

PATH →
to prevention

Preventing HPV Cancers with Rural Communities: Updates and Opportunities

Quarterly Updates Meeting
February 21, 2024
1:00 – 2:00 pm Central Time



**HPV Cancer
Prevention
Program**



PATH →
to prevention

Welcome

Heather Brandt, PhD
Director, HPV Cancer Prevention
Program



**HPV Cancer
Prevention
Program**



AGENDA

→ Welcome

→ Progress on Priority Action Steps to Increase HPV Vaccination Coverage with Rural Communities

→ Supporting Pediatricians to Increase HPV Vaccination Rates

→ Discussion

→ Next meetings

Progress on Priority Action Steps to Increase HPV Vaccination Coverage with Rural Communities

Cristobal Valdebenito
Coordinator, HPV Cancer Prevention Program



HPV Cancer Prevention Program

PATH →
to prevention





Rural HPV Vaccination Priorities



Start at Age 9

Promote starting HPV vaccination at age 9 in rural communities.



Existing Resources

Compile and share existing resources for addressing HPV vaccination with rural communities.



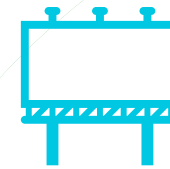
Training Providers

Develop or adapt health care provider and health care professional HPV vaccination training resources for those serving rural communities.



Advocacy and Policy

Explore policy influences on HPV vaccination in rural areas.



Communication

Develop, test, and disseminate easy-to-use messages for rural audiences.



Data

Review and update existing resources and data on HPV vaccination and HPV cancers in rural communities.

Rural Priority Action Steps: Start at Age 9

9

Start at Age 9

- ACS National HPV Vaccination Roundtable has many resources for starting HPV vaccination at age 9:
 - Amazing suite of resources already available
 - Access at: <https://hpvroundtable.org/start-hpv-vaccination-at-age-9/>
- Do these existing resources need to be adapted for use with rural-serving health care providers and rural communities?
 - Next steps: Review existing materials to assess how known determinants of rural HPV vaccination coverage are/are not addressed.
 - To adapt or not?
 - If yes, discuss with ACS National HPV Vaccination Roundtable team.
 - If no, move to identifying dissemination channels to reach rural-serving health care providers and rural communities.

Promote starting HPV vaccination at age 9 in rural communities.



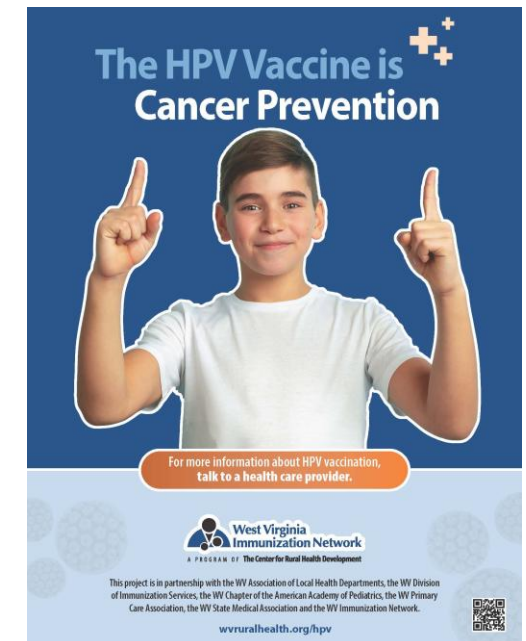
Rural Priority Action Steps: Existing Resources

- Gather existing resources, assess, and feature on St. Jude rural webpage and in rural communications.
 - Search online for existing resources for improving HPV vaccination with rural communities.
 - Encourage organizational partners to share existing resources for improving HPV vaccination with rural communities.
 - Assess existing resources for improving HPV vaccination with rural communities for suitability.
 - Develop an online platform as a hub to access suitable materials.
 - Promote suitable materials in rural HPV vaccination programming.
- Do you have HPV vaccination resources for rural U.S. communities?
 - Email us at PreventHPV@stjude.org



Existing
Resources

Compile and share existing resources for addressing HPV vaccination with rural communities.



Rural Priority Action Steps: Existing Resources



Existing Resources

Compile and share existing resources for addressing HPV vaccination with rural communities.



Improving Rural HPV Vaccination Coverage

In this quarterly communication about our efforts to improve HPV vaccination in rural communities in the United States, we highlight the following:

- Upcoming virtual quarterly updates meeting on February 21 feat American Academy of Pediatrics, register [here](#);
- International HPV Awareness Day, including a virtual seminar for vaccination on February 29, register at stjude.org/IHAD2024;
- Recap of the November 2023 quarterly updates meeting;
- And more!

PATH to prevention

Preventing HPV Cancers with Rural Communities

The U.S. encompasses many geographic regions, cultural traditions and health care norms. **About 20% of the population lives in rural regions of the country**, which accounts for approximately 50 million Americans.

Americans living in rural areas possess numerous strengths, such as resiliency, self-sufficiency and a strong sense of community. And yet these same strengths can make many of these individuals less likely to seek preventive medical care, including cancer screening and HPV vaccination.

HPV is an extremely common virus that can cause six forms of cancer in adults – including cervical, vaginal, vulvar, anal, penile and oral/throat cancers. **HPV vaccination has been proven to prevent 90% of those cancers.** Healthy People 2030 goals aim for an 80% HPV vaccine completion rate. Unfortunately, people living in rural areas have higher rates of HPV cancers and have lower HPV vaccination coverage as compared to their urban counterparts. We want to change that.

HPV vaccination is cancer prevention.

BARRIERS TO VACCINATION IN RURAL COMMUNITIES

Barriers in rural communities that lead to a lack of awareness about the safety and effectiveness of HPV vaccination include:

- Low levels of HPV vaccination knowledge, especially among parents and caregivers
- Lower overall childhood vaccination rates
- Health care provider shortages, limiting access to vaccinations
- Lack of health care provider recommendations for vaccinations
- Lack of transportation and access to health care facilities

New Publications focused on Rural HPV Vaccination

Boot Camp Translation using Community-engaged Messaging for Adolescent Vaccination: A Cluster-randomized Trial

[Cataldi et al.](#) (2024) published the results of a trial examining the effects of using "boot camp translation" on improving HPV vaccination coverage in rural Colorado counties. Results showed increases in 13-17-year-old HPV vaccination coverage but not for 11-12-year-olds. In addition, no effects from the boot camp translation were observed.

Consumption of Health-related Videos and Human Papillomavirus Awareness: Cross-sectional Analyses of a US National Survey and YouTube from the Urban-Rural Context

[Garg et al.](#) (2024) focused on describing trends and patterns in viewing HPV vaccination videos on social media among rural and urban settings. Results showed high levels of consumption among U.S. adults (~60%) and high prevalence in both rural and urban settings with dramatic increases over the five-year period of 2017-2022.

Barriers to Human Papillomavirus (HPV) Vaccination in At-risk Ruralities in Western North Carolina, United States

[al.](#) (2023) examined barriers to HPV vaccination in rural, western North Carolina counties and health care providers. Results identified barriers related to knowledge, and behaviors as well as structural challenges, such as access. The authors found opportunities to improve HPV vaccination coverage among adolescents in this

Commitment to sharing existing resources focused on improving rural HPV vaccination coverage:

- Monthly Wide Open Spaces article series in Path to Prevention email communication
- Quarterly updates meeting – like today
- Quarterly email communication

International HPV Awareness Day 2024 Seminar Series

Rural Reach: Accelerating HPV Vaccination Coverage

Thursday, February 29, 2024
12-1:15 pm CT

This virtual seminar will explore a comprehensive strategy of six priority action steps aimed at enhancing HPV vaccination and reducing HPV cancer risks in rural communities.



As part of the **International HPV Awareness Day 2024 Seminar Series**, the St. Jude HPV Cancer Prevention Program presents:

Rural Reach:
Accelerating HPV Vaccination Coverage
Empowering Rural Communities for HPV Prevention

February 29 | 12:00 – 1:15 PM CST

This virtual seminar will explore a comprehensive strategy of six priority action steps aimed at enhancing HPV vaccination in rural communities.

PATH →
to prevention

St. Jude Children's Research Hospital | HPV Cancer Prevention Program

 **Sara Lolley, MPH** MODERATOR
Immunization Initiatives Program Manager, American Academy of Pediatrics

 **Prajakta Adsul, MBBS, MPH, PhD**
Assistant Professor, Department of Internal Medicine, Comprehensive Cancer Center, University of New Mexico

 **William Calo, PhD, JD, MPH**
Associate Professor, Department of Public Health Sciences, Penn State College of Medicine; Co-Leader, Cancer Control Program, Penn State Cancer Institute

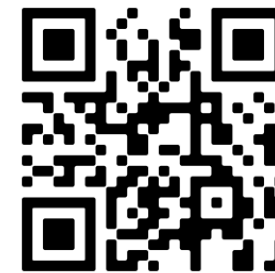
 **Electra D. Paskett, PhD**
Director, Division of Cancer Prevention and Control, Department of Internal Medicine, Ohio State University College of Medicine

REGISTER NOW

Seminars will be recorded for those who are unable to join live.

If you have questions, please email PreventHPV@stjude.org or stjude.org/IHAD2024

Scan to Register



Register at: stjude.org/IHAD2024

Rural Priority Action Steps: Training Providers



Training Providers

- Promote the ACS and ACS National HPV Vaccination Roundtable training program for rural-serving health care providers – first learning session on March 20

Develop or adapt health care provider and health care professional HPV vaccination training resources for those serving rural communities.

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 6.4 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 ACP recommended vaccines, including Tdap and MenACWY.
- Improve HEDIS IMA/CHIP metrics:** Payers may tie incentives to performance improvements on adolescent immunization measures.

Why partner with ACS?

- History of success:** Since 2014, ACS has partnered on 300+ HPV QI projects. Partners have rate improvements of 3–5%. Review our 2022-2023 HPV Impact Report to learn more.
- Trusted global organization:** ACS is a leader in the HPV vaccination space. Participation includes access to thought leaders and experts.
- Mission HPV Cancer Free:** ACS set a goal to increase HPV vaccination rates and seeks to eliminate vaccine-preventable HPV cancers, as a public health problem starting with cervical cancer.
- Cancer prevention in action:** Attendees will learn and apply QI tools and best practices to increase vaccine delivery.

Participation Benefits:

- Access to ACS & HPVRT resources and materials
- Co-branding opportunities
- Data utilization best practices
- Networking with peer organizations
- Practical implementation tips
- Opportunity to showcase success
- QI coaching & support
- Learning from subject matter experts
- Social media toolkits (patient-facing)
- Preventing HPV-related cancers and pre-cancers

cancer.org | 1.800.227.2345 | 1.30.2024

Learning Outcomes

- Increase on-time HPV vaccination rates
- Expand knowledge around HPV infection, related-cancers, and vaccination rates
- Build awareness around the importance of HPV vaccination data
- Explore evidence-based interventions to increase HPV vaccinations in your community
- Discuss best practices and challenges increasing HPV vaccinations in rural settings

Learning Session Details

Dates	Topics
March 20, 2024	Setting the Stage: Networking & Orientation
April 10, 2024	A Deep Dive into HPV Vaccination Data
May 22, 2024	HPV Vaccination Starting at Age 9
June 19, 2024	The ABCs of Quality Improvement: AIM Statements & Building a Team
July 17, 2024	The ABCs of Quality Improvement: Process Mapping & Gap Analysis
August 14, 2024	Finding the Best Fit: Evidence-Based Interventions & HPV Vaccination
September 18, 2024	The ABCs of Quality Improvement: PDSA Cycle
October 16, 2024	Highlighting HPV Vaccination Best Practices
November 13, 2024	Highlighting HPV Vaccination Best Practices
December 4, 2024	Celebrating & Sustaining Success

Time: 2-3pm EST
Cost: Free to attend
Location: Virtual format via Zoom meeting

Registration Details

Registration is rolling and participants can join at any time throughout the year. Register using the following link: <https://forms.office.com/r/q8zfWncCgr> or scan the QR code.

Once registration has been completed, Zoom calendar invites will be sent for the monthly calls.

Questions? Please reach out to **Ashley Lach, HPV Program Manager**
Email: Ashley.Lach@cancer.org

This resource 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.

©2024 American Cancer Society, Inc. All rights reserved.

Register at:

<https://forms.office.com/r/q8zfWncCgr>

Questions? Contact Ashley Lach, HPV Program Manager, American Cancer Society at ashley.lach@cancer.org

Rural Priority Action Steps: Training Providers



Training
Providers

- Promote the ACS, ACS National HPV Vaccination Roundtable, and Indiana Immunization Coalition quarterly learning program for health care providers – first program on March 7

Develop or adapt health care provider and health care professional HPV vaccination training resources for those serving rural communities.

**HPV Vaccination Best Practices:
The Announcement Approach Training**

Description
Learn about the Announcement Approach Training on making effective HPV vaccine recommendations and counseling hesitant parents. Healthcare systems can access free materials, updated for 2024.

Speakers

 Noel Brewer PhD University of North Carolina	 Jessica Young MD, MPH University of North Carolina
 Melissa Santiago MPA, MPH American Cancer Society	 Christina Turpin American Cancer Society National HPV Vaccination Roundtable

Details
March 7, 2024
2:00 PM EST
[Registration Link](#)

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 HR75. The contents are those of the author(s) and do not necessarily represent the official views of HHS or its components, including CDC, HHS, or the U.S. Government.

*CME, nursing, and pharmacy continuing education credit offered

Questions? [Melissa Santiago
melissa.santiago@americancancer.org](mailto:melissa.santiago@americancancer.org)

Questions? Contact Melissa Santiago,
American Cancer Society at
melissa.santiago@cancer.org

Rural Priority Action Steps: Advocacy and Policy



Advocacy and Policy

- Understand current policy opportunities
 - Consider big, middle, and little policy influences
 - Assess current policy landscape
 - Review literature for updated publications, including policy reports (gray literature)
 - Monitor policy changes – proposed and enacted
- Promote existing policy analysis of factors driving HPV vaccination coverage
 - Available at stjude.org/hpv-policy-summary

Explore policy influences on HPV vaccination in rural areas.

Rural Priority Action Steps: Advocacy and Policy



Advocacy and Policy

Explore policy influences on HPV vaccination in rural areas.

“Big P” Policy Measures to Increase HPV Vaccination in Rural Areas

Policy Opportunity	Description	Level
State immunization registries	Statewide registries in which all immunization records are entered and maintained; increased interoperability between state registries.	State
Pharmacy-related laws	State-enacted laws allowing pharmacists to provide the HPV vaccine series to youth and young adults.	State
School-entry requirements	State-enacted laws that require students to initiate and complete the HPV vaccine series to maintain eligibility to attend school. State laws that require or recommend distribution HPV vaccine information.	State
Rural HPV vaccination research	Increased funding for interventional rural HPV vaccination research (e.g., randomized controlled trials, quasi-experimental studies, and pragmatic trials).	National
VFC program rules / structures	<i>Make it easier for clinics to join the VFC program or achieve “official state provider” status under the VFC (lessen administrative burden & associated costs)</i>	State
Medicaid expansion / eligibility	<i>Medicaid expansion and increasing the income limit for eligibility could increase access to care</i>	State
Regulation around reimbursement	<i>Ensure adequate reimbursement among all provider types; ensure HPV vaccination is covered by individual and group insurance plans</i>	State
Minor consent laws	<i>Policies allowing adolescents to self-consent to vaccinations</i>	State

Policy opportunities to increase HPV vaccination in rural communities

Robin C. Vanderpool, Lindsay R. Stradtman & Heather M. Brandt

Pages 1527-1532 | Received 11 Oct 2018, Accepted 21 Nov 2018, Published online: 04 Jan 2019

Cite this article <https://doi.org/10.1080/21645515.2018.1553475>



Public Policy Decisions and Factors Driving HPV Vaccination Coverage

- **Recommendation 1:** Leverage meningococcal conjugate vaccination as a model for HPV vaccination education and recommendations
- **Recommendation 2:** Expand health care provider and practice staff education and training related to HPV vaccination and strengthen HPV vaccination recommendations for parents and caregivers
- **Recommendation 3:** Improve efforts to recruit and enroll various types of health care providers in the federal Vaccines for Children (VFC) program
- **Recommendation 4:** Expand the resources available to improve HPV vaccination data collection and reporting through state immunization information systems (IISs)
- **Recommendation 5:** Engage in efforts to preserve and expand eligibility for Medicaid

PATH →
to prevention

Updated Analysis of Public Policy Decisions and Factors Driving HPV Vaccination Coverage in the United States, 2023

The HPV Cancer Prevention Program at St. Jude Children's Research Hospital partnered with FTI Consulting to examine public policy decisions and other factors that drive human papillomavirus (HPV) vaccination coverage across the United States. The analysis examined the relation between HPV vaccination initiation and series completion with regard to nine factors. Using CDC data and peer-reviewed literature, FTI Consulting performed a cost savings analysis that projected that the increased HPV vaccination series initiation and reduced HPV cancer incidence that would result from addressing four of these factors could reduce national direct health care spending by nearly \$19 million. In addition, the increased HPV vaccination series completion and reduced HPV cancer incidence could reduce the two-year national direct health care spending by more than \$24 million (Figure 1).

POLICY RECOMMENDATIONS
Using the results of the quantitative analysis along with insights from interviews and focus groups, FTI Consulting developed five policy recommendations to improve HPV vaccination coverage.

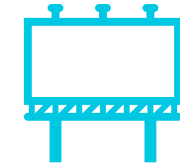
Recommendation 1: Leverage meningococcal conjugate vaccination as a model for HPV vaccination education and recommendations
Coverage for meningococcal conjugate vaccination had the strongest positive relationship with HPV vaccine initiation and series completion. Research shows that adolescents who receive at least one other childhood vaccine are most likely to initiate HPV vaccination. Policies should educate and empower health care providers to recommend HPV vaccination as strongly as they recommend the meningococcal conjugate vaccine. In contrast, health systems and payors should consider incentivizing providers to close the gap between HPV vaccination and meningococcal conjugate vaccination coverage.

FIGURE 1 Total National Cost Savings from HPV Vaccine Initiation and HPV Vaccine Series Completion

Factor	Cost Savings (Initiation)	Cost Savings (Completion)
1% increase in meningococcal conjugate vaccine uptake	\$12,772,258	\$15,091,745
Medicaid expansion in the 12 non-expansion states	\$5,909,184	\$8,292,278
Access to one additional VFC provider (per 100,000 children)	\$142,569	\$205,615
Access to one additional pediatrician (per 100,000 children)	\$146,390	\$218,272
Total	\$18,975,401	\$24,444,910

*At the time of the cost-savings analysis, 12 states had not yet expanded Medicaid.

Rural Priority Action Steps: Communication



Communication

- Working with an external communication vendor currently to develop a reimagined national public awareness campaign that will include a specific focus on rural communities
- Rural HPV vaccination campaign will include, for example:
 - Tailored messaging – menu of options
 - Tailored imagery – menu of options
 - Tailored approach to dissemination of messages and communication assets

Develop, test, and disseminate easy-to-use messages for rural audiences.



wethepeoplevax.org

Rural Priority Action Steps: Data



Data

- Update current estimates for rural HPV vaccination coverage and rural HPV cancers
 - Working with external consultant on this analysis
 - Peer-reviewed publications
 - Reports and infographics
 - Virtual seminars to review and share data/results


Review and update existing resources and data on HPV vaccination and HPV cancers in rural communities.

THE JOURNAL OF **RURAL HEALTH**



BRIEF REPORT

Rural-Urban Differences in Human Papillomavirus-associated Cancer Trends and Rates

Whitney E. Zahnd, PhD; Christofer Rodriguez, MPH ; & Wiley D. Jenkins, PhD, MPH, FACE

Office of Population Science and Policy, Southern Illinois University School of Medicine, Springfield, Illinois

PATH →
to prevention

Supporting Pediatricians to Increase HPV Vaccination Rates

Sara Lolley, MPH
Program Manager, Immunization
Initiatives
American Academy of Pediatrics



**HPV Cancer
Prevention
Program**





Supporting Pediatricians to Increase HPV Vaccination Rates

Focus on Rural Communities

Sara Lolley, MPH

Program Manager, Immunization Initiatives
American Academy of Pediatrics

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



Funding Acknowledgement

- The AAP program, Supporting Pediatricians to Increase HPV and Pediatric Influenza Vaccination Rates, is funded by Cooperative Agreement Number 6NU38OT000282 awarded by the Centers for Disease Control and Prevention to the American Academy of Pediatrics.
- The contents of this presentation are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Program Overview



Program Background

Activities through this cooperative agreement aim to **improve HPV and pediatric influenza vaccination rates** and **decrease missed opportunities** for children across the nation by developing the capacity of the AAP to **support pediatricians** and other primary care physicians, **especially those in rural and underserved areas**, through **education, resources, and quality improvement** projects on vaccines, vaccine recommendations, and other vaccination-related issues rooted in evidence-based/informed best practices.

Program Goals & Activities

Provider Education

- Community of Practice Meeting Series
- ECHO Course

Promoting Local Action Plans

- Immunization Partnership Grants

Communications & Resource Development

- Rural Influencer Campaign
- Online ad campaigns, HC.org articles, social media assets, Immunization Discussion Guide

Evaluation

- Rural Pediatrician Interviews

Evaluation

Rural Pediatrician Interviews



Interviews with Rural Pediatricians

- **14 interviews** conducted with **pediatricians and family medicine physicians** in rural areas, Spring 2023
- **Objectives:**
 - Confirm barriers to HPV vaccination among rural populations
 - Identify actionable ways the AAP can address provider practice needs around HPV vaccination
 - Inform future AAP immunization initiatives
- Participants, each of whom administers and actively encourages HPV vaccination, were selected based on geography, practice type, and patient population

Interviews conducted and final report written by consultant: Commonality, Inc

Interviews with Rural Pediatricians

Core findings: factors that either contribute or detract from HPV vaccination

- **Vaccine hesitancy:** closely held beliefs, misinformation, vaccine framing
- **Access to care barriers:** state-specific policies & initiatives, rural transportation obstacles
- **The importance of personal relationships:** clinician/family trust, personal stories
- **Clinical considerations:** clinician confidence/competence, patient age at vaccine series initiation

Interviews with Rural Pediatricians

Vaccine Hesitancy

- **100% of participants** identified **“closely held beliefs”** and **“misinformation”** as barriers to vaccination:
 - Religious beliefs & politics and community culture were cited as factors that often detract from vaccine acceptance
 - Importance of faith leaders and growing politicization of vaccines
 - Anecdotal and online misinformation grew during the pandemic
 - Rampant online misinformation; concern about adverse effects persist due to stories circulating in the community
- Several participants cited **“vaccine framing”** as a cause for hesitancy:
 - Initial communications about the HPV vaccine associated it with STIs, causing controversy that has been difficult to overcome

Interviews with Rural Pediatricians

Vaccine Hesitancy

- *“The biggest problem I’m seeing is that someone makes a claim on Twitter or Facebook [about the HPV vaccine] and the claim goes viral and it becomes fact.”*
- *“Take it away from sex, it’s an anti-cancer shot that prevents male and female cancers. People don’t want to think about their children having sex.”*

Interviews with Rural Pediatricians

Access to Care Barriers

- **State-specific policies:**

- Many participants spoke positively about Vaccines for Children (VFC) and its impact in supporting pediatric vaccinations, but also noted the high administrative burden of the program
- Several participants stated they support the HPV vaccine becoming required for school attendance, but expressed doubt due to many states trending towards strengthening vaccine exemption rules

- **Transportation:**

- Participants noted patients who travel 2-3 hours for appointments, some who are not able to provide vaccines at their practice must refer patients to another clinic, which could also be far away.
 - One participant noted obstacles due to their rural practice location bordering 3 states

Interviews with Rural Pediatricians

Access to Care Barriers

- *“If it’s not required by schools, then there is greater hesitancy.”*
- *“Conservative legislatures are passing vaccine exemption laws; it would be great if the AAP could put together a program on how to talk to lawmakers.”*

Interviews with Rural Pediatricians

Importance of Personal Relationships

- **Power of clinician/family trust:**

- Physicians in rural settings are often seen as trusted and expert sources; many find that they can make progress on vaccinations when they can build trust over time

- **Personal stories as motivators:**

- Lived experience, whether of the patient or physician, was noted as having a significant impact on the decision to vaccinate

Interviews with Rural Pediatricians

Importance of Personal Relationships

- *“[In our community] there are no public health campaigns about vaccination, so it comes down to the provider level...and one of the things that improves vaccine hesitancy is a strong [clinician] relationship with patients. [Since] I often deliver babies and care for the mom and the child, they trust me.”*
- *“I opened my own practice and was able to spend more time with each patient (vs the 20 min norm); you have to have enough time to sit with a patient and care enough to discuss it. Because I spend more time with my patients, I am able to convince them. Time is important.”*
- *“As a family doctor, I have encouraged women who have abnormal paps to get immunized and to immunize their kids so cancer doesn’t happen to them. It’s working.”*

Interviews with Rural Pediatricians

Clinical Considerations

- **Clinician confidence and competence:**
 - Physicians can influence the decision to vaccinate if they can talk about it in an assured manner
- **Age at vaccine series initiation:**
 - Most participants felt age 11 was the best age to start the series, although they are aware of AAP's recommendation to begin at age 9
 - 9–10-year-olds often skip physicals
 - Some participants stated they have more success bundling it with other vaccines at age 11

Interviews with Rural Pediatricians

Clinical Considerations

- *“The way nurses bring up vaccines differ; since it’s a newer vaccine, they are hesitant. They need standardized training.”*
- *“We just went through PIVOT training (a Motivational Interviewing-based vaccine communication training for pediatric clinicians). [This training shifted us to be] more straightforward – ‘You’re due for an HPV vaccine’ - it’s a statement approach. We’ve seen an increase in vaccination rates.”*
- *“Rural communities often are served by family medicine doctors...[who aren’t always as well] trained in vaccinations. They can’t be expected to know everything about patients from 0-100 years old. Since family doctors aren’t reached by the AAP, how do you educate them?”*

Pediatrician/ Patient Population Demographics

Participant Medical Specialty	Pediatrics	64.29%
	Family Medicine	28.57%
	Med/Peds	7.14%
Participant Practice Geographical Location	Rural (<9,999 Residents)	42.86%
	Suburban (between 10,000 and 49,999 residents)	28.57%
	Frontier Region	21.43%
	Both Suburban and Rural	7.14%
Patient Population Insurance Access	Public Insurance	54.07%
	Private Insurance	40.36%
	No Insurance	5.36%
	N/A	0.21%
Patient Population Race/Ethnicity	White/European	71.00%
	Latinx/Hispanic	16.36%
	Native American/Alaska Native	3.50%
	Mixed Race/Multi-Race	3.21%
	African American/Black	2.57%
	Asian American/Asian	2.07%
	Middle Eastern	1.07%
	Pacific Islander/Native Hawaiian	0.21%

Interviews with Rural Pediatricians

Core findings:
opportunities for action

- **Campaign development:** partner campaigns, HPV knowledge campaigns, and customizable social media campaigns
- **Resource creation:** centralized AAP website, messaging content for practices, customizable data collection toolkits

Interviews with Rural Pediatricians

Opportunities for Action: Campaign Development

- **Partnership campaigns:**

- Cross-specialty and allied health professional campaigns – OB-GYNs, otolaryngologists, dentists, community health workers
- *“It would be great if OB-GYNs could educate women about the HPV vaccine for their kids to prevent cancer...[so] they are hearing it from multiple sources.”*
- *“Women usually bring kids to appointments and many of them have had pap smear abnormalities; a media campaign specifically for mothers can say – ‘Wouldn’t you like to see your daughter not have an abnormal pap smear? Wouldn’t it be great if we can get rid of the thing that causes abnormal pap smears for your daughters?’”*
- *“There is so much additional data on head, neck and throat infections from HPV that most are not aware of; why can’t ENT’s have posters in their offices that say, ‘Vaccinate your kids so I don’t have to see them here in 5 years’.”*



Interviews with Rural Pediatricians

Opportunities for Action: Campaign Development

- **Community-based campaigns:**

- Localized campaigns with school districts, health departments, local HPV workgroups
- *“We held a webinar with the school district [featuring] meningitis survivors...[it] was very well received and increased vaccination rates.”*
- *“Partner with the health department – and track every kid in school and send them a text and say, ‘we’re at school, here’s your card, and here are the vaccinations you need’.”*
- *“We’ve partnered with dentists and school nurses”.*

Interviews with Rural Pediatricians

Opportunities for Action: Campaign Development

- **General HPV knowledge campaigns:**
 - Use PSAs to increase knowledge of HPV-related cancers
 - *“Reach out to grandparents as a campaign. Grandma is reading/watching anti-vaxxer stuff.”*
- **Customizable social media campaigns**
 - Countering misinformation online
 - *“We’ve seen clinics do social media campaigns using positive reinforcement messaging and it seems to work. There is usually a contest with a drawing and gift card. It might be interesting to create these with two [political] lenses – conservative and liberal.”*

Interviews with Rural Pediatricians

Opportunities for Action: Resource Creation

- **Centralized AAP vaccine website:**

- Standalone, simple website for families that prioritizes ease of use and access for all childhood vaccines
- *“You should be able to easily pick a vaccine and see the disease history, what it causes, how it’s transmitted, and how successful the vaccine has been. People forget what it’s like to see meningitis or chicken pox.”*

- **Messaging content for clinical practices:**

- Interest in a range of resources and materials in varying communication styles and different languages

- **Data collection toolkits**

- Survey targeted populations on messaging impact and/or collect stories from cancer survivors to

Promoting Rural Action Plans

Immunization Partnership Grants



Immunization Partnership Grants

- **Organizations in** Arizona, Arkansas, Colorado, Florida, Illinois, Kansas, Kentucky, Louisiana, Minnesota, Ohio, Tennessee, Texas, Washington, and West Virginia have been awarded over the past three years of funding
 - AAP Chapters, local health departments, immunization coalitions, medical centers, centers for rural health development
- **Grantee activities have included** social media campaigns, communications campaigns, provider education events, vaccine clinics, quality improvement initiatives, and on-site clinic trainings
- **New partnerships** are formed and existing ones strengthened and expanded

Immunization Partnership Grants

- **San Juan Basin Health Department (Colorado)** held back-to-school vaccine clinics at local middle schools
 - 30 HPV vaccines administered
 - Reached Spanish-speaking communities in the area
 - Invited to come back for future events and vaccine clinics by the school districts
- **Washington AAP Chapter** conducted a QI project for 5 rural clinics to provide training on starting HPV vaccination at age 9
 - HPV initiation coverage rates for age 9-10 years increased by an average of 12 percentage points across the 5 clinics between February 1 – July 1, 2023
 - Training included webinars, individual coaching meetings, and how to use resources such as the announcement approach pathway and customized immunization schedule posters



Immunization Partnership Grants

Resources from the Washington AAP Chapter

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
- 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.

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."

1. Brewer, et al., 2017, Pediatrics. 2. Shah, et al., 2019, Pediatrics. 3. Kimmick, et al., 2018, Academic Pediatrics. haviQ.org

Immunization Schedule Birth - 18 years

Influenza vaccine is recommended annually starting at 6 months
Children and teens should stay up-to-date with COVID-19 vaccine

More info: www.doh.wa.gov/your-and-your-family/immunization

Birth HepB	12 months MMR Varicella PCV HepA	9-10 years HPV - 2 doses between 9-12 years
2 months DTaP-IPV/Hib HepB PCV Rotavirus (oral)	15 months DTaP Hib	11-12 years Tdap MMV/2VY
4 months DTaP-IPV/Hib PCV Rotavirus (oral)	18-24 months HepA	16 years MMV/2VY
6 months DTaP-IPV/Hib HepB PCV <i>(Pre and Coxsackie/Immunization & Infection)</i>	4 years MMV/2VY DTaP-IPV	16-17 years MMV - 2 doses (2nd dose 1 month after 1st dose)

July 2023

Vaccine Key:
 DTaP: Diphtheria, Tetanus, Pertussis (previously acellular)
 HepB: Hepatitis B
 Hib: Hepatitis B
 IPV: Inactivated Poliovirus
 IPV: Inactivated Poliovirus
 MMR: Measles, Mumps, Rubella
 MMV: Measles, Mumps, Rubella, Varicella
 PCV: Pneumococcal conjugate vaccine
 Tdap: Tetanus, Diphtheria, Pertussis (previously acellular)
 Rotavirus: Rotavirus

Combination Vaccines (subject to availability):
 Prevnar: Includes PCV and Hib
 PreQuad (MMV): Includes Measles, Mumps, Rubella and Varicella
 Questrel (Hib): Includes DTaP-IPV

Washington Chapter of the AAP

Provider Education

Community of Practice & ECHO Course



ECHO and Community of Practice Series

- **Chapter Immunization Representative ECHO (Extension for Community Healthcare Outcomes model) series, January – June 2023**
 - Learning opportunities for AAP CIRs covering a variety of immunization topics: vaccine equity and access in rural areas, vaccine confidence, creating community-level partnerships, and HPV @ age 9
- **CIR Community of Practice Meeting Series, January – June 2024**
 - Continuation of the ECHO series
 - Space for providers to network, share resources, problem solve, hear presentations on relevant topics, and engage in open dialogue with each other



Vaccines and Rural Health Care

AAP Supporting Pediatricians to Improve HPV and Pediatric Influenza Vaccination Rates Meeting Series



Nichole Feeny, MD
Internal Medicine and Pediatrics | Rifle, Colorado

MAKE it EASY + OFFSET COSTS



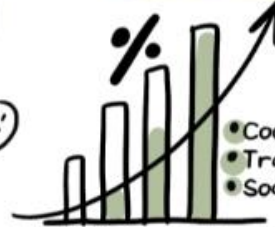
COORDINATION
TRUSTED COMMUNITY GROUPS, PUBLIC HEALTH, & GOOD DATA

IMPROVE NOTIFICATIONS

RURAL	URBAN
Children have LOWER vaccination rates	Children have HIGHER vaccination rates
2% of children = 0 vaccines	1.1% of children = 0 vaccines
COVID vaccines for 5-11yr olds: 15%	COVID vaccine uptake for 5-11yr olds: 31%
MISSING VISITS	

PARENTAL CHOICES

STRATEGIES TO IMPROVE RATES:



- Coordinating with CDPHE for data
- Training/coaching: providers, staff
- Social media and proactive outreach

Political polarization influences vaccination rates, and perceptions of who agrees with them

WAYS TO INCREASE ACCESS

- BARRIERS:**
- ✗ TRANSPORTATION
 - ✗ TIME at appointments
 - ✗ Fewer pediatricians
 - ✗ required order sets
 - ✗ lack of vaccines at clinic
 - ✗ Insurance

- newborn packet
- outreach at schools, community
- Latinx community outreach next
- Cooperative texting + emails
- staff training
- engage CO. pharmacists

CONCERNS about VACCINATIONS - esp FLU & MMR

LISTEN + TAKE TIME

LEVERAGE PROVIDER RELATIONSHIP

- SHOW DATA!
- VACCINE LETTER TO NEW PATIENTS

FINANCIAL BARRIERS

- Costs to physicians: storage, training, fees
- costs to parents + time
- 12% of Ped stopped because of \$ barriers

reminders + tracking to COORDINATE takes EXPERTISE



RURAL

Communications & Resource Development



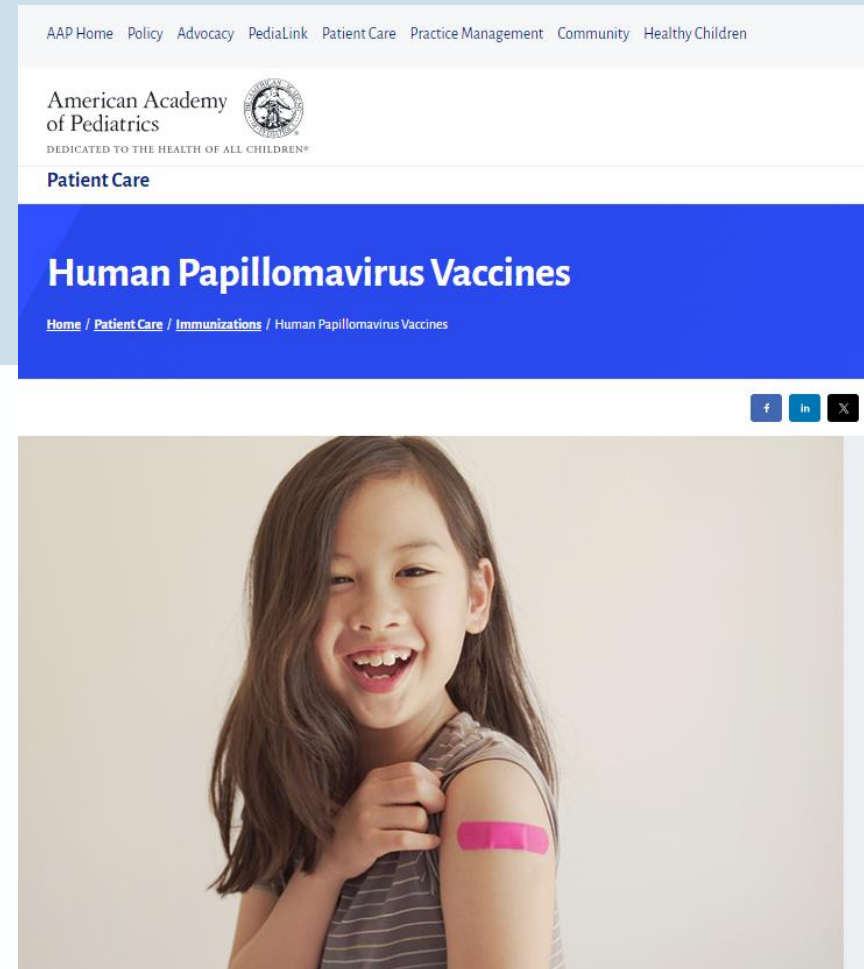
Communications Campaigns

- **Rural social media influencer campaign, Spring 2024**
 - Partnership with social media influencers to reach rural families (influencers are all parents themselves)
 - Various platforms: TikTok, Instagram, *Facebook, *YouTube
 - Aligns with AAP’s strategy of “flooding” social media channels with positive vaccine messaging to “drown out” negative messages
 - Influencers will be encouraged to speak to their audience parent to parent after being trained and given AAP resources on talking about vaccines
 - Posts will include links that direct parents to HPV resources and information on the HealthyChildren.org website

AAP Resources

- [Adolescent Immunization Discussion Guides](#)
- <https://www.aap.org/hpv>
- [AAP HPV Toolkit](#)
 - Customizable social media graphics
 - HealthyChildren.org articles and videos

Many resources available in several languages



AAP Resources

HUMAN PAPILLOMAVIRUS VACCINE

HPV IS MORE COMMON THAN YOU THINK

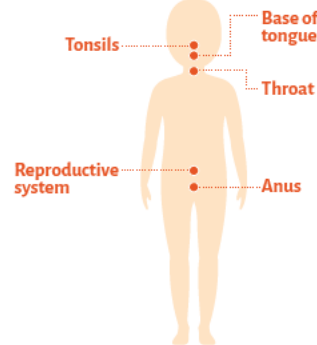


EACH YEAR MORE THAN **46,000** PEOPLE ARE DIAGNOSED WITH HPV-RELATED CANCERS



Here's Why Your Preteen Needs the HPV Vaccine

HPV CAN CAUSE CANCERS IN THE:



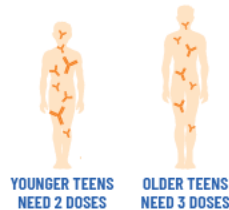
HPV VACCINE PROTECTS AGAINST OVER



90% OF THE CANCERS CAUSED BY THE VIRUS.

VACCINATING KIDS AT AGES 9–12 YEARS IS MOST EFFECTIVE PRE-TEENS PRODUCE MORE ANTIBODIES AFTER HPV VACCINATION.

MORE ANTIBODIES EQUALS MORE PROTECTION.



HUMAN PAPILLOMAVIRUS VACCINE

Use the speaking points on this page and share the accompanying infographics with families.

About human papillomavirus

- HPV stands for human papillomavirus.
- HPV can cause genital warts and several types of cancers that affect the
 - » Back of the throat, base of the tongue, and tonsils
 - » Anus
 - » Cervix, vulva, and vagina
 - » Penis
- All of these cancers can be deadly.
- HPV is spread by intimate skin-to-skin contact or by having vaginal, anal, or oral sex with someone who has the virus, even if they don't have signs or symptoms. It only takes one encounter or one partner to transmit the infection.
- Exposure to this virus is very common.
 - » Experts estimate that almost all sexually active people will acquire HPV at some point in their lives.
 - » Of new HPV cases, 3 out of 4 are found in people at ages 15 to 24 years.
 - » About 13 million people in the United States, including teens, become infected each year.

- In most people, the virus goes away on its own, but if it lasts it can lead to cancer and other diseases.
- Each year more than 46,000 people are diagnosed with HPV related cancers.
- There is no medicine to cure an HPV infection.

Why vaccinate against HPV?

- Getting HPV vaccine can prevent your preteen or teen from getting many of the strains of HPV that cause cancers. The vaccine that is currently available also prevents genital warts.
- This vaccine works and is long-lasting.

HPV vaccine

- The AAP recommends starting the series between 9 and 12 years. HPV vaccination is recommended for all individuals through age 26 years who are not adequately vaccinated. Some adults 27 through 45 years old also may be eligible for the HPV vaccine.

Why is HPV given at ages 9 to 12?

- To work, HPV vaccine must be given before a person is exposed.
- Every visit after the age of 9 is an opportunity to provide the vaccine to preteens and teens. Almost no 9- to 12-year-olds have HPV infection.
- After receiving human papillomavirus (HPV) vaccine, preteens make more infection-fighting antibodies than teens. That is why only 2 doses of the vaccine, instead of 3, are recommended at ages 9 to 12.
- Early vaccination prevents substantially more cases of precancer (abnormal cells that lead to cancer) than late vaccination.
- Current evidence shows that protection from HPV vaccination does not wear off!

The dosing schedule is as follows:

- All recommended doses of the HPV vaccine are needed for the body to build up enough immunity to protect against infection. This is also true of many of the vaccines that babies get.

Schedule	Recommended For	Dose	Routine Timing of Dose	Minimum Intervals
2-dose	Persons beginning human papillomavirus (HPV) vaccination before their 15th birthday	1st	Today	Minimum interval between the first and second dose is 5 months
		2nd	6–12 mo after first dose	
3-dose	Persons beginning HPV vaccination at age ≥15 and those who are immunocompromised	1st	Today	The following minimum intervals should be maintained: • Between doses 1 and 2: 4 wk • Between doses 2 and 3: 12 wk • Between doses 1 and 3: 5 mo
		2nd	1–2 mo after first dose	
		3rd	6 mo after first dose	

Common side effects of the HPV vaccine

HPV vaccine is very safe. Since the vaccine was licensed in 2006, no serious safety concerns have been linked to HPV vaccination.

Vaccine side effects

- Mild to moderate side effects
 - » Pain, redness, or swelling where the shot was given
 - » Fever
 - Mild (100°F or 37.8°C)

Severe side effects

- Serious illnesses do not happen more commonly in people who received the vaccine compared with those who did not.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



Questions?



PATH →
to prevention

Adolescent Immunization Action Week 2024

Kim Wolfe

Associate, Unity Consortium



**HPV Cancer
Prevention
Program**





UNITY

United for adolescent vaccination

***Preventing HPV Cancers with Rural Communities Meeting:
Adolescent Immunization Action Week 2024 (AIAW24)***

*Kim Wolfe, Unity Consortium
February 21, 2024*



UNITY Vision and Mission



VISION

Coverage is 90% or greater for all nationally recommended vaccines for adolescents and young adults

MISSION: Provide action-oriented leadership, innovation and education on preventive health and immunization for adolescents and young adults:



ESTABLISH

immunization as a central component of preventative health and as an investment in lifelong health



DEVELOP

healthcare providers as advocates that make strong recommendations for all nationally recommended vaccines



ENGAGE

parents, adolescents and young adults to embrace the value of immunization



ENSURE

easy access to and timely delivery of all recommended vaccines

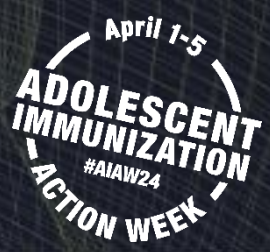


Adolescent Immunization Action Week (AIAW) is *April 1-5*





Theme: Stay on TASK



T **TRUST**
GOOD RESOURCES

A **ASK**
QUESTIONS

S **SCHEDULE**
AN APPOINTMENT

K **KNOW**
WHERE TO GET VACCINATED

April 1-5
**ADOLESCENT
IMMUNIZATION**
#AIAW24
ACTION WEEK

 **UNITY**
United for adolescent vaccination



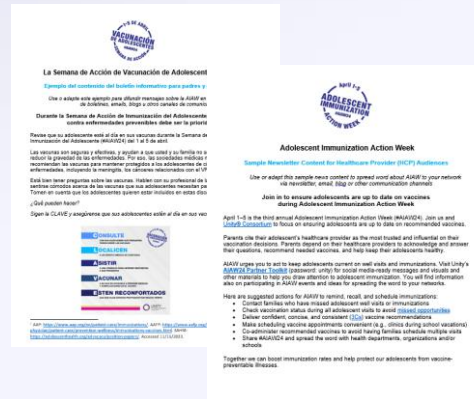
AIAW24 Toolkit of Campaign Resources



Social Media Posts



Newsletters (Parent, HCP)



Posters/Flyers



Video



Infographics



Website:
[Unity4teenvax.org/aiaw24](https://unity4teenvax.org/aiaw24)



AIAW24 Daily Themes



Monday, April 1

Tuesday, April 2

Wednesday, April 3

Thursday, April 4

Friday, April 5

Saturday, April 6

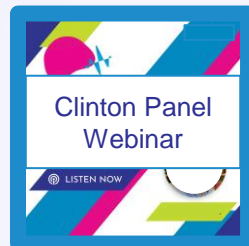
Trust good resources

Clinton Panel Webinar



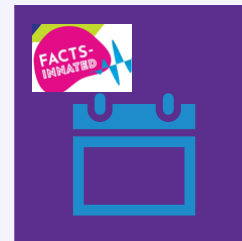
**AIAW Kickoff:
Stay on TASK**

Social media takeover



Schedule an appointment

New FACTSinnated episode



Ask questions

HCP to answer questions;
Recommended vaccines



REMINDER

STAY UP TO DATE
ON YOUR VACCINES.
CONTACT US TO
SCHEDULE AN
APPOINTMENT.

**Know where to
get vaccinated**



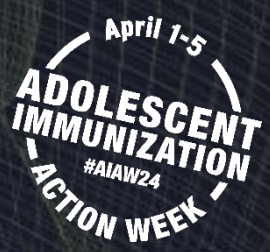
TASK

Find additional
resources &
information.





What Can You Do?



Start planning now

- Access the **AIAW24 Toolkit**
 - www.unity4teenvax.org/aiaw24/
- Find resources to share in the AIAW24 Toolkit
- Attend **Communications Briefings**
 - **FEB 27** and **MAR 26**, 12:30-1:00 ET



During AIAW, spread the word

- Amplify AIAW24 messages through your communications: **Social Media, Website, Newsletters**
- Share AIAW **Social Media, Posters/Flyers** and **Video**
- Promote and attend AIAW24 **Webinar**
- Direct people to the **AIAW24 Page**: www.unity4teenvax.org/aiaw24/

PATH →
to prevention

Discussion



**HPV Cancer
Prevention
Program**



Next Quarterly Updates Meetings

PATH →
to prevention

May 22, 2024, 1:00 – 2:00 PM CT
August 14, 2024, 1:00 – 2:00 PM CT
November 20, 2024 – 1:00 – 2:00 PM CT



**HPV Cancer
Prevention
Program**





Thank you!

Learn more at stjude.org/hpvrural