



HPV Vaccination Best Practices: Provider Interventions

2024 HPV Learning Program

August 28, 2024



Welcome

Melissa Santiago

HPV Program Manager, Interventions & Implementation
American Cancer Society



HPV Vaccine Best Practices: Provider Interventions

August 28, 2024

CME Learner Information

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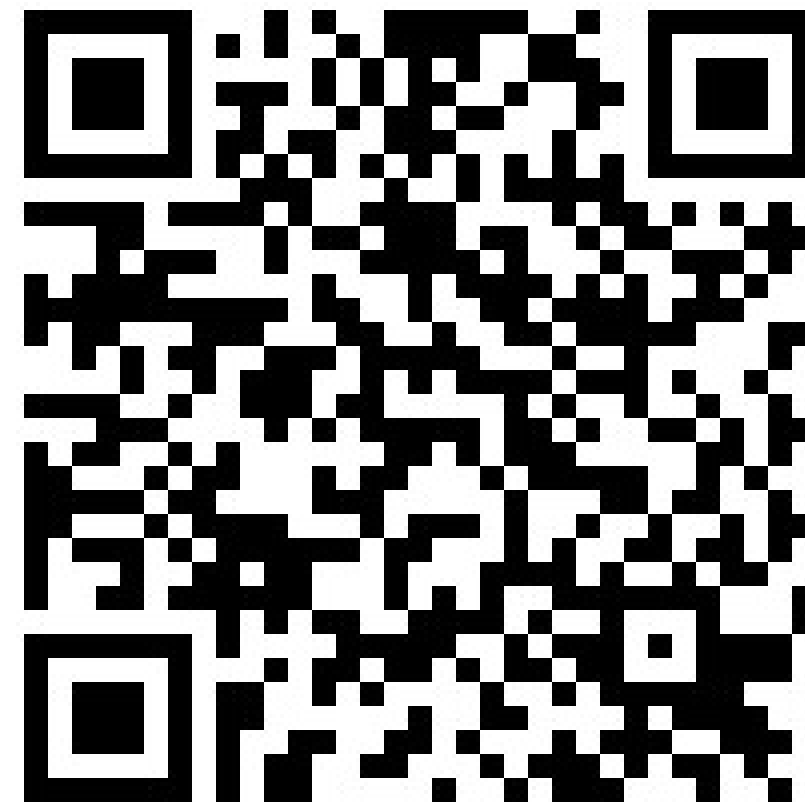
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We value your feedback.

Please complete the evaluation:

https://iu.co1.qualtrics.com/jfe/form/SV_d0jfzZIMnQimaiO



Agenda

- 1 Welcome & Agenda Review**
Melissa Santiago, MPA, MPH
- 2 Centers of Disease Control and Prevention**
Ruth Stefanos, MD, MPH
- 3 Stony Brook**
Lauren Ng, DO, FAAP
- 4 Rapid Fire Q&A**
Dr. Stefanos & Dr. Ng
- 5 Closing Remarks & Next Steps**
Melissa Santiago



Today's Speakers



Ruth Stefanos, MD, MPH

Centers for Disease Control and Prevention



Lauren Ng, DO, FAAP

**Renaissance School of Medicine at
Stony Brook University**





CDC Recommendations for HPV Vaccination

Ruth Stefanos, MD, MPH

Division of Viral Diseases

National Center for Immunization and Respiratory Diseases

August 28, 2024

Outline

- Routine HPV vaccination recommendation and historical context
- How CDC makes vaccination recommendations
- Current plans

Current Recommendation

- HPV vaccination is routinely recommended at age 11 or 12 years
- Vaccination can be given starting at age 9 years
- Since 2006 (first recommendation), the wording of age at HPV vaccination initiation has not changed substantially

Adolescent Platform

1996 Adolescent Platform “This report presents a new strategy to improve the delivery of vaccination services to adolescents and to integrate recommendations for vaccination with other preventive services provided to adolescents. This new strategy emphasizes vaccination of adolescents 11-12 years of age by establishing a routine visit to their health-care providers.”

Immunization of adolescents. MMWR Recomm Rep. 1996;45(RR-13):1-16.

2005 Tdap “The preferred age for Tdap vaccination is 11–12 years”

Broder KR, Cortese MM, Iskander JK, et al. MMWR Recomm Rep. 2006;55(RR-3):1-34.

MCV4 “Introducing a recommendation for MCV4 vaccination among young adolescents might strengthen the role of the preadolescent visit and have a positive effect on vaccine coverage among adolescents.”

Bilukha OO, Rosenstein N. MMWR Recomm Rep. 2005;54(RR-7):1-21.

2006 HPV “ACIP recommends routine vaccination of females aged 11–12 years with 3 doses of quadrivalent HPV vaccine. The vaccination series can be started as young as age 9 years.”

Markowitz LE, Dunne EF, Saraiya M, et al. MMWR Recomm Rep. 2007;56(RR-2):1-24.

Adolescent Platform



🏠 HPV Home

For Parents +

For Healthcare Professionals -

HPV Cancers are Preventable

Vaccine Schedule and Dosing

Answering Parents Questions

HPV Vaccine Safety and Effectiveness Data

Boosting Vaccination Rates

Educational Materials

Continuing Education

5 Ways to Boost Your HPV Vaccination Rates

[Print](#)

Implement these practical and proven strategies and increase your HPV vaccination rates.



Bundle your recommendation

Bundle your recommendation for all adolescent vaccines, including HPV vaccine, in the same way, on the same day. You can start the vaccine discussion with, “Now that your child is 11, they need three vaccines to help protect against meningitis, HPV cancers, and whooping cough. We’ll give these shots during today’s visit. Do you have any questions about these vaccines?”

Current HPV Vaccination Recommendations

Routine vaccination	Age 11–12 years; can be started at age 9 years
Catch-up Vaccination	Age 13–26 years, if not adequately vaccinated
Shared clinical decision-making	Some adults age 27–45 years, if not adequately vaccinated




Current HPV Vaccination Recommendations



Routine vaccination	Age 11–12 years; can be started at age 9 years
Catch-up Vaccination	Age 13–26 years, if not adequately vaccinated
Shared clinical decision-making	Some adults age 27–45 years, if not adequately vaccinated

Special situation:

History of sexual abuse or assault: Start at age 9 years

Recommended Immunizations for Children 7–18 Years Old

-  ALL children in age group **should** get the vaccine
-  SOME children in age group should get the vaccine
-  ALL children in age group **can** get the vaccine
-  Parents/caregivers should talk to their health care provider to decide if this vaccine is right for their child

Recommended Vaccines	7 Years	8 Years	9 Years	10 Years	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years
HPV												

Clinical Decision Support for Immunization (CDSi)

The CDSi resources translate clinical recommendations into technical information



- Provides resources that help translate clinical recommendations into technical information
- Integration of recommendations into clinical decision support engines (e.g., electronic health records)

Clinical Decision Support for Immunization (CDSi)

The CDSi resources translate clinical recommendations into technical information



- Logic for applying rules to CDS engines
- Earliest prompt for HPV vaccination is age 11 years

Advisory Committee on Immunization Practices (ACIP)



Advisory Committee on Immunization Practices (ACIP)



ACIP Work Groups

[Print](#)

ACIP uses subgroups of the Committee, known as Work Groups, to review relevant published and unpublished data and develop recommendation options for presentation to the ACIP. The goal of ACIP Work Groups is to increase the effectiveness of ACIP.

ACIP Work Groups are responsible for collection, analysis, and preparation of information for presentation, discussion, deliberation, and vote by the ACIP in an open public forum. Work Groups review specific topics in detail and clarify issues in a way that helps ACIP voting members make informed and efficient decisions, with the best and most current information available.

The following Work Groups are currently active (click on the name of each Work Group for more information): (Updated 7/1/2024)

- [Chikungunya Vaccines](#)
- [Combined Child/Adolescent and Adult Immunization Schedules](#)
- [COVID-19 Vaccines](#)
- [Human Papillomavirus Vaccine](#)
- [Influenza Vaccines](#)
- [Meningococcal Vaccines](#)
- [Pneumococcal Vaccines](#)
- [Respiratory Syncytial Virus Vaccines – Pediatric/Maternal](#)
- [Respiratory Syncytial Virus Vaccines – Adult](#)

Advisory Committee on Immunization Practices (ACIP)



At the last ACIP meeting in June it was announced that an HPV Vaccine Work Group is going to be restarted.

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[Print](#)

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- [Pneumococcal Vaccines](#)
- [Respiratory Syncytial Virus Vaccines – Pediatric/Maternal](#)
- [Respiratory Syncytial Virus Vaccines – Adult](#)

Topics to be considered by HPV Vaccines Work Group

- **Wording of the age for routine HPV vaccination**
 - Some stakeholders interested in starting vaccination at age 9 years
 - Current ACIP recommendations are consistent with vaccination at age 9 years
 - Modification of wording could allow more flexibility

Wording of the Age for Routine HPV Vaccination

- Work group will review a variety of data including a review of evidence regarding programmatic aspects of vaccination at age 9–10 years.
- Studies reviewed included:
 - evaluating completion by age of initiation
 - evaluating interventions to increase vaccination at age 9–10 years
 - provider/caregiver interviews or surveys

Clarification on Some Issues Regarding Age at Vaccination

- While the antibody response is higher with younger age at vaccination, no evidence that efficacy is different with vaccination at age 9–10 years compared with age 11–12 years.
- There is no evidence to suggest that receiving all adolescent vaccines at the same visit will diminish safety or effectiveness.

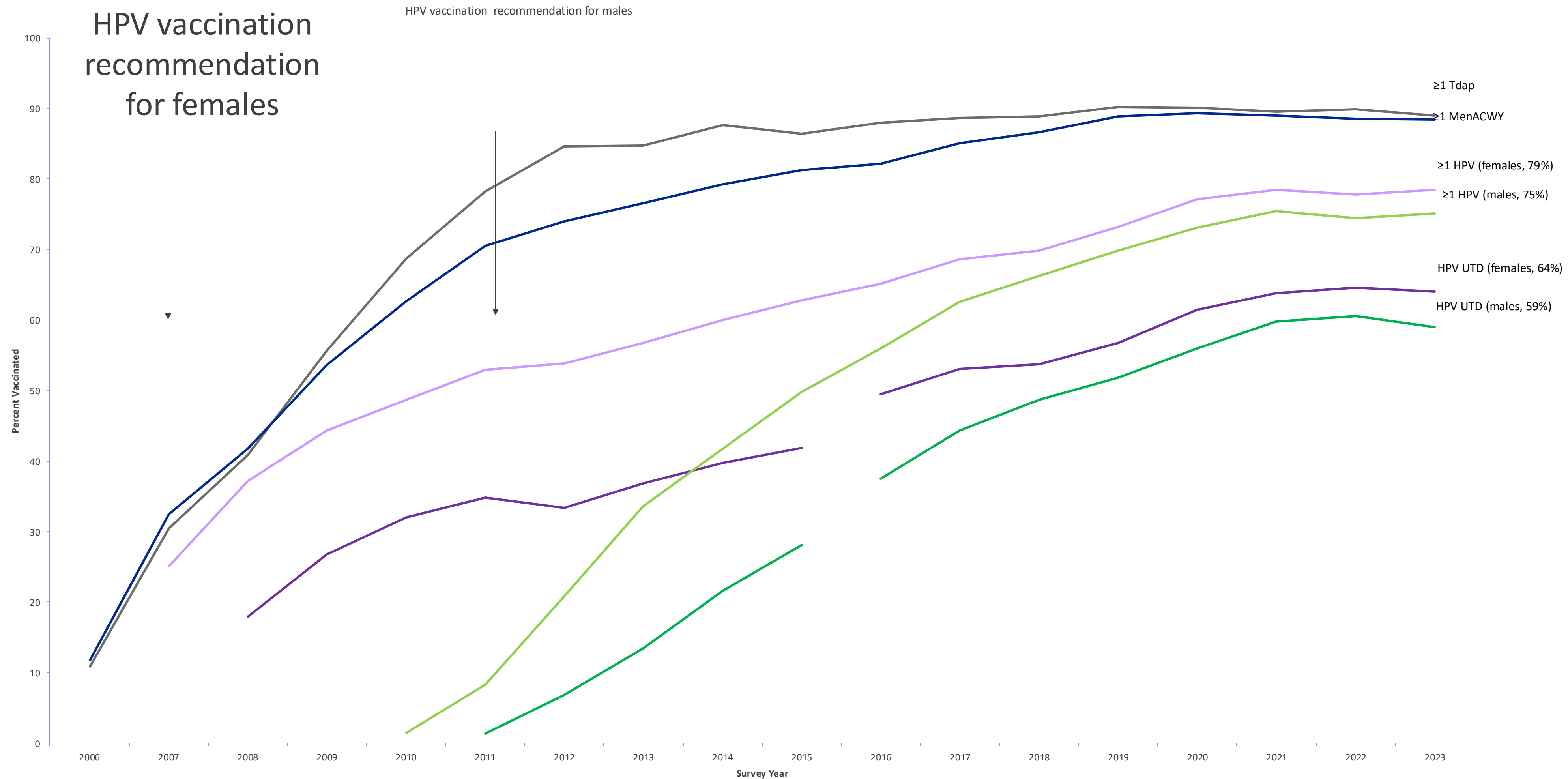
Topics to be considered by HPV Vaccines Work Group

- **Number of doses in the recommended HPV vaccination series**
 - Accumulating evidence on efficacy of HPV vaccination with fewer doses
 - In 2022, the World Health Organization recommended a two-dose schedule for persons aged 9 years or older and, as an off-label option, a single-dose schedule can be used for those aged 9–20 years

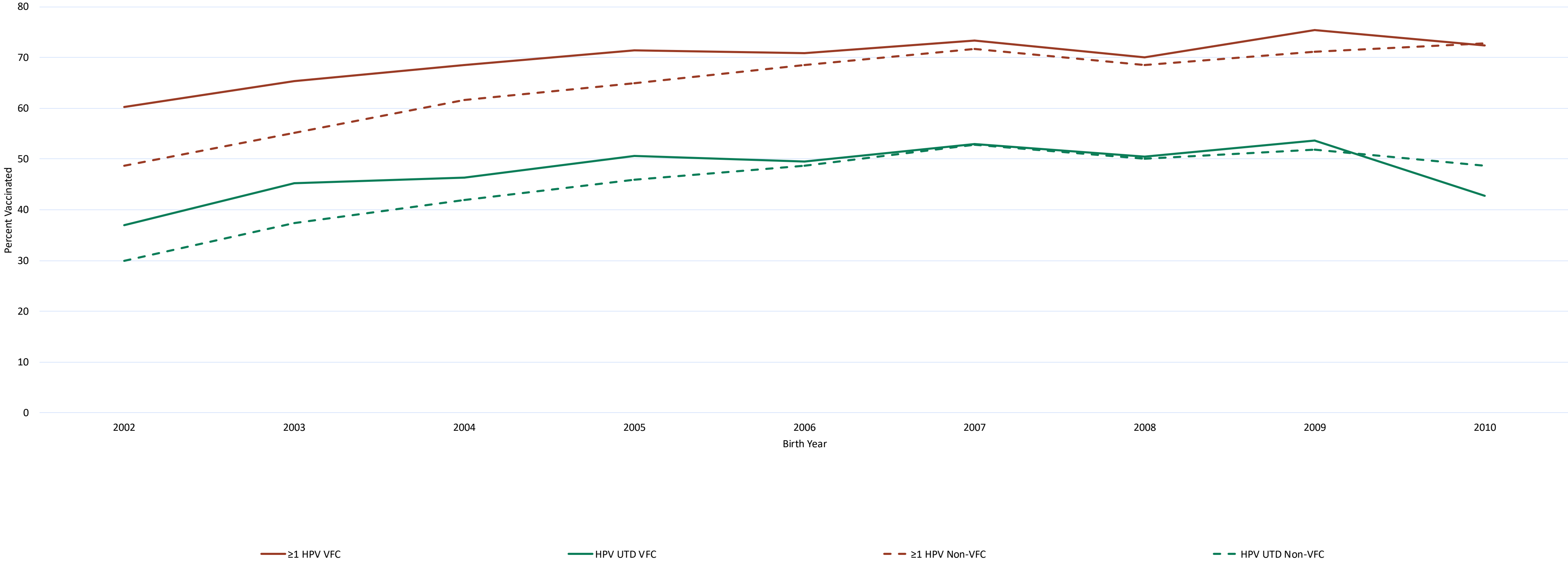
Conclusions

- ACIP workgroup will be evaluating wording of the routine age recommendation
- Vaccination at age 9 is consistent with current routine HPV vaccination wording

Estimated Vaccination Coverage Among Adolescents Aged 13–17 years — National Immunization Survey-Teen (NIS-Teen), United States, 2006–2023



Receipt of HPV vaccine by age 13 years by birth year and by Vaccines for Children (VFC) Eligibility— National Immunization Survey-Teen (NIS-Teen), United States, 2015–2023



By age 13 years, coverage with ≥ 1 HPV and percentage HPV UTD among adolescents who were eligible for VFC was **higher** than coverage among those not eligible for VFC in the 2002–2005 birth years and had similar coverage from 2006–2010.

Acknowledgements

Sarah Brewer, PhD

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Lauri Markowitz, MD

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



HPV Vaccination Best Practices:

Provider Interventions

Lauren Ng, DO, FAAP

Assistant Professor of Pediatrics

Division of Primary Care Pediatrics

Renaissance School of Medicine at Stony Brook University

August 28th, 2024



Stony Brook Children's

Quality Improvement Partnership to Improve HPV Vaccine Rates: Start at age 9 Campaign

Project Team

- Lauren Ng, DO, Pediatric Primary Care, Center Moriches Office
- Lori Ellis, MD, Pediatric Primary Care, Smithtown Office
- Linda Mermelstein, MD, MPH, Associate Director, Community Outreach and Engagement, Stony Brook Cancer Center
- Barbara Messeder, American Cancer Society, Cancer Control Strategic Partnerships Manager
- Annalea Trask, Program Coordinator, Cancer Prevention In Action, Community Outreach and Engagement, Stony Brook Cancer Center
- Sonoma Patel, MD, Stony Brook Pediatric Resident PGY-3
- Jessica Fenton, MD, Preventive Medicine Resident PGY-3

Project History

In 2021, Smithtown (SMT) and Center Moriches (CMO) offices participated in the ACS National Cohort of HPV Vaccine Quality Improvement

Identifying patients due for HPV Vaccine #2 – Call backs and use of 'Vaccine Only' appts

In person Provider Education

Staff Education- Workflow Change with including CDC Pre-teen Vaccine Handouts

Patient Education- CDC Pre-teen Vaccine Handouts

In 2022, interventions were implemented to all offices and continuance of data from SMT and CMO offices reported to the ACS National Cohort of HPV Vaccine Quality Improvement

Continued provider and staff education

Major achievement- IT reports across all sites for HPV vaccine rates

Patients due for HPV#2 vaccine quarterly reports



Patient Education

English and Spanish Versions

<https://www.cdc.gov/vaccines/parents/downloads/pl-dis-preteens-parents.pdf>

Vaccines for Preteens and Teens: What Parents Should Know



All boys and girls need three vaccines at ages 11-12 to protect against serious diseases. Preteens and teens should also get a yearly flu vaccine, as well as any vaccines they missed when they were younger.

What vaccines does my child need?



Dose 1: Ages 11-12
Dose 2: Age 16

Meningococcal vaccines protect against a type of bacteria that can cause serious illnesses. The two most common types of illnesses include infections of the lining of the brain and spinal cord (meningitis) and bloodstream. All preteens should get the meningococcal conjugate vaccine (MenACWY). Teens may also receive a serogroup B meningococcal vaccine (MenB), preferably at 16 through 18 years old.



Dose 1: Ages 11-12
Dose 2: 6-12 months later

HPV vaccine protects both girls and boys from future infections that can lead to certain types of cancer. Children who get their first dose on or after their 15th birthday will need three doses.



Dose 1: Ages 11-12

Tdap vaccine protects against three serious diseases: tetanus, diphtheria, and pertussis (whooping cough).



Yearly Dose:
Ages 6 months and older

Flu vaccine helps protect against seasonal flu. Even healthy preteens and teens can get very sick from flu and spread it to others. The best time to get an annual flu vaccine is before flu begins causing illness in your community, ideally before the end of October. Flu vaccination is beneficial as long as flu viruses are circulating, even in January or later.

When should my child be vaccinated?

A good time to get these vaccines is during a yearly wellness check. Your child can also get these vaccines at a physical exam required for school, sports, or camp. **If your child missed any doses of recommended vaccines, ask your doctor or nurse about getting them now.**

Are these vaccines safe?

These vaccines have been studied very carefully and are very safe. They can cause mild side effects, like soreness or redness in the part of the arm where the shot is given. Some preteens or teens might faint after getting a shot. Sitting or lying down when getting a shot, and then for about 15 minutes after the shot, can help prevent fainting. Serious side effects are rare. It is very important to tell the doctor or nurse if your child has any serious allergies, including allergies to yeast, latex, or chicken eggs, before they receive any vaccines.

Can I get help paying for these vaccines?

Most health insurance plans cover routine vaccinations. The Vaccines for Children (VFC) program also provides vaccines for children 18 years and younger who are uninsured, underinsured, Medicaid-eligible, American Indian, or Alaska Native. Learn more at www.cdc.gov/Features/VFCprogram.



Stony Brook Children's



Talk to your child's doctor or nurse about the vaccines your child needs or visit www.cdc.gov/vaccines/parents



Last updated: July 2019

2023: Start HPV Vaccines at age 9 Campaign

Our goal is to increase HPV vaccine initiation rates among 9-13-year-olds by 3 percent in one year.

AIM: Increasing HPV #1 vaccine rates

Intervention 1: Recommending HPV vaccine at age 9

Education of Providers, Residents, RNs, LPNs and MAs

Intervention 2: HPV vaccine rack cards

QR code for Cancer Prevention in Action video for parents on rack cards

Intervention 3: EHR/Cerner Changes

1. Adding HPV vaccination orders to Well Child Check PowerPlans ages 9 and above
2. Add CDC Pre-teen vaccination hand out to Patient Education in Cerner

Why age 9?

Know the Facts!



There are many benefits to initiating the HPV vaccine series at age 9. These include:

1
Offers more time for completion of the series by the age of 13

2
Results in a strong immune response to the HPV vaccine

3
Increases the likelihood of vaccinating prior to first HPV exposure

4
Decreases questions about sexual activity by parents and guardians

5
Decreases requests for only vaccines that are "required" for school

6
Decreases the number of administered shots per visit

7
Increases vaccinations and therefore the number of cancers prevented

8
Has been shown by several systems to increase vaccination rates

9
Has been shown to be highly acceptable to systems, providers, and parents

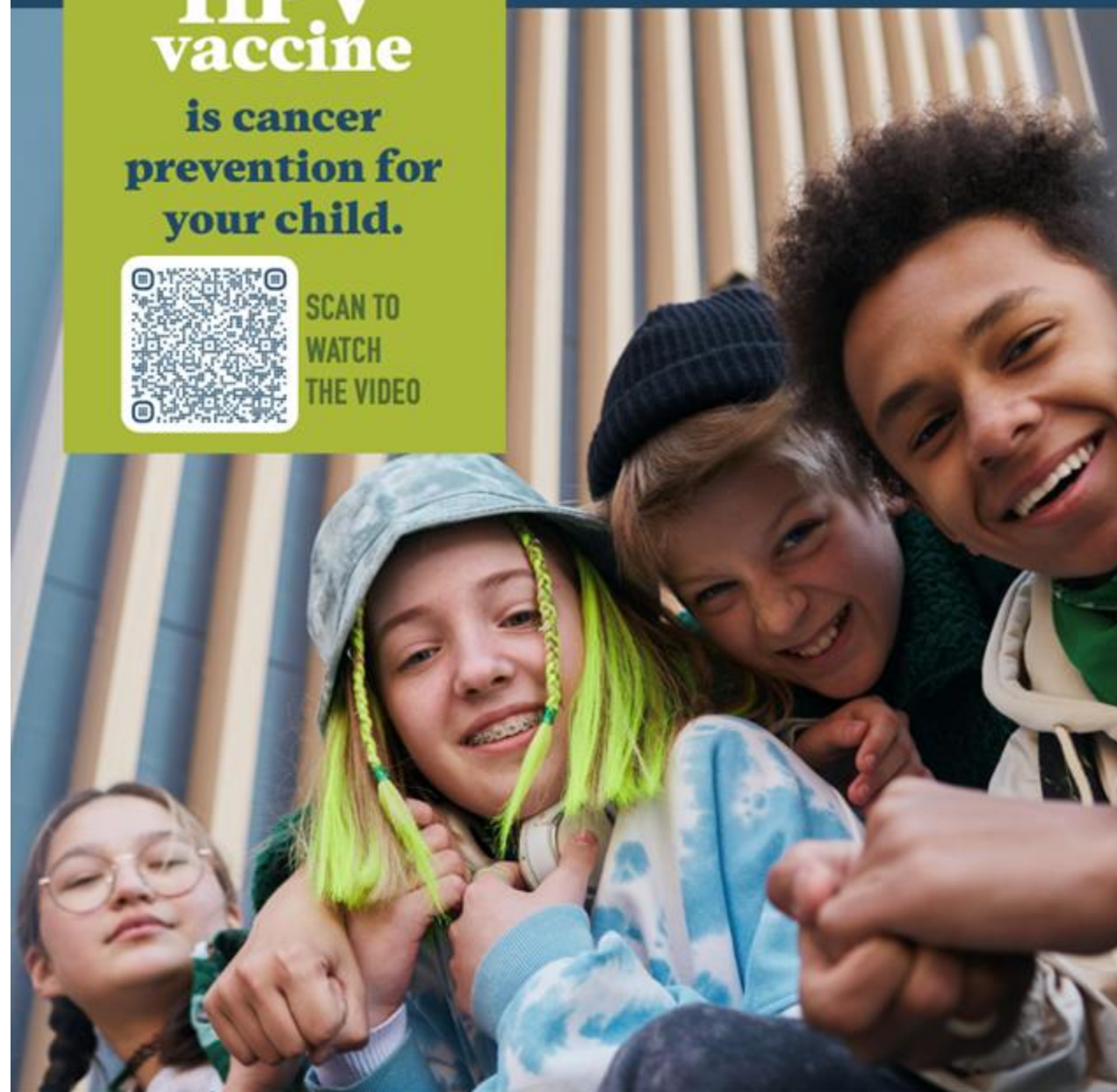
The HPV vaccine has been given for more than 15 years and provides long-lasting protection. The HPV vaccine is safe and effective, with no long-term side effects. In fact, 109 studies conducted among 2.5 million people in 6 countries have shown that there have been no serious side effects other than what is typical for all vaccines (i.e., allergic reactions, fainting).²

HPV vaccine

is cancer prevention for your child.



SCAN TO WATCH THE VIDEO



Children and the vaccine that prevents cancer

You can protect your child from developing a range of cancers by stopping the virus that causes them.

what parents need to know.

SCAN WITH YOUR PHONE'S CAMERA TO WATCH THE VIDEO.



watch the video to learn more ►

CANCER PREVENTION IN ACTION | NASSAU SUFFOLK

 Stony Brook Cancer Center

If you could protect your child now from developing cancer later in life, you would. *And you can.*

Every year in New York State nearly 2,800 men and women are diagnosed with cancer caused by HPV ...a cancer that could have been prevented with a childhood vaccine.

Speak to your child's provider TODAY about the HPV vaccine!

WHAT IS HPV?

Human papillomavirus (HPV) is a **common virus** that infects **85%** of people in their lifetime. Many of these cases will **go unnoticed**.

The virus can cause **six types of cancer** and each year in the U.S., over **35,000 men and women** will develop **HPV cancers** because of it.

- HPV VACCINE STOPS THE VIRUS THAT CAUSES SIX TYPES OF CANCER**
- CERVICAL CANCER • VAGINAL CANCER
- MOUTH & THROAT CANCER • ANAL CANCER
- VULVAR CANCER • PENILE CANCER

These HPV cancers **could have been prevented** with a simple 2-dose childhood vaccine.

The vaccine series is **recommended** for kids **ages 11-12**, and can be started at age 9.

GET THE FACTS so you can make the best decision for your child.

HPV vaccine is safe, effective protection for your child.

SCAN WITH YOUR PHONE'S CAMERA TO WATCH THE VIDEO.

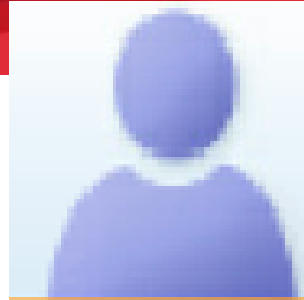


watch the video to learn more ►

GET THE FACTS. REDUCE THE RISK. SPREAD THE WORD.
visit: TakeActionAgainstCancer.com

This project is supported with funds from the State of New York and Health Research Inc.

Electronic Medical Record Changes



Allergies: No Known Allergies

Attend: NG MD, LAUREN

ISOLATION(0): None

Pronouns: He / Him

Pre-Outpatient Ambulatory

CODE STATUS: No Results Found

Weight: N/A

No XDocs

Patient Portal: No

PCP: (Please Update) Verified date: (Please Update)

Pediatric East Moriches

+ Add | Document Medication by Hx | Reconciliation | Check Interactions | External Rx History | Rx Plans (1): SNY EMPIRE RA...

Reconciliation Status

Meds History | Admission | Outpatient

Orders | Medication List | Document In Plan

Diagnoses | Add to Phase | Check Alerts | Start: Now | Duration: None

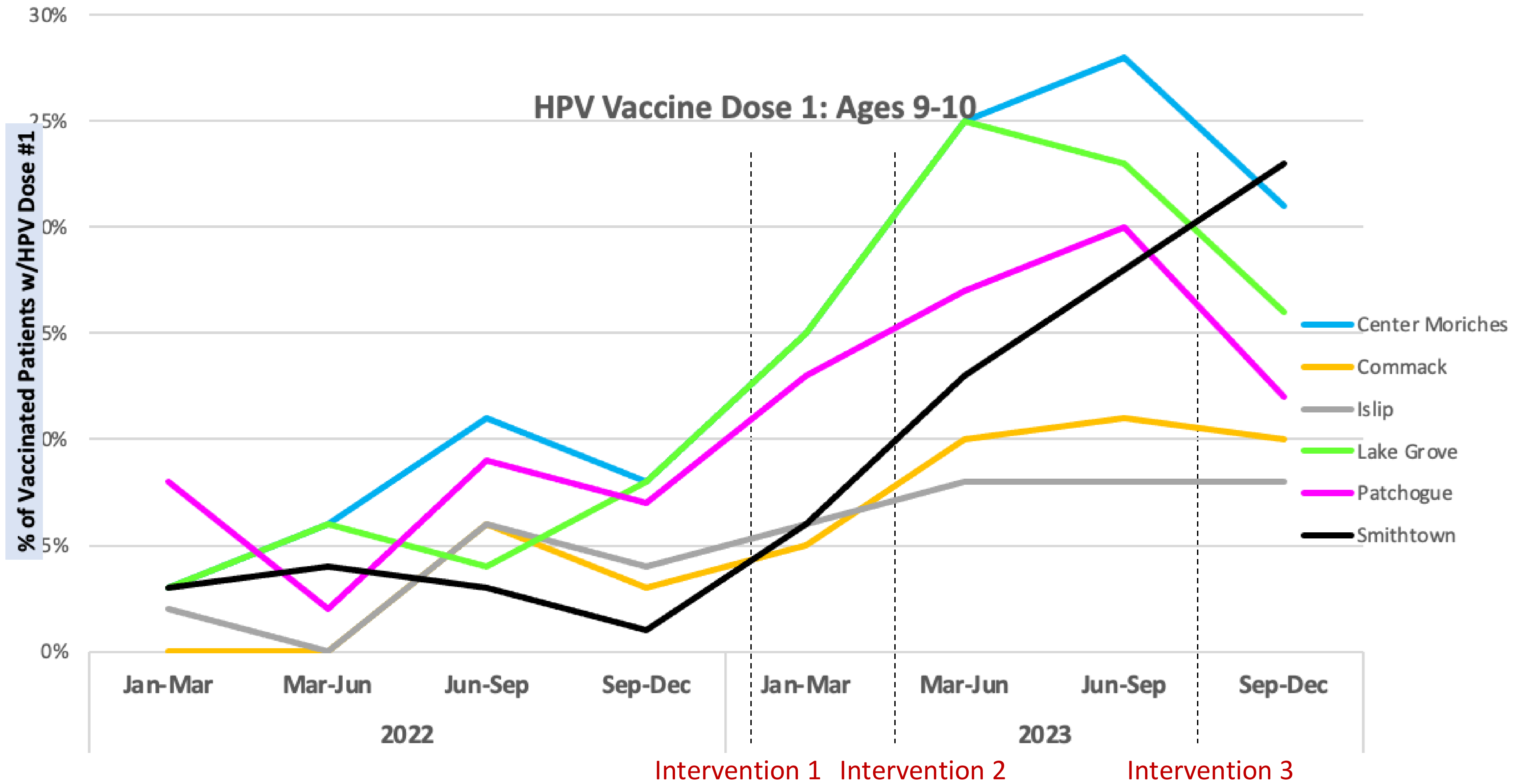
Component	Status	Dose ...	Details
Pediatric Well Care PowerPlan(amb), 9 year WCC (Planned Pending)			
<input checked="" type="checkbox"/> Preventive Medicine 5-11 years Est - 99393			T;N, 25 Sig., Separately Id'able by Same MD
<input type="checkbox"/> Preventive Medicine 5-11 years New - 99383			25 Sig., Separately Id'able by Same MD
<input type="checkbox"/> PSC-17			
<input checked="" type="checkbox"/> Brief Emotional/Behavioral Assessment 96127 Charge			59 Distinct Procedural Service
<input type="checkbox"/> influenza virus vaccine, inactivated			0.5 mL, IntraMuscular, X1
<input type="checkbox"/> Influenza Quad. Vaccine, Preserv. Free: 0.5 mL dose 90...			
<input checked="" type="checkbox"/> human papillomavirus vaccine			0.5 mL, IntraMuscular, X1, T;N
<input checked="" type="checkbox"/> HPV Vac, Types 6,11,16,18,31,33,45,52,58 90651 Charge			
<input type="checkbox"/> Pref5 multivitamin with fluoride (Multiple Vitamins with Flu...			= 1 tab, Oral, Once daily, # 90 tab, 3 Refill(s)
<input checked="" type="checkbox"/> Follow Up Visit			T;N, 1 year, WCC
<input type="checkbox"/> Follow Up Visit			T;N, 4 weeks, Flu #2
<input type="checkbox"/> Follow Up Visit			T;N, 6 months, 2nd Gardasil dose
<input type="checkbox"/> Follow Up Visit			T;N, Schedule as Telehealth Visit
<input type="checkbox"/> Lead POC 83655 Charge			
<input type="checkbox"/> Hgb POC 85018 Charge			

Diagnoses & Problems | Related Results | Formulary Details

Dx Table | Orders For Nurse Review | Save as My Favorite | Plan for Later | Initiate Now | Cancel

Results

- **Baseline data for all six sites from 2022 compared to end of year data from 2023 showed an increase from 36.8% to 39.8% for HPV vaccine first dose rates from 9 to 13-year-old children**
- **HPV vaccine completion rates from 9 to 13-year-olds were stable from 18.6% in 2022 to 18.5% in 2023**
- **HPV Dose 1 rates between 9 to 10-year-olds increased at all sites**

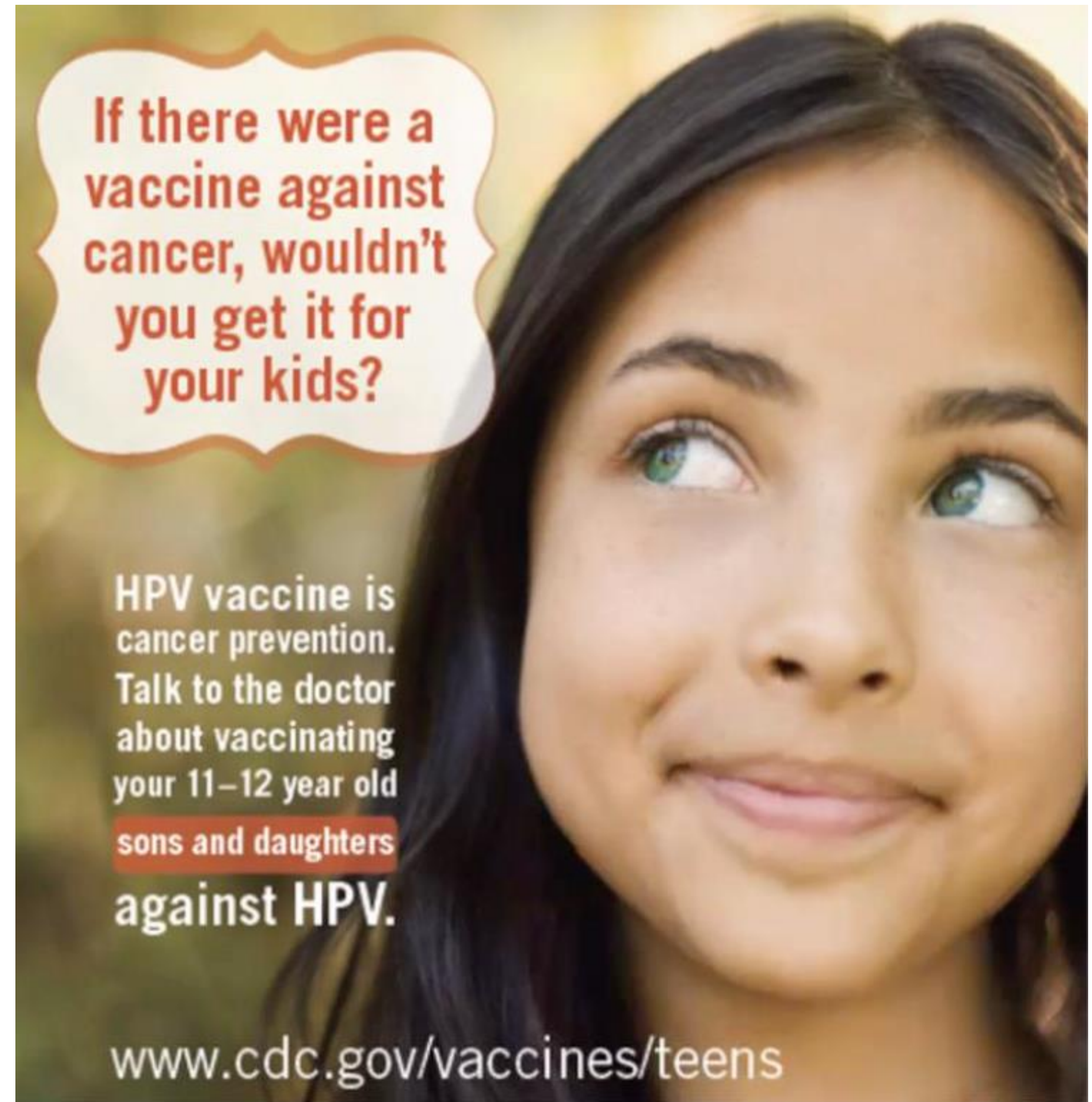


		Combined 2022 Genders				
		Total Number of Active Medical	HPV >=1 Dose	HPV >=1 Dose Rate	HPV 2 Dose	HPV 2 Doses Rate
	Age 09-10	233	5	2.15%	0	0.00%
	Age 11-12	280	100	35.71%	34	12.14%
	Age 13	117	78	66.67%	57	48.72%
Commack	Total	630	183	29.05%	91	14.44%
	Age 09-10	793	27	3.40%	0	0.00%
	Age 11-12	860	344	40.00%	105	12.21%
	Age 13	436	264	60.55%	210	48.17%
East Setauket	Total	2089	635	30.40%	315	15.08%
	Age 09-10	260	5	1.92%	0	0.00%
	Age 11-12	318	140	44.03%	63	19.81%
	Age 13	155	97	62.58%	76	49.03%
Islip	Total	733	242	33.02%	139	18.96%
	Age 09-10	714	31	4.34%	0	0.00%
	Age 11-12	830	291	35.06%	83	10.00%
	Age 13	364	225	61.81%	175	48.08%
Moriches	Total	1908	547	28.67%	258	13.52%
	Age 09-10	588	20	3.40%	0	0.00%
	Age 11-12	622	282	45.34%	92	14.79%
	Age 13	290	194	66.90%	154	53.10%
Patchogue	Total	1500	496	33.07%	246	16.40%
	Age 09-10	673	7	1.04%	0	0.00%
	Age 11-12	797	254	31.87%	92	11.54%
	Age 13	401	230	57.36%	168	41.90%
Smithtown	Total	1871	491	26.24%	260	13.90%
Total		7042	2594	36.84%	1309	18.59%

		Combined 2023 Genders				
		Total Number of Active Medical	HPV >=1 Dose	HPV >=1 Dose Rate	HPV 2 Dose	HPV 2 Doses Rate
	Age 09-10	329	21	6.38%	1	0.30%
	Age 11-12	327	123	37.61%	42	12.84%
	Age 13	163	89	54.60%	61	37.42%
Commack	Total	819	233	28.45%	104	12.70%
	Age 09-10	423	45	10.64%	11	2.60%
	Age 11-12	366	156	42.62%	75	20.49%
	Age 13	199	118	59.30%	84	42.21%
East Setauket	Total	988	319	32.29%	170	17.21%
	Age 09-10	302	11	3.64%	2	0.66%
	Age 11-12	361	149	41.27%	48	13.30%
	Age 13	202	130	64.36%	104	51.49%
Islip	Total	865	290	33.53%	154	17.80%
	Age 09-10	728	101	13.87%	13	1.79%
	Age 11-12	749	304	40.59%	97	12.95%
	Age 13	347	203	58.50%	154	44.38%
Moriches	Total	1824	608	33.33%	264	14.47%
	Age 09-10	684	65	9.50%	3	0.44%
	Age 11-12	663	308	46.46%	109	16.44%
	Age 13	300	218	72.67%	154	51.33%
Patchogue	Total	1647	591	35.88%	266	16.15%
	Age 09-10	635	67	10.55%	5	0.79%
	Age 11-12	744	264	35.48%	75	10.08%
	Age 13	370	193	52.16%	154	41.62%
Smithtown	Total	1749	524	29.96%	234	13.38%
Total		6451	2565	39.76%	1192	18.48%

Goals for 2024

- Encouraging HPV vaccine initiation at age 9
- Provider and staff education
 - Updating providers on quarterly HPV vaccination rates at division meetings
- Patient education
 - HPV rack cards
 - Updating exam room posters
- Identifying race, ethnicity and insurance in our results



Take Home Points

- **Advocate for policy change**
- **Provider and staff education is key**
- **Examine workflow closely to implement change**
- **Progress updates**
- **Implementing change is a slow process**

Thank you

Please feel free to contact me:

Lauren.ng@stonybrookmedicine.edu



References

- Evidence-Based Cancer Control Programs. *Making Effective HPV Vaccine Recommendations*. (2020). National Cancer Institute.
<https://ebccp.cancercontrol.cancer.gov/programDetails.do?programId=26926144>
- HPV and Cancer. Centers for Disease Control and Prevention. HPV and Cancer Web site.
<https://www.cdc.gov/cancer/hpv/statistics/cases.htm>. Published 2020.
- National HPV Roundtable. (2023, November 8). *HPV Vaccination Action Guides - National HPV Roundtable*. National HPV Roundtable - the Official Website of the National HPV Vaccination Roundtable.
<https://hpvroundtable.org/cancer-prevention-through-hpv-vaccination-action-guides/>
- New York State Department of Health. (2020). *New York state prevention agenda dashboard - county level: Suffolk County*. New York State Health Initiatives.
https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/
- Perkins, R. B., Humiston, S., & Oliver, K. (2023). Evidence supporting the initiation of HPV vaccination starting at age 9: Collection overview. *Human Vaccines & Immunotherapeutics*, 19(3).
<https://doi.org/10.1080/21645515.2023.2269026>
- U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2019 submission data (1999-2017): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz, released in June 2020.





Stony Brook Children's

Rapid Q&A

Provider Directed Interventions



Professional Education



Provider Assessment and Feedback



Provider Incentives



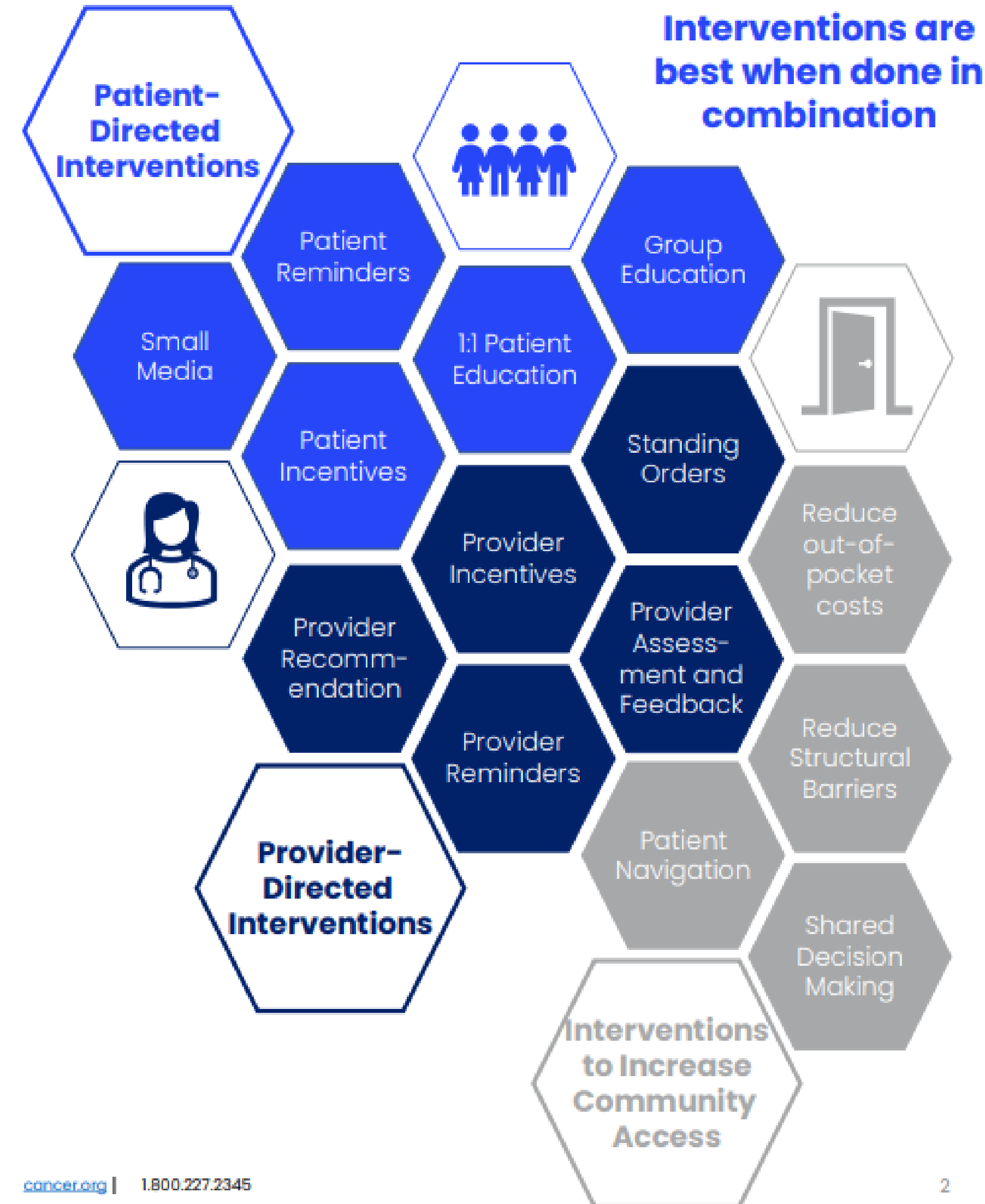
Provider Reminders/Recall



Standing Orders



***Interventions are best when done in combination**



RECOMMENDATIONS MATTER

The best predictor of vaccination uptake for both hesitant and non-hesitant parents **was how the provider started the conversation.**



Resources

CDC Immunization Schedule for Parents:

Older children and teens need vaccines too!

2024 Recommended Immunizations for Children 7–18 Years Old

Want to learn more?
Scan this QR code to find out which
vaccines your child might need. Or visit
www.cdc.gov/vaccines/tool/teen.html



RECOMMENDED VACCINES	7 YEARS	8 YEARS	9 YEARS	10 YEARS	11 YEARS	12 YEARS	13 YEARS	14 YEARS	15 YEARS	16 YEARS	17 YEARS	18 YEARS	
HPV			ALL children in age group can get the vaccine		ALL children in age group should get the vaccine								
Tdap¹					ALL children in age group should get the vaccine								
Meningococcal ACWY					ALL children in age group should get the vaccine					SOME children in age group should get the vaccine			
Meningococcal B										Parents/caregivers should talk to their health care provider to decide if this vaccine is right for their child			
Influenza/Flu	Every year. Two doses for some children		Every year										
COVID-19	At least 1 dose of the current COVID-19 vaccine												
RSV					If pregnant during RSV season								
Mpox												SOME children in age group should get the vaccine	
Dengue			ONLY if living in a place where dengue is common AND has laboratory test confirming past dengue infection										

¹ One dose of Tdap is recommended during each pregnancy

KEY

- ALL children in age group should get the vaccine
- SOME children in age group should get the vaccine
- ALL children in age group can get the vaccine
- Parents/caregivers should talk to their health care provider to decide if this vaccine is right for their child

Talk to your child's health care provider for more guidance if:

1. Your child has any medical condition that puts them at higher risk for infection or is pregnant.
2. Your child is traveling outside the United States.
3. Your child misses any vaccine recommended for their age or for babies and young children.



FOR MORE INFORMATION
Call toll-free: 1-800-CDC-INFO (1-800-232-4636)
Or visit: www.cdc.gov/vaccines/parents



American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN[®]

CDC Immunization Schedule for Providers

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

These recommendations must be read with the notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars. To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine and other immunizing agents	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs	
Respiratory syncytial virus (RSV-mAb [Nirsevimab])	1 dose depending on maternal RSV vaccination status, See Notes					1 dose (8 through 19 months), See Notes												
Hepatitis B (HepB)	1 st dose	← 2 nd dose →		← 3 rd dose →														
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)	1 st dose		2 nd dose	See Notes														
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)	1 st dose		2 nd dose	3 rd dose	← 4 th dose →			5 th dose										
Haemophilus influenzae type b (Hib)	1 st dose		2 nd dose	See Notes		← 3 rd or 4 th dose, See Notes →												
Pneumococcal conjugate (PCV15, PCV20)	1 st dose		2 nd dose	3 rd dose	← 4 th dose →													
Inactivated poliovirus (IPV <18 yrs)	1 st dose		2 nd dose	← 3 rd dose →					4 th dose								See Notes	
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)	1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)																	
Influenza (IIV4)	Annual vaccination 1 or 2 doses										Annual vaccination 1 dose only							
OR Influenza (LAIV4)	Annual vaccination 1 or 2 doses										Annual vaccination 1 dose only							
Measles, mumps, rubella (MMR)	See Notes					← 1 st dose →		2 nd dose										
Varicella (VAR)	See Notes					← 1 st dose →		2 nd dose										
Hepatitis A (HepA)	See Notes					2-dose series, See Notes												
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)											1 dose							
Human papillomavirus (HPV)											See Notes							
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2years)											1 st dose	2 nd dose						
Meningococcal B (MenB-4C, MenB-FHbp)											See Notes							
Respiratory syncytial virus vaccine (RSV [Abrysvo])											Seasonal administration during pregnancy, See Notes							
Dengue (DEN4CYD; 9–16 yrs)											Seropositive in endemic dengue areas (See Notes)							
Mpox																		

Range of recommended ages for all children
 Range of recommended ages for catch-up vaccination
 Range of recommended ages for certain high-risk groups
 Recommended vaccination can begin in this age group
 Recommended vaccination based on shared clinical decision-making
 No recommendation/not applicable



HPVRT Print on Demand Age 9 Toolkit:

HPVRT Print on Demand Age 9 Toolkit:

- 8.5x11 Flier – PDF Web Co-Brandable
- 8.5x11 Flier – PDF Print with Crop Marks Co-Brandable
- 18x24 Poster – PDF Web Co-Brandable
- 18x24 Poster – PDF Print with Crop Marks Co-Brandable

Why Age 9? Fact Sheet



Every year in the United States, it is estimated that nearly 36,500 individuals are diagnosed with cancer caused by an HPV infection.¹ Human papillomavirus (HPV) cannot be treated, but there is a vaccine that can prevent transmission and protect against six cancers if initiated prior to exposure. HPV vaccination is a critical prevention tool, safeguarding children and adolescents against more than 90% of HPV cancers when given at recommended ages.¹ Because cancer prevention decreases as the age of vaccination increases, it is important to start early!

Why Age 9?

Starting the HPV vaccination series at age 9 is recommended by the American Cancer Society, the American Academy of Pediatrics, and the National HPV Vaccination Roundtable. Previous guidance from the Centers for Disease Control (CDC) and Advisory Committee on Immunization Practices (ACIP) recommends routine HPV vaccination at age 11 or 12 years but notes that the HPV vaccine can be given starting at age 9.

Recommended Vaccination Schedule Guideline



The Announcement Approach for Increasing HPV Vaccination Poster

The Announcement Approach for Increasing HPV Vaccination

Take these steps to more effectively recommend HPV vaccination. They will save you time and improve patient satisfaction.

1 ANNOUNCE

Start with a presumptive announcement that assumes parents are ready to vaccinate. This is an effective way to recommend adolescent vaccines, including HPV vaccine.¹

KEY ELEMENTS OF AN ANNOUNCEMENT:

- Note child's age to cue that this is part of routine care
- Say you will vaccinate today
- Announce children this age get a vaccine that prevents six HPV cancers.

ANNOUNCEMENT EXAMPLE
"Marcus is now 9, so today he'll get a vaccine that prevents six HPV cancers."

2 CONNECT & COUNSEL

Connect with parents by asking for their main concern about HPV vaccine. Counsel parents by using a research-tested message to address their concern.² Then clearly recommend getting HPV vaccine today.

3 TRY AGAIN

Say you'll bring up HPV vaccine at the next visit. Then make a note in the child's chart. Almost 70% of parents who initially decline later agree to HPV vaccine or plan to soon.

1. Brewer, et al., 2017, Pediatrics. 2. Shah, et al., 2019, Pediatrics. 3. Kornides, et al., 2018, Academic Pediatrics.
hpvIQ.org

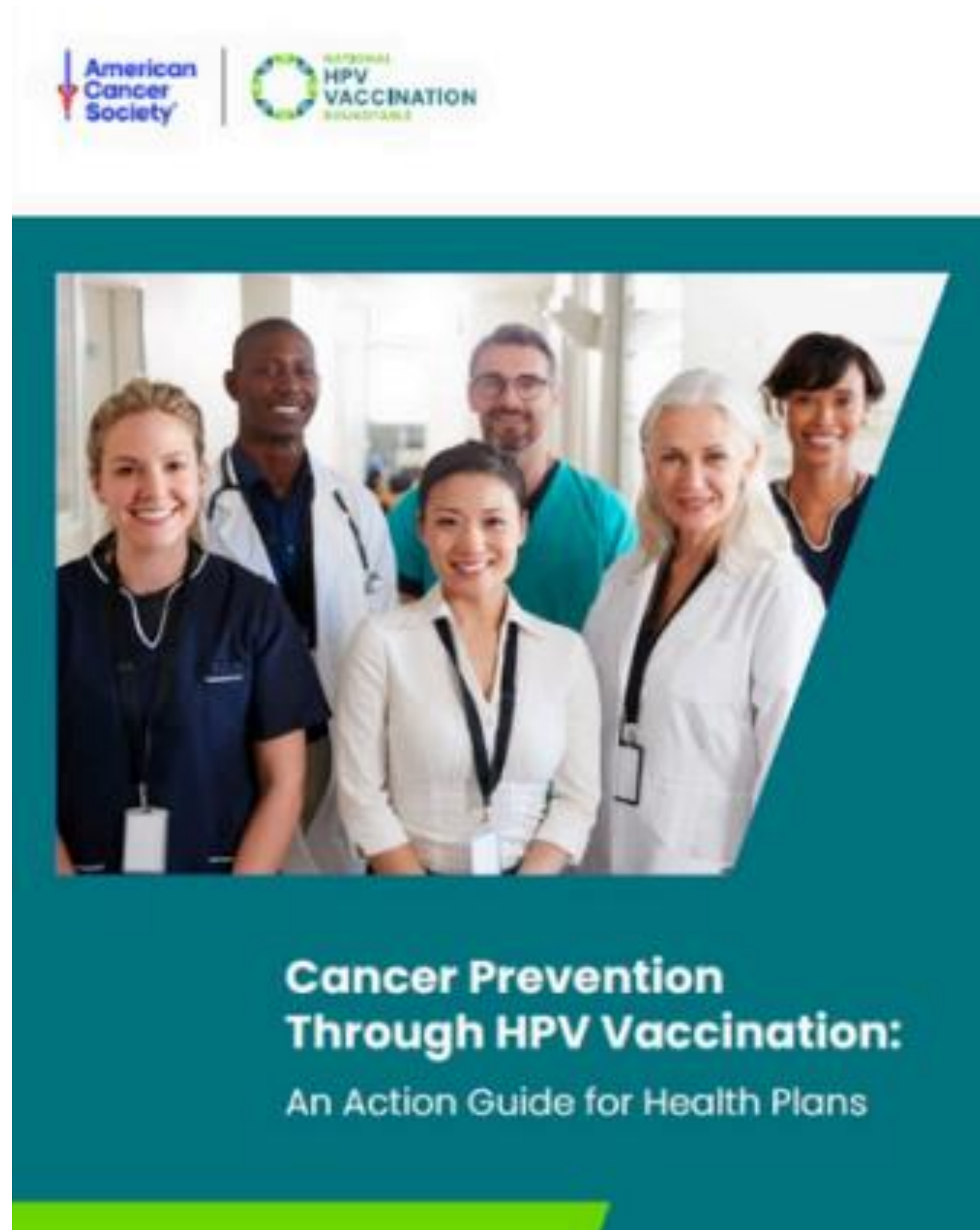
HPV IQ
Immunization Quality Improvement Tool



New Resources

HPV Action Guide for Health Plans

Just Launched



Your health plan has the power to reduce the burden of human papillomavirus (HPV) cancers by motivating improvements in HPV vaccination rates. This action guide features steps your health plan can take to increase HPV vaccination and work toward eliminating HPV cancers for future generations.

The Problem

HPV is a common virus that can cause six types of cancer. About 13 million people, including teens, become infected with HPV each year. When HPV infections persist, people are at risk for cancer. While HPV infection has no treatment, the HPV vaccine is extremely effective at preventing HPV infections and HPV cancers. Unfortunately, rates of HPV vaccination lag behind other adolescent vaccinations.

The Solution

The HPV vaccine is cancer prevention. The HPV vaccine can prevent more than 90% of HPV cancers when given to boys and girls between the recommended ages of 9–12, and it is most effective at achieving a better immune response when the first dose is given at age 9.*

Health plans are a critical part of the solution. More than nine out of 10 Americans have health insurance, giving health plans significant potential to impact HPV vaccination and cancer prevention. Health plans have the unique ability to reach multiple parts of the health care system, including providers and parents. They can also reach the parents of adolescents without a medical home.

Why prioritize HPV vaccination?

In addition to benefiting member care and well-being, health plans that focus on HPV vaccination can:



Decrease costs

In the coming decades, vaccinating adolescents now could save health plans billions of dollars associated with the following medical care:

- Cancer treatment
- Abnormal Pap tests
- Office visits
- Treatment of genital warts
- Procedures for cervical cancer prevention

Total economic burden for the most prominent HPV-related cancers in 2020: **\$2.9 billion**"

Total annual medical cost of cervical cancer care in 2020: **\$2.3 billion**"



Improve Healthcare Effectiveness Data and Information Set (HEDIS) Immunizations for Adolescents' (IMA) performance

- HPV vaccine series completion rates drive health plan HEDIS IMA performance. Improvements to HPV vaccine uptake may increase your health plan's performance when compared to peers.
- Depending on the state and product, health plans may be eligible for incentives that help them improve their HEDIS IMA measure.

If every health plan prioritizes HPV vaccination, every health plan will benefit.

"My member today might be your member tomorrow."
 – Health plan representative of the National HPV Learning Collaborative



ACS HPV Vaccination Impact Report 2023-2024



2023-2024 HPV Vaccination Impact Report



Mission
HPV Cancer Free
Released July 2024



2023-2024 Executive Summary

PARTNERSHIPS & PATIENT REACH

- **QUALITY IMPROVEMENT COHORT:** ACS engaged 32 health systems, including 158 clinics, in the 2023 national HPV quality improvement (QI) cohort. During the 12-month period, these systems reported a reach of over 70,000 children ages 9-13.
- **BEST PRACTICE EDUCATIONAL SERIES:** Over 300 organizations have joined our new [2024 best practices webinar series to date](#), reporting a reach of over 700,000 patients ages 9-13.
- **HEALTH CARE PROFESSIONALS:** Through special projects in [Texas](#) and the [Mountain West](#) region and national programming, ACS has educated >4,500 health care professionals.
- **PAYERS:** 2023 was the second year of the national HPV health plan learning collaborative, engaging 14 partners with 19 service/product lines in 11 states. Plans reported a reach of 127,554 13-year-olds.
- **RURAL HEALTH SYSTEMS:** ACS launched a new [rural HPV learning collaborative](#) in March 2024 for rural health organizations, focused on quality improvement. To date, over 200 organizations in 42 states have joined the series, reporting a reach of >180,000 active 9- to 13-year-old patients.



HPV VACCINATION IMPACT

- ACS is driving progress to advance HPV vaccination guideline implementation, leading to more on-time vaccinations among 9- to 12-year-olds.
Health systems in the national QI cohort achieved a 5.8% increase in age 9 initiation, and a 4.9% increase in completion by age 13.
Health plans in the learning collaborative achieved a 3% increase in completion by age 13 and a 3% increase in the IMA measure.
- In 2023, ACS HPV vaccination work was presented at the International Papillomavirus Conference, MetaECHO's global conference, and the American Public Health Association annual meeting.



ADVANCING CERVICAL CANCER ELIMINATION

- 90% of cervical cancer deaths are in low- and middle-income countries. Many countries are rolling out new HPV vaccination programs for girls ages 9-14 per World Health Organization goals. ACS partners on global efforts with [Cervical Cancer Action for Elimination \(CCAIE\)](#) and in-country efforts in Colombia, India and Kenya. Read more in the [2023 annual report](#).
- ACS launched 25 resources and the dynamic digital platform, [PreventGlobalHPVCancers.org](#), to connect leaders in ministries of health, medical societies, and civil society organizations with evidence-based tools and resources developed in low- and middle-income countries.



Upcoming Opportunities



2024 Public National Meeting
October 7th - 11th, 2024 | 12:00pm - 1:30pm ET

Join the ACS HPVRT as we host our 2024 National Meeting virtually from Monday, October 7th to Friday, October 11th. We will meet daily 12:00pm ET – 1:30pm ET. Throughout the week we will be celebrating the accomplishments of the ACS HPVRT over the last 10 years. We are excited to Celebrate 10 years of the ACS HPVRT & Innovate for a strong future in cancer prevention! All are welcome to join.

Register Today

Rural HPV Vaccination Learning Community

Next Session: September 18th
2PM ET



Learning Session Details

Date	Topic	Recording	Slide Deck
March 20, 2024	Setting the Stage: Networking & Orientation	Recording	Slides
April 10, 2024	A Deep Dive into HPV Vaccination Data	Recording	Slides
May 22, 2024	HPV Vaccination Starting at Age 9	Recording	Slides
June 12, 2024	ABC's of QI: AIM Statement & Building a Team	Recording	Slides
July 17, 2024	ABC's of QI: Process Mapping & Gap Analysis	Recording	Slides
August 14, 2024	Finding the Best Fit: Evidence Based Interventions & HPV Vaccinations	Recording	Slides
September 18, 2024	ABC's of QI: PDSA Cycles	Recording	Slides
October 16, 2024	Highlighting Best Practices: Reducing Structural Barriers	Recording	Slides
November 13, 2024	Highlighting HPV Vaccination Best Practices	Recording	Slides
December 4, 2024	Celebrating & Sustaining Success	Recording	Slides

**Partner with us in 2024
to Address HPV Vaccination
Geographic Disparities**

Protecting our children today for a healthier tomorrow

The American Cancer Society (ACS) and The National HPV Vaccination Roundtable (HPVRT) are seeking rural healthcare partners to join a learning community focused on improving HPV vaccination among 9–12-year-olds.

Through a series of virtual sessions and peer-based learning, the rural disparities HPV vaccination learning community will use quality improvement (QI) and evidence-based interventions to increase vaccine rates. This no-cost, practical how-to learning community will serve as a forum for health partners to gain knowledge, exchange promising practices, and talk through challenges to increasing HPV vaccinations in rural settings.

Why Prioritize HPV?



Most patients will be exposed to HPV:
HPV is extremely common. The HPV vaccine provides protection from these infections and six types of cancer.



Pandemic impact:
Nationally 8.4 million doses have been missed, leaving many children unprotected from future cancers. The impact on publicly insured children has been significant.



Population health management:
Rural communities lag 10% behind the national average for HPV vaccination. HPV underperforms compared to other ACIP recommended vaccines, including Tdap and MenACWY.



Improve HEDIS IMA/CHIP metrics:
Payors may tie incentives to performance improvements on adolescent immunization measures.

HPV Vaccination Best Practice Sessions



The American Cancer Society in partnership with the National HPV Vaccination Roundtable and the Indiana Immunization Coalition are launching a 2024 quarterly program for health systems.



Each session will delve into key interventions, best practices, highlight health systems and provide strategies to increase HPV vaccination.

*CME, CNE and Pharmacy continuing education will be offered for each webinar.

[Register Now!](#)



2024 Series Dates

Session 1

MAR 7

2PM EST

The Announcement Approach Training

The updated Announcement Approach training teaches health care professionals how to make and support strong HPV vaccine recommendations and address parent hesitancy.

Session 3

AUG 28

2PM EST

Provider Interventions

Session 3 will focus on interventions targeted for providers & their care team.

Session 2

MAY 8

2PM EST

Patient & Parent Interventions

Session 2 will focus on interventions targeted for patients, and parents. An emphasis on back-to-school initiatives, resources and tools for increasing HPV vaccination.

Session 4

NOV 20

2PM EST

System & Policy Interventions

Session 4 will focus on system level and policy changes health systems can implement.

This program is supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government.



NATIONAL HPV Conference

April 15 -17, 2025

Hyatt Regency | Indianapolis, Indiana

Call for abstracts will open June 15, 2024 and must be submitted by September 15, 2024 at 8 PM Eastern. Posters and Oral Presentations will be accepted.



There are
20 million
10–14-year-olds in
the United States.



What Can Health Systems Do?

Communicate Proactively to Families

- Age 9 birthday patient reminders
- Patient portal messaging/reminders
- Social media/web page banners
- Send letters/emails inviting patients in for annual well-child visits and immunizations
- Call patients to schedule well-child and immunization visits
- Hang adolescent immunization posters in patient rooms

Activate Reminder/Recall Efforts

- Review current adolescent rates by site and provider for ages 9-12
- Pull overdue and newly due patient lists
- Set up age 9 CDS alerts
- Work with IT to structure reports by age 9, 10, 11, 12
- Automate/facilitate second dose scheduling

Miss No Opportunity to Vaccinate

- Educate ALL care team members on the need for catch up
- Use standing orders to increase immunization capacity
- Recommend all ACIP-recommended vaccines at every visit



Call to Action

- **HPV vaccinations have not recovered**
- **Clarify guidelines for providers**
- **Evaluate and enhance your current interventions**



We value your feedback!!!

- **Takes 1 minute**
- **Scan the QR Code *or***
- **Click on the link in the chat**

2024 HPV Vaccination Best
Practice Program



Next Steps

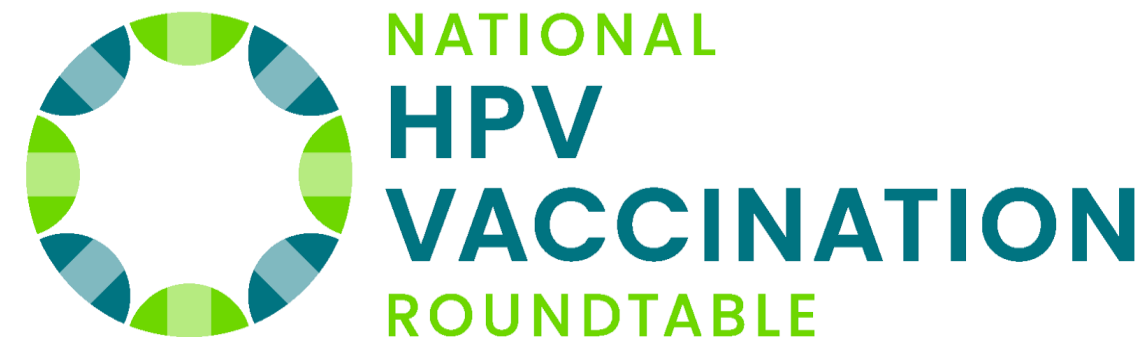
- Please complete evaluation survey in the chat or in the follow-up email
- Post webinar: You will receive an email communication with recording and resources

For claiming continuing education:

- **CME,CNE & Pharmacy credits:** Text "**94553**" to **317-671-8998**. You have 60 minutes prior, during, and 120 minutes after the end of the activity to text in your attendance.



Partner Acknowledgement



Funder Acknowledgement

HPV programming is supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$890,000 with 100% funded by CDC/HHS. The contents of this presentation are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government.

In addition, the American Cancer Society provides in-kind support and has been awarded additional support from Merck Sharp & Dohme Corp. and Lyda Hill Philanthropies.



Thank You



Vision: End cancer as we know it, for everyone.

Mission: Improve the lives of people with cancer and their families through advocacy, research, and patient support, to ensure everyone has an opportunity to prevent, detect, treat, and survive cancer.

HPV Vaccine Best Practices: Provider Interventions

August 28, 2024

CME Learner Information

Accreditation Statement



In support of improving patient care, this activity has been planned and implemented by Indiana University School of Medicine and Indiana Immunization Coalition. Indiana University School of Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

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Indiana University School of Medicine designates this activity for a maximum of 1.0 *ANCC contact hours*. Nurses should claim only the credit commensurate with the extent of their participation in the activity.

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EVALUATION

We value your feedback.

Please complete the evaluation:

https://iu.co1.qualtrics.com/jfe/form/SV_d0jfzZIMnQimaiO



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