

# HPV Vaccination: Team-Based Care & Workflow Mapping

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OHIO ACADEMY OF  
FAMILY PHYSICIANS

*Virtual*  
**HPV VACCINATION  
QUALITY IMPROVEMENT PROGRAM**  
Kickoff meeting = January 2023 | Action period = February - April 2023

◆ Benefits:

- Earn CME & Certification points
- Receive practice stipend
- Engage the team
- Improve patient outcomes!

# Brief HPV Vaccination QI Program Review

## Program goals with today's highlighted areas...

1. Understand the necessity of implementing interventions to improve HPV vaccination rates in adolescents.
2. Describe best practices for team-based approaches to care.
3. Perform an assessment in the practice to identify opportunities for improvement in HPV vaccination rates.
4. Select and implement a quality improvement plan (QIP) based on identified opportunities for improvement in HPV vaccination rates.
5. Perform a post-assessment to measure improvement produced by implementation of a QIP for improving HPV vaccination rates.
6. Streamline office protocols, build stronger team comradery, and better understand the importance that patient engagement has on individual and community health.

# Brief HPV Vaccination QI Program Review

Four pre-recorded webinars, including:

- HPV Infection and Associated Cancer and Disease
- HPV Vaccination: An Update
- Strategies to Implement Changes in Practice for HPV Vaccination
- Team-Based Care and Workflow Mapping – current session

Baseline and Outcome data, including:

- Percentage of patients age 11 – 26 with at least 1 HPV vaccine.
- Percentage of patients age 11 – 26 with completed HPV vaccine series.
- Percentage of patients with completed HPV vaccination series by age 13 (NQF 1407, MIPS #394, HEDIS measure), if possible.

# Today's Session Learning Objectives

- Briefly review importance of preventing HPV-related cancers through vaccination
- Discuss the importance of and best practices for team-based care
- Workflow mapping
- Review key resources for diverse teams

A promotional banner for a virtual HPV vaccination quality improvement program. The background is dark blue with white dashed lines forming a heart shape. Inside the heart, a group of six diverse healthcare professionals (three men and three women) are standing, some in white lab coats and others in blue scrubs. To the right of the heart, the text reads: "Virtual HPV VACCINATION QUALITY IMPROVEMENT PROGRAM" in white, with "Virtual" in a gold script font. Below this, it says "Kickoff meeting = January 2023 | Action period = February - April 2023". A red diamond icon precedes the word "Benefits:", followed by a bulleted list: "Earn CME & Certification points", "Receive practice stipend", "Engage the team", and "Improve patient outcomes!". The banner also features white plus signs and circles scattered around the heart shape.

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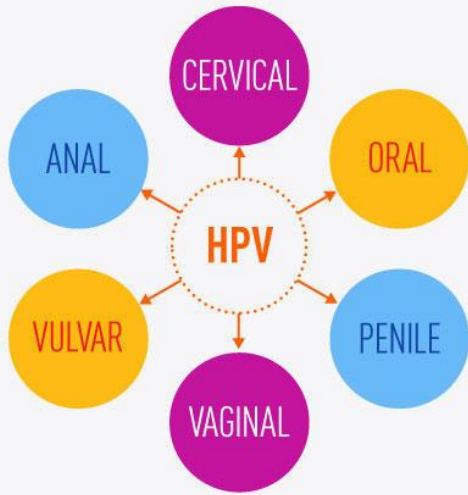
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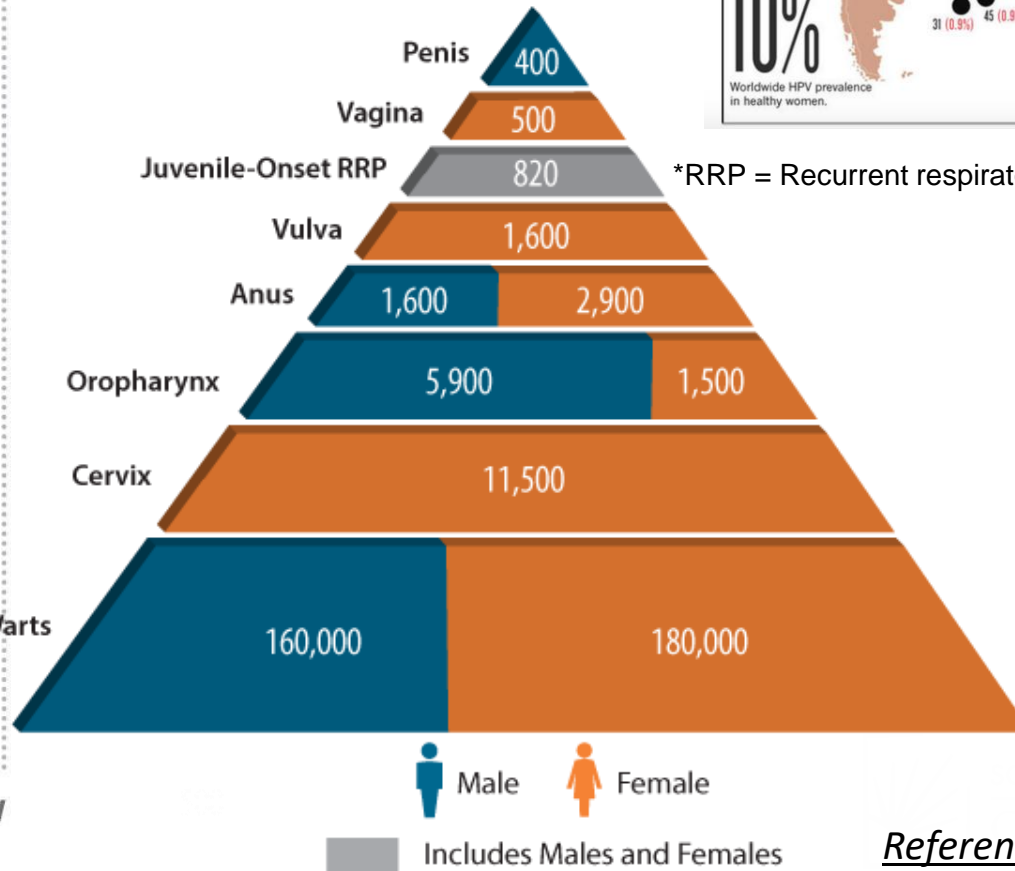
# Disclosures

None

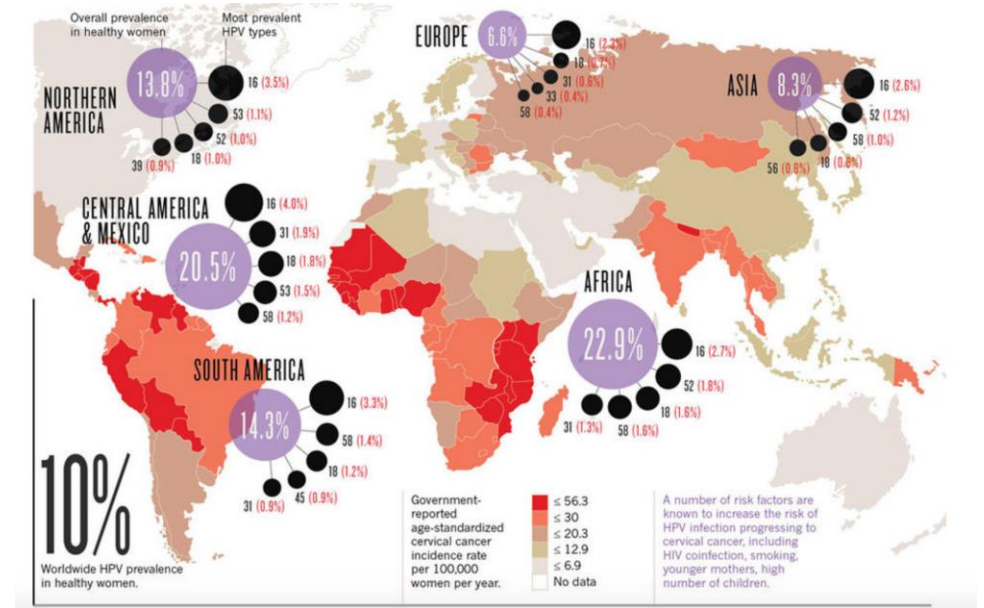
HUMAN PAPILLOMAVIRUS  
CAN CAUSE SEVERAL  
TYPES OF CANCER



cancer.gov/hpv



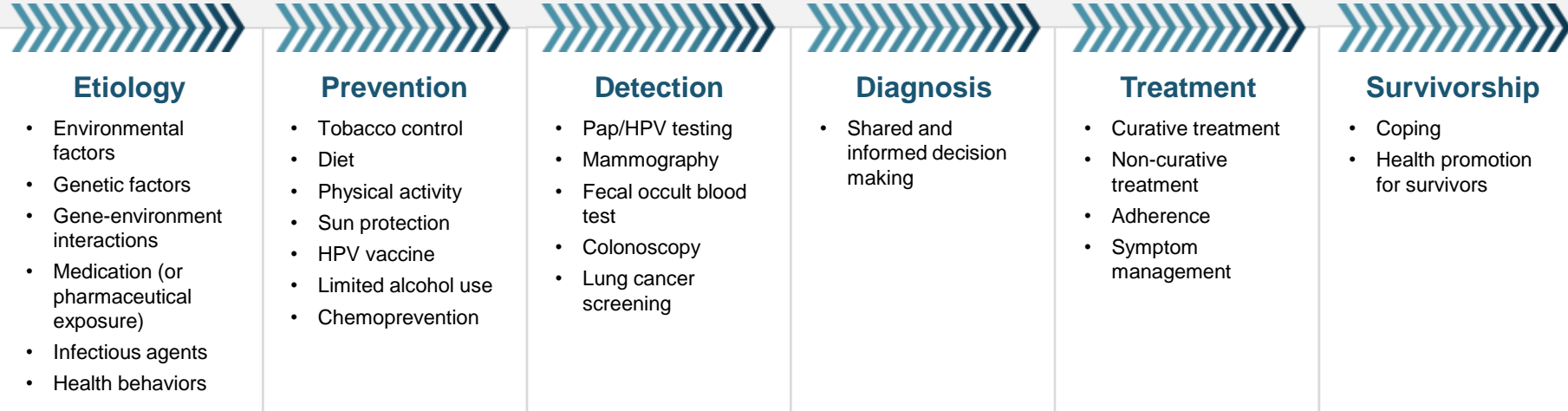
\*RRP = Recurrent respiratory papillomatosis



References: National Cancer Institute; CDC & ICO Information Centre on HPV and Cervical Cancer

# THE CANCER CONTROL CONTINUUM

## FOCUS



## CROSSCUTTING AREAS

**Communications**

**Surveillance**

**Health Disparities**

**Decision Making**

**Implementation Science**

**Health Care Delivery**

**Epidemiology**

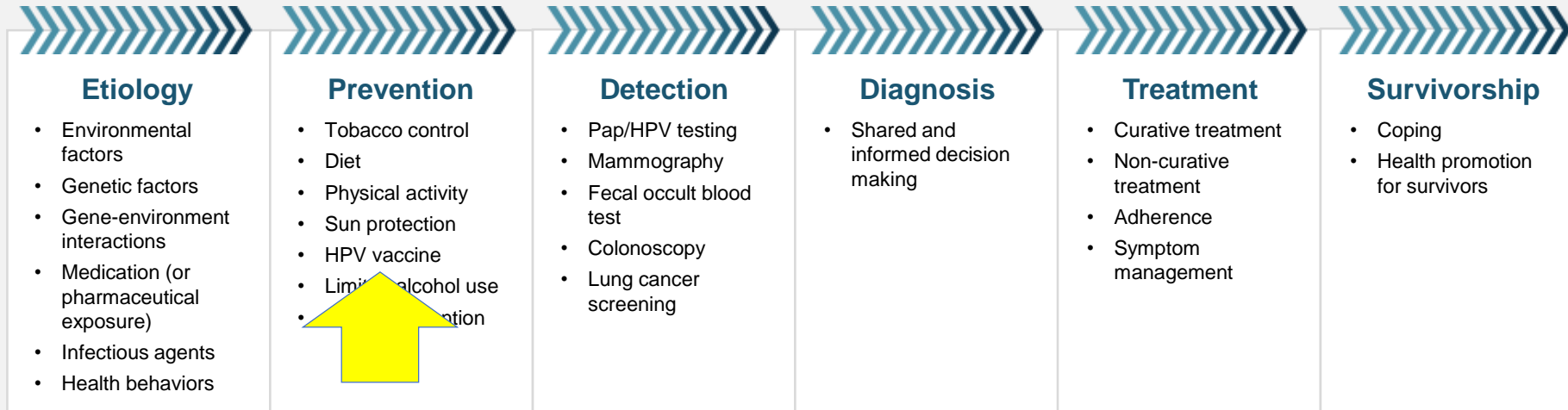
**Measurement**

*National Cancer Institute*

Adapted from David B. Abrams, Brown University School of Medicine

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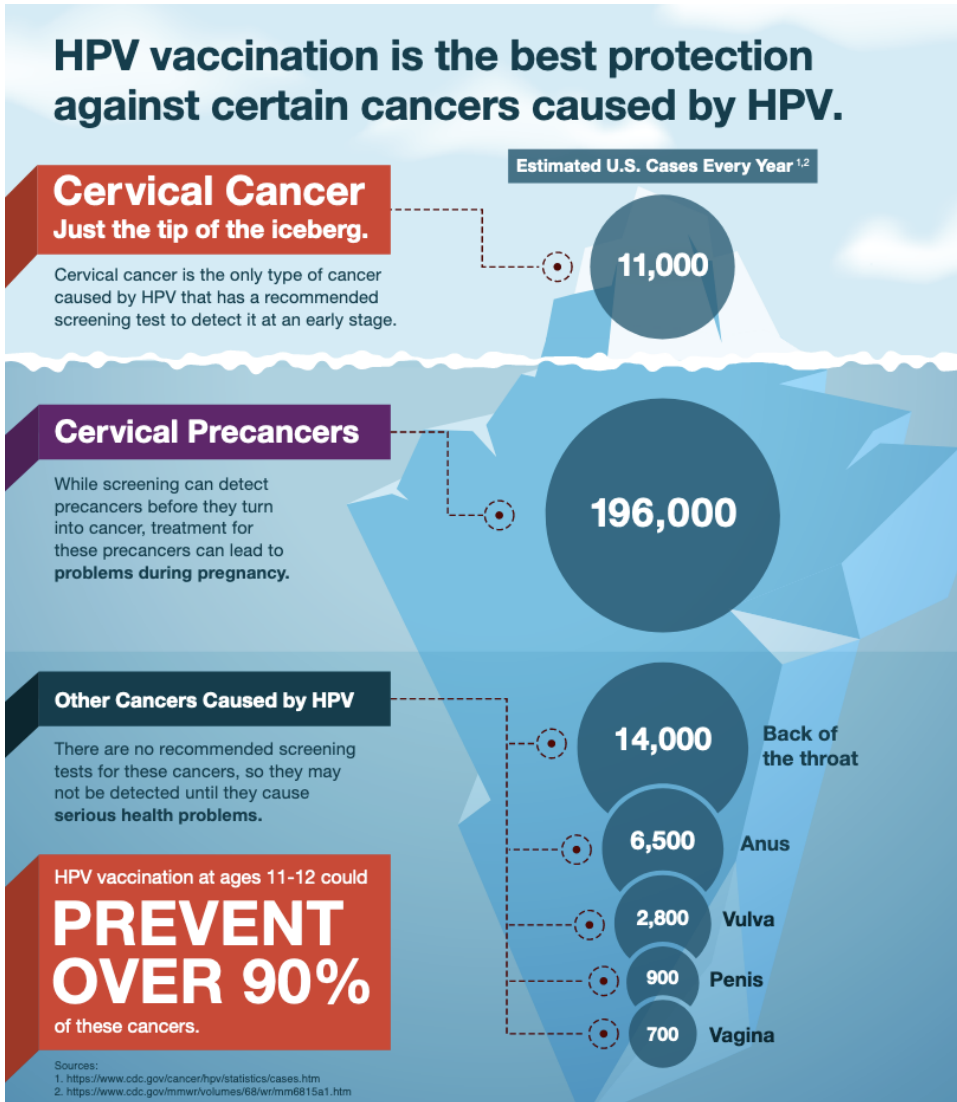
Epidemiology

Measurement

National Cancer Institute

Adapted from David B. Abrams, Brown University School of Medicine

# HPV Vaccine is *cancer prevention!*




For additional information, visit:  
[www.cdc.gov/HPV](http://www.cdc.gov/HPV)



**HPV VACCINE**  
IS CANCER PREVENTION

Last updated AUGUST 2021  
LC082421

**HPV**  
(Human papillomavirus)

**HPV VIRUS** 

**4** out of **5** will get HPV infection in their lifetime

is the leading cause of at least 6 types of cancer

HPV spreads through intimate physical contact.

HPV affects both men and women.

Cancer caused by HPV may not have warning symptoms or signs until they are advanced.

**Preventing cancer is better than treating cancer**

**HPV VACCINE**

**90%** HPV vaccine is 90% effective in preventing cancers caused by HPV virus.

HPV vaccine is most effective between ages 9 - 12.  
*Preteens have a higher immune response to HPV vaccine than older teens.*

Teens (girls and boys) should get vaccinated regardless of their sexual activity.


**ACT NOW**

Talk to your child's healthcare provider about HPV cancer prevention between ages 9 - 12.

Unvaccinated teens and young adults between 15 and 26 years of age should get vaccinated regardless of their sexual activity.

VACCINATE YOUR CHILDREN TODAY TO PROTECT THEIR HEALTH TOMORROW

Pennsylvania Chapter  
American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN



Reference: [CDC](https://www.cdc.gov) & [HPV Roundtable](#)



# Review of HPV Vaccination Basics

- HPV vaccination is essential cancer prevention for individuals, families, communities and populations.
- HPV vaccination levels still lag behind other adolescent vaccines.
- Healthy People 2030 goal: Increase proportion of adolescents who receive recommended doses of HPV vaccine; ACS goal by 2026.



Most Recent Data:  
**54.5** percent (2020)



Target:  
**80.0** percent



Desired Direction:  
**Increase desired**



Baseline:  
**48.0** percent of adolescents aged 13 through 15 years received recommended doses of the HPV vaccine by 2018

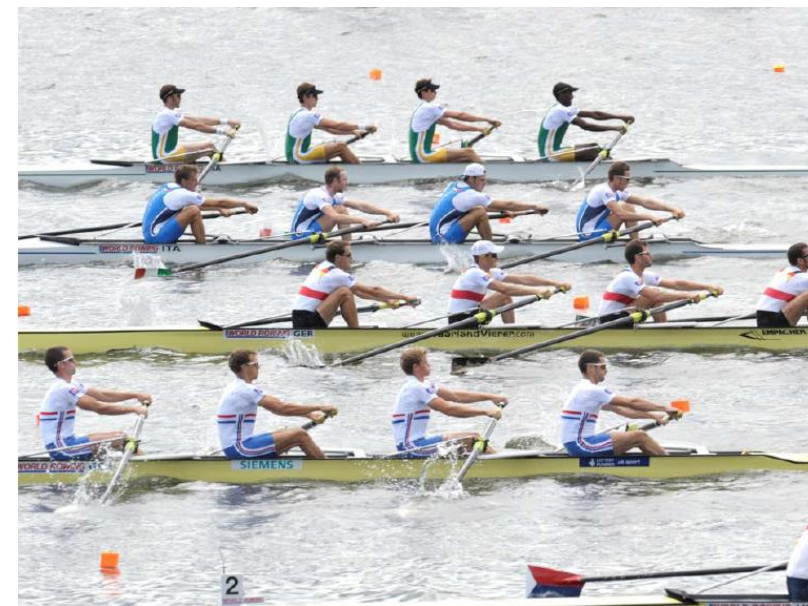
# You and Your Team are Key!

- ***One of strongest predictors of vaccination is a recommendation by a health care provider.***
- Currently in Ohio, only 62% of teens ages 13-17 have received all recommended HPV vaccine doses
- In the US, there are more than 13 million people newly infected with HPV annually, including adolescents.
- Annually, we could prevent 19,000 HPV-associated cancers in females and 13,100 in males through vaccination.
- \$8 billion in annual economic costs

References: America's Health Rankings analysis of CDC, National Immunization Survey-Teen, United Health Foundation, AmericasHealthRankings.org, accessed 2022. [American Cancer Society](#)  
Senkomago, V et al. [MMWR](#). Pingali, C. et al [MMWR](#). Meites, E, et al. [MMWR](#). Markowitz, L et al Acad [Ped](#). Chesson, H et al [Vaccine](#).

# Why Team-Based Care?

- Essential for any clinical quality improvement
  - The team is the driving force for practice change & continuous improvement.
- Everyone has something important to contribute and important feedback to improve the system.
  - Team members represent different roles within the vaccination process
  - Include clinical and non-clinical staff
  - Consider parents/patients as part of the team
- Numerous competing clinical priorities (especially in primary care) require everyone to be part of the process to ensure HPV vaccinations occur and rates improve.



# Plan to increase HPV vaccine uptake



Mission:  
**HPV** CANCER  
FREE

## Steps for Increasing HPV Vaccination in Practice

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

**Step 1**  
**Assemble a Team**

**Step 2**  
**Make a Plan**

**Step 3**  
**Engage and  
Prepare All Staff**

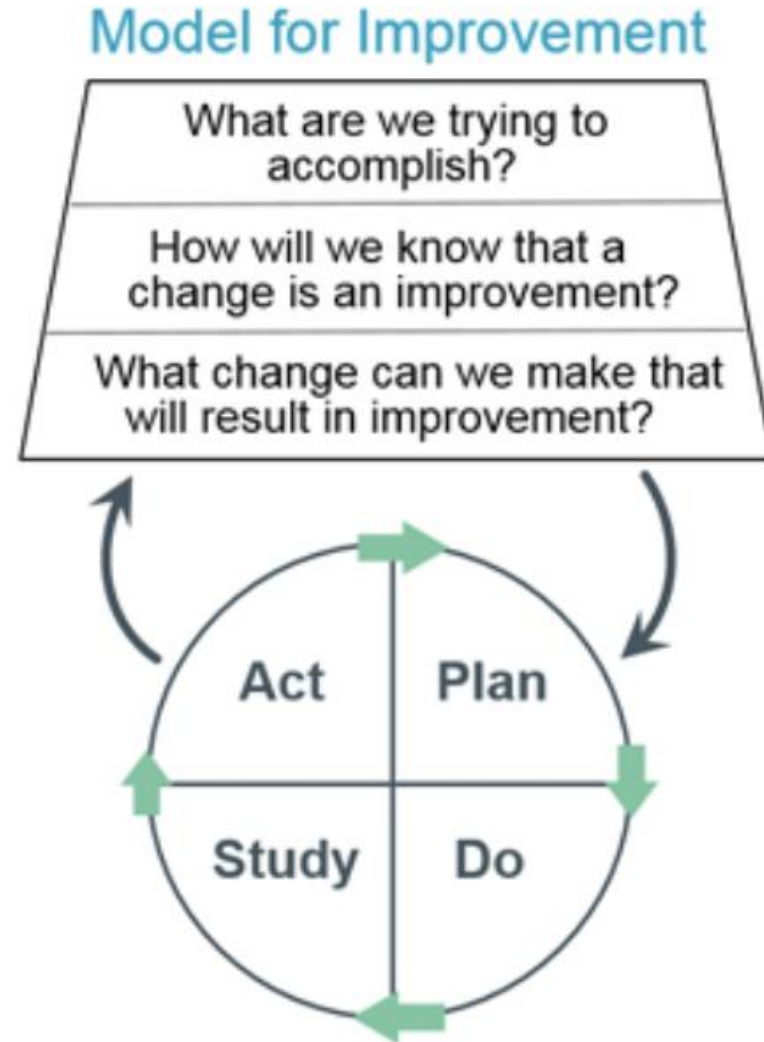
**Step 4**  
**Get Your Patients  
Vaccinated by Their  
13th Birthday**

Reference: [American Cancer Society](#)

# Step 1: Team-Based Best Practices

- Identify members of the HPV vaccination QI team.
  - Identify an HPV vaccination champion.
  - Identify clinical & non-clinical staff to serve as “change agents.”
  - Dental & Medical collaborations are key!
- Meet regularly and agree on team tasks.
- Use the Model for Improvement (Plan-Do-Study-Act) process.
- Review baseline rates, set benchmarks & identify evidence-based goals.
- Engage all staff (not only QI team) by regularly collecting feedback.
- Create and update office policies.

# Model for Improvement – PDSA Cycle



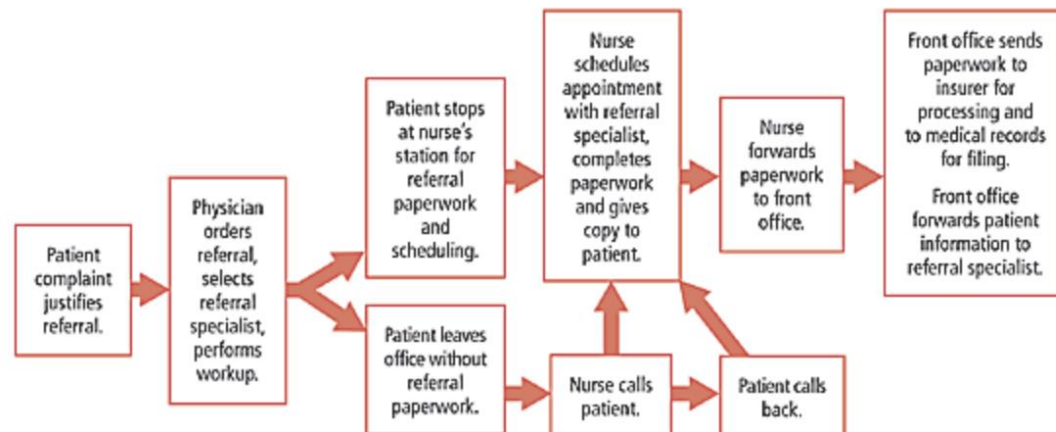
\*At [ihi.org](http://ihi.org), you can register for a free account and access PDSA worksheets and other helpful QI resources.

# Step 2: Make a Plan

- Identify opportunities to increase HPV vaccination
  - ***Workflow mapping***
    - Identify your current HPV vaccination systems and strategies (or lack thereof).
    - Map the flow of your current HPV vaccination process within your practice.
    - Share the results with the QI team and broader staff.
- Determine baseline vaccination rates
  - Consider your source and the accuracy of vaccine data
    - Interventions here may be part of your individualized QI plan.
- Design your clinic's HPV vaccination strategy and/or consider implementing new evidence-based interventions
  - Choose strategies that build on past QI successes (translate past wins to a new area)
  - Create an HPV vaccination policy (ex. standing orders)
  - Incorporate staff into the strategy design and implementation

# Workflow Mapping

- We work in complex, adaptive systems in health care.
- We also work in mental models, using internal maps as we move through our day, work processes and the systems around us.
- Workflow maps are “visual representations of the actions, steps, or tasks performed to achieve a certain result.”
- Done with your team either by hand or electronically
  - Many apps are available online to do this virtually if needed



Adapted from: [UCSF Center for Excellence in Primary Care](#) & example diagram from [AAFP](#)



# Workflow Mapping Steps

- Step 1. Pick a process to map, pick which type of workflow to use (high-level or detailed), pick a lead person
- Step 2. Determine the beginning and end points in the process
- Step 3. Identify each step in the process
- Step 4. Put the steps in order (on paper, with sticky notes, or on computer)
- Step 5. Review and edit first draft
- Step 6. Review flowchart with the team for input and to ensure the flowchart is accurate

# Workflow Mapping Tips

1. Maintain an open and constructive environment during the exercise.
2. Focus on the system or processes, not the people.
3. Before mentioning a variation of the process, think about whether this event was a 1 time occurrence or a habit.
4. Map out the process you currently have (not the one you wish you had) so your team can pinpoint flaws in the process & improve them.
5. Use workflow mapping as an interactive tool for continuous improvement in many areas of clinical practice.

# Potential Evidence-Based Practice Interventions

- Appreciate significance of achieving high HPV vaccination rates.
- Acknowledge importance of your recommendation.
- Use an effective “bundling” vaccination recommendation approach.
- Motivate team & encourage immunization conversations with parents.
- Implement systems to ensure you never miss a vaccination opportunity.
- Use partner resources – local health departments, OAFP, ACS, CDC, etc.
- Know your vaccination & refusal rates.
- Leverage strong clinician-patient relationships to help with challenging immunization conversations.
- Learn how to answer parents’ most common HPV vaccine questions.
- Use personal examples of how you choose to vaccinate children in your family.

# Potential Evidence-Based Practice Interventions

- Vaccinate at every opportunity.
- Use reminder & recall systems.
- Implement standing orders.
- Take part in an immunization registry.
  - Consider state registry & practice registry through EHR.
- Review your patients' vaccination histories.
- Follow US recommended immunization schedules.
- Schedule vaccination-only quick visits.
- Make vaccination education a priority, for parents as well as patients.
- Prioritize establishing rapport with adolescent patients.
- Create a culture that values well-adolescent care.
- Implement the "[Starts at 9](#)" Toolkit

# Step 3: Engage and Prepare All Staff

- Engage all clinical & non-clinical staff
  - Train all staff to ensure consistent, positive message delivery
  - Use human interest stories to increase staff investment
  - Identify and openly discuss areas of concern & misinformation
  - Consider & discuss methods to address barriers and facilitators to HPV vaccination
- Prepare clinic system
  - Modify your EHR to accommodate these QI plans
  - Ensure vaccine supply and storage needs are met
- Prepare parent/guardian and patient
  - Provide targeted education materials
- Prepare clinicians
  - Train clinicians how to effectively communicate with parents & patients
  - Provide targeted provider education materials.

# Step 4: Vaccinate patients by their 13<sup>th</sup> birthdays

- Make an effective recommendation
  - *Recommend HPV vaccine for all adolescents between 9 & 12 the same day and same way you recommend other vaccines.*
- Prompt the health care provider.
  - Use EHR or physical reminders of HPV vaccination being due/overdue
- Increase access
  - Incorporate standing orders into standard procedures
  - Provide walk-in or immunization-only appointments
- Track series completion & follow-up
  - Remind parents when doses are due/overdue
- Measure & improve performance
  - Conduct PDSA cycles to test small changes before scaling
  - Measure # of missed opportunities & use to learn/improve processes/system
  - Ensure providers or clinical teams know their individual rates

# Other HPV Vaccination References/Resources (embedded links throughout presentation & below)

- [National Cancer Institute](#)
- American Cancer Society - [Mission: HPV Cancer Free](#)
- [Ohio Department of Health](#)
- [Centers for Disease Control and Prevention](#)
- [American Academy of Pediatrics](#)
- [National HPV Vaccination Roundtable](#)
- [Healthy People 2030](#)



Together we can all make a massive difference in reducing the burden of HPV in our communities!

Thank you for all you do!



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