









HPV Vaccination Best Practices: System and Policy Interventions

2024 Quarterly Best Practices Series

November 20, 2024



Welcome

Jennifer Nkonga
Implementation Science
Cancer Prevention & Survivorship
American Cancer Society

Agenda

- Welcome & Agenda Review
 Jennifer Nkonga, MS
- 2 SYSTEM-LEVEL INTERVENTIONS: Texas Children's Hospital Dr. Stanley Spinner, Rachel Cunningham, MPH, Dr. Julie Boom
- POLICY INTERVENTIONS: Indiana Immunization Coalition Lisa Robertson, MPH
- POLICY INTERVENTIONS: Washington HPV Free Task Force
 - Char Raunio, ACS
- 5 Rapid Fire Q&A
 Panelists
- **Takeaways**



HPV Vaccine Best Practices: System and Policy Interventions November 20, 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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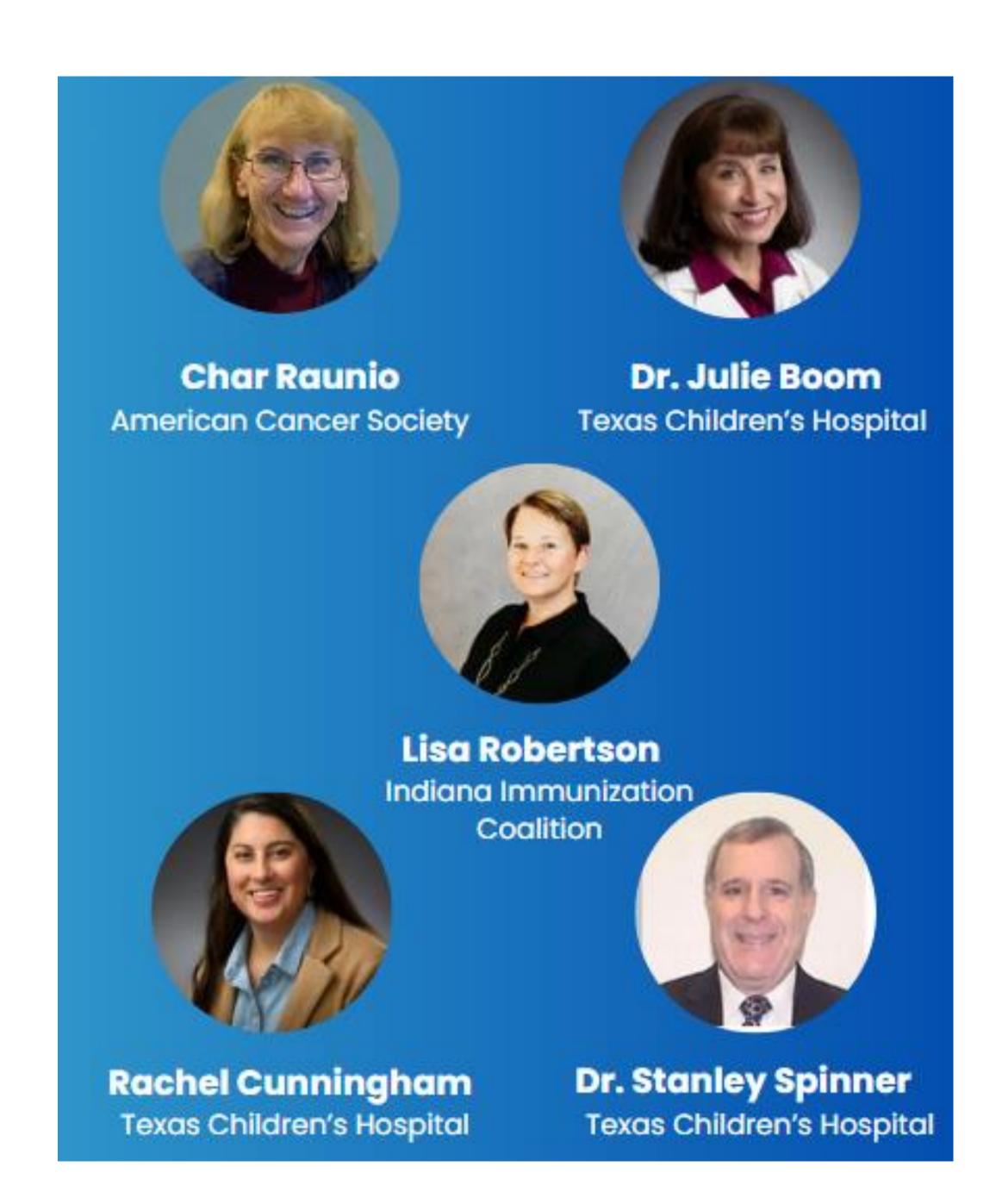
Today's Speakers













DEPARTMENT OF PEDIATRICS





Texas Children's Hospital: Designing a Targeted HPV Vaccine Improvement Plan

Stanley W. Spinner, MD

Julie A. Boom, MD

Rachel M. Cunningham, MPH

November 2024





Disclosures



The presenters have no financial relationships to disclose or Conflicts of Interest (COIs) to resolve.





Objectives



- Describe Texas Children's Pediatrics and prior efforts to improve HPV vaccine uptake
- Discuss Texas Children's Pediatrics HPV vaccination rates and 2021 provider assessment
- Explain and assess the impact of HPV educational videos delivered via text message on HPV vaccine initiation among adolescents.

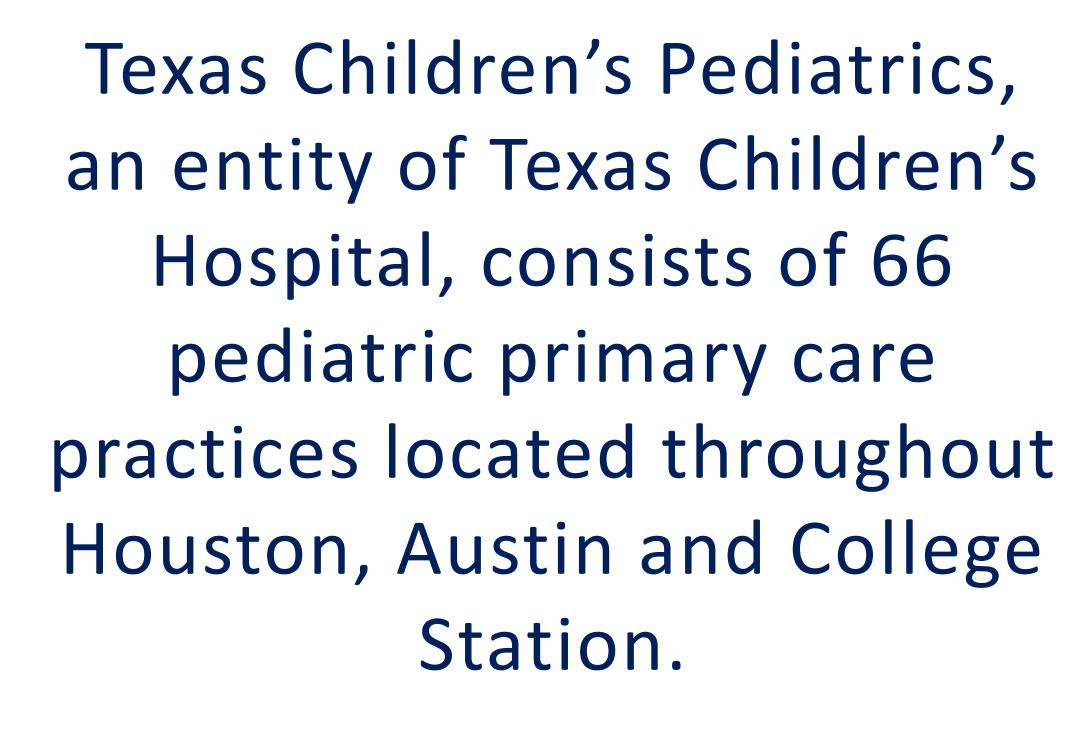




Texas Children's Pediatrics (TCP)





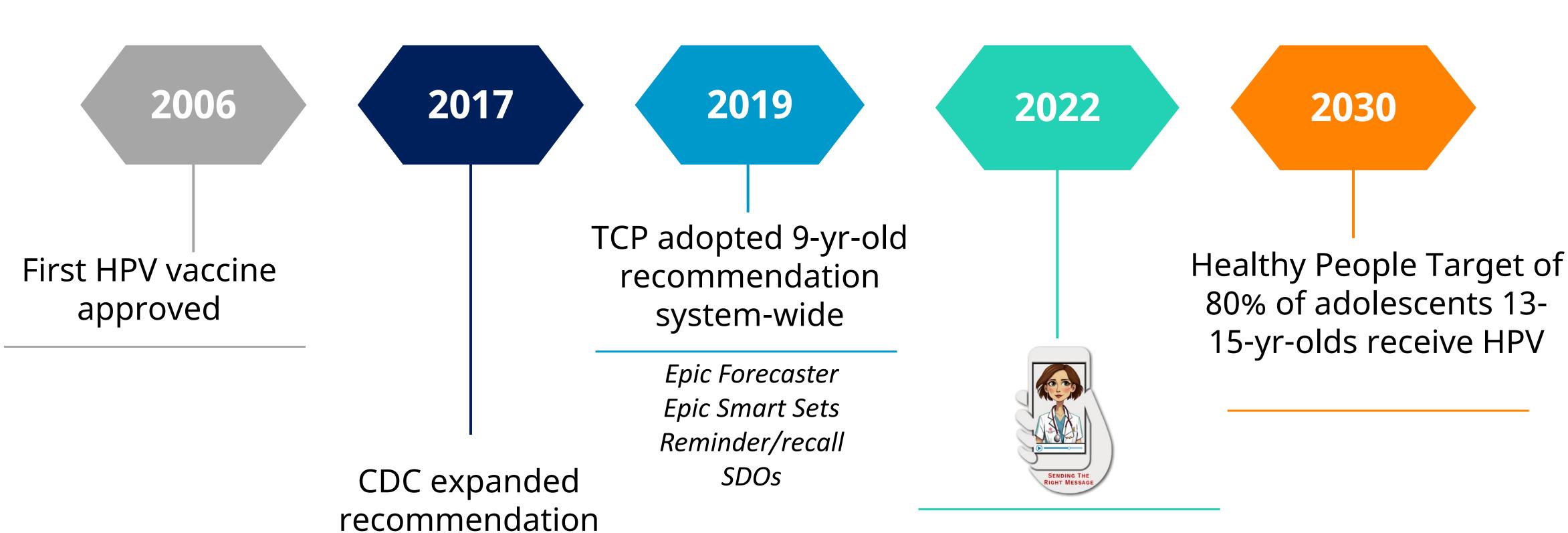






HPV Vaccine Timeline









to 9 yrs

2021 TCP Provider Assessment



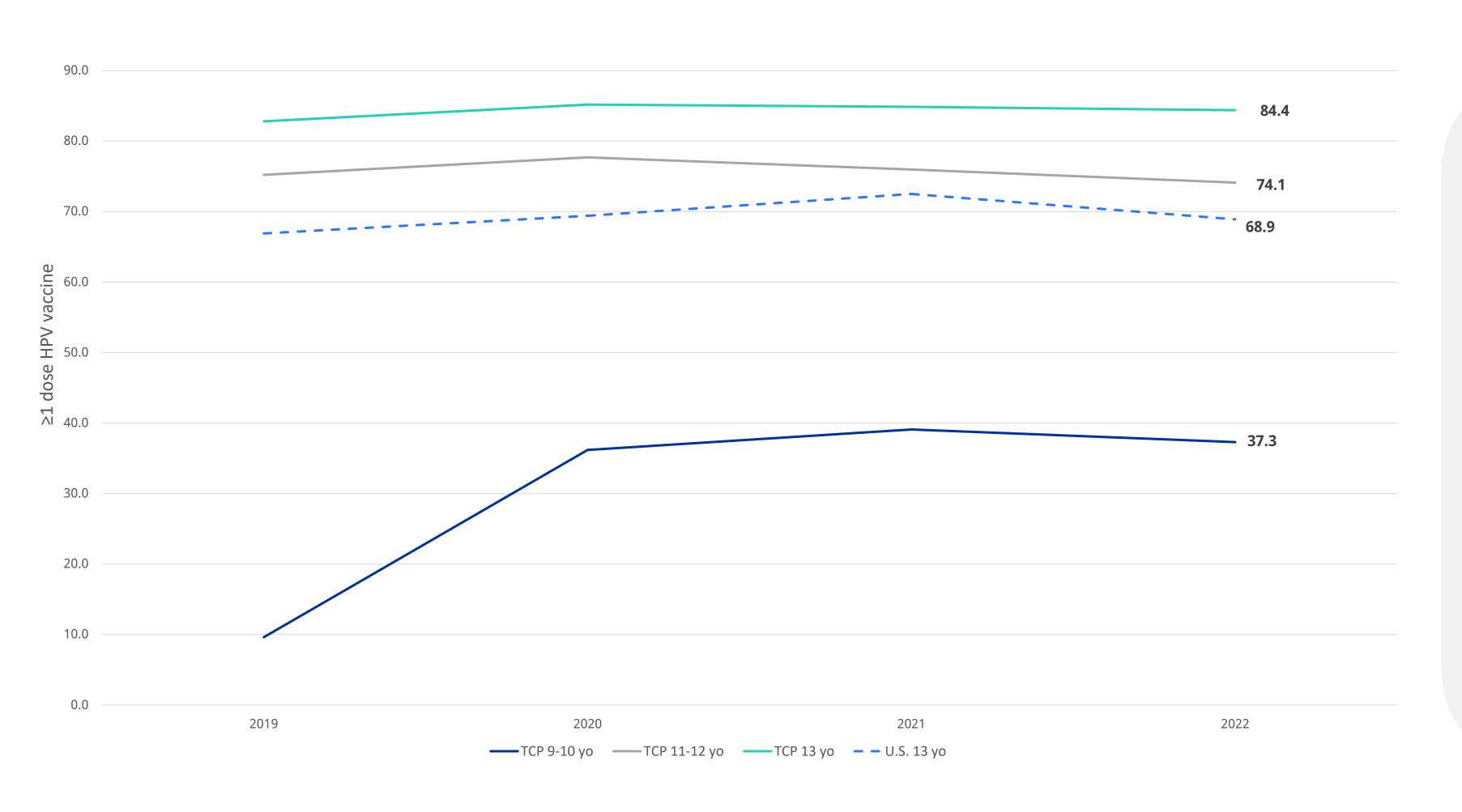
Survey responses	N (Total N=41)
Parent declination	23
Parents believes child is 9 is too young for HPV vaccine	20
Need better educational materials	15
Failure to return for well child visits especially during COVID	10
Failure to return for 2 nd dose	7
Parents aren't expecting vaccines until age 11	6
Parental beliefs regarding abstinence/religion; association between sex and HPV	9
Provider doesn't believe HPV vaccine is needed at age 9	1
Parental desire to let their child choose at age 18	1

"Please recognize that a lot of this is outside of the physician's control...I have many parents who are otherwise pro-vaccine but completely shut down any discussion about HPV."



HPV Vaccine ≥1 Dose Uptake





Initiation rates range from

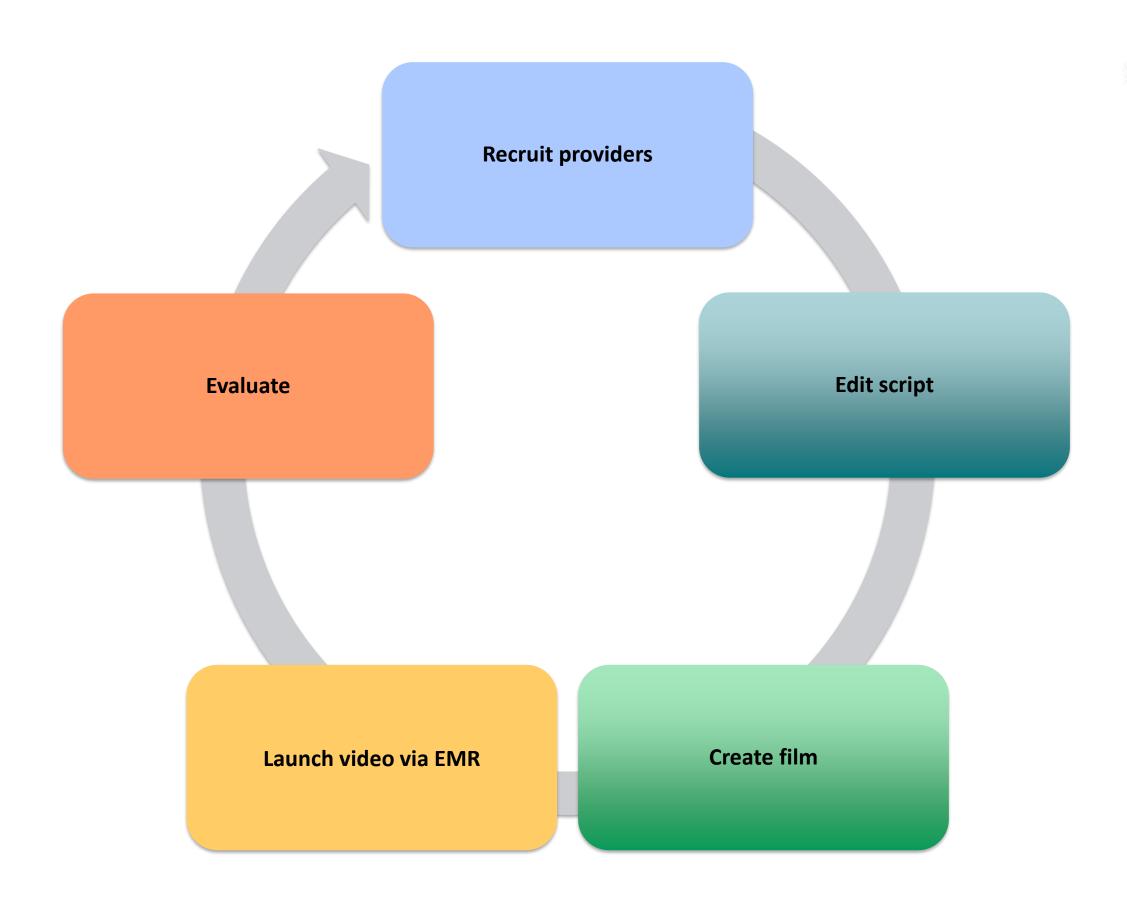
20 to 90% across 387 providers

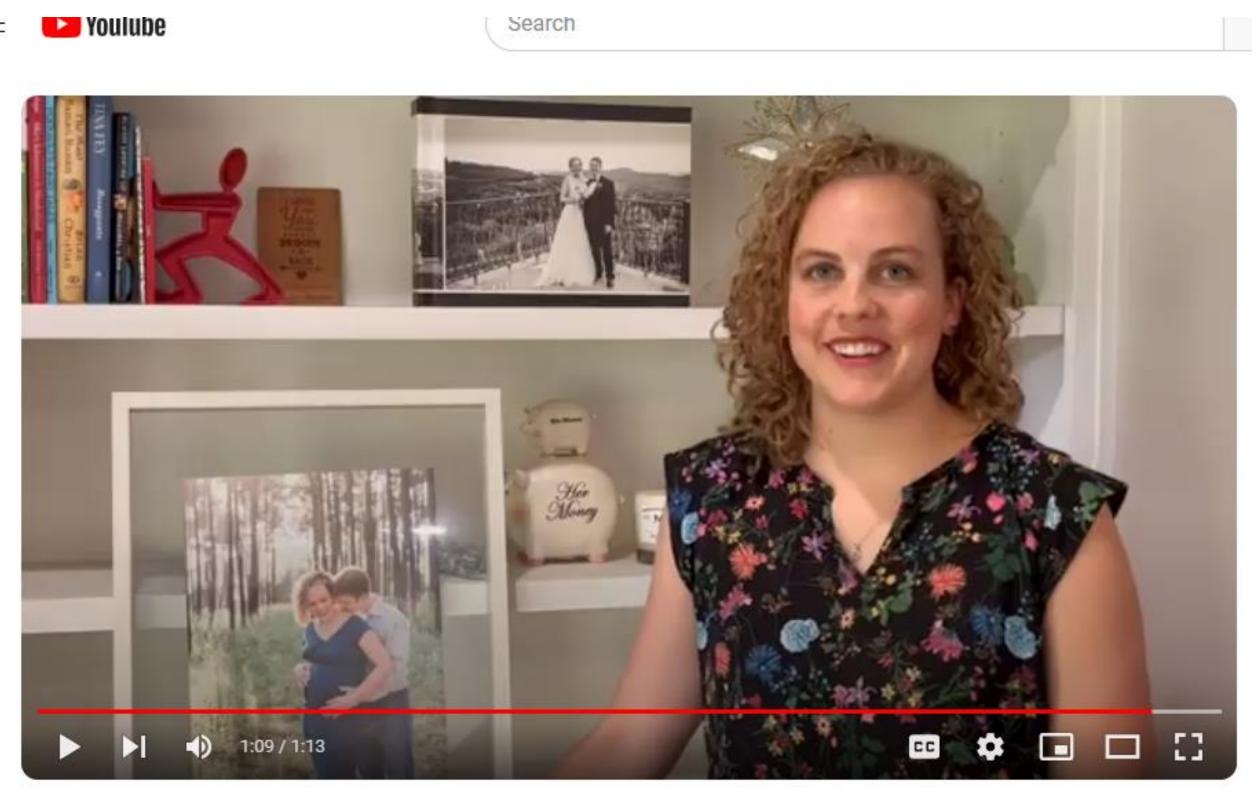




Methods



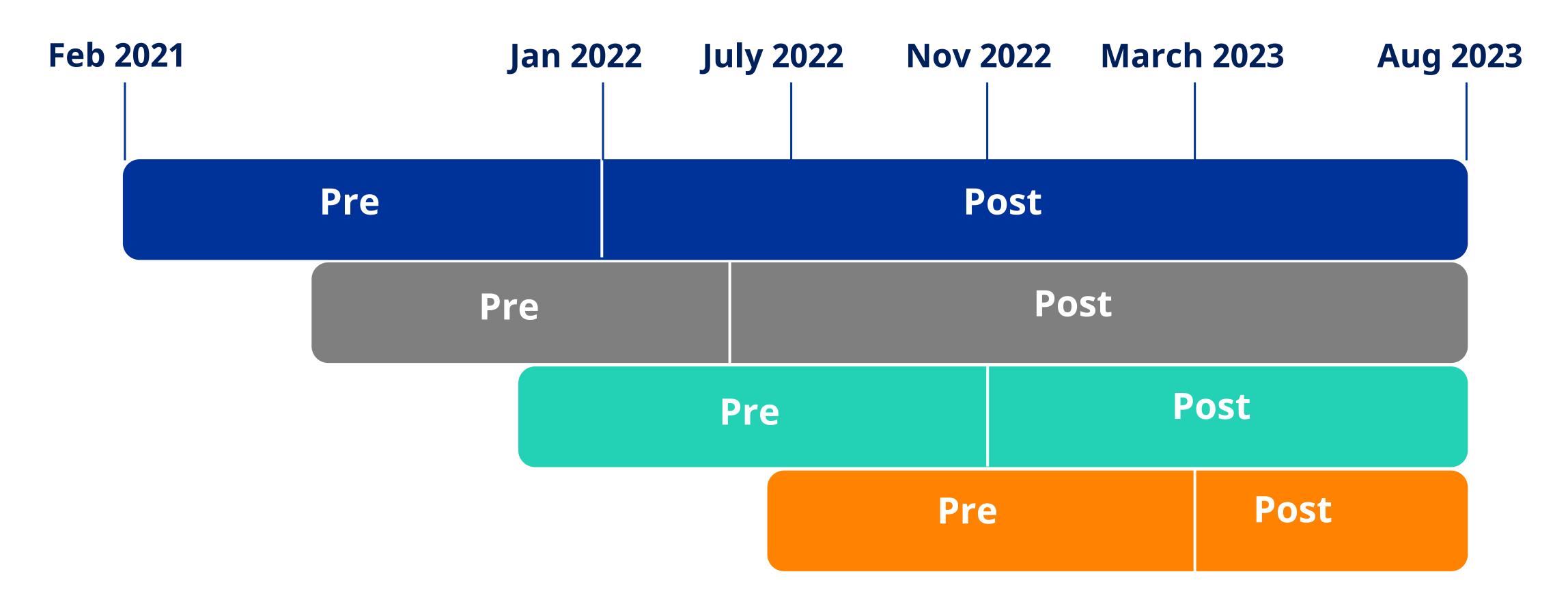








Study Timeline



1 provider
13 providers
5 providers
9 providers



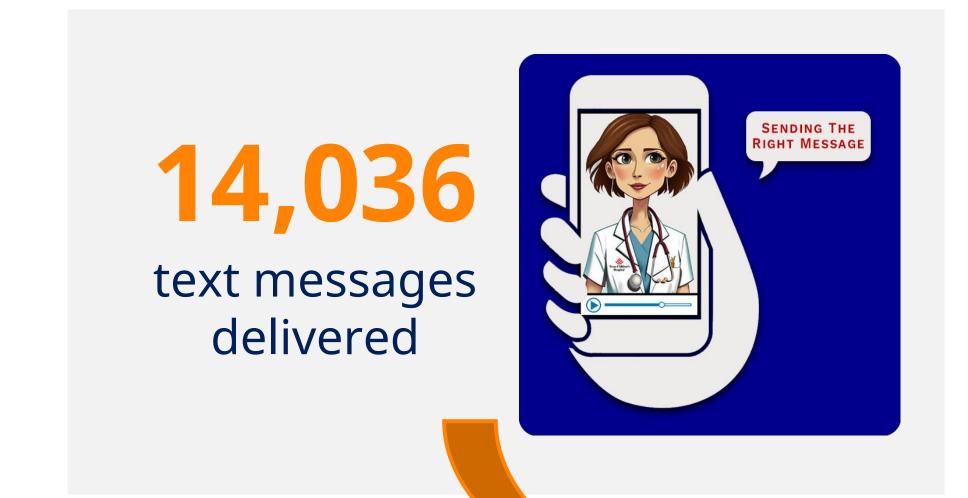


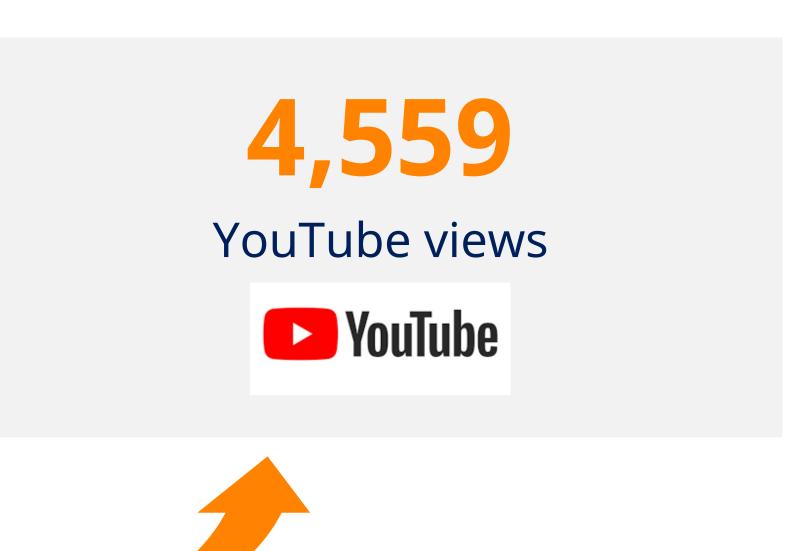


Results as of May 2024









A message from your child's pediatrician, Dr. Caitlin Carroll.

HPV Vaccine Initiation Rates by Age among All Participating Providers, Pre and Post Intervention (Adjusted)

	HPV Initiation Rate (pre- intervention)	HPV Initiation Rate (post- intervention)	OR (95% CI)
All Ages	46.06 (40.26, 51.85)	47.93 (42.03, 53.82)	1.12 (0.99-1.28)
9-year-olds	36.71 (29.23, 44.19)	41.61 (33.74, 49.49)	1.37 (1.08-1.73)
10-year-olds	43.33 (35.49, 51.18)	46.22 (38.03, 54.41)	1.20 (0.92-1.55)
11-year-olds	62.44 (54.81, 70.08)	61.54 (53.62, 69.46)	0.94 (0.74-1.21)
12-year-olds	47.47 (38.96, 55.58)	49.94 (41.13, 58.75)	1.18 (0.85-1.64)
13-year-olds	42.62 (33.75, 51.49)	36.50 (27.20, 45.80)	0.68 (0.42-1.10)



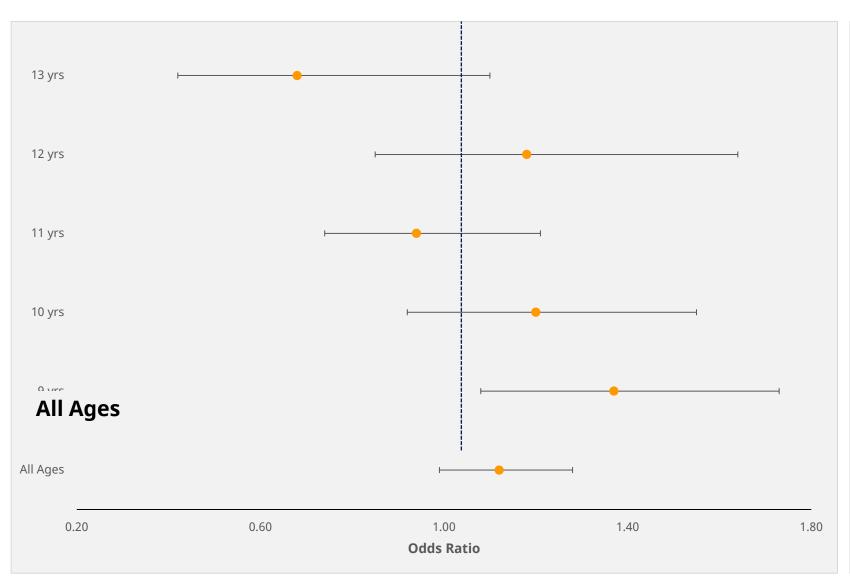


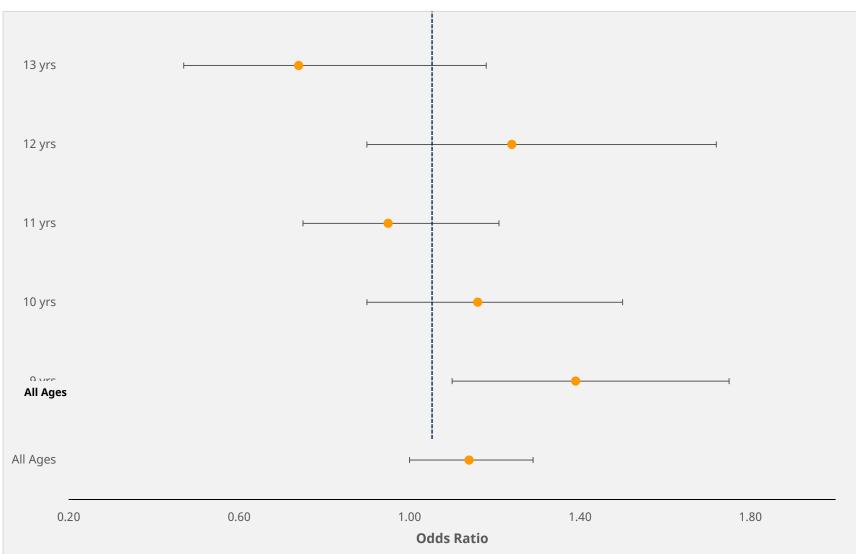
HPV Vaccine Initiation Rates by Age among Participating Providers, Pre and Post Intervention (Adjusted)

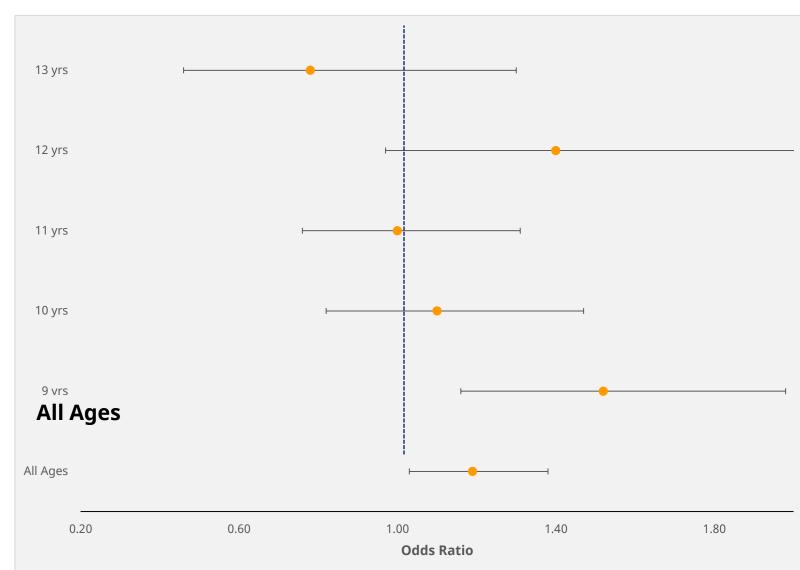
All Participating Providers (20-84% HPV Initiation Rate Range)

Excludes Participating Providers >80%* **HPV Initiation**









*Healthy People 2030 Target

+2022 CDC NIS ≥1 dose for 13-yr-olds





HPV Vaccine Initiation Rates among Non-Participating Providers vs. Participating Providers (Adjusted)

	Non-Participating Providers %	Participating Providers %	OR (95% CI)
All Ages	44.2 (42.58, 45.84)	47.8 (42.44, 53.35)	1.19 (0.90-1.57)
9-year-olds	37.5 (35.35, 39.73)	41.7 (34.14, 49.30)	1.23 (0.84-1.80)
10-year-olds	41.8 (39.53, 44.12)	46.1 (38.10, 54.05)	1.22 (0.83-1.81)
11-year-olds	58.0 (55.68, 60.34)	61.6 (53.87, 69.32)	1.19 (0.80-1.77)
12-year-olds	47.3 (44.76, 49.77)	51.2 (42.39, 59.99)	1.20 (0.78-1.85)
13-year-olds	35.0 (32.42, 37.63)	36.6 (27.25, 45.99)	1.08 (0.66-1.77)



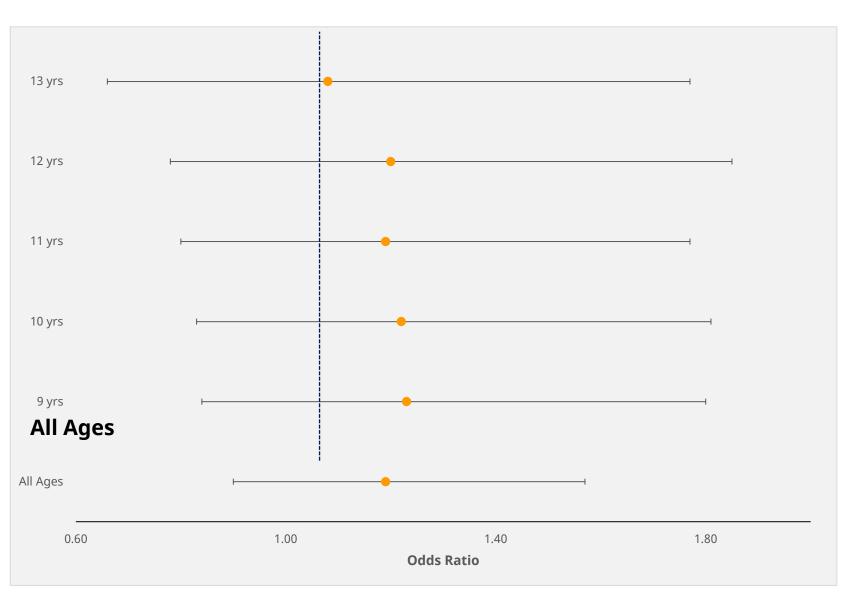


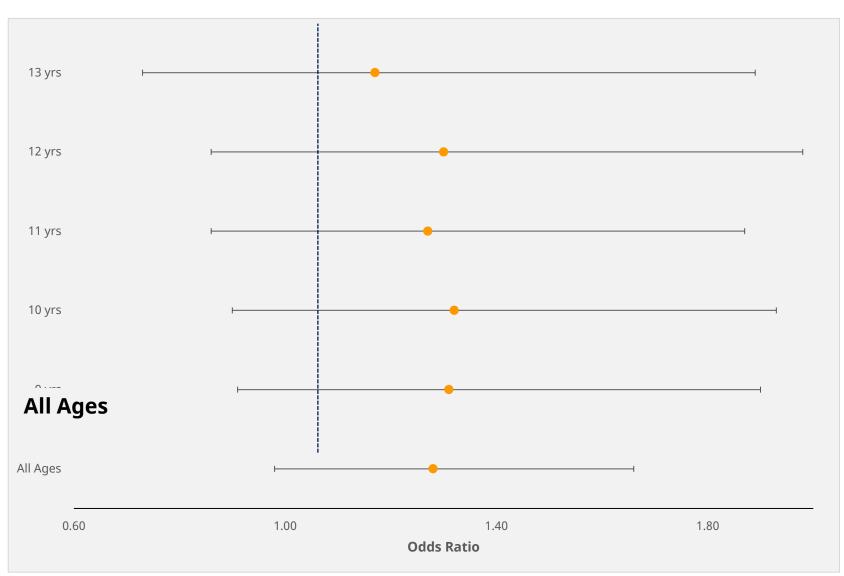
HPV Vaccine Initiation Rates by Age among Non-Participating Providers vs. Participating Providers (Adjusted)

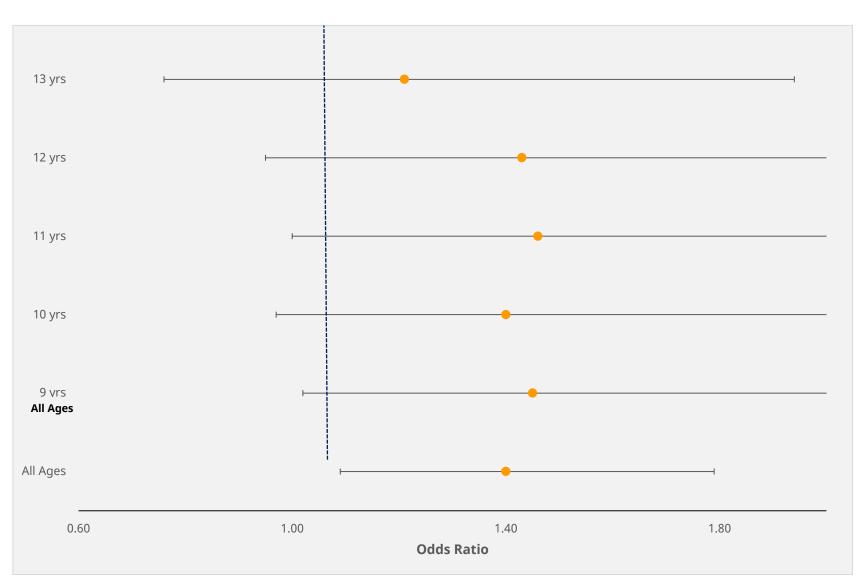
All Providers
(20-90% HPV Initiation Rate Range)

Excludes Providers
>80%* HPV Initiation

Excludes Providers
>69% + HPV Initiation







*Healthy People 2030 Target

+2022 CDC NIS ≥1 dose for 13-yr-olds

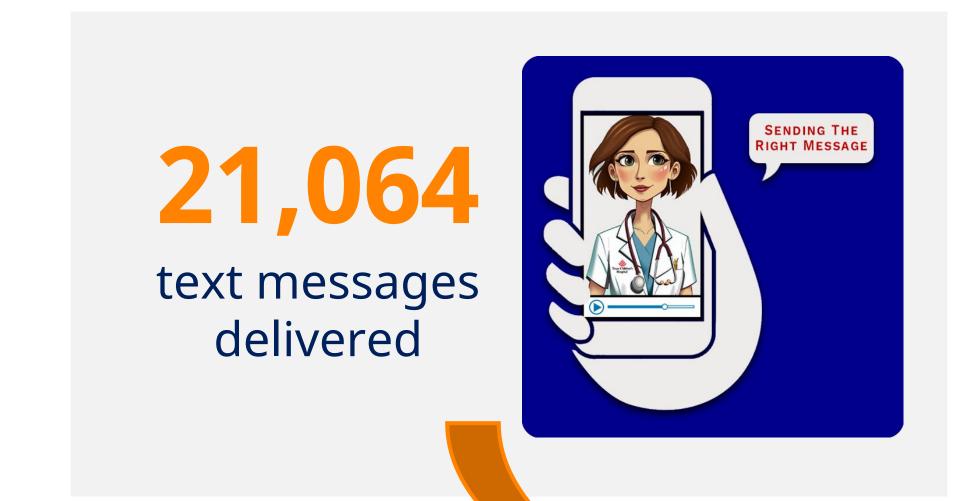


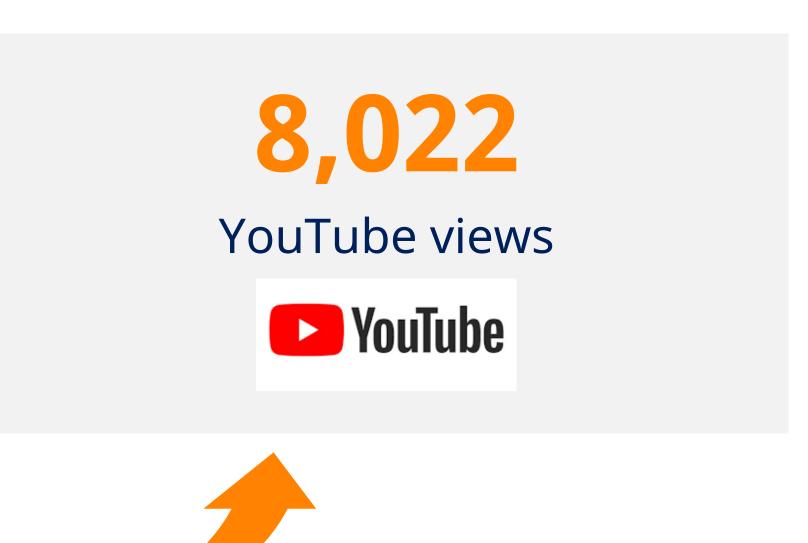


Results as of November 2024









Conclusions



Small but statistically significant impact on 9-year-olds and all ages.



May most benefit providers with lower HPV vaccine initiation rates.



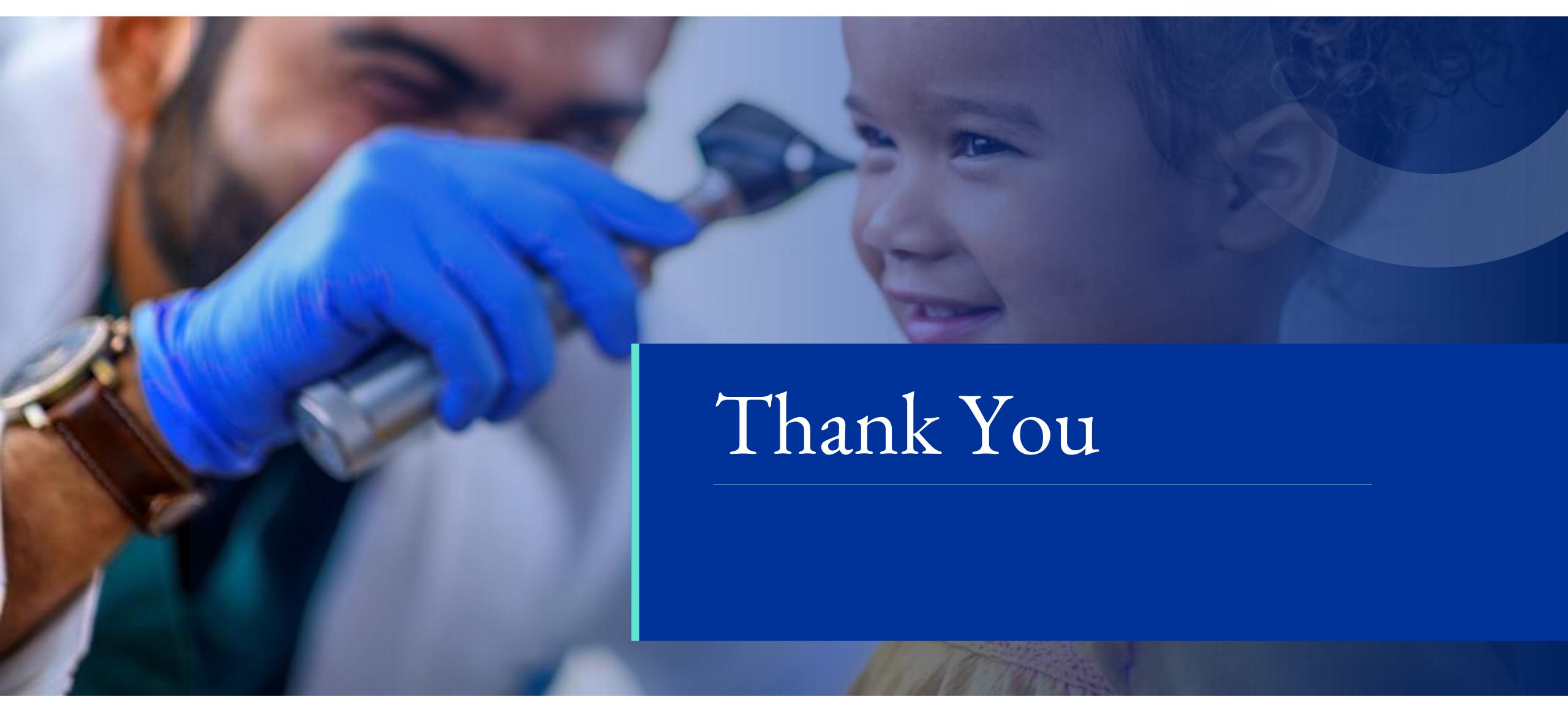
Improving HPV vaccine rates is hard so any and all interventions that moves the needle may be meaningful.



Feedback from participating providers

"The HPV videos increased my efficiency during 9—
12-year-old well visits. I no longer feel like I need to convince them to consent to the HPV vaccine. I often hear 'we already told the nurse, we've decided to start the HPV vaccine today.' It is so helpful they already know my thoughts regarding the HPV vaccine...patients have told me they appreciate the information and it's helped them to be more comfortable with their decision to vaccinate."

"This process has very positively impacted my HPV vaccine rates. It is anticipatory guidance for the visit itself and makes the visit flow easier. Sometimes, parents come in with better questions because they have had a chance to 'digest the information prior to the visit."







Indiana

Lisa K. Robertson Executive Director



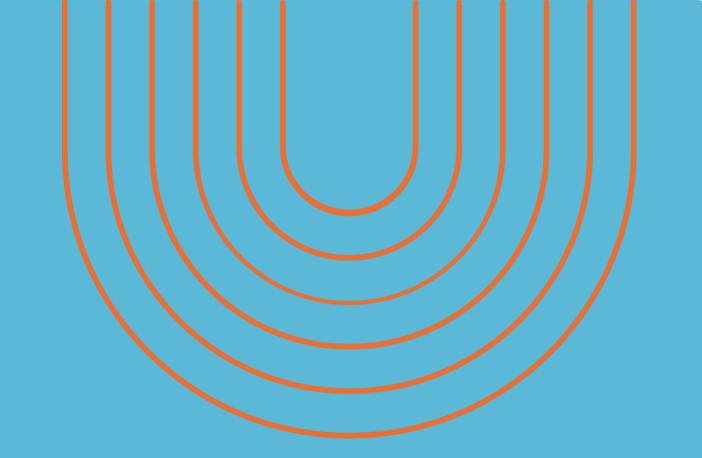
Our Mission

The Indiana Immunization Coalition exists to reduce the spread of vaccine-preventable diseases through immunization, education, advocacy, promotion, and collaborative partnerships.

#VaccinateIndiana







HPV Summits

A partnership with ACS and IDOH





Objectives

After attending an HPV Summit, learners will be able to:

- Explain what cancers are linked to HPV infection.
- Identify the burden of disease associated with HPV cancers.
- Model effective HPV vaccine recommendations and answers for commonly asked questions.

Focus is on health systems engagement in promoting to their providers.

Local providers requested to speak.

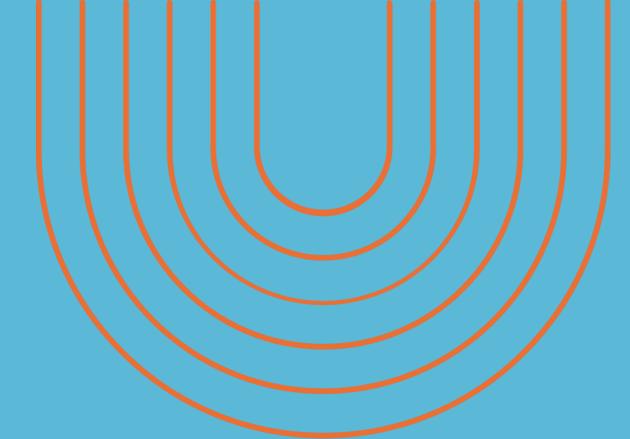
This Summit is 4-5 hours long.

All continuing education is provided by IIC.



9.00	W7-1
8:00	Welcome and Introductions
	Dr. Barai, Methodist Hospital
	Participants will understand the purpose of the day and meet fellow participants
8:15	HPV: The Facts and National Roundtable Update
	Katie Crawford, American Cancer Society
8:30	HPV and Gynecological Cancer
	Dr. Valentin Drezaliu, Methodist Hospitals
9:00	HPV and Oropharyngeal Cancers
	Aidnag Diaz, MD Radiation Oncologist, Rush University
9:30	Survivor's Story
	Erica Frazier Stum, Cervivor
	Participants will feel connected with the mission and inspired to commit to action.
9:45	Facilities Break
10:00	What parents should know – safety and effectiveness of the HPV vaccine
	Lisa Robertson, Indiana Immunization Coalition
10:30	Intervention to Impact Parental Decisions
	Tawa Bimbola Ibikunie-Salami, DNP, MSN, FNP-BC, APRN Clinical Assistant Professor, Director,
	Campus Health and Wellness Center, Indiana University Northwest
11:00	Overcoming Barriers and Addressing Objections
	Dr. Sarah Bosslet, President, Indiana Chapter of the American Academy of Pediatrics; Witham Pediatrics
11:30	Lunch
12:15	Expert Panel Discussion
	Participants will increase their understanding of people and organizations that can serve as
	resources in efforts to boost HPV immunization in Indiana.
1:00	Closing Remarks and Call to Action





Dr. Weaver Indiana State Health Commissioner

Letter to CMOs







Eric J. Holcomb Governor Lindsay M. Weaver, MD, FACEP

State Health Commissioner

August 21, 2024

Dear Chief Medical Officer:

Protecting the health of Hoosiers is my top priority as state health commissioner. The Indiana Department of Health cannot address this need alone and recognizes that public-private partnerships are critical. I am grateful for your collaboration and coordination and invite you to join us in a call to action to prevent cancer.

Human papillomavirus vaccine is safe and effective and prevents six types of cancer. Direct healthcare costs of cervical cancer alone in Indiana total \$50 million annually, and Indiana has the seventh lowest HPV vaccination rate in the United States.¹

In partnership with the American Cancer Society, Indiana Chapter of American Academy of Pediatrics, Indiana Chapter of American Family Physicians, and the Indiana Immunization Coalition, the Indiana Department of Health has implemented a series of evidence-based interventions to ensure Hoosiers are protected from human papillomavirus.

The Indiana Department of Health:

- Has a quality measure for all VFC providers evaluated through an Immunization Quality Improvement Plan
- Tracks and publishes HPV vaccination rates²
- Forecasts HPV vaccination through CHIRP on a child's 9th birthday to ensure timely vaccination series completion. This protocol is endorsed and supported by American Cancer Society, the National American Academy of Pediatrics, and the National HPV Roundtable.
- Supports reminder recalls to parents/guardians regarding missed vaccinations.
- Develops a comprehensive Indiana human papillomavirus cancer burden report in partnership with the Indiana Immunization Coalition

To promote, protect, and improve the health and safety of all Hoosiers.

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The Indiana Department of Health is accredited by the Public Health Accreditation Board.



HPV Call to Action • August 21, 2024 Page 2

Here are recommended actions to implement in your health system that will have a direct impact on Hoosier health outcomes:

- Ensure EMR is forecasting HPV on a child's 9th birthday, mirroring CHIRP;
- Establish quality measures to ensure providers are working towards a shared goal;
- Support reminder recalls;
- Host an HPV Summit organized by the Indiana Immunization Coalition;
- Enroll providers in an HPV Maintenance of Certification project: https://indianahpvmoc.vaccinateindiana.org/login

Thank you for considering these evidence-based interventions. The Indiana Department of Health is ready to support your efforts, and together we will lower the cancer burden in Indiana.

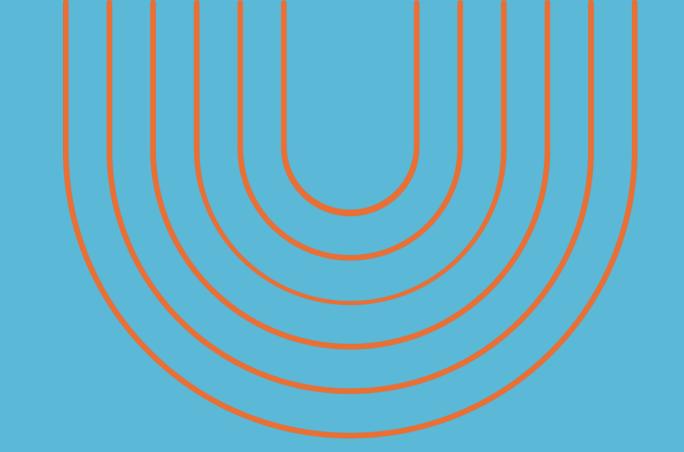
Sincerely,

Lindsay Weaver, MD, FACEP

State Health Commissioner

References:

- ¹2018-indiana-cervical-cancer-strategic-plan-isdh-2019-2028.pdf (indianacancer.org)
- Health: Immunization: HPV Data (in.gov)



Maintenance of Certification

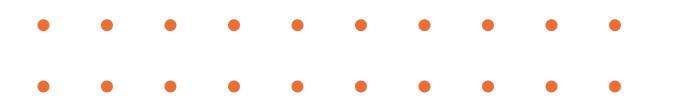
IDOH partnership



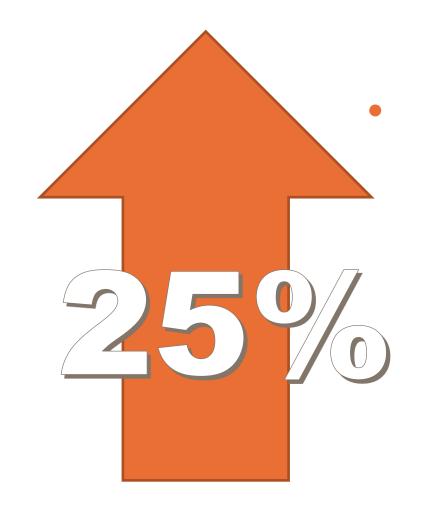
What is an MOC?

- MOC = Maintenance of Certification
- Designed by the American Board of Medical Specialties
- A way to ensure a continuous cycle of lifelong learning for a physician's professional development
- This MOC is a Part IV, Performance in Practice Project, approved for physicians by:
 - American Board of Pediatrics
 - American Board of Family Medicine





Details of the MOC



Program provides HPV education and recommendations to increase HPV vaccination rates

Six month project

- Submit monthly numbers of patients who are <u>eligible</u> to receive the vaccine as well as numbers of patients who <u>actually receive</u> the vaccine
- Aim to increase 1st dose HPV vaccine rate (M/F ages 9-21) by 25% during this period
- The cost to participate in this MOC project is \$50, which includes educational materials; Indiana physicians are no cost

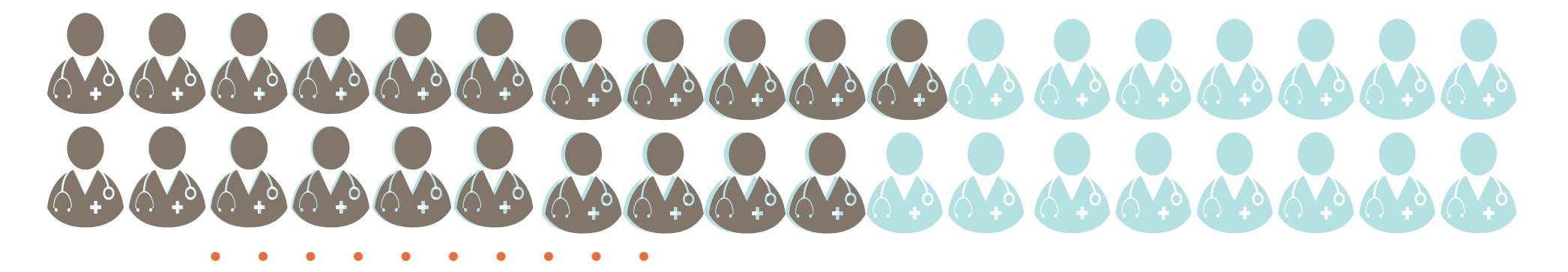


Outcomes

- Data summarized for first 36 pediatricians to complete MOC
- Providers represented 14 states

61% percent noted ANY increase of vaccine rates from first to sixth month of project

50% showed 25% or greater rate of improvement in vaccine rates over six-month period





MOC Partnerships

2018 Indiana Mandate

Indiana State Department of Health mandated the MOC project for VFC providers who had HPV vaccine rates below 25%

2019 HPV Education Requirement as one of their VFC re-enrollment requirements





MOC Mandate Results

- 553 Enrolled in the MOC (some of these are test names)
 - 217 have completed the program
 - 86 are still active
 - 250 withdrawn by request or by us for lack of participation
- 38 providers had a greater than 25% increase in rates over the 6 months
- 79 providers had <u>any</u> increase in the HPV vaccination rate
- In 2022, the original list went down from 288 to 143 providers and only 60 of these were repeats from the first list.

COALITI

#VACCINATEINDIANA

Other policy initiatives

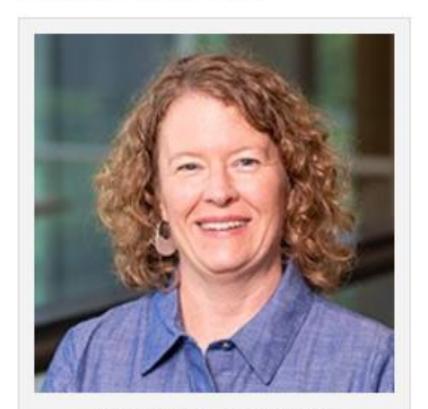
- Registry forecast at age 9. CHIRP 9-12 Years old is Due Now. 13 and older is Past Due.
- Does your school sports physical paperwork include vaccine information?
- Legislative breakfast
- MCE joint partner letter
- Project ECHO partnerships







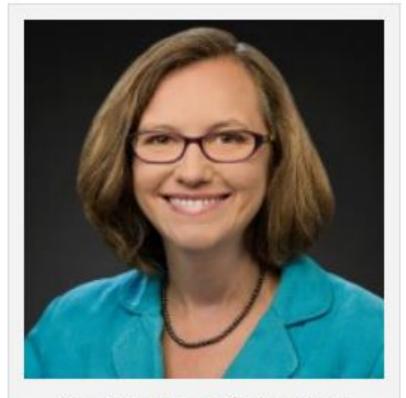
Keynote Speaker



Robin Vanderpool, DrPH

Robin C. Vanderpool, Dr.P.H., is chief of the Health Communication and Informatics Research Branch (HCIRB) in the Division of Cancer Control and Population Sciences at the National Cancer Institute (NCI). Dr. Vanderpool's scientific background includes both formative and interventional research on HPV vaccination, cancer screening, cancer survivorship, implementation science, and rural cancer control.

Keynote Speaker



Georgina Peacock, MD, MPH

Dr. Georgina Peacock is the Director of the Immunization Services Division (ISD) in the National Center for Immunization and Respiratory Diseases (NCIRD) at CDC. In this role, Dr. Peacock oversees support of immunization programs, provider and public education, and evaluation and research. During her 15 years with CDC, Dr. Peacock has been dedicated to developing and implementing public health programs that support children and adults in underserved populations to lead healthy lives.

HPV Survivor Panelist



Tamika Felder, Survivor

Diagnosed with cancer at 25 while working as an award-winning television producer in Washington, D.C., Tamika has spent the rest of her life proving that triumph over tragedy is entirely possible. A cancer survivor, award-winning women's health advocate, and Chief Visionary at Cervivor – a nonprofit dedicated to cervical cancer advocacy and support – Tamika also has a mission to eradicate cancer and shine a spotlight on the patient voice in healthcare.

Vaccination & Prevention

This track will focus on measures to prevent HPV infection, including education and awareness, advocacy, policy, vaccination, sexual health, health disparities, and more. Speakers will be encouraged to share programs, practices, and materials that have been successful in the realm of HPV prevention. Participants will leave with new ideas and actionable items.

Cancer Screening & Treatment

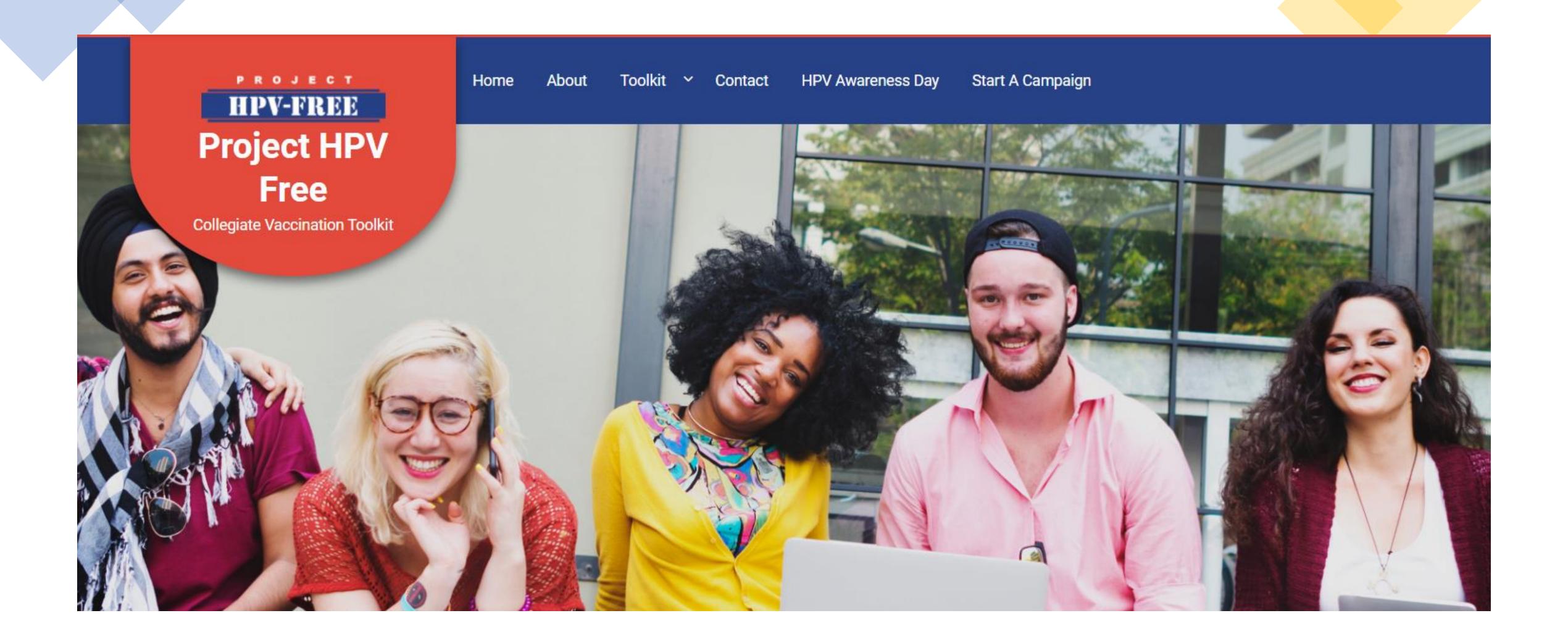
This track is focused on the screening and treatment of HPV-related cancers. Innovative and emerging methods, as well as those with high compliance and success, should be discussed. Topics might also include related policy and metrics. As with all tracks, presentations are aimed at those in public-facing environments to aid in understanding and communication.

Research & Best Practices

This track invites area experts and researchers to present findings directly related to public-facing HPV care and prevention. Presentations should not be overly technical, but should privilege projects that include evaluation data, consensus statements, or similar approaches to establishing best practices. Applicable topics might include health equity, best practices, health communication, dissemination, or implementation science.

Public Health & Collaboration

This track seeks to help organizations collaborate and engage to further public health initiatives around HPV. Applicable topics might include health disparities and equity, legislation, policies, examples of successful partnerships, and public health outreach programs.





Vaccination Education for Pharmacists and Dentists

Login Now

Pharmacist Registration

Dentist Registration

My Course



New Dental HPV information brochure

Postcard for parents of 8 year olds





Thank you!

director@vaccinateindiana.org

www.vaccinateindiana.org

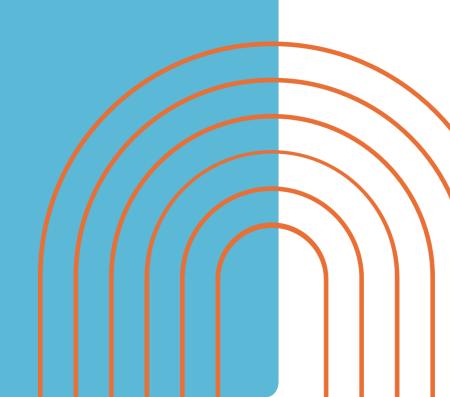








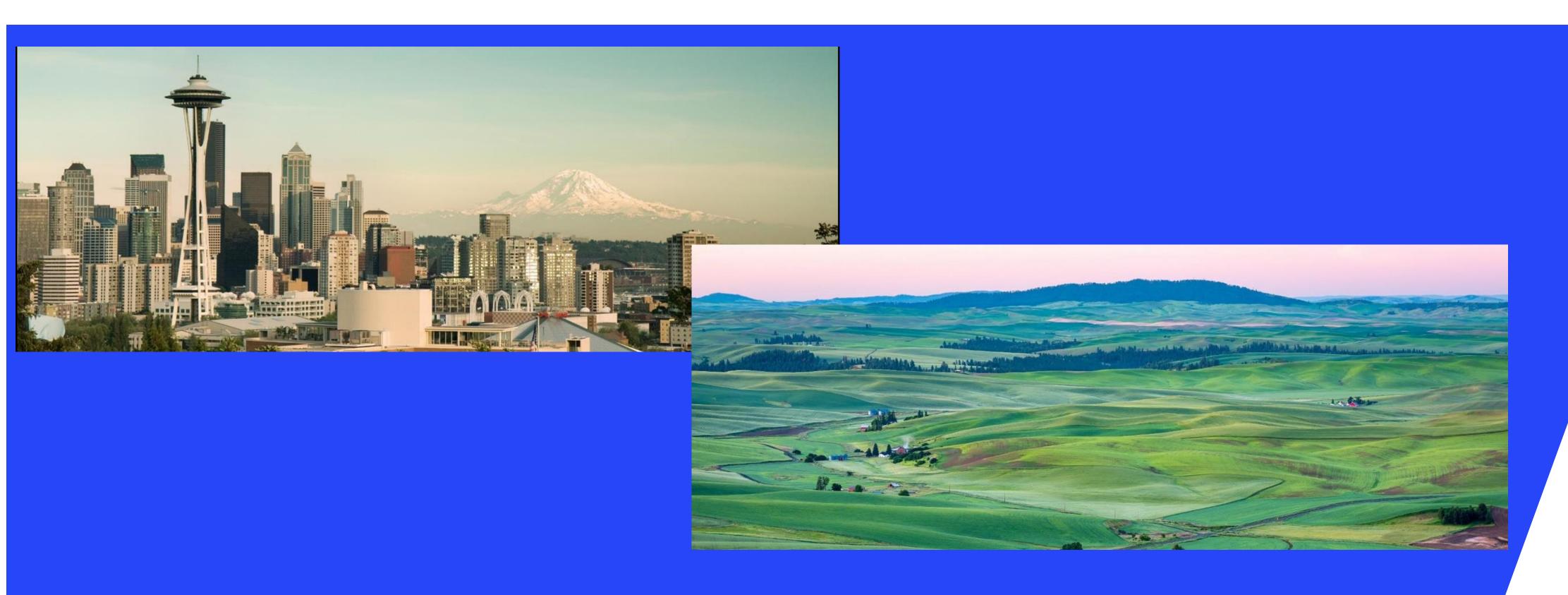






Char Raunio Associate Director, State Partnerships Washington & Oregon





HPV Free Washington

Washington HPV Free Task Force Leadership

- Strong, active WA HPV Free Task Force Leadership
- Reassembled and gained strength through the pandemic, meeting monthly
- Leadership Members:
 - DOH Comprehensive Cancer Program
 - DOH Immunization Health Education
 - Independent Pediatric Physician Champion
 - South Puget Intertribal Planning Agency
 - Hospital System's Pediatric Physician
 - Glaxco Smith Kline Public Health-Vaccines
 - Cervivor
 - American Cancer Society















2021 Pilot Project HPV Vaccination At Age 9

- Project focus: Begin HPV Vaccination at Age 9 with two pediatric clinics
- Team met with clinics (separately) once a month/five months, 45 mins.
 Provided HPV vaccination education centered on cancer prevention, cleaning vaccine data, strong recommendations from <u>all</u> clinic staff, recall reminders, and educational materials (posters, cue cards, etc.)
- At project conclusion, met with clinic staff to discuss process/follow through/evaluation at six, nine,12 & 15 months



Pediatric Group (Single Clinic) 9-10 yr. old's Feb. 21, 2021 - March 3, 2022

17.6% increase in HPV initiation rates

Pediatrics Group (Eight Clinics) 9-10 yr. old's May 1, 2021 - May 1, 2022

33% increase in HPV initiation rates 2% increase in HPV series completion rates

Barriers to Wide-Scale Implementation of HPV Vaccinations at Age 9

- Lack of awareness and understanding by providers
 - ✓ Starting at age 11-12, state <u>failing</u> to get most kids vaccinated on-time
- Lack of awareness and understanding by providers
- Concern vaccinating at age 9 might contradict CDC guidelines (not true)
- Confusion caused by "Optional" forecasting in WA. Immunization Information System (WA IIS)
- Inability to track 9-10 yr. old coverage rates, at state and county levels
- Inability to change the EMR prompt at many clinics





Addressing the Barriers Implementing HPV Vaccinations at Age 9

Vaccination Forecast								
The forecast automatically switches to the catch-up schedule when a patient is behind schedule.								
Vaccine Group	Forecasted Dose	Recommended Date	Minimum Valid Date	Overdue Date	Status			
HEP-A	1	08/12/2013	08/12/2013	08/12/2014	Past Due			
POLIO	4	08/12/2016	08/12/2016	08/12/2019	Past Due			
VARICELLA	2	08/12/2016	11/07/2014	08/12/2019	Past Due			
Coronavirus (SARS-CoV-2)(COVID-19)	1	12/12/2020	12/12/2020	01/22/2021	Past Due			
FLU	1	07/01/2021	07/01/2021	07/28/2021	Past Due			
HPV	1	08/12/2023	08/12/2021	09/08/2025	Optional			
MENINGOCOCCAL MENINGOCOCCAL	1	00/12/2023	00/12/2023	09/00/2025	Not Yet Due			
Tdap	В	08/12/2023	08/12/2023	09/08/2025	Not Yet Due			
MENINGOCOCCAL B, OMV (Clinical Discretion)	1	08/12/2028	08/12/2022	09/11/2028	Not Yet Due			
MENINGOCOCCAL B, RECOMBINANT (Clinical Discretion)	1	08/12/2028	08/12/2022	09/11/2028	Not Yet Due			

Due Now -- As of today's date, the patient's age falls between the recommended minimum age and the recommended maximum age for this dose and the

absolute minimum interval has been met since the last dose.



July 2022, WA. HPV Free Task Force Leadership requested a meeting with the WA.
 Vaccine Advisory Committee to request a change to WA IIS

Request: Change HPV vaccinations to begin at age 9, <u>Due</u>, opposed-Optional

Summary of Vaccine Advisory Committee Meeting

- Addressed Healthy People 2030 goal
- Pandemic impact on vaccination rates
- Addressed Statewide Vaccination efforts
- Emerging best practices for beginning HPV Vaccinations at age 9
- Supporting Journal Publications outlining successes, including outcomes from local Pilot Project
- Addressed the ability to complete vaccine series by 13 years old
- Outlined endorsements from American Academy of Pediatrics, American Cancer Society, WA
 Child Health Improvement Partnership, and 2017 WA DOH Clinical Guidance
- Provided Letters of Supports from American Cancer Society and the WA HPV Free Task Force



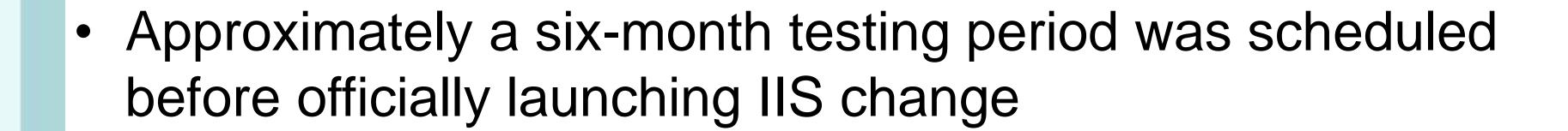
Summary of Vaccine Advisory Committee Meeting

Motion Request to WA Vaccine Advisory Committee

- Encourage providers to routinely start HPV Vaccinations at age 9
- Change WAIIS forecast HPV Vaccination to begin at age 9,
 Change to <u>Due</u> from <u>Optional</u>
- Track vaccination rates for 9–10-year-olds at state level
- WA Vaccine Advisory Committee <u>passed motion unanimously</u> to act on all three motions requested. The recommendation was submitted to WA State Secretary of Health, Dr. Shah for acceptance
- Dr Shah agreed with recommendations & began process to change the WA. HPV forecasting to reflect HPV vaccines beginning at age 9 in WA IIS



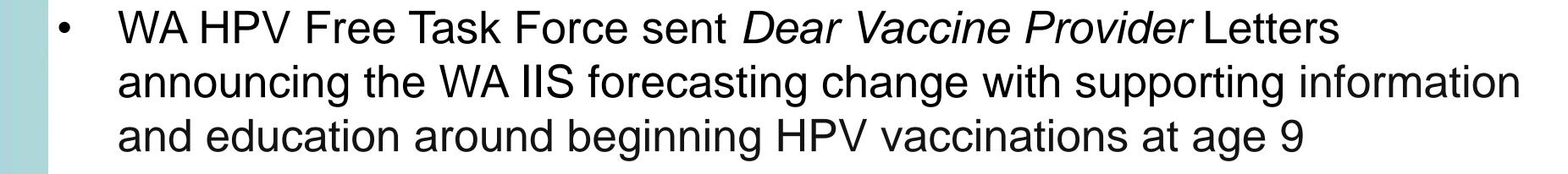
Starting HPV Vaccinations at Age 9





- WA DOH sent *Vaccine Provider Letters* from Dr. Shah, notifying of the upcoming forecast change and reasoning behind the change. A second letter was sent when forecasting changed
- January 20, 2023, WA State Immunization Information System (WA-IIS) was updated to forecast HPV vaccinations beginning at age 9, to <u>Due</u> at age 9

WA HPV Free Task Force Support





 Provided "Why at 9" webinar, with CME's for providers and clinic staff. Available online on DOH website for six months



HPV Vaccine Starts at 9: Why? How? Now! – Cancer Prevention Made Easy

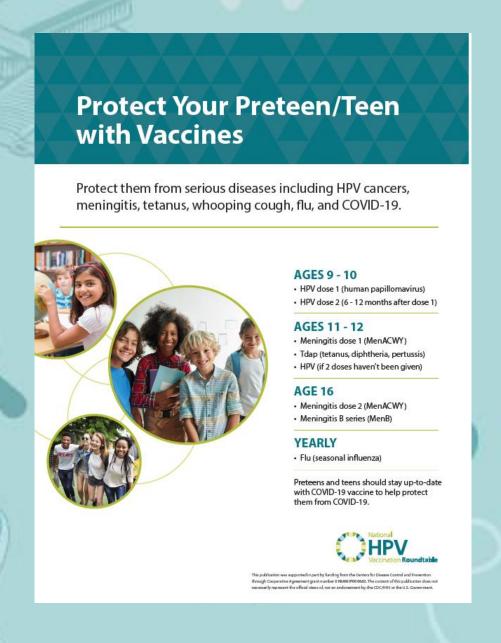
 WA DOH developed HPV at 9 webpage – doh.wa.gov/hpv-at-nine Resources, Data links, Materials in multiple languages Trainings, Social posts, Additional links to At 9 resources

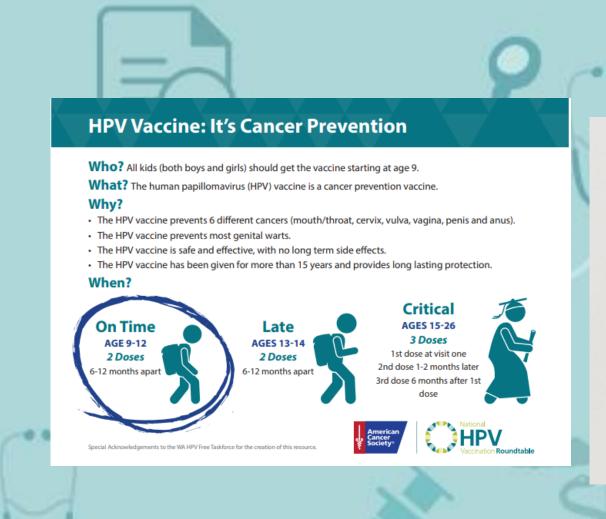


WA HPV Free Task Force Support

Task Force Leadership distributed HPV at age 9 materials at no cost across the state – over 5,000 pieces distributed

- Protect Preteen/Teen with Vaccines posters, laminated
- HPV Cue Cards
- Dental Provider Cards added to patient's bags
 Target: Clinics, tribes, health districts, schools





Are you serious about

preventing cancer?

* Special Acknowledgments to the WA HPV Taskforce for the creation of this resource





WA HPV @ Age 9 Vaccine Growth









Rapid Q&A

We value your feedback!!!

- o Takes 1 minute
- Scan the QRCode or
- Click on the link in the chat

2024 HPV Vaccination Best Practice Program









Future Opportunities Poll

- What topics would you like to see for the quarterly best practices in 2025?
- Would you be interested in participating in a quality improvement project to increase your HPV vaccination rates (data sharing, monthly calls)?



Takeaway Resources

ACS HPVRT Evidence Summaries Click here to access!





HPV Vaccination Starting at Age 9

What's known

Adolescent vaccination coverage is improving, but gaps remain between HPV and other adolescent vaccines. On-time HPV vaccination series completion is especially low.

- Adolescent (ages 13-17 years) HPV vaccination coverage, as
- assessed in 2023, has remained steady in the United States:

 o 76.8% of adolescents have received at least 1 HPV vaccine
- dose compared with 76% in 2022.¹

 o 61.4% of adolescents are up-to-date with vaccination
- compared with 63% in 2022.¹

 HPV vaccination still trails coverage of Tdap vaccine (89%)
- (MenACWY; 88.4%).1
 Only 4% of children ages 9-10 years had received the HPV
- Only 4% of children ages 9-10 years had received the HPV vaccine according to the 2020 National Immunization Survey (NIS)-Teen data.²
- Benchmarks for quality improvement (QI), including Healthcare Effectiveness Data and Information Set measures, assess vaccination at age 13 years.³ Timely HPV vaccination administration starting at age 9 can have a positive impact on organizational quality measures for childhood immunizations and pediatric well-care visits.

The Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices recommends routine HPV vaccination for children ages 11-12 years and states that vaccination can begin as early as age 9. The American Cancer Society and the American Academy of Pediatrics recommend starting vaccination at age 9 to increase the likelihood of completing the vaccination series

HPV vaccination at the earliest opportunity produces a strong immune response.

HPV Best Practices Evidence Summary 2024

HPV vaccination at younger ages (e.g., younger than 15 years of age) yields higher antibody titers compared with vaccination later in adolescence.^{7,8}

What's new

Efforts to improve HPV vaccination at the first opportunity (e.g., at age 9 years) help improve overall vaccine uptake.

- A study published in 2023² using the 2020 NIS-Teen data found that:
- Among those initiating at ages 9-10 years, 93% completed
- the series by age 13.

 Among those initiating at ages 11-12 years, 66% completed the series by age 13.
- QI initiatives, such as electronic medical record prompts to discuss HPV vaccination for patients at age 9 years, led to an 8-fold increase in vaccination prior to 11 years of age (4.6% to 35.7%).⁹
- Pediatric offices that agreed to initiate HPV vaccination in patients ages 9-10 years showed a 13-percentage point increase in vaccination for that age group, which increased in the
- Parents or providers support HPV vaccination starting at age 9.
- Providers find conversations are easier if sexual activity is not a focus.¹¹
- Provider interviews have reported high parental acceptance of HPV vaccination before age 11 years in part due to the opportunity to administer fewer shots at each visit. However, evidence suggests that recommended age is more important than number of doses for motivating parental acceptance and encouraging

Individuals due for routine adolescent vaccines during the Covid-19 pandemic, coverage for at least one HPV dose was 3.2 percentage points lower than those due prior to the pandemic (69.2% vs. 72.4%, respectively).¹

- Rates have returned to pre-pandemic levels for at least one dose of HPV vaccination at age 13 years.¹
- Compared with the rate of individuals who were up to date with HPV vaccination born in 2007, HPV up-to-date coverage has decreased 7.1 percentage points among those born in 2010 (59.9% vs. 45.8%, respectively).





Epidemiologic Evidence: Effectiveness and Safety of the HPV Vaccine

What's known

Data have shown that HPV vaccination is safe and effective in preventing precancers and genital warts.

Evidence from clinical trials has led to the recommendation for routine provision of the 9-valent HPV (9vHPV) vaccine starting at age 9 years.¹

No new safety concerns have been observed in data from post-licensure safety studies of 9vHPV vaccination.²

What's new

Data from long-term observational studies continue to confirm the effectiveness and safety of HPV vaccination.

HPV vaccine effectiveness

- In the United States, cervical cancer incidence in young women (ages 20-24 years) decreased by 65% from 2012 to 2019. These women were among the first cohort of adolescents to receive the HPV vaccine. As vaccinated women age, the protective effect is carried forward into older age groups; for women ages 25-29 years, cervical cancer incidence dropped 6.8% per year from 2016 to 2019.³
- Vaccine-type HPV infections have decreased by 81% for women in the United States ages 20-24 years and 88% for those ages 14-19 years. These declines also occurred in unvaccinated women, offering evidence of community protection (i.e., herd immunity) from HPV vaccination.⁴
- Recent systematic analyses of the impact of HPV vaccines on oral HPV infection identified a significant decrease in oral HPV infections in vaccinated participants (range 72%-93%).^{5,6}
- A 70% reduction in high-grade anal precancers and cancers among women who received the HPV vaccine before age 17 years has been reported.⁷
- Multiple international studies indicate that a single dose of HPV vaccine may be effective for cervical cancer prevention.⁸

HPV Best Practices Evidence Summary 2024





School-entry Requirements for HPV Vaccination

What's known

For more than a decade, school-entry requirements for HPV vaccination have generated substantial discussion.

- Since 2006, 40 states, the District of Columbia, and Puerto Rico have proposed legislation to require HPV vaccination for school entry, fund HPV vaccination administration programs, or educate the public or school children about the benefits of HPV vaccination.¹
- Five jurisdictions require families to vaccinate their children (boys and girls) against HPV or receive an exemption before starting a particular grade: Hawaii, Puerto Rico, Rhode Island, Virginia, and the District of Columbia.
 Opt-out provisions vary.¹
- A national, web-based survey of parents or guardians of 11- to 17-year-olds found that 38% of parents or guardians
 agreed with laws requiring HPV vaccination for school attendance without exemptions. When including exemption
 provisions, parental agreement increased to 45% for philosophical reasons, 50% for religious reasons, and 59% for
 medical reasons.¹
- A systematic review of 36 studies from 2009-2022 assessing the association between policies and HPV
 vaccination coverage among adolescents (defined as ages 9-18 years in this study) in the United States found
 consistent positive associations between school-entry requirements and HPV vaccination uptake.
- School-entry requirements for other vaccines had positive spillover effects for HPV vaccinations.²

What's new

Ongoing discussions of school-entry requirements explore the ethical, political, and legal implications of these policies.^{3,4} Such debates are likely to continue as clinical and behavioral studies inform policy initiatives to improve HPV vaccination rates and help reduce HPV cancers.

- A study using National Immunization Survey—Teen data from 2008-2017 found that levels of HPV vaccination initiation in girls was significantly higher (32%) in Rhode Island after vaccination school-entry policies were implemented compared with pre-policy levels. Similar increases were noted for post-policy HPV vaccination initiation in boys in the District of Columbia (16%) and Rhode Island (17%) compared with pre-policy levels.⁵
- In 2018, jurisdictions with school-entry requirements had higher HPV vaccination rates (District of Columbia, 71%; Virginia, 55%) compared with the nation overall (51%). In 2022, national HPV vaccination rates increased to 63%, closing the gap (District of Columbia, 78%; Virginia, 63%).⁶

HPV Best Practices Evidence Summary 2024





Rural Disparities in HPV Vaccination

What's known

Rural adolescents have lower HPV vaccine uptake than their urban counterparts due to barriers at multiple levels.

The Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices recommends.

- The Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices recommends
 routine HPV vaccination for children ages 11-12 years and states that vaccination can begin as early as age 9.¹
 The American Cancer Society and the American Academy of Pediatrics recommend starting vaccination at age 9 to
 increase the likelihood of completing the vaccination series by age 13.^{2,3}
- Adolescents (ages 13-17 years) in rural communities are less likely to be vaccinated against HPV than those
- in urban areas, which may exacerbate disparities in cancer outcomes experienced by rural residents.4

 Data from the CDC confirm that from 2018-2022 up-to-date HPV vaccination among adolescents in rural areas
- was 11-percentage points lower compared with urban communities (50% versus 61%, respectively).⁵

 Additional data suggest rural young adults (ages 18-26 years) are less likely to initiate HPV vaccination
- compared with their urban counterparts.⁶
 Low HPV vaccination uptake and completion among individuals in rural areas may be due to numerous barriers faced by rural residents at multiple levels.⁴ Barriers include, but are not limited to the following:
- Individual-, interpersonal-, organizational-, and community-level barriers to accessing preventive health care services, including HPV vaccination, in rural communities⁷
- Rural residents' lack of knowledge of HPV's link to cancer and their limited awareness of the HPV vaccine^{8,9}
- Limited collaborative communication between parents or guardians and health care providers about HPV vaccination in rural areas¹⁰
- Systems-level challenges with vaccine distribution and access, vaccination tracking in electronic health records, missed opportunities for vaccination, provider shortages, and clinical constraints such as long appointment wait times?
- Few widely available evidence-based HPV vaccination interventions focused on rural communities.

HPV Best Practices Evidence Summary 2024



ACS HPVRT Cancer Prevention Through HPV Vaccination <u>Action Guides</u>







Cancer Prevention
Through HPV Vaccination:

An Action Guide for Health Plans





Cancer Prevention Through HPV Vaccination:

An Action Guide for Large Health Systems

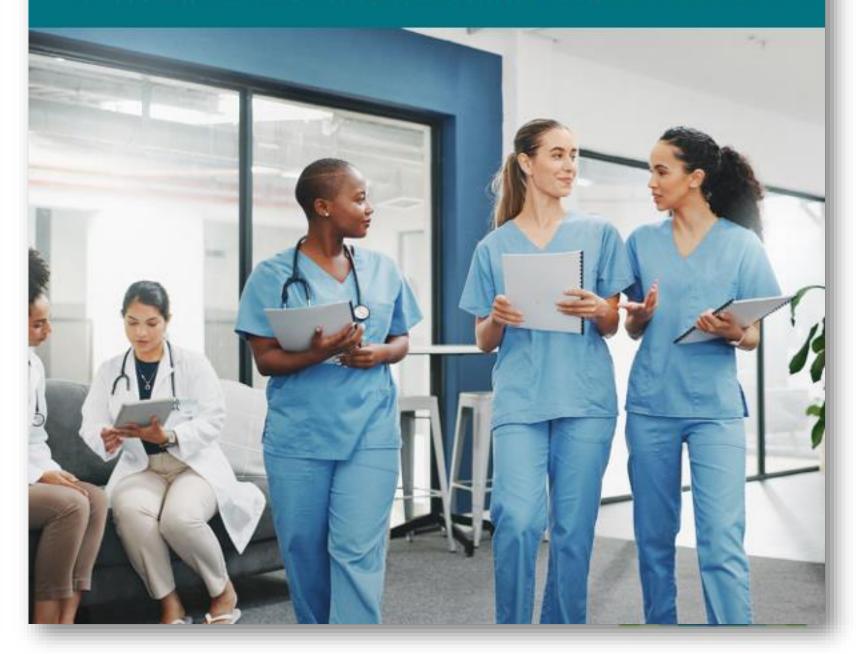






Cancer Prevention Through HPV Vaccination:

An Action Guide for Nurses and Medical Assistants





Upcoming Opportunities

Rural HPV Vaccination Learning Community Next Session: December 4th 2PM ET





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 healt 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.

Learning Session Details

Date	Topic	Recording	Slide Deck	
March 20, 2024	Setting the Stage: Networking & Orientation	Recording	<u>Slides</u>	
April 10, 2024	A Deep Dive into HPV Vaccination Data	Recording	<u>Slides</u>	
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	

Pharmacy Continuing Education Opportunity





Pharmacists & Pharmacy Technicians as Cancer Prevention Champions



Free Continuing Education

The human papillomavirus (HPV) is extremely common. The HPV vaccine provides protection from six types of cancer. However, Texas lags behind the US average, leaving Texas adolescents unprotected from HPV related cancers. Additionally, the HPV vaccine underperforms compared to other ACIP recommended vaccines, including Tdap and MenACWY. Pharmacists are a trusted source for health information, are highly accessible and are authorized to administer immunizations. The American Cancer Society (ACS) is seeking **Texas pharmacists and pharmacy technicians** to join a two part learning series focused on providing current HPV vaccination information, strategies to increase awareness of HPV vaccination and tools to increase utilization of evidence based interventions to increase HPV vaccination in pharmacies.

Educational Objectives:



Discuss the importance of HPV vaccination



Identify key points around HPV infection, related cancers, and vaccination rates



Describe communication strategies for HPV vaccination



Identify pharmacy solutions to vaccination barriers



Review evidence-based interventions to increase HPV vaccinations in your pharmacy



Explain how to increase on-time HPV vaccination rates

Subject Matter Expert Speakers:



Erika L. Thompson, PhD, MPH, CPH, FAAHB
Associate Professor, Department of Quantitative
and Qualitative Health Sciences
UT School of Public Health San Antonio



Chantelle Parker, PharmD, MBA Healthcare Specialty Supervisor Houston Southeast Walgreen Co.

Date/Time

Nov 21, 2024 12-1pm CST

Dec 12, 2024 12-1pm CST

Topic

HPV vaccination Facts & Communication Strategies

HPV Evidence Based Interventions & Immunization Champions

Pharmacy CE Credit

CE Information

CE Information

Please scan QR code or <u>click here</u> to register for the webinar series!



Date/Time

Nov 21, 2024 12-1pm CST

Dec 12, 2024 12-1pm CST

Topic

HPV vaccination Facts & Communication Strategies

HPV Evidence Based Interventions & Immunization Champions

Please scan QR code or click here to register for the webinar series!





Partner Acknowledgement













Funder Acknowledgement

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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.



HPV Vaccine Best Practices: System and Policy Interventions November 20, 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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Pharmacists

Indiana University School of Medicine designates this activity for 1.0 ACPE contact hours. Pharmacists should only claim credit commensurate with the extent of their participation in the activity. Credit will be provided to NABP CPE Monitor within 60 days after the activity completion.

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The activity evaluation will be sent via email. Within 30-60 days following the activity, learners will receive a separate email with instructions on how to obtain proof of participation in this IUSM activity. For questions and concerns, please contact IU School of Medicine, Division of Continuing Education in Healthcare Professions, 317-274-0104, or cehp@iu.edu

EVALUATION

We value your feedback.

Please complete the evaluation:

https://iu.co1.qualtrics.com/jfe/form/SV_1Uj6Gvjuwr8axpk



Thankyou



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.