



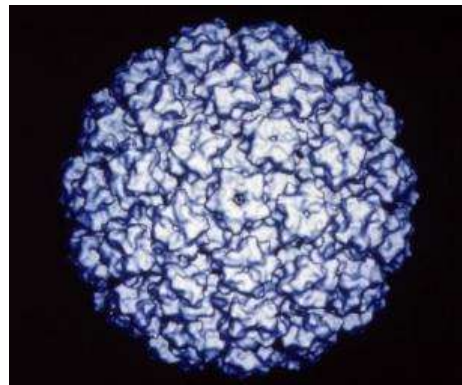
Mission:
HPV **CANCER**
FREE

HPV Vaccination:
State of the Science
June 2021

What is HPV?

Human Papilloma Virus

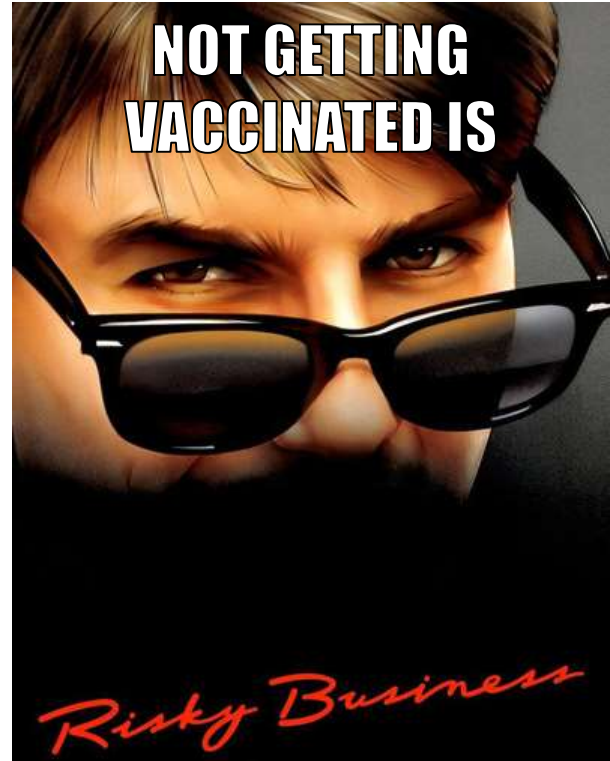
- >150 types
- <15 types cause cancer
- VERY common





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EVERYONE
is at risk





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US population:
325 million

HPV
infections
in the US:
80 million

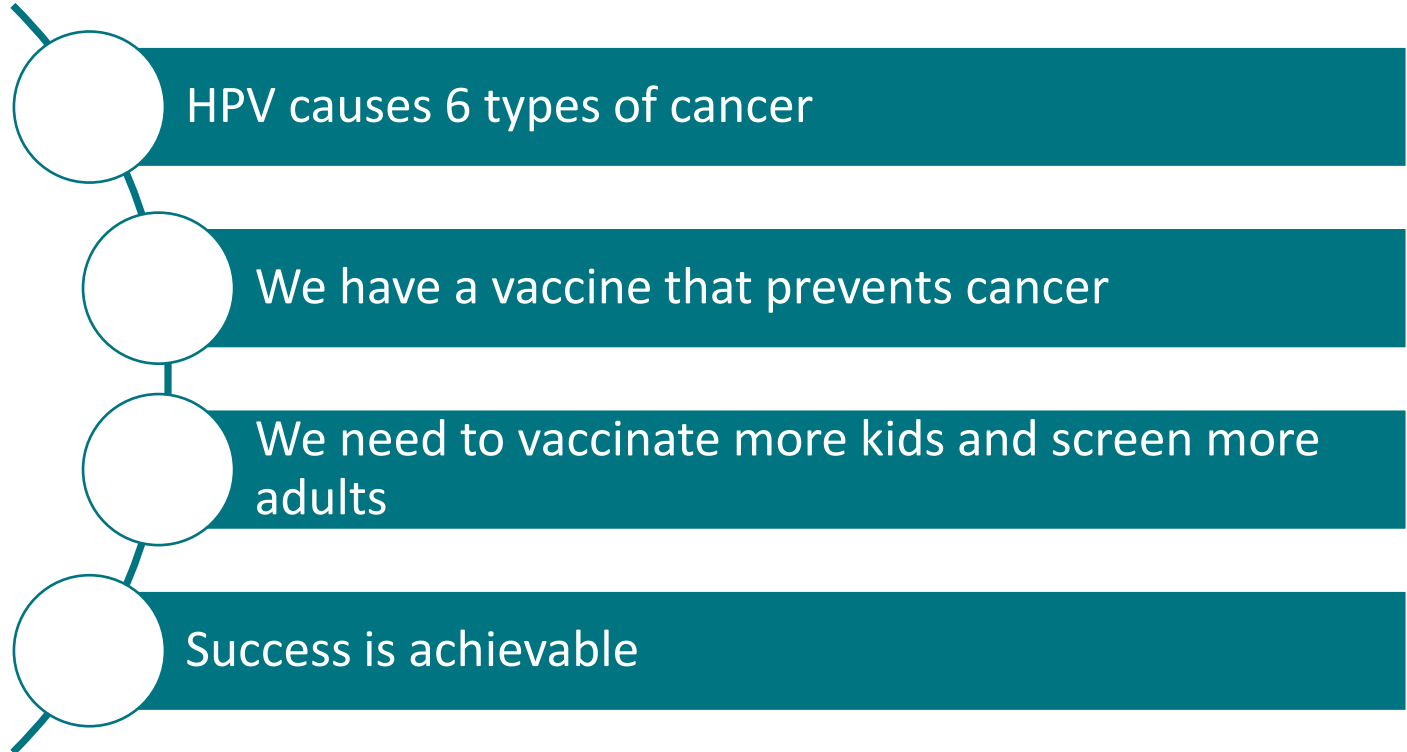
Your lifetime risk of getting HPV:

>80%

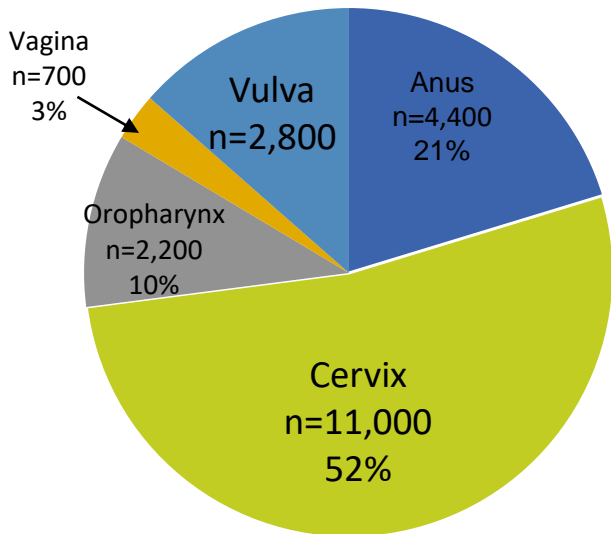


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Why Focus on HPV?

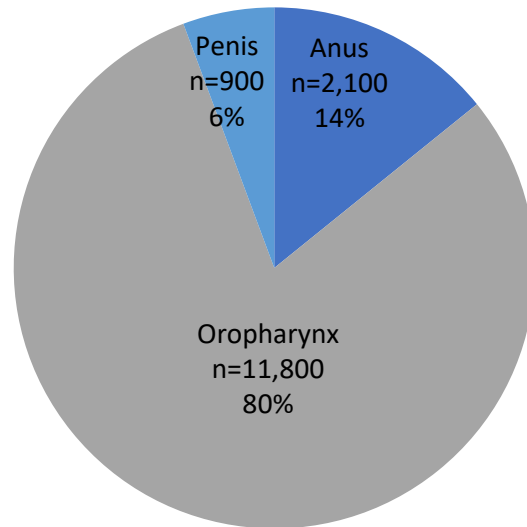


Average Number of New Cancers Probably Caused by HPV, by Sex, United States



■ Anus ■ Cervix ■ Oropharynx ■ Vagina ■ Vulva

Women (n = 21,100)



■ Anus ■ Oropharynx ■ Penis

Men (n = 14,800)

Screening Test?

Cervical

YES

Vulvar

NO

Vaginal

NO

Anal

NO

Penile

NO

Throat

NO



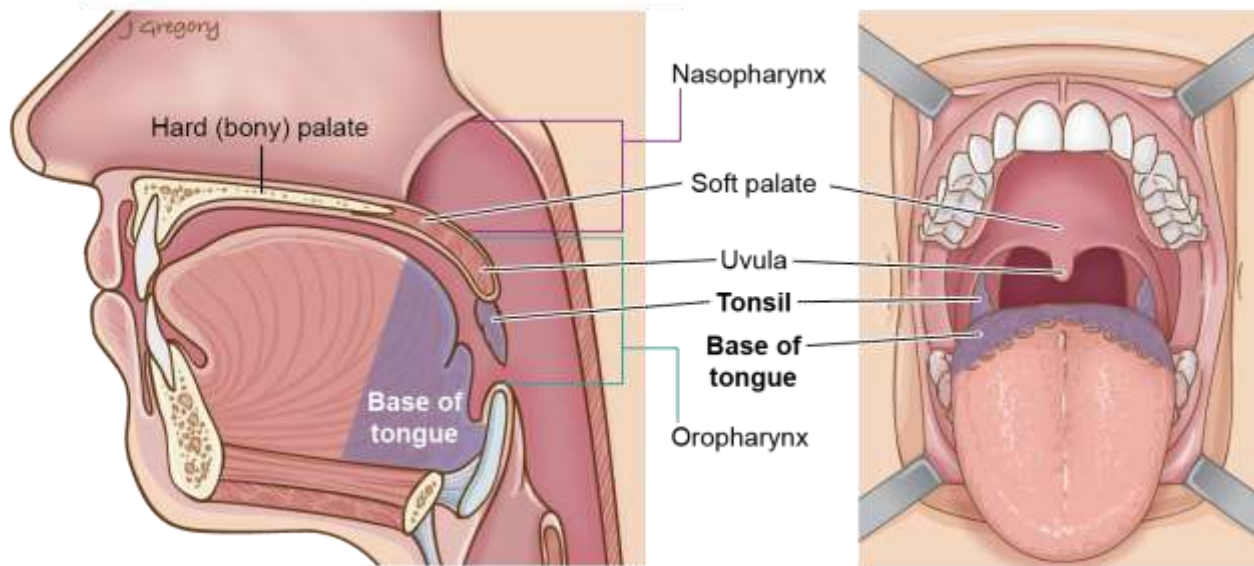
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>1 Million Women Affected Each Year:

- > **1 million** new cases of low-grade cervical dysplasia
- > **200,000** new cases of high-grade cervical dysplasia (also known as “pre-cancer”)



The Oropharynx





HPV Vaccination as Cancer Prevention



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DOES IT WORK?

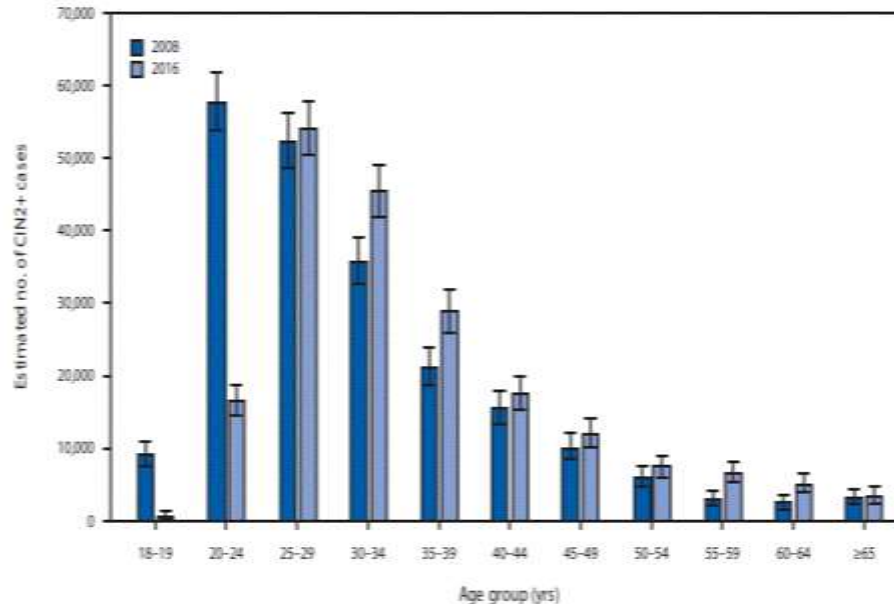




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Effectiveness

DRAMATIC DECREASE IN HIGH-GRADE CERVICAL LESIONS AMONG WOMEN IN THE US



HPV Vaccination Prevents Cancer

THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

HPV Vaccination and the Risk of Invasive Cervical Cancer

Jiayao Lei, Ph.D., Alexander Ploner, Ph.D., K. Miriam Elfström, Ph.D.,
Jiangrong Wang, Ph.D., Adam Roth, M.D., Ph.D., Fang Fang, M.D., Ph.D.,
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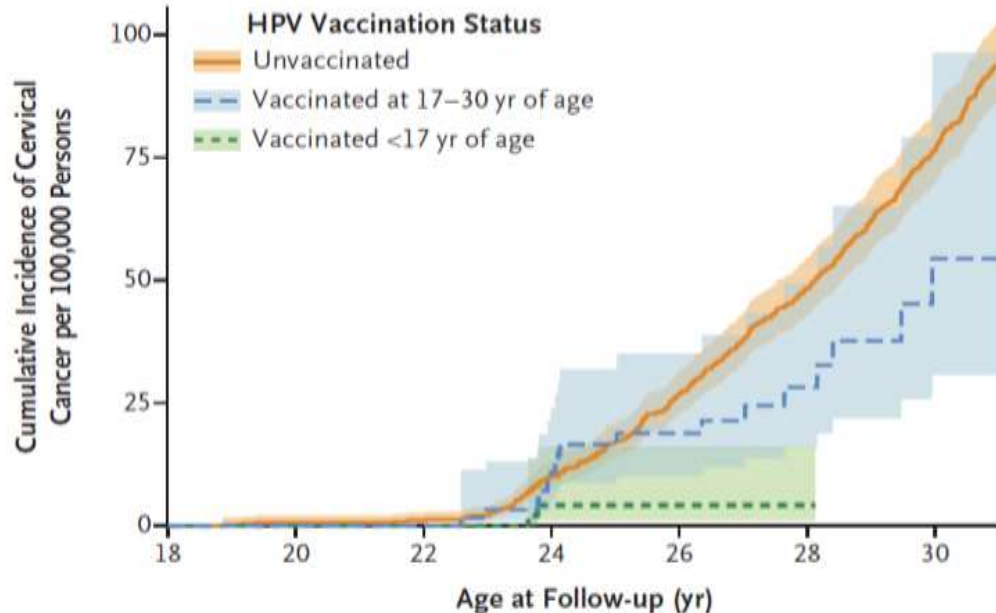


Figure 2. Cumulative Incidence of Invasive Cervical Cancer According to HPV Vaccination Status.

Age at follow-up is truncated in the graph because no cases of cervical cancer were observed in girls younger than 18 years of age.

**We can prevent >90%
of HPV cancers
through vaccination**



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IS IT
SAFE?





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Over 10 Years of HPV Vaccine Safety Data

No increased risk of:

- **2011- Allergic reactions, anaphylaxis, GBS, stroke, blood clots, appendicitis, or seizures (than unvaccinated or who received other vaccines)**
- **2013 –Blood clots or AEs related to the immune & CNS (almost 1 million girls)**
- **2014 – Venous thromboembolism or blood clots (>1 million women)**
- **2012 & 2014 – Autoimmune disorders (2 studies)**
- **2015 – Multiple sclerosis or other demyelinating diseases**
- **2016- Over 60 other conditions**
- **2018 – 12 Different types of autoimmune diseases**



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Is the HPV vaccine safe?

109 studies of 2.5 million people in 6 countries have shown: NO serious side effects, other than what's typical for all vaccines (i.e. allergic reactions, fainting).

ACS Recommendations for HPV Vaccination



ACS Recommendations for HPV Vaccination

1. Girls and boys should get 2 doses of the HPV vaccine at ages 9 to 12 years.
2. Children and young adults up to age 26 years who have not received the HPV vaccine should get vaccinated. Vaccination of young adults will not prevent as many cancers as vaccination of children and teens.
3. The ACS does not recommend HPV vaccination for persons older than 26 years.





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Why emphasize age 9-12?

**EXPLORING MARS
IS ON HER TO-DO LIST.
IS PROTECTING
HER FROM CANCER
ON YOURS?**

Learn how at cancer.org/dreambig

The advertisement features a portrait of a young Black girl with curly hair, looking directly at the camera. The background is a teal color with faint, stylized line drawings of planets and stars, suggesting a space theme. The text is in white, bold, sans-serif font.

Health care providers are encouraged to **start offering the HPV vaccine series at age 9 or 10 years...**

to achieve higher on-time vaccination rates, which **will lead to increased numbers of cancers prevented**



Benefits of vaccinating at age 9-10

Provider/System/Public Health Perspective

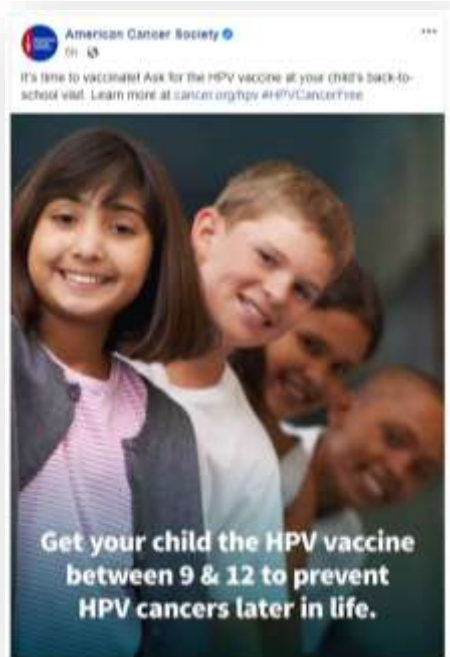
- Earlier initiation of HPV vaccination
- Offers more time for completion of the series
- Increases the likelihood of vaccinating prior to first HPV exposure
- Decreases the need to discuss sexual activity
- Decreases requests for only vaccines that are “required”
- Has been shown by several systems to increase vaccination rates
- Has been shown to be acceptable to systems & providers



Benefits of vaccinating at age 9-10

Parent/Patient Perspective

- Decreases the need to discuss sexual activity
- Decreases the number of shots given in a single visit
- Has been shown to be acceptable to parents



Vaccinating at age 9-10

Vaccination has shown no sign of protection waning over time

No known downside



What if my teenager didn't get vaccinated "on time"?



Late
Ages 13-14
2 Doses
6-12 months
apart



Late - Extra Dose
Ages 15-26
3 Doses
1st dose at visit one
2nd dose 1-2 months later
3rd dose 6 months
after 1st dose



What about adults?



Impact of Age at Vaccination

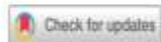
RESEARCH



OPEN ACCESS

Prevalence of cervical disease at age 20 after immunisation with bivalent HPV vaccine at age 12-13 in Scotland: retrospective population study

BMJ: first published 11 July 2012



Tim Palmer,¹ Lynn Wallace,² Kevin G Pollock,^{3,4} Kate Cuschieri,⁵ Chris Robertson,^{3,6,7} Kim Kavanagh,⁷ Margaret Cruickshank⁸

Age at Vaccination	Effectiveness (against CIN3+)
12-13	86%
17	51%
18-21	15%



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and Pär Sparén, Ph.D.

Sweden, 2006-2017

1.7 million females ages 10-30

538 cancers in 528,000 unvaccinated

19 cases in 518,000 vaccinated

2 cases in 439,000 vax age 10-16

17 cases in 90,000 vax age 17-30

**88% protection against invasive cervical cancer
when vaccinated before age 17**

ORIGINAL ARTICLE

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HPV Vaccination Prevents Cancer

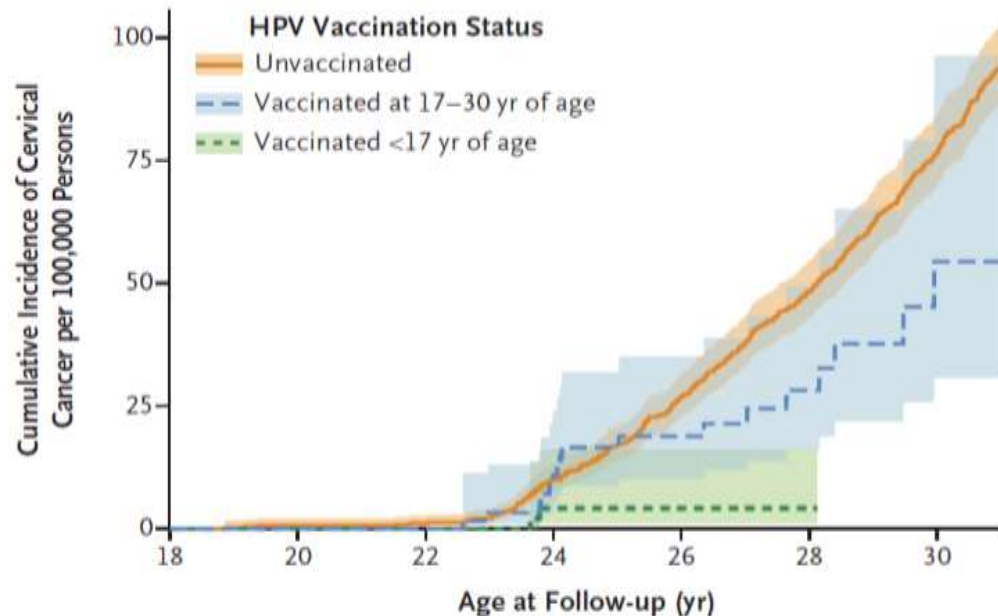


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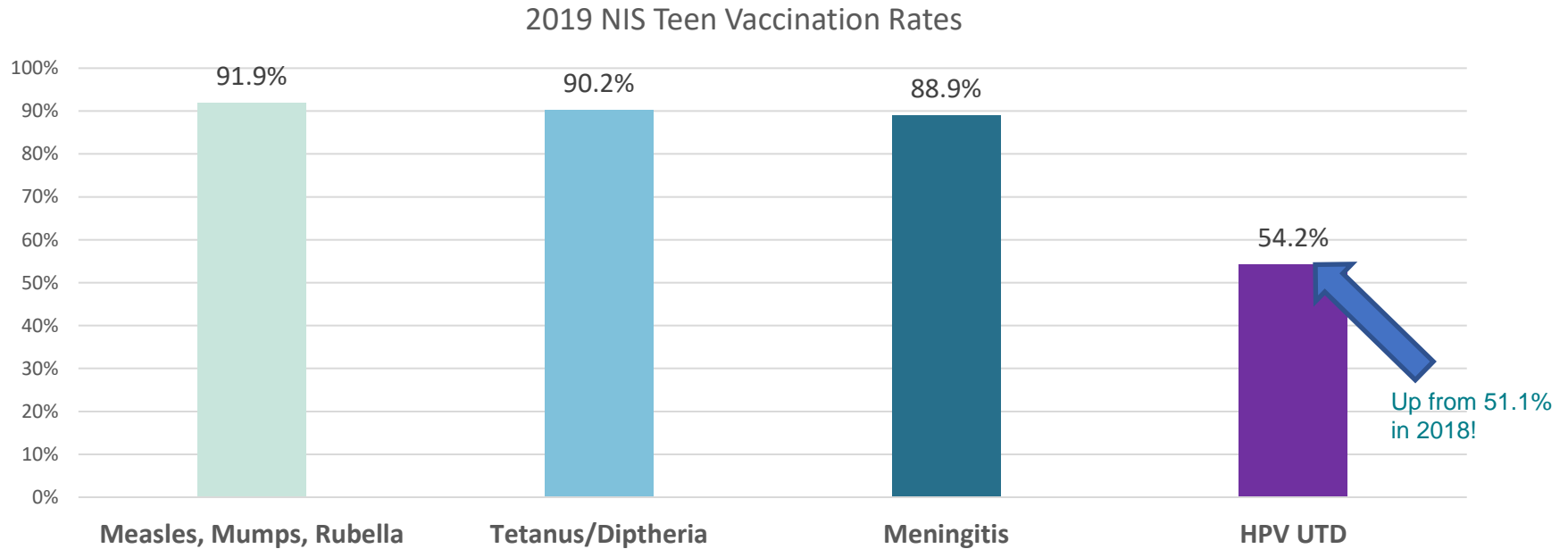
Getting Adolescent Vaccination Back on Track during COVID-19





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2019 NIS Teen Data Update: Adolescent Vaccination Rates





- ✓ Tdap
- ✓ Mening
- HPV

WHY?

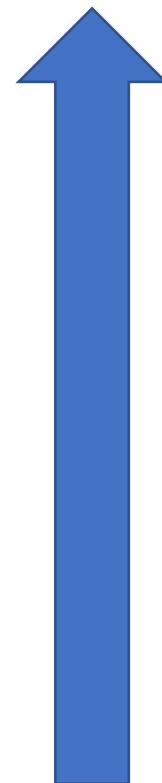
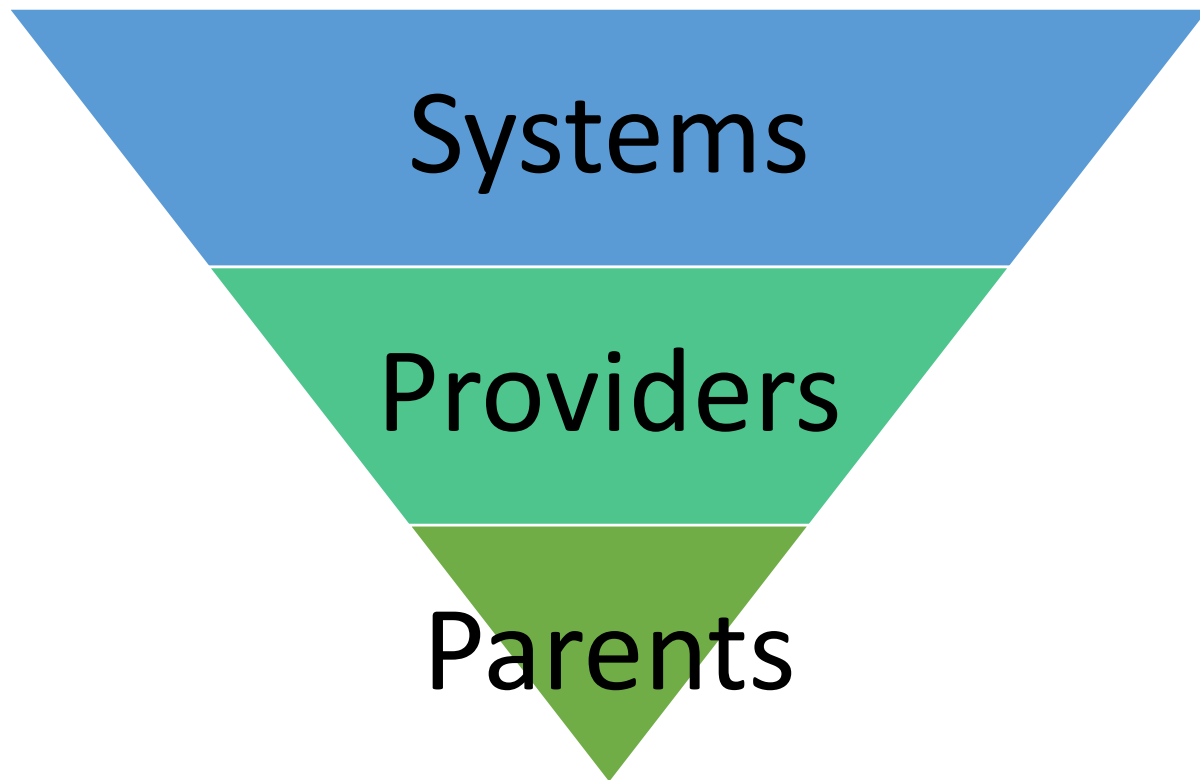


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Levels of Barriers



Impact

Effectiveness

Evidence



VACCINES WORK

Here Are the Facts



Asking questions
or expressing
concern does not
equal vaccine
refusal.



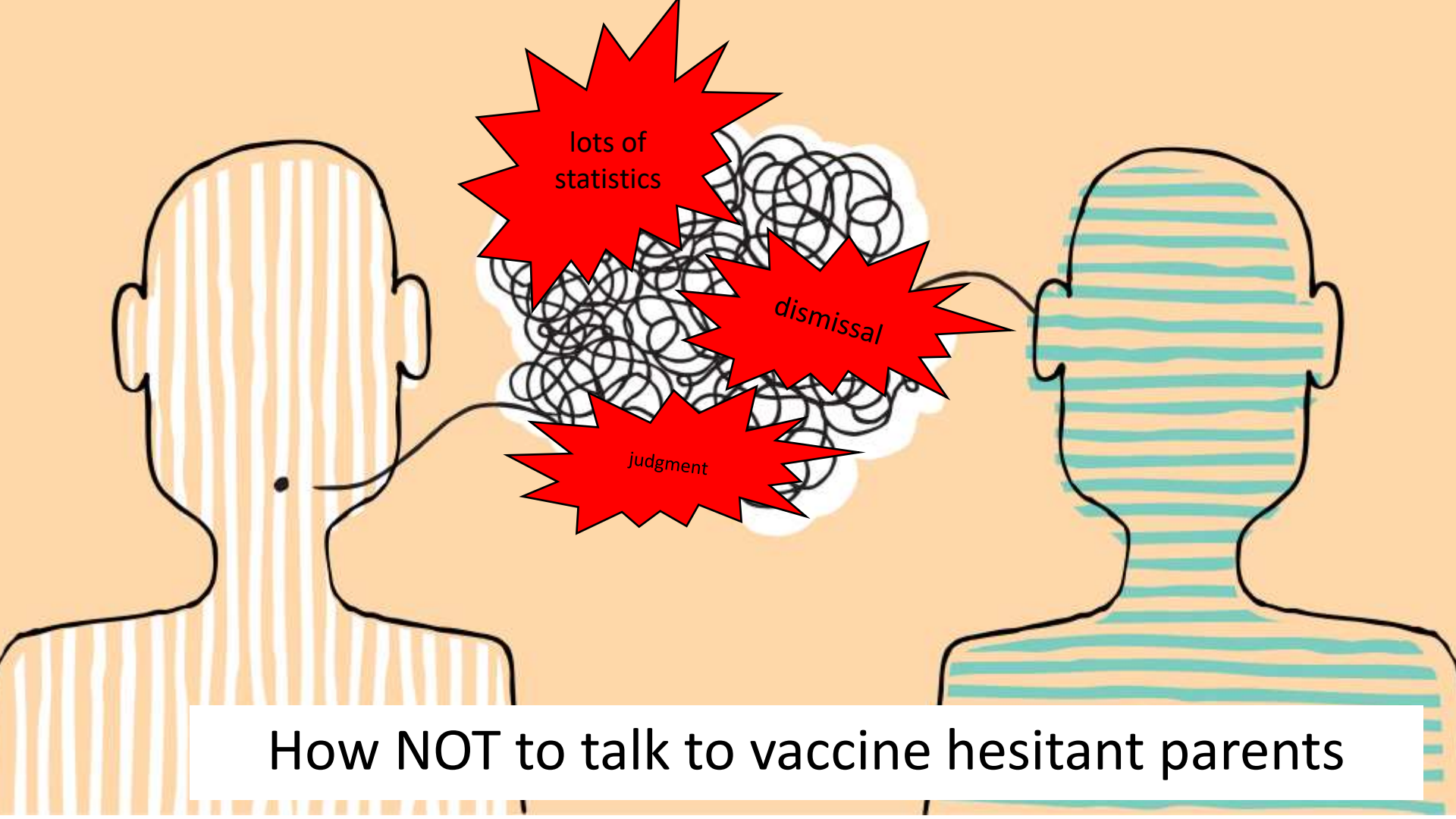
Action 1

**Make a
presumptive
recommendation
for cancer
prevention**



Action 2

Answer
parents'
questions



lots of
statistics

dismissal













judgment

How NOT to talk to vaccine hesitant parents

- Empathy
- Advice from a pediatrician
- Real stories about risks of not vaccinating



1. Start with compassion not judgement.
2. Use simple facts that address specific concern or question.
3. Avoid restating the myth or rumor.
4. Share personal experience
5. Reinforce vaccination as the norm in your clinic, practice or office.

Problem	Solutions and Good Practice	
Continued Influence Effect Despite a retraction, people continue to rely on misinformation 	Alternative Account Alternative explanation fills gap left by retracting misinformation 	Repeated Retraction Strengthen retraction through repetition (without reinforcing myth) 
Familiarity Backfire Effect Repeating the myth increases familiarity, reinforcing it 	Emphasis on Facts Avoid repetition of the myth; reinforce the correct facts instead 	Preexposure Warning Warn upfront that misleading information is coming 
Overkill Backfire Effect Simple myths are more cognitively attractive than complicated refutations 	Simple, Brief Rebuttal Use fewer arguments in refuting the myth — less is more 	Foster Healthy Skepticism Skepticism about information source reduces influence of misinformation 
Worldview Backfire Effect Evidence that threatens worldview can strengthen initially held beliefs 	Affirm Worldview Frame evidence in worldview-affirming manner by endorsing values of audience 	Affirm Identity Self-affirmation of personal values increases receptivity to evidence 



What you say matters.
How you say it matters more.

ADOLESCENT IMMUNIZATION HAS DROPPED PRECIPITOUSLY SINCE THE PANDEMIC HIT

Immunizations provided by the Vaccines for Children program in FY20& 21 as compared to FY19



21%

HPV vaccinations
down >1 million doses



22%

Tdap vaccinations
down >685K doses



18%

Meningococcal
vaccination down >818K

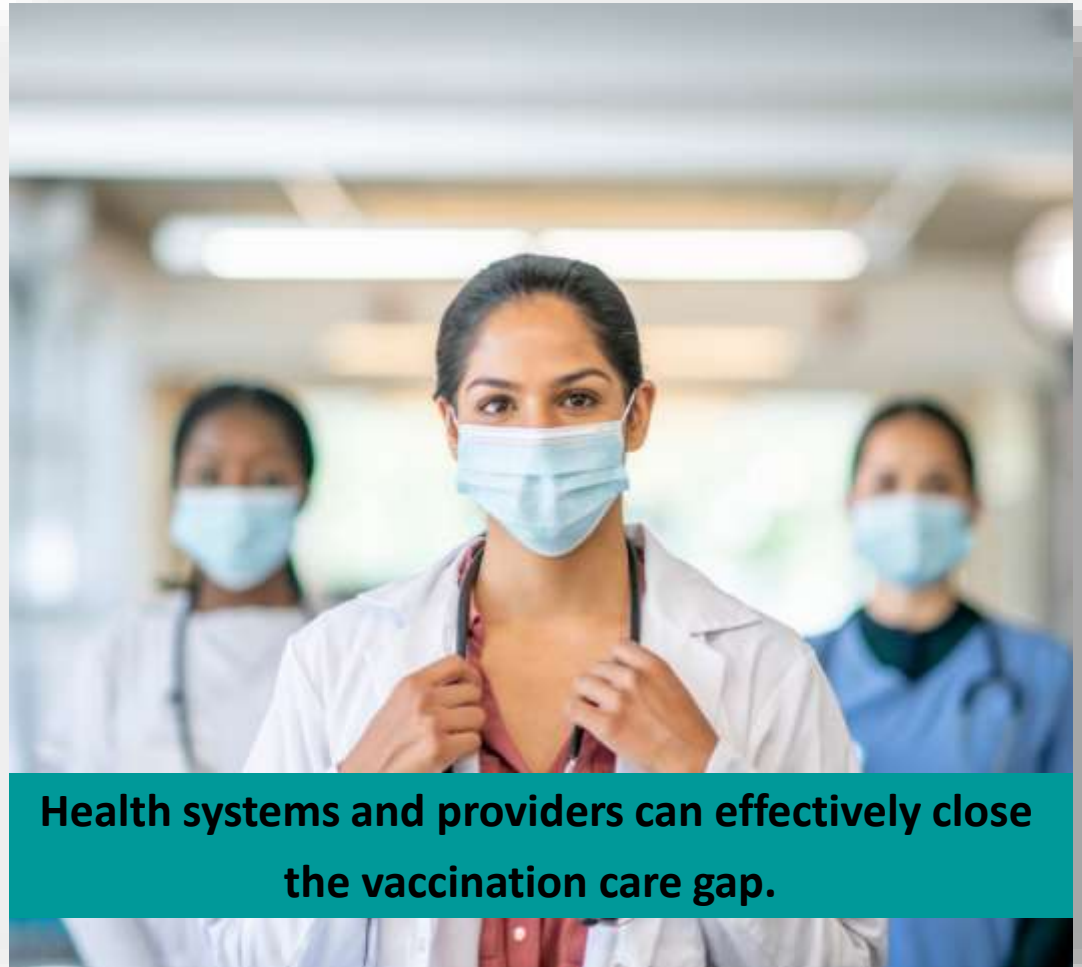
SOURCE: CDC Communications Jan. 2021



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The time for action is now!

We need your help to close
the school-age vaccination
gap during Summer 2021.



**Health systems and providers can effectively close
the vaccination care gap.**

MANAGING ADOLESCENT POPULATION HEALTH: *SPRING-SUMMER 2021*

We need to get children caught up NOW on vaccine doses they missed or are due for so that they can safely return to in-person learning.

- Well-child visits
- Vaccinations



Catch-up vaccination is urgent as we plan for a safe return to in-person school.

Activate Parents

- Enact patient reminder/recall efforts

Pull overdue and newly due patient lists

Proactively reach out to patients via multiple channels

Patient Portal

Email/Text Messages

Phone Calls

Postcards



Reduce Missed Opportunities

- Recommend all ACIP-recommended vaccines at every visit
- Start recommending HPV vaccine at age 9



Start With Data

- Review last 12-24 months of data
- Assess by geography, age, provider, if applicable
- Discuss systems and provider-level data
- Consider vaccine registry interoperability





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Recommended EBIs: **HPV Vaccination**

Patient/Parent

CLIENT REMINDERS

PATIENT EDUCATION

Provider & Staff

PROVIDER REMINDERS /
RECALL

PROVIDER ASSESSMENT &
FEEDBACK

PROFESSIONAL EDUCATION

STANDING ORDERS

Access

REDUCE BARRIERS

Modify hours of service

Nurse only visits

Schedule 2nd dose at
visit

Start at 9 years of age

Getting Adolescent Vaccination Back on Track



Health Systems Playlist: A suite of 6 new videos to message to population health and quality improvement leaders and immunizers the importance of prioritizing an adolescent vaccination plan.



Health System Infographic: an interactive handout linking to new CDC resources and a custom playlist of supporting videos



Vaccination During COVID-19: Curated webpage with resources from national organizations to help guide decision making and processes during the pandemic.



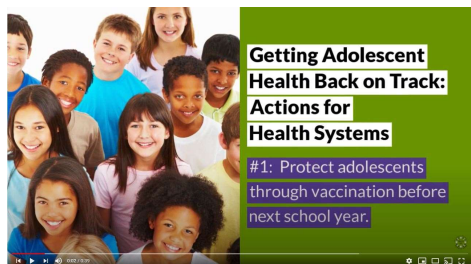
Parent Playlist: a suite of 4 new videos messaging to parents of adolescents why it's important to vaccinate their child, how to access the Vaccines for Children Program, and how to find or access care.



Parent Infographic: an interactive handout for practices and systems to share with parents to build their confidence in bringing their adolescents in for well-child visits.



<https://hpvroundtable.org/get-involved/health-systems>



VIDEO PLAYLISTS

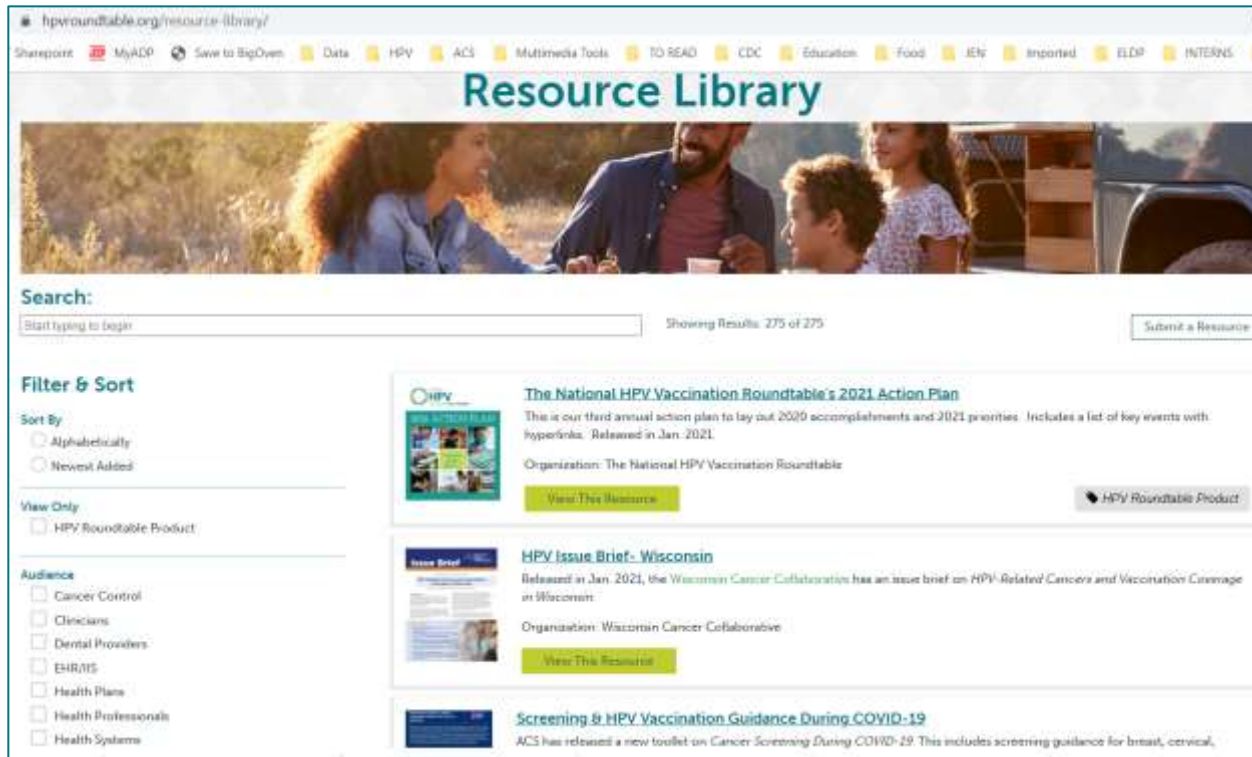
- [For health systems](#)
- [For parents](#)



YouTube

<https://www.youtube.com/c/HPVRoundtableTV/playlists>

HPV ROUNDTABLE RESOURCE LIBRARY



The screenshot displays the HPV Roundtable Resource Library website. At the top, a navigation bar includes links for Sharepoint, MyADP, Save to SigOver, Data, HPV, ACS, Multimedia Tools, TO READ, CDC, Education, Food, IEP, Imported, ELDP, and INTERNS. Below this is a large banner image of a family (a woman, a man, and two children) sitting outdoors. The main heading "Resource Library" is prominently displayed. A search bar is located below the banner, with the text "Search:" and a placeholder "Start typing to begin". To the right of the search bar, it says "Showing Results: 275 of 275". A "Submit a Resource" button is also present. On the left side, there is a "Filter & Sort" section. Under "Sort By", there are radio buttons for "Alphabetically" and "Newest Added". Under "View Only", there is a checkbox for "HPV Roundtable Product". Under "Audience", there are checkboxes for "Cancer Control", "Clinicians", "Dental Providers", "EHR/IT", "Health Plans", "Health Professionals", and "Health Systems". The main content area shows three resource cards. The first card is titled "The National HPV Vaccination Roundtable's 2021 Action Plan" and includes a description, release date, organization, and a "View This Resource" button. The second card is titled "HPV Issue Brief- Wisconsin" and includes a description, release date, organization, and a "View This Resource" button. The third card is titled "Screening & HPV Vaccination Guidance During COVID-19" and includes a description and a "View This Resource" button.

hpvroundtable.org/resource-library/

Sharepoint MyADP Save to SigOver Data HPV ACS Multimedia Tools TO READ CDC Education Food IEP Imported ELDP INTERNS

Resource Library

Search:

Start typing to begin Showing Results: 275 of 275 Submit a Resource

Filter & Sort

Sort By:


- ☐ Alphabetically
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View Only:

- ☐ HPV Roundtable Product

Audience:

- ☐ Cancer Control
- ☐ Clinicians
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- ☐ Health Plans
- ☐ Health Professionals
- ☐ Health Systems




The National HPV Vaccination Roundtable's 2021 Action Plan

This is our third annual action plan to lay out 2020 accomplishments and 2021 priorities. Includes a list of key events with hyperlinks. Released in Jan. 2021.

Organization: The National HPV Vaccination Roundtable

[View This Resource](#)

HPV Roundtable Product




HPV Issue Brief- Wisconsin

Released in Jan. 2021, the [Wisconsin Cancer Collaborative](#) has an issue brief on HPV-Related Cancers and Vaccination Coverage in Wisconsin.

Organization: Wisconsin Cancer Collaborative

[View This Resource](#)



Screening & HPV Vaccination Guidance During COVID-19

ACS has released a new booklet on Cancer Screening During COVID-19. This includes screening guidance for breast, cervical,

hpvroundtable.org/resource-library/

BOTTOM LINE:

Vaccines save lives

HPV vaccination can help prevent 6 cancers

We can only screen for 1 of these

Preventing cancers and precancers is better than treating them

Vaccination rates are too low, but we know we can get them higher

This will decrease cancer disparities

We know parents value HPV vaccination,

And we know all of us, and all of our children, are at risk



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Call to Action: Kids Need to Get Caught Up on Recommended Vaccines for Safe Return to School

- **Healthcare systems and healthcare providers should:**
 - Identify families whose children have missed doses and contact them to schedule appointments
 - Prompt clinicians when these children are seen to deliver vaccines that are due or overdue
 - Let families know what precautions are in place for safe delivery of in-person services
- **We all should:**
 - Communicate directly to families the importance of well-child visits and getting caught up on any recommended vaccines that were missed

Questions?



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cancer.org | 1.800.227.2345

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