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HPV Vaccination is Cancer Prevention: Changing the Narrative to Improve Vaccination Rates

August 16, 2023

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Featured Speakers

- **Jana Shaw MD, MPH**
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Conflict of Interest & Disclosure Statements

Manika Suryadevara, MD

- Principal Investigator - Institution receives research funding for work on vaccine confidence, HPV vaccination rates, RSV epidemiology for Merck Sharpe & Dohme Corp
- Principal Investigator - Institution received research funding for site to be involved with clinical trials for flu treatment for Hoffman LaRoche (completed 2022)
- Principal Investigator - Institution received research funding for site to be involved with clinical trials for RSV treatment for Janssen (completed 2022)

Jana Shaw MD, MPH

- Consultant for Pfizer

All relevant financial relationships have been mitigated for Dr. Suryadevara and Dr. Shaw

None of the other planners, moderator, and presenters have any financial arrangements or affiliations with any ineligible companies whose products, research or services may be discussed in this activity

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Learning Outcome & Objectives

As a result of participation in this activity, the learners will increase and enhance knowledge and competence on how to make updated HPV vaccination recommendations using cancer prevention as a communication strategy.

By the end of the webcast, viewers will be able to:

- Discuss the burden of HPV disease and related cancers
- Explain the safety and efficacy of the HPV vaccine
- Describe communication techniques for talking with parents or patients about the HPV vaccine

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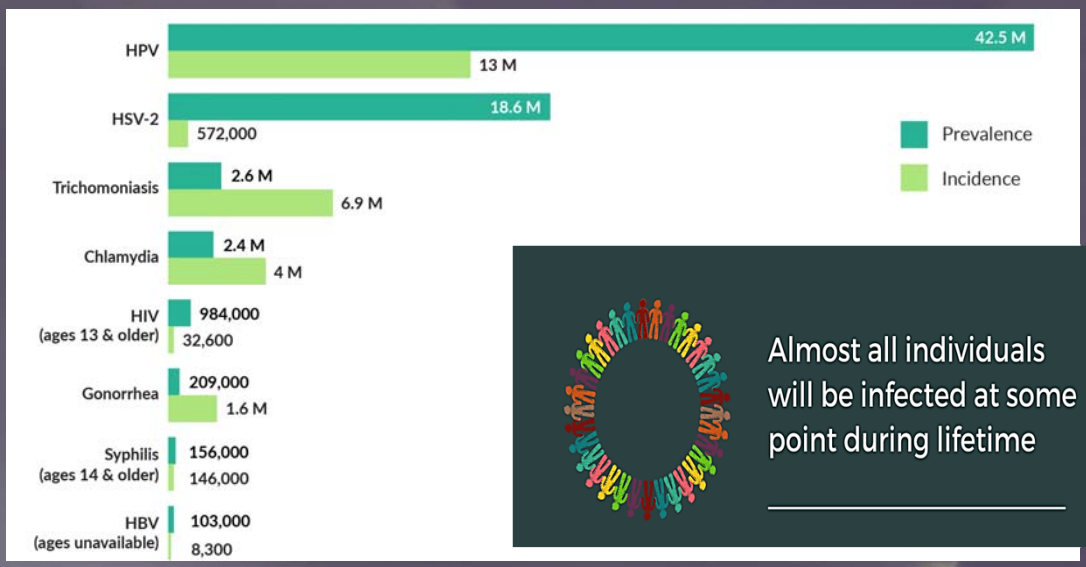
US STI Prevalence & Incidence



https://www.cdc.gov/std/statistics/prevalence-2020-at-a-glance.htm

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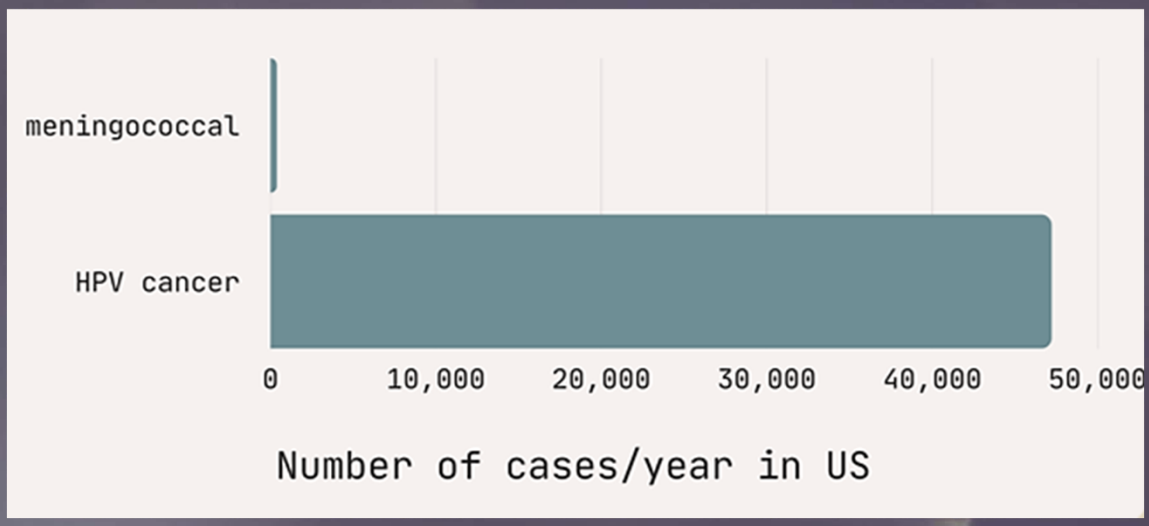
Impact of HPV-related Cancer



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Impact of HPV-related Cancers

> 47,000 new HPV cancers each year

Male			Female		
Site	**% by HPV**	**# of cases**	**Site**	**% by HPV**	**# of cases**
Oropharynx	72%	12,500	Cervix	91%	11,100
Anus	89%	2,200	Anus	93%	4,700
Penis	63%	900	Vulva	69%	2,900
			Oropharynx	63%	2,300
			Vagina	75%	700

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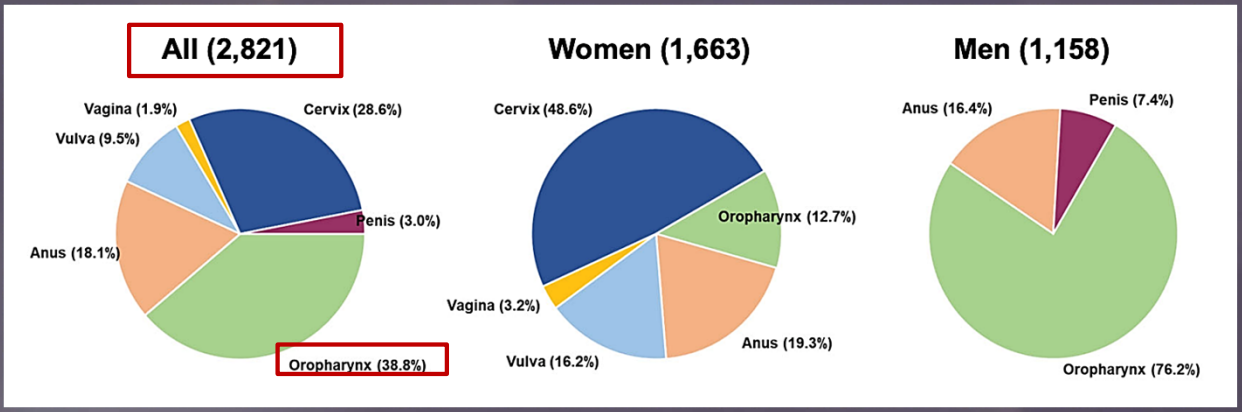
HPV-Related Cancer Incidence in NYS



Source: NYS DOH. 2019

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HPV Oropharyngeal Cancer

- HPV causes more OPC than tobacco/alcohol
- > 14,000 new cases/year
- Non-smokers, non-drinkers, younger age
- No screening

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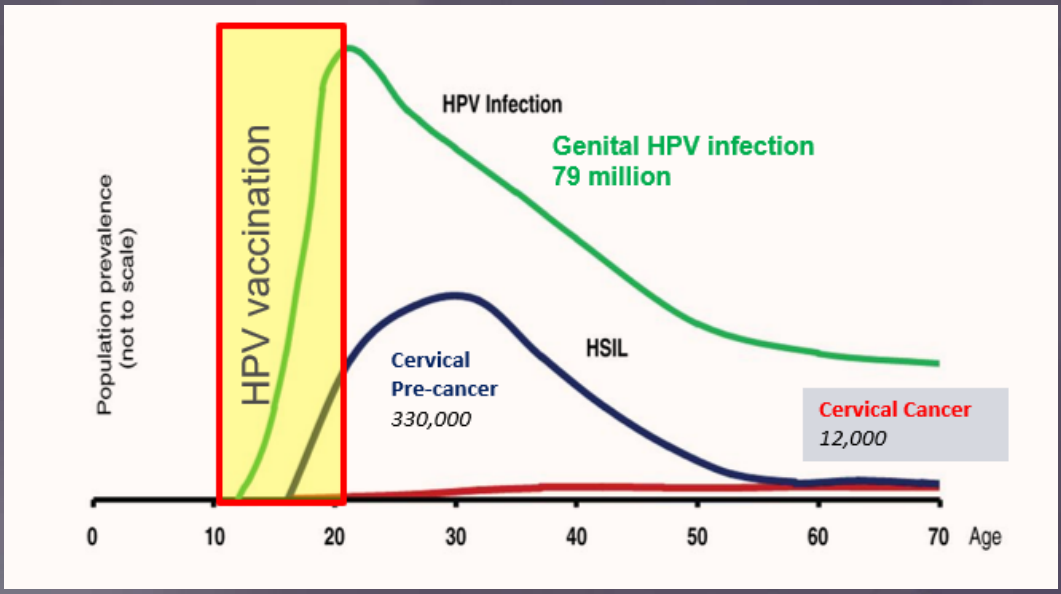
HPV Vaccination Prevents Infection & Cancer



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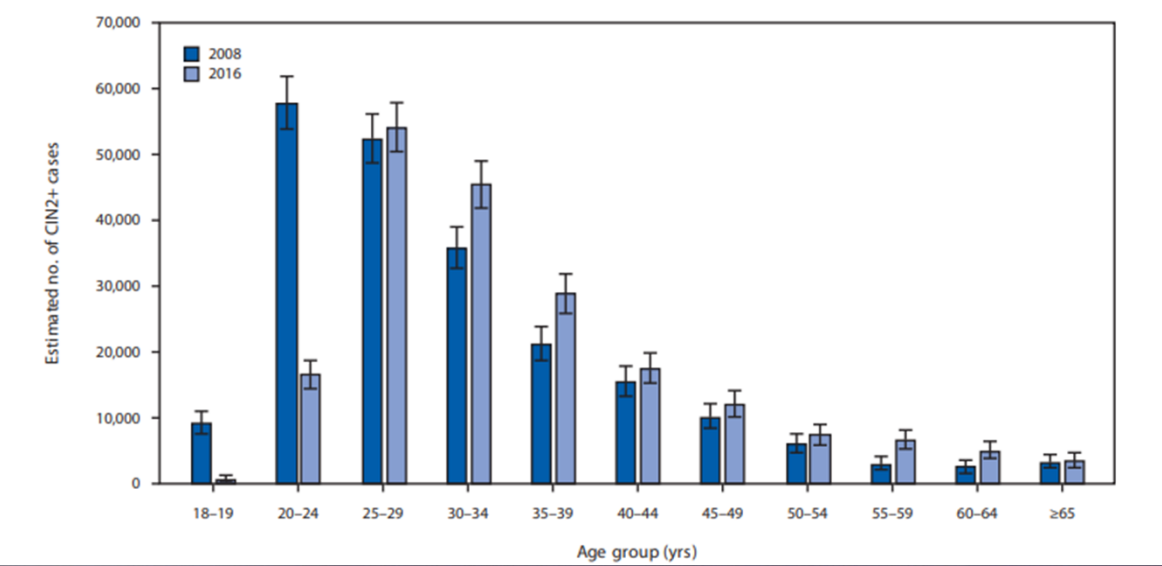
HPV Vaccine Reduces Risk of High-grade Cervical Lesions Among Women in the US



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Global Impact

- Post-licensure evaluations important to evaluate real-world vaccine effectiveness
- Population impact against early and mid outcomes reported in many countries, including:
  - *HPV prevalence:* Australia, Norway, Denmark, Sweden, Switzerland, UK, USA
  - *Genital warts:* Australia, Belgium, New Zealand, Denmark, Sweden, Germany, Quebec, USA
  - *Cervical lesions:* Australia, British Columbia, Denmark, Scotland, Sweden, USA

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Worldwide Significance of HPV Vaccination in Combating Cervical Cancer

- **Australia**: Set to eliminate cervical cancer by 2035; HPV vaccination completion rate = 80.2%
- **Sweden**: Girls vaccinated before age 17 were 88% less likely to develop cervical cancer
- **Scotland**:Dramatic reduction in pre-invasive cervical disease
- **England**: The HPV immunization program has almost eliminated cervical cancer in women born since September 1995

Citations: See References Document

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United States Vaccine Safety System

System	Collaborators	Description
Vaccine Adverse Event Reporting System (VAERS)	CDC and FDA	Frontline, spontaneous reporting system to detect potential vaccine safety issues
Vaccine Safety Datalink (VSD)	CDC and 8 integrated health care systems	Large-linked database system used for active surveillance and research ~9.4 million members (~3% of US pop)
Clinical Immunization Safety Assessment (CISA) Project	CDC and 7 academic centers	Expert collaboration that conducts individual clinical vaccine safety assessments and clinical research
FDA's Biologics Effectiveness and Safety (BEST) System	FDA and collaborators	A system of electronic health records, administrative, and claims-based data for active surveillance and research.

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HPV Vaccine Safety Carefully Monitored

- Reactions after vaccination may include:
  - Local: injection site pain, redness, and/or swelling
  - Systemic: fever, headaches
- Contraindications:
  - Allergic reaction to the HPV vaccine
  - Allergy to yeast
- Brief fainting spells (syncope) and related symptoms (such as jerking movements) can happen soon after any injection, including HPV vaccine
  - Remain seated (or lying down) during vaccination and 15 minutes following vaccination

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HPV Vaccines Have Long-standing Safety Data

NO increased risk for:

- Anaphylaxis
- Death
- GBS
- Stroke
- Blood clots
- Appendicitis
- Seizure
- Autoimmune disorders
- Primary ovarian insufficiency
- Miscarriage or pregnancy termination

… and **NO RISK** of more than 60 other conditions

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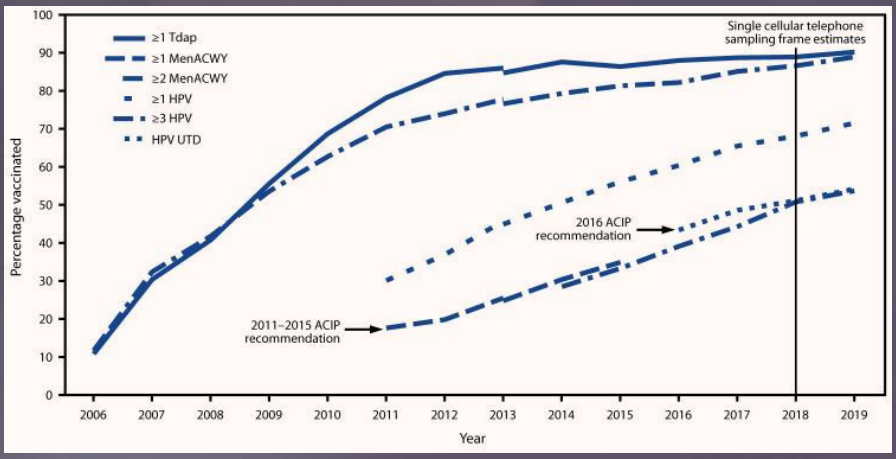
US Teens Remain Under-vaccinated



NIS-teen HPV data 2006-2019

- 71.5% initiated series
- 54.2% completed series
- 13 -17 years old

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3 of 10 NYS Teens Remain Under-vaccinated

2020 NYS HPV Vaccination Rates (13-17 yrs)		
	HPV VI*	HPV VC*
NYS Teens	79.1%	68.1%

SUPPLEMENTARY TABLE 1. Estimated vaccination coverage with selected vaccines and doses* among adolescents aged 13–17 years† by HHS Region, state, selected local area, or territory — National Immunization Survey–Teen (NIS-Teen), United States, 2020

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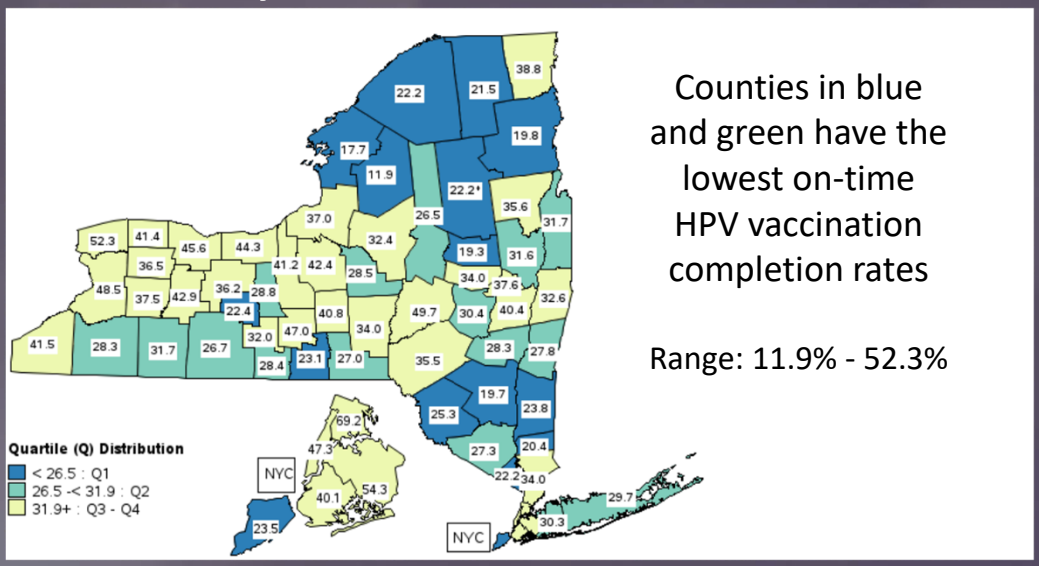
HPV Vaccine Series Completion Among 13-year-old Teens In 2022



Counties in blue and green have the lowest on-time HPV vaccination completion rates

Range: 11.9% - 52.3%

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Vaccine Schedules

Recommended Vaccination Schedule Guideline

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

Critical
AGES 15-26
3 Doses
1st dose at visit one
2nd dose 1-2 months later
3rd dose 6 months after 2nd

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Start at 9!

Endorsed by:

- American Academy of Pediatrics
- American Cancer Society
- National HPV Roundtable
- New York State Department of Health

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Why *Start at 9!* ?

- More time for completion by 13 years
- Results in robust immune response
- Decreases association with sex
- Decreases questions re: school mandated vaccines
- Decreases number of shots per visit
- Acceptable to patients, parents, providers, systems
- Increases vaccine uptake → prevents HPV-cancers

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How To Implement *Start At 9!*

- Provider and staff training
- Recommendation script
- Policy change
- EMR support
- Readily available printed resources
- Reminder recall systems

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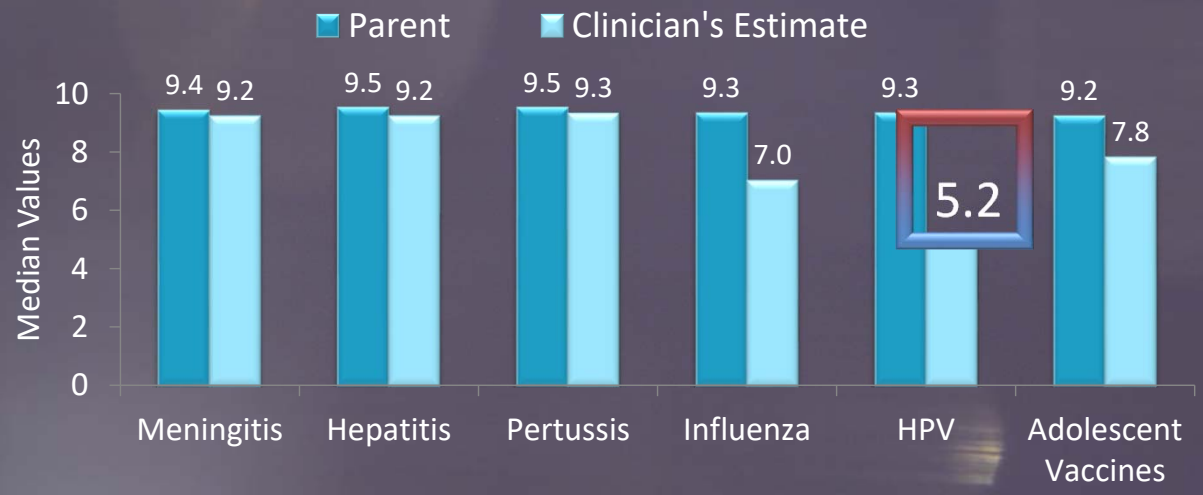
Clinicians Underestimate The Value Parents Place On HPV Vaccine



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Parents' Reasons *Not* To Vaccinate

- Provider did not recommend it
- Concerns over long-term side effects of HPV vaccination
- "Vaccine is new"
- Mistrust with drug companies
- Concerns over short-term side effects
- "It's unnecessary," "child not sexually active"
- Fear that vaccination may lead to an earlier onset of sexual activity

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Communicating With Hesitant Parents
Two Effective Approaches

Begin with the *presumptive* approach, stating which vaccines the child will receive today. For example…

- *"We're scheduled to do some shots today. Your child needs tetanus, whooping cough, diphtheria, HPV, and meningococcal vaccines."*
- *"Molly needs three vaccines today to protect against meningitis, HPV cancers, and whooping cough. She'll get those at the end of the visit."*

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Presumptive Recommendation Increases Compliance

Making an effective *presumptive* recommendation greatly increases compliance

HPV vaccine initiation rates

- 23%, if no recommendation
- 53%, if low-quality recommendation
- 73%, if high-quality recommendation

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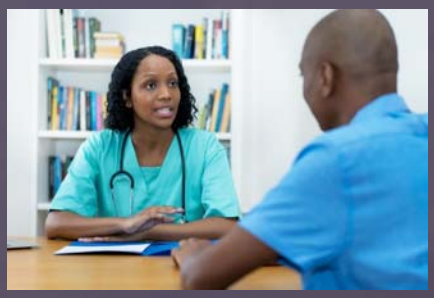
Communicating With Hesitant Parents
Two Effective Approaches

- Begin with the presumptive approach, stating which vaccines the child will receive today.
- If the parent voices concerns, transition to the "5-step approach," addressing the parent's concerns.



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5-Step Approach is Effective

5-Step Approach can be used to effectively communicate with vaccine hesitant parents

1. Establish empathy and credibility
2. Briefly address specific concerns
3. Pivot to disease risk
4. Convey vaccine effectiveness
5. Give a strong and personalized recommendation

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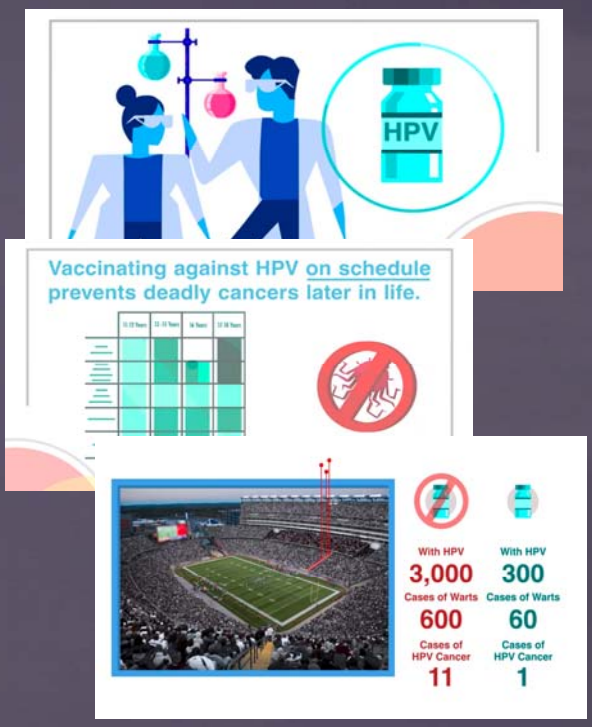
Let's Talk Shots

- Free, award-winning site for providers and patients
- Developed by Institute for Vaccine Safety at the Johns Hopkins Bloomberg School of Public Health
- Individually-tailored for smartphones, tablets, and computers
- Short animations and videos tailored to the user's specific vaccine attitudes and beliefs
- Messaging consistent with the 5-step strategy

https://www.letstalkshots.com/



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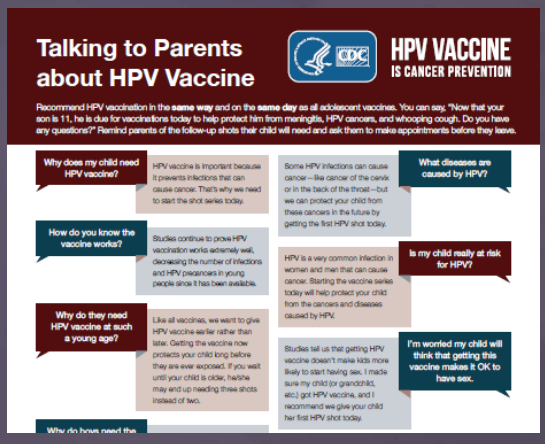
Keeping All Staff On The Same Page

Align communication with mission

- Give staff a cancer-prevention mission
- All staff need to be saying the same thing
- Share talking points
- Use the CDC Tip Sheet
- Educate staff about HPV vaccine recommendations, including schedule, administration, storage and handling



www.cdc.gov/hpv/hcp/for-hcp-tipsheet-hpv.pdf

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Summary: Overcoming HPV Vaccination Barriers

- Make a strong, presumptive recommendation
- Talk about HPV vaccination as cancer prevention
- Offer empathy, advice, and real stories about the risks of not vaccinating
- Provide individually-tailored vaccine information

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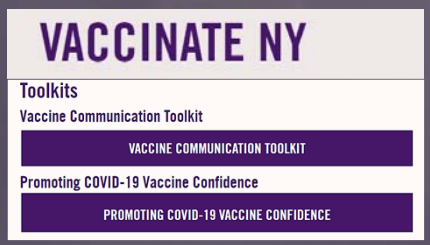
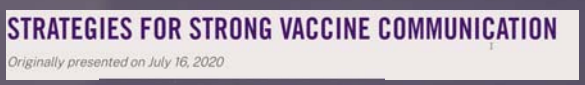
Additional Resources



vaccinateNY.org



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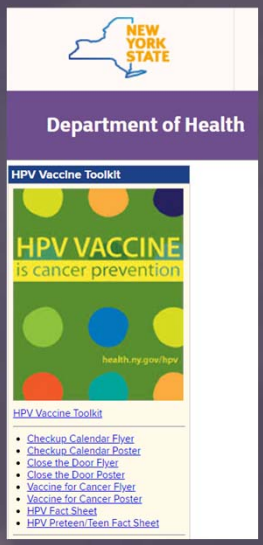

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