2024. <https://www.cdc.gov/hpv/about/cancers-caused-by-hpv.html>
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- viii. Dempsey AF, Pyrzanowski J, Lockhart S, Campagna E, Barnard J, O'Leary ST. Parents' perceptions of provider communication regarding adolescent vaccines. *Hum Vaccin Immunother*. 2016;12(6):1469-1475. [doi: 10.1080/21645515.2016.1147636](https://doi.org/10.1080/21645515.2016.1147636)

Appendix: Physicians, Physician Assistants/Physician Associates, and Advanced Practice Nurses

1. Whole-office approach: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6135237/>
2. How the HPV vaccine protects against cancers: <https://www.cdc.gov/hpv/vaccines/>
3. Methods to improve vaccine delivery: <https://www.immunize.org/wp-content/uploads/catg.d/p2045.pdf>
4. Continuing education (CE): https://www.cdc.gov/immunization-training/hcp/courses/?CDC_AAref_Val=https://www.cdc.gov/vaccines/ed/courses.html
5. Standing orders: <https://www.aap.org/en/patient-care/immunizations/implementing-immunization-administration-in-your-practice/office-strategies-for-improving-immunization-rates/>
6. Receive competency training: <https://www.aap.org/en/patient-care/immunizations/implementing-immunization-administration-in-your-practice/vaccine-administration/>
7. Parents view the HPV vaccine positively: <https://pubmed.ncbi.nlm.nih.gov/24315883/>
8. As important as other vaccines: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899198/>
9. Not receiving an HPV vaccination recommendation from 2019-2021: <https://pubmed.ncbi.nlm.nih.gov/37361924/>
10. Presumptive recommendations: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10305488/>
11. Bundled recommendations: <https://www.cdc.gov/hpv/hcp/vaccination-considerations/boost-rates.html>
12. Use every opportunity: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9691592/>
13. Complete the vaccine series: <https://www.cdc.gov/vaccines/vpd/hpv/hcp/recommendations.html#schedules>
14. Research-backed strategies: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10305488/>
15. Main reasons: <https://pubmed.ncbi.nlm.nih.gov/30348283/>
16. FAQs About HPV: <https://www.healthychildren.org/English/safety-prevention/immunizations/Pages/hpv-vaccine-what-parents-need-to-know.aspx>
17. Talking with Parents about HPV Vaccination: <https://www.cdc.gov/hpv/hcp/vaccination-considerations/talking-with-parents.html>
18. HPV Educational Tools and Resources: <https://www.cdc.gov/hpv/hcp/educational-resources/index.html>
19. HPV Vaccines: <https://www.cancer.org/cancer/risk-prevention/hpv/hpv-vaccines.html>
20. Primary concern: <https://hpvrroundtable.org/wp-content/uploads/2023/05/HPVIO-flyer-FINAL.pdf>
21. Electronic health records (EHRs): <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10145812/>
22. Patient reminders: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10145812/>
23. Provider prompts: <https://publications.aap.org/pediatrics/article-abstract/151/5/e2022058029/191043/>
24. Immunization information system (IIS): <https://www.cdc.gov/iis/contacts-locate-records/>
25. Current vaccination records are captured accurately: <https://www.cdc.gov/iis/technical-guidance/>
26. Patient reminder and recall strategies: <https://www.aap.org/en/patient-care/immunizations/implementing-immunization-administration-in-your-practice/reminder-and-recall-strategies/>
27. Promising Best Practices: An Illustrated Guide: https://hpvrroundtable.org/wp-content/uploads/2024/02/ACS_Promising-Best-Practice-Booklet.pdf
28. Improving HPV Vaccination Rates Using Maintenance of Certification Requirements: <https://publications.aap.org/pediatrics/article-abstract/137/3/e20150675/81405/Improving-HPV-Vaccination-Rates-Using-Maintenance?redirectedFrom=fulltext>
29. Immunization and Quality Improvement for Providers (IQIP): <https://www.cdc.gov/iqip/hcp/strategies/index.html>
30. Strong vaccine recommendations: <https://www.cdc.gov/iqip/hcp/strategies/strong-vaccine-recommendation.html>

31. Strengthen vaccine communications: <https://www.cdc.gov/iqip/hcp/strategies/strengthen-vaccination-communications.html>
32. QI Tools: <https://www.hpviq.org/resources/qi-tools>
33. Vaccine Program Tools: <https://www.merckvaccines.com/vaccine-resources-tools/vaccine-recommendations/>
34. QI Essentials Toolkit: <https://www.ihi.org/resources/tools>
35. “Champion”: <https://www.aafp.org/family-physician/patient-care/prevention-wellness/immunizations-vaccines/office-champions/get-started.html>
36. IIS: <https://hpvroundtable.org/wp-content/uploads/2024/01/ACS-HPVRT-Best-Practices-HPV-Data.png>
37. HPV VACs: <https://www.cancer.org/content/dam/cancer-org/online-documents/en/pdf/flyers/hpv-vacs-just-the-facts-for-providers.pdf>
38. Vaccines for Your Preteen: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Campaigns.aspx>
39. Flyers and posters: <https://hpvroundtable.org/resource-center/?type=14>
40. Co-brandable “Start at Age 9” Social Media Graphics: <https://hpvroundtable.org/resource-center/?search=starting%20at%20age%209>
41. HPV Vaccine Graphics: <https://www.hhs.gov/immunization/get-involved/spread-the-word/graphics/index.html>
42. Start HPV Vaccination at Age 9: <https://hpvroundtable.org/start-hpv-vaccination-at-age-9/>
43. 2023 Human Vaccines & Immunotherapeutics Collection Toolkit: <https://hpvroundtable.org/wp-content/uploads/2023/05/HPV-RT-HVI-Supplement-Toolkit-Final-v2.pdf>
44. HPV Vaccination at 9 – 12 Years of Age: An Evidence Summary: <https://hpvroundtable.org/wp-content/uploads/2023/05/Evidence-Summary-HPV-Vaccination-Age-9-12-Final.pdf>
45. Start at Age 9 Print On-demand Toolkit: https://hpvroundtable.org/wp-content/uploads/2023/05/FINAL_NW-Summit-Clinic-Toolkit-Print-On-Demand-Kits.pdf
46. Why Age 9? Fact Sheet: https://hpvroundtable.org/wp-content/uploads/2023/05/HPV_Roundtable-HPV_Why_Age_9_Sales_Sheet_WEB.pdf
47. 2024 National HPV Vaccination Roundtable Impact Report and Action Plan: <https://hpvroundtable.org/wp-content/uploads/2024/01/2024-HPVRT-Impact-Report-and-Action-Plan-Final.pdf>
48. ACS National HPV Vaccination Roundtable Resource Center: <https://hpvroundtable.org/resource-center/>
49. ACS National HPV Vaccination Roundtable Video Collection: <https://www.youtube.com/@HPVRoundtable/featured>
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53. American Academy of Pediatrics: Adolescent Immunization Discussion Guides: <https://www.aap.org/en/patient-care/immunizations/adolescent-immunization-discussion-guides/>
54. CDC: HPV Resources: <https://www.cdc.gov/hpv/>
55. HPV Data Sources: <https://hpvroundtable.org/wp-content/uploads/2023/09/HPV-Data-Sources.pdf>
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Acknowledgments

The American Cancer Society National HPV Vaccination Roundtable would like to thank all members of the Provider Training Task Group for participating in the development of the six clinical action guides. Visit our website to view the entire suite of guides.

A Collaborative Project: The Clinician & Systems Action Guides are a collaborative project of the member organizations of the American Cancer Society National HPV Vaccination Roundtable. Guides do not necessarily represent the views of all of the American Cancer Society National HPV Vaccination Roundtable member organizations.

Funding: Funding for this guide was made possible (in part) by the Centers for Disease Control (CDC) and Prevention Cooperative Agreement grant # CDC-RFA-IP21-2105, CFDA # 93.268. The content in this guide does not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the US Government.

Version 2.0 released 2024

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