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Georgia Chapter

Immunization Webinar Series 2023

Advocating for a HPV and Cancer Free Society



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Conflict of Interest

In accordance with the ACCME Standards, all speakers are required to disclose to the program audience any real or apparent conflicts of interest to the content of their presentation.
 Angela Highbaugh-Battle, MD, FAAP
 I have nothing to disclose. In the past 24 months, I have not had any financial relationships with any ineligible companies.



Adolescent HPV Vaccination: Don't Wait to Vaccinate!

Stephen Thacker, MD, FAAP Pediatric Infectious Disease Medical University of South Carolina Pronouns: *he/him*

GAAAP Immunization Series | May 17th 2023

Goals in the discussion

- HPV Vaccination, The "Why"
- HPV Vaccination Updated Guidance
- Progress towards the Healthy People 2030 Goal
- Impacts of COVID-19 Pandemic on HPV Vaccination
- Recognize the need for vaccination to prevent OPC
- Broadening strategies to increase HPV Vaccination
- Disclosures & Conflicts of Interest: none

- 85% of people will get an HPV infection in their lifetime
- ~13 million Americans, including teens, become infected with HPV each year.
- Most HPV infections will go away on their own.
- Infections that don't go away can cause certain types of cancer.



- From 2014 through 2018, approximately 46,143 new cases of HPV-associated cancers occurred each year in the United States (25,719 among women and 20,424 among men).
- Cervical cancer, the most widely known HPV-associated cancer, caused an average of 12,200 cases in the U.S. each year during that time.
- Oropharyngeal cancers (OPC) were the most commonly occurring HPV-associated cancers, with an average of 20,236 reported cases each year (16,680 among men and 3,556 among women)

https://www.immunize.org/askexperts/experts_hpv.asp

- Birth-assigned Females: HPV is associated cervical, vulvar, and vaginal cancer
- Birth-assigned Males: HPV is associated penile cancer
- <u>All Humans</u>: HPV is associated with anal and oropharyngeal cancer.

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



HPV Vaccination WORKS:

 Infections with HPV types that cause most HPV cancers and genital warts have dropped 88% among teen girls and 81% among young adult women

HPV Vaccination IS Cancer Prevention

- HPV is estimated to directly cause nearly 36,500 cases of cancer in men and women every year in the United States.
- HPV vaccination **can prevent 33,700** of these cancers by preventing the infections that cause them.
- The same as average attendance for a MLB game.





HPV Vaccination Option

- **Gardasil 9** (9vHPV, Merck) is the only HPV vaccine being distributed in the United States
- 9vHPV is an inactivated 9-valent vaccine licensed by the Food and Drug Administration (FDA) in 2014.
- It contains 7 oncogenic (cancer-causing) HPV types (16, 18, 31, 33, 45, 52, and 58) <u>and</u>
- two HPV types that cause most genital warts (6 and 11)

The HPV vaccine is for both boys and girls.

HPV vaccination helps prevent

6 types of cancers

HPV Vaccine: Contraindications & Precautions

- 1. HPV vaccine is contraindicated for persons with a history of immediate hypersensitivity to any vaccine component, including *yeast*.
- 2. The precaution to HPV vaccine is a **moderate or severe acute illness** with or without fever. Vaccination should be deferred until the condition improves.
- 3. HPV vaccines are not recommended for use during pregnancy.
 - 1. If a person is found to be pregnant after starting the vaccination series, the remainder of the 2 or 3-dose series (depending on the age of first HPV vaccination) should be delayed until completion of pregnancy.
 - 2. Pregnancy testing is not needed before vaccination.
 - 3. If a vaccine dose has been administered during pregnancy, no intervention is needed.

HPV Vaccination History

- 2006, CDC and the FDA first recommended the HPV vaccination for adolescent females.
- 2011 this recommendation was extended to included adolescent males.
- Most recently, the CDC and ACIP have updated their recommendations related to HPV vaccination to include catch-up vaccination for all persons through age 26.
- This update also includes a recommendation for shared decision making with providers and patients age 27-45 if there may benefit from HPV vaccination.







HPV Recommendations



- ACIP: recommends that routine HPV vaccination be initiated at age 11 or 12 years. The vaccination series can be started beginning at age 9 years.
- AAP: recommends starting the series between 9 and 12 years, at an age that the provider deems optimal for acceptance and completion of the vaccination series.
- **Series**: 2-dose HPV vaccine schedule for adolescents who start the vaccination series before the 15th birthday.

• The two doses should be separated by 6 to 12 months.

What conditions require 3 doses?

ACIP recommends vaccination with 3 doses of HPV vaccine for females and males age 9 through 26 years with **primary or secondary immunocompromising conditions** that might reduce cell-mediated or humoral immunity.

- B lymphocyte antibody deficiency
- T lymphocyte complete or partial defects
- HIV infection
- malignant neoplasm, or transplantation
- autoimmune disease, or immunosuppressive therapy



Increase the proportion of adolescents who get recommended doses of the HPV vaccine — IID-08





National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2021



¹⁹ MMWR Morb Mortal Wkly Rep 2022;71:1101–1108. DOI: <u>http://dx.doi.org/10.15585/mmw</u>

National, Regional, State, and Selected Local Area

Vaccination Covarada Amona Adolacconte

Up to **90%** of girls unvaccinated for HPV had a healthcare visit where they received another vaccine such as Tdap, but not HPV.

If HPV vaccine had been administered at the same visit, vaccination coverage for one or more doses could be 90% instead of 70%.

Not receiving a healthcare provider's recommendation for HPV vaccine was one of the main reasons parents reported for not vaccinating their adolescent children.

²⁰ MMWR Morb Mortal Wkly Rep 2022;71:1101–1108. DOI: <u>http://dx.doi.org/10.15585/mmwr.mm7135a1</u>

HPV-related cancer rates by state.



2021 Up-to-Date HPV Vaccine Coverage: Females 13-17 Yr of Age



cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html

Slide credit: <u>clinicaloptions.com</u>

2021 Up-to-Date HPV Vaccine Coverage: Males 13-17 Yr of Age



cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html

Slide credit: <u>clinicaloptions.com</u>

Vaccination Coverage by Year among Adolescents Age 13-17 Years, Georgia, National Immunization Survey-Teen

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Up-to-Date HPV Vaccination Coverage by Year among Adolescents Age 13-17 Years, National

CDC, National Immunization Survey-Teen, 2021

School Mandates: HPV Vaccines

 As of July 2021, only 4 US states have HPV vaccine mandates for elementary and secondary schools¹



1. immunize.org/laws/hpv.asp. 2. Churchhill. J Health Econ. 2021;78:102480.



Georgia Data:

Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2020

 Continued disparities along race and ethnicity comparisons



RACE/ETHNICITY

Disparities in Gender and Race/Ethnicity

Drivers:

Gaps in knowledge and provider recommendations

 Provider recommendation was found to be the most important factor in deciding to initiate and complete the HPV vaccine in racial/ethnic minority populations.

Medical mistrust and safety concerns

- Unsafe, fertility concerns, mistrust of pharmaceuticals
 Religious and cultural beliefs
- Largely non-US born
- Belief vaccinating promotes promiscuity
- ²⁸ | J Racial Ethn Health Disparities. 2021 Oct; 8(5): 1192–1207.

Systematic Review of peer-reviewed articles and abstracts that had been published in English from July 2010 to July 2020 and covered racial/ethnic disparities in HPV vaccination. Vaccination Coverage among Adolescents Age 13-17 Years, Survey Years 2015-2019, South Carolina, National Immunization Survey-Teen





Vaccine

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Vaccination Coverage among Adolescents Age 13-17 Years, Survey Years 2015-2019, Georgia, National Immunization Survey-Teen



30 | .

Gap in Rural HPV Adoption



http://dx.doi.org/10.15585/mmwr.mm7135a1

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No One Size Fits All for Rural HPV Advocacy

- Every community is different & partnerships in those communities are key.
- Recognize the power of recommendations from clinicians



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The MUSC Hollings Cancer Center HPV Vax Van Program: Mission

To improve access to HPV vaccinations to prevent six cancer types and to deliver cancer control services throughout the state, with a concentrated focus among medically underserved areas in the HCC catchment area by:

- Delivering cancer control services (CCS) to residents in rural areas and those with health care professional shortages.
- Providing evidence-based education about guidelines for early detection and cancer control behaviors.



In its first year, the community health van reached children in 21 of South Carolina's 46 counties.

Journal of Clinical Medicine. 2023; 12(4):1362. https://doi.org/10.3390/jcm12041362



Widening gap with parents

 The proportion of unvaccinated adolescents who were recommended the HPV vaccine by their provider increased from 27.0% in 2012 to 49.3% in 2018 (P_{trend} < .0001).



- Among these adolescents, parental lack of intent to initiate the HPV vaccine series increased from 50.4% in 2012 to 64.0% in 2018 ($P_{trend} = .003$)
- The lack of intent increased among parents of boys from 44.4% to 59.2% (P_{trend} = .0097) and
- girls from 54.1% to 68.1% (*P_{trend}* = .0061)



³⁵ | Pediatrics. 2021;147(3). doi:10.1542/peds.2020-026286

Will Vaccine Hesitancy Rise Due to Pandemic?

• The top five selected reasons were:

- o"Safety concerns"
- o"Not recommended"
- o"Lack of knowledge"
- o"Not sexually active"
- o"Not needed or not necessary"



Sonawane K, et al. JAMA Network Open 2021. doi: 10.1001/jamanetworkopen.2021.24502

HPV Vaccine Safety: continued reassurance

- Reports of *serious* health issues after HPV vaccination were consistently rare — around 1.8 per 100,000 HPV vaccine doses, or 0.0018%.
- A total of 758 serious health problems that arose after HPV vaccination were reported in VAERS during that time.
- Meanwhile, the rate of *nonserious* health issues following HPV vaccination reported in VAERS dropped from 43 to 28 per 100,000 vaccine doses.

COVID-19 Impact on HPV Vaccinations

- We saw a tremendous decline in well/preventative care visits for children, adolescents and adults
- This impacted routine
 childhood immunizations
- This also significantly impacted HPV vaccination uptake
- In the first surges we saw 60-70+ % decline nationwide



COVID-19 Impact on HPV Vaccinations

- While we have seen increasing 1st doses and catchup doses, we have not caught up for lost ground.
- Resurgences continue to stall catchup and new HPV vaccinations
- Even after stay at home orders had been lifted in late 2020, we still saw declines compared to pre-pandemic
 - administration of HPV vaccine decreased a median of 12.2% (9-12y) and 28.1% (13-17y)
- Estimated impact on OPC: potential additional 6000+ cancers <u>unless</u> vaccine use catches up and accelerates





How Do We Get There?

• Newer Strategies:

Dentists as referrers & Pharmacy partners

Start at 9

• Vaccinate with Confidence: get social!

• What we Know Works:

- Practices committed and educated; research has shown that not receiving a healthcare provider's recommendation for HPV vaccine was one of the main reasons parents reported for not vaccinating their adolescent children.
- HPV champion in the office
- 3 C's: Confident, Concise, and Consistent recommendation
- Specific training on Motivational Interviewing & Presumptive Approach in hesitancy discussions



Oropharyngeal cancers outpacing Cervical



Growing Role for Dentists as Vaccine Advocates

Mouth

Health

85.9% of children aged 2-17 years with a dental visit in the past year

- In 2020, the FDA expanded HPV vaccine approval to include prevention of HPV-related oropharyngeal cancer.
- Rates of OPC in men is rising at a rate outpacing HPV vaccination in males.
- American Dental Association (ADA) and American Academy of Pediatric Dentistry (AAPD) released a statement that "urges dentists, as well as local and state dental societies, to support the use and administration of the HPV vaccine"

Growing Role for Dentists as Vaccine Advocates

Mouth

Health

- Vast majority of Dentists and Dental Hygienist have interest in advocating and referring to vaccine providers for HPV vaccination.
- A survey of 208 parents of adolescents (9-17yrs) found 66.4% of the parents felt dentists were qualified to counsel about HPV and 72.6% felt they were qualified to counsel about the vaccination
- Survey of 266 Dentists: only 50% feel knowledgeable enough to recommend the vaccine but 82% of Dentists "Rarely" recommend the vaccine"
- Dentists need our support to promote vaccine advocacy



OPC Prevention Message is Critical

Increasing HPV vaccination coverage rates to 80% would be expected to prevent 5,339 OPC cases at a cost of \$0.57 billion USD.

Increased HPV vaccination coverage would result in 7,430 quality-adjusted life year (QALY) gains in the overall population



Power of Starting at 9

 initiating the vaccine at age 9 or 10 also may be preferable for parents or adolescents who do not want to receive three or four (in influenza season) concomitant vaccines at age 11 or 12.

o If a vaccine is delayed at the 11- or 12-year visit, it almost always is the HPV vaccine.

- some providers have reported that initiating the vaccine earlier makes it easier to disentangle the HPV recommendation from the "sex talk" they have with patients at age 11 or 12.
- A retrospective study showed that adolescents who started the HPV vaccine series at age 9 or 10 were 22 times more likely to complete the two-dose series by age 15 than those who initiated the series at age 11 or 12.

Power of Starting at 9

- 30% of adolescents never present for preventative care
- 1 in 15 adolescent visits is for preventative care
- Preventative visits decline after age 13
- Early adolescents (11-14 years old) had 3 times more preventative visits than late adolescents.
- Each adolescent visit may be the last chance to vaccinate!
- Use Sick & Well visits to vaccinate!



Power of Starting at 9

QI initiative performed in the Nationwide Children's Hospital system utilizing electronic medical record alerts showed rapid uptake of HPV vaccine prior to age 11, suggesting a willingness by parents and providers to initiate the vaccine earlier than previously recommended.

- Simple earlier age EMR-based trigger/reminder led to:
- percentage of patients receiving an HPV vaccine before 11 years increased from 4.6% to 35.7% during the 6 months after the QI initiative began and to 60.8% 18 months after the project began.



When your child needs a hospital, everything matters.™



Protect communities. Empower families. Stop myths.



Stop Myths

CDC is engaging local messengers and partners to contain the spread of misinformation and ensure key stakeholders have critical information about vaccines.

New Investments and Partnerships

- Work with social media companies to promote trustworthy vaccine information
- Provide accurate, accessible information on vaccines to state policy makers
- Engage state and local health officials to advance effective local responses to misinformation

Clearing the Fogg

- What percentage of consumers use social media information to guide health choices?
- What % of Social Media users are most likely to trust social media posts and activity by doctors over any other group?
- What % of US physician practices have a Facebook page as a minimum of social media presence?



BJ Fogg

60%

40%

53%

"Real World" Questions

1. My patient is sexually active already, is it worth it to vaccinate? YES! HPV vaccine should be administered to people who are already sexually active regardless of duration and sexual orientation.

- 2. My patient already has documented HPV 16 & 18 infection, should I vaccinate?
- YES! Can benefit from protection from other HPV types in 9vHPV.

3. My patient has genital warts, is their value to vaccinating? YES! Can benefit from protection against oncogenic strains and may not have been infected with both 6 AND 11.



Key Points



- HPV infection is a common human experience
- HPV vaccination prevents cancers!
- COVID-19 has slowed our progress toward our 2030 Health People Goal of 80%+ HPV vaccination
- Identify a HPV Champion in your office, start an action plan, share your advocacy on social media!
- Connect with your community Dentists and partner on HPV vaccine advocacy
- Start with the "9s"
- Treat every adolescent encounter like it is your last opportunity to protect them against HPV!

HPV Vaccine Resources

- https://www.cdc.gov/vaccines/partners/vaccinate-with-confidence.htm
- https://www.cancer.org/content/dam/cancer-org/onlinedocuments/en/pdf/flyers/steps-for-increasing-hpv-vaccination-inpractice.pdf
- https://www.aap.org/en/patient-care/immunizations/humanpapillomavirus-and-other-vaccines-recommended-for-adolescents/
- https://hpvcancerfreega.org/
- https://hpvroundtable.org/
- https://www.stjude.org/research/comprehensive-cancer-center/hpvcancer-prevention-program/preventing-hpv-cancers-with-ruralcommunities.html



Path to a Bright Future

HPV vaccination is cancer prevention







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Questions?



Stephen Thacker, MD, FAAP Pediatric Infectious Disease Shawn Jenkins Children's Hospital Medical University of South Carolina Pronouns: *he/him* American Academy of Pediatrics

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We will now have a question-and-answer period. To submit your questions, please type them in the box on the right side of your screen or unmute yourself. Please note that we may not be able to answer all questions today but will provide an email address following the webinar for a contact to address any additional questions.



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Thank you!

Thank you for participating in today's webinar. Participants can scan the QR code or use the link on the next slide to complete the evaluation. Registered participants will receive an email shortly to evaluate the program also. Complete and submit the evaluation by **June 19th**. Certificates of attendance will be emailed on **June 20th**.

If you have any questions, please contact Cordia Starling at cstarling@gaaap.org.



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SCAN ME

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