



# Quality Insights

Training Medical Providers on Best Practices for HPV Vaccination

December 7, 2023



The healthcare improvement experts.

# Disclosures

- Speakers and planners for this educational activity have NO relevant financial relationships with ineligible companies to disclose.



# Quality Insights Overview

- Non-profit organization focused on data-drive community solutions to improve health care quality in pursuit of better care, smarter spending, and healthier people.
- Change agent, trusted partner and integrator of organizations collaborating to improve care.



# Learning Objectives

- Examine key statistics of HPV-attributable cancer rates
- Assess current HPV vaccination rates in Delaware
- Review the components of the HPV quality improvement project
- Discuss practice specific success stories



# HPV vaccination is the best protection against certain cancers caused by HPV.

Estimated U.S. Cases Every Year <sup>1,2</sup>

## Cervical Cancer

Just the tip of the iceberg.

Cervical cancer is the only type of cancer caused by HPV that has a recommended screening test to detect it at an early stage.

11,100

## Cervical Precancers

While screening can detect precancers before they turn into cancer, treatment for these precancers can lead to problems getting pregnant and problems during pregnancy.

196,000

## Other Cancers Caused by HPV

There are no recommended screening tests for these 5 cancers, so they may not be detected until they cause serious health problems.

14,800

Back of the throat

6,900

Anus

2,900

Vulva

900

Penis

700

Vagina

HPV vaccination at ages 11-12 could

**PREVENT OVER 90%**  
of these cancers.

Sources:  
1. <https://www.cdc.gov/cancer/hpv/statistics/cases.htm>  
2. <https://www.cdc.gov/mmwr/volumes/68/wr/mm6815a1.htm>

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



**HPV VACCINE**  
**IS CANCER PREVENTION**

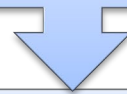
Last updated NOVEMBER 2022  
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[Download this flyer.](#)

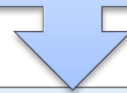


# Oropharyngeal Cancers

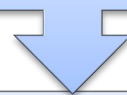
Most common HPV-associated cancer in the U.S. and number of new cases is increasing each year



Over 14,800 cases annually; 70% caused by HPV



Study found that oral HPV infections were 88% lower in HPV vaccinated individuals

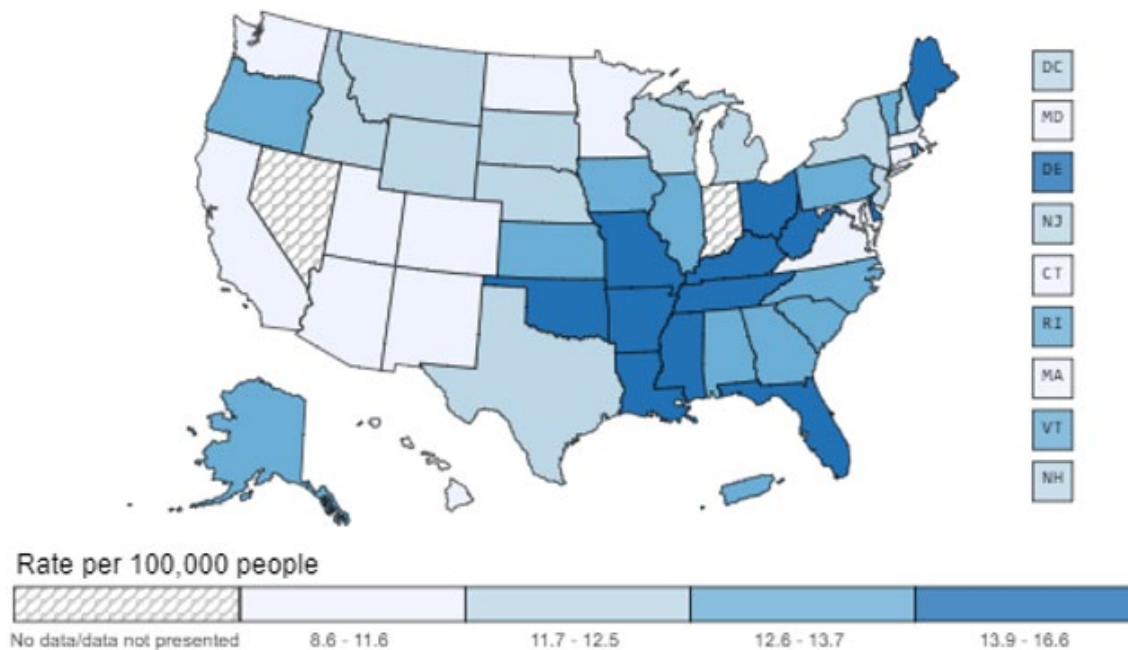


June 2020: Indication for Gardasil 9 for prevention of oropharyngeal and other head and neck cancers



# Delaware Statistics: HPV Attributable Cancer

Rate of New HPV-associated Cancers By State  
All HPV-associated Cancers,  
Male and Female, United States, 2016-2020



In Delaware in **2016-2020**, the age-adjusted rate of **All HPV-associated cancers** was **14.0** per 100,000 people (95% Confidence Interval: 13.0-15.0).

**867** cancer cases were reported.

Source: [CDC](https://www.cdc.gov), n.d.




# HPV CANCER PREVENTION



**1 HPV VACCINE IS CANCER PREVENTION**  
HPV vaccine protects against HPV types that most commonly cause anal, cervical, oropharyngeal, penile, vaginal, and vulvar cancers.

Every year in the U.S., 27,000 people get cancer caused by HPV.




That's 1 person every 20 minutes of every day, all year long.

Most of these cancers can be prevented by HPV vaccine.

**2 HPV VACCINE IS RECOMMENDED AT THE SAME TIME AS OTHER TEEN VACCINES**


Preteens need three vaccines at 11 or 12. They protect against whooping cough, cancers caused by HPV, and meningitis.



Vaccines for your 11-12 year old:  
✓ Tdap  
✓ HPV  
✓ Meningococcal

**3 HPV VACCINE IS BEST AT 11-12 YEARS**

Preteens have a higher immune response to HPV vaccine than older teens.



While there is very little risk of exposure to HPV before age 13, the risk of exposure increases thereafter.

Parents and healthcare professionals are the key to protecting adolescents from HPV cancers.  
**VACCINATE YOUR 11-12 YEAR OLDS.**

[www.cdc.gov/vaccines/teens](http://www.cdc.gov/vaccines/teens)



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

HC262989 (07/23/2014)

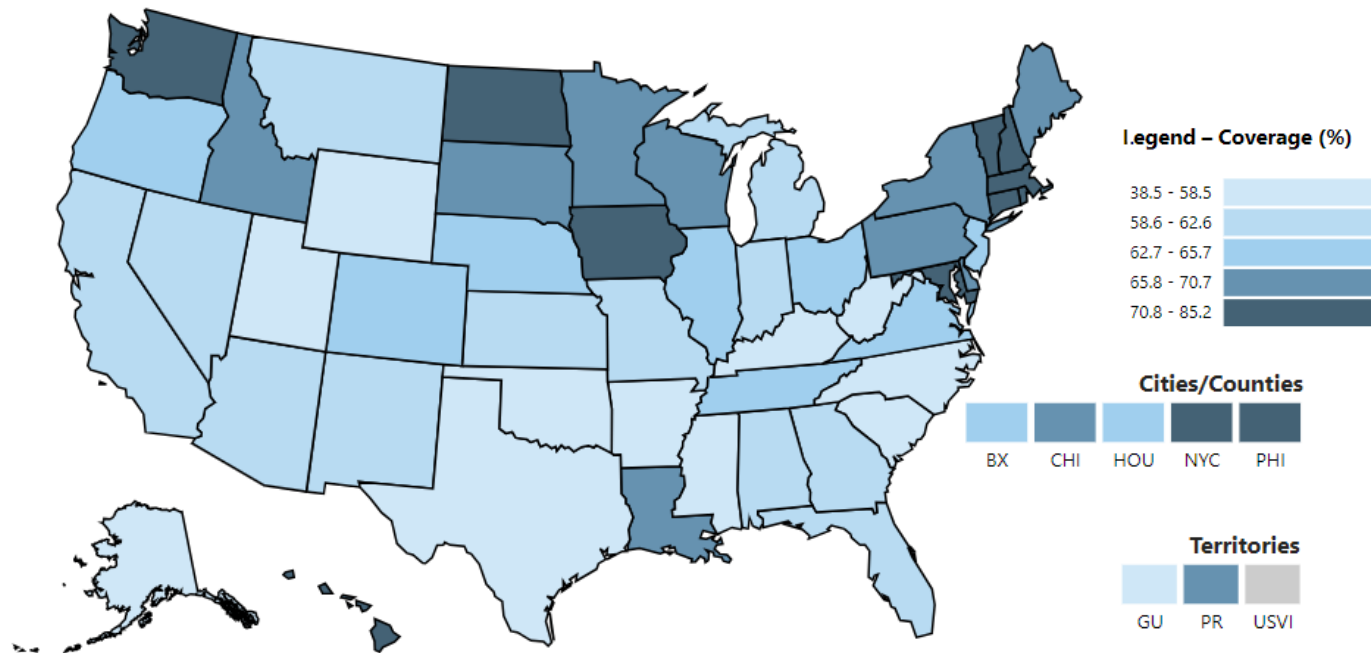
Download this [HPV Cancer Prevention infographic](#) from the CDC.





# Delaware Statistics: HPV Vaccination Rate

Up-to-Date HPV Vaccination Coverage among Adolescents Age 13-17 Years, 2022, National Immunization Survey-Teen



**Geography**  
Delaware  
**Coverage Estimate (%)**  
68.2  
**95% CI (%)**  
60.5 to 74.9  
**Sample Size**  
250

Source: [CDC](#), 2021.



# HPV Vaccine Recommendation

**CDC  
recommends  
routine  
vaccination**

**at age 11 or 12 years to prevent HPV cancers**

**The  
vaccination  
series can be  
started at age  
9 years**

**Patient should  
complete the  
series by the  
13<sup>th</sup> birthday**

**Catch-up  
vaccination is  
recommended  
for females  
and males  
aged 13-26  
years**

**Shared clinical  
decision  
making is  
recommended  
for some  
adults aged 27-  
45 years**



# Quality Improvement Project

- **Objective:** Increase HPV vaccination rates in Delaware through education, evidence-based intervention implementation, and DelVAX support.



# Practice Recruitment



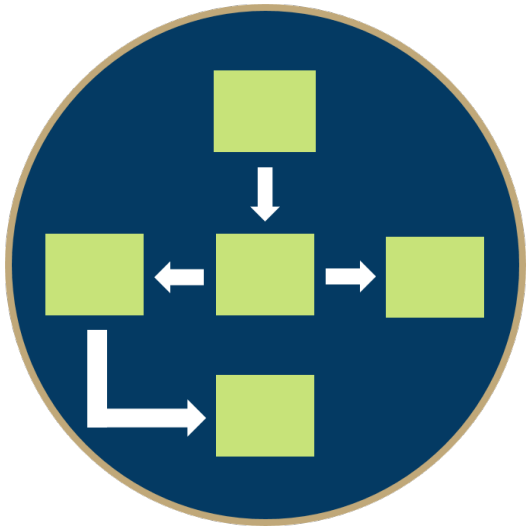
- Program offered to over 100 practices
- Initiated the project with over 50 sites
  - 14 sites have been engaged for 3 or more years

# Barriers

- Resources
  - Financial
  - Human
- Provider/practice beliefs
  - “Vaccinate Everyone”
  - Already have a vaccine initiatives in place
- Policy
  - Legal (health systems)
  - Legislative/regulatory



# Workflow Modifications to Improve HPV Vaccination Rates



- Academic Detailing (AD)\*
- Data Reconciliation
- Patient Postcard Reminder Campaign\*
- Patient Reminders for Nurse Visit\*
- Patient inactivation and adding historical records in DelVAX
- Clinical Decision Support (provider reminders)\*
- Scheduling next visit/immunization before leaving\*
- Other

\* *Evidence-based workflows*

# Academic Detailing

- Curriculum Overview
  - Five modules
  - Detailing piece, one-pager, pocket guide
  - Assessments
  - Recruitment flyer
  - Literature review
- Purpose
  - Modules are a guideline/reference for practice
  - Assessments provide a baseline to customize discussions
- Statistics
  - 32 academic detailing sessions provided
  - 29 unique provider sites



# Data Reconciliation

- Process of comparing vaccines documented in the practice EHR with the vaccines that are documented in DelVAX

Charts Reconciled	8,882
Vaccines Added to DelVAX	1,412
Vaccines to Add to EHR	544





# Data Reconciliation

- Practice A:
  - Up-to-date vaccination rate for 13-17 year olds increased from 51.3% to 61%, for a relative improvement of 18.9%

Practice A HPV Data Reconciliation	
Charts Reconciled	1739
Vaccines Added to DelVAX	213
Vaccines to Add to EHR	129



# Importance



- CDC may transition to IIS data from NIS-Teen data for vaccine reporting
- Reconciliation establishes a true baseline for quality improvement
- Improves accuracy of reporting in DelVAX

# Barriers

Patients unable to  
be located in  
DeIVAX

Birthdate  
mismatch

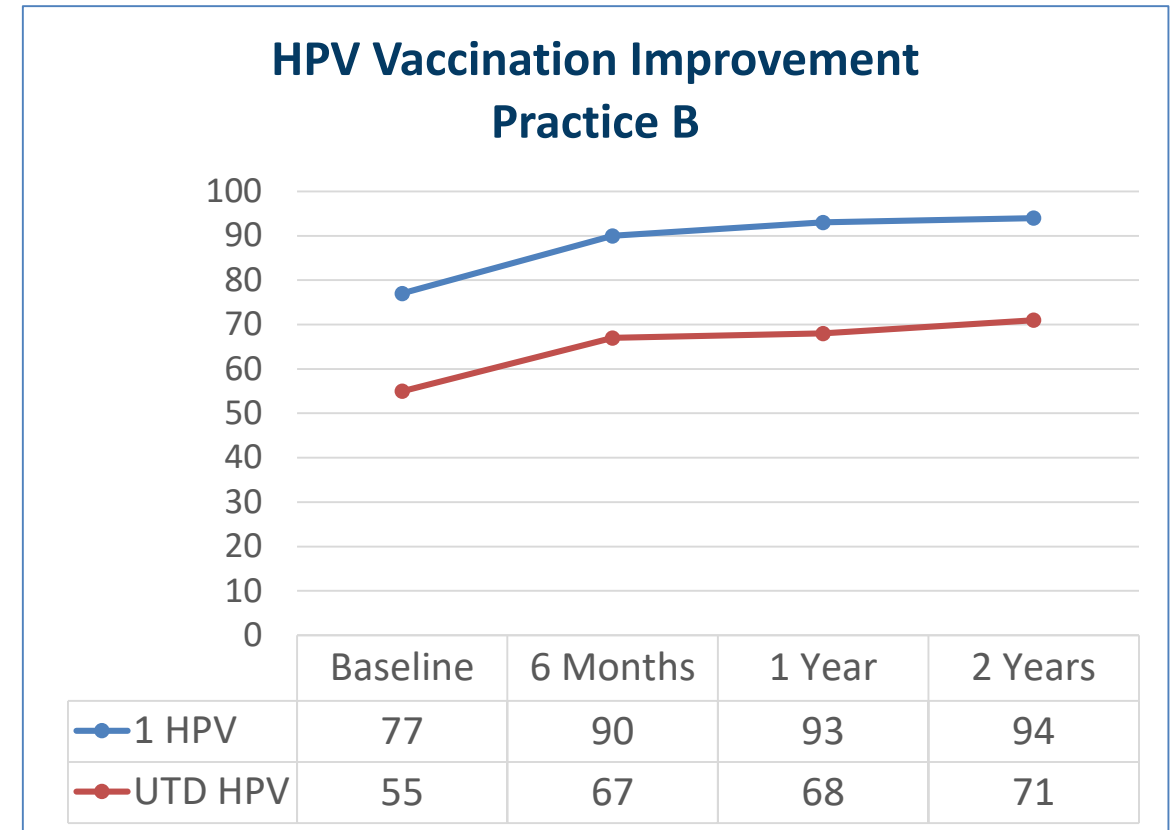
Multiple accounts

Dose Issues



# Multi-Pronged Approach Success Story

- Practice B:
  - Engaged in project December 2021
  - Education
    - Two academic detailing sessions
  - Ongoing technical assistance with HPV champions
  - Implemented three workflow modifications
    - DelVAX roster clean up monthly
    - Patient reminder campaign
    - Reminder/Recall



# HPV Medical Education and Rate Increases



**HPV Vaccine Initiation**

**15.3%↑**

relative increase for DE practices  
from baseline to year 4



**Up-to-date HPV Vaccine**

**50%↑**

relative increase for DE practices  
from baseline to year 4

# Maintenance of Certification

- Quality Insights has partnered with Christiana Care to offer Part IV Maintenance of Certification credits for the American Board of Pediatrics, American Board of Internal Medicine, and American Board of Family Medicine.
  - Any provider participating in the quality improvement project qualifies to receive the credits. For questions, please contact [MOC@christianacare.org](mailto:MOC@christianacare.org).



# HPV VACCINE IS CANCER PREVENTION

*And YOU are the key!*



**#WeCanStopHPV**



# Fun Stuff

- Please follow Quality Insights on social media
  - X: [@Qual\\_Insights](#)
  - LinkedIn: [www.linkedin.com/company/quality-insights](http://www.linkedin.com/company/quality-insights)
- Contact email: [EHarry@qualityinsights.org](mailto:EHarry@qualityinsights.org) for more information on the project or to receive quarterly HPV newsletters



This project is in collaboration with the Division of Public Health (DPH) – Comprehensive Cancer Control Program, Immunization and Vaccines for Children, and the Centers for Disease Control and Prevention (CDC). Publication number DEDPH-HPV-112223

