

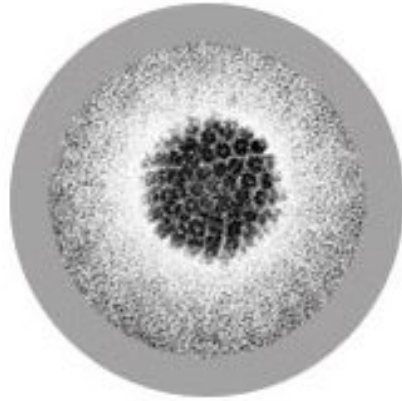
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# You are the Key to HPV Cancer Prevention



# Objectives

1. Describe why HPV vaccination is important for cancer prevention.
2. Identify the appropriate HPV vaccination schedule based on patient age.
3. Describe effective HPV vaccine recommendations for patients age 11 or 12 years, as well as for age 13 years and older.
4. Develop self-efficacy in delivering effective HPV vaccination recommendations
5. Identify reassuring, confident, and concise responses to parental questions about HPV vaccination.
6. Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health. (REQUIRED FOR PHARMACY CREDIT)

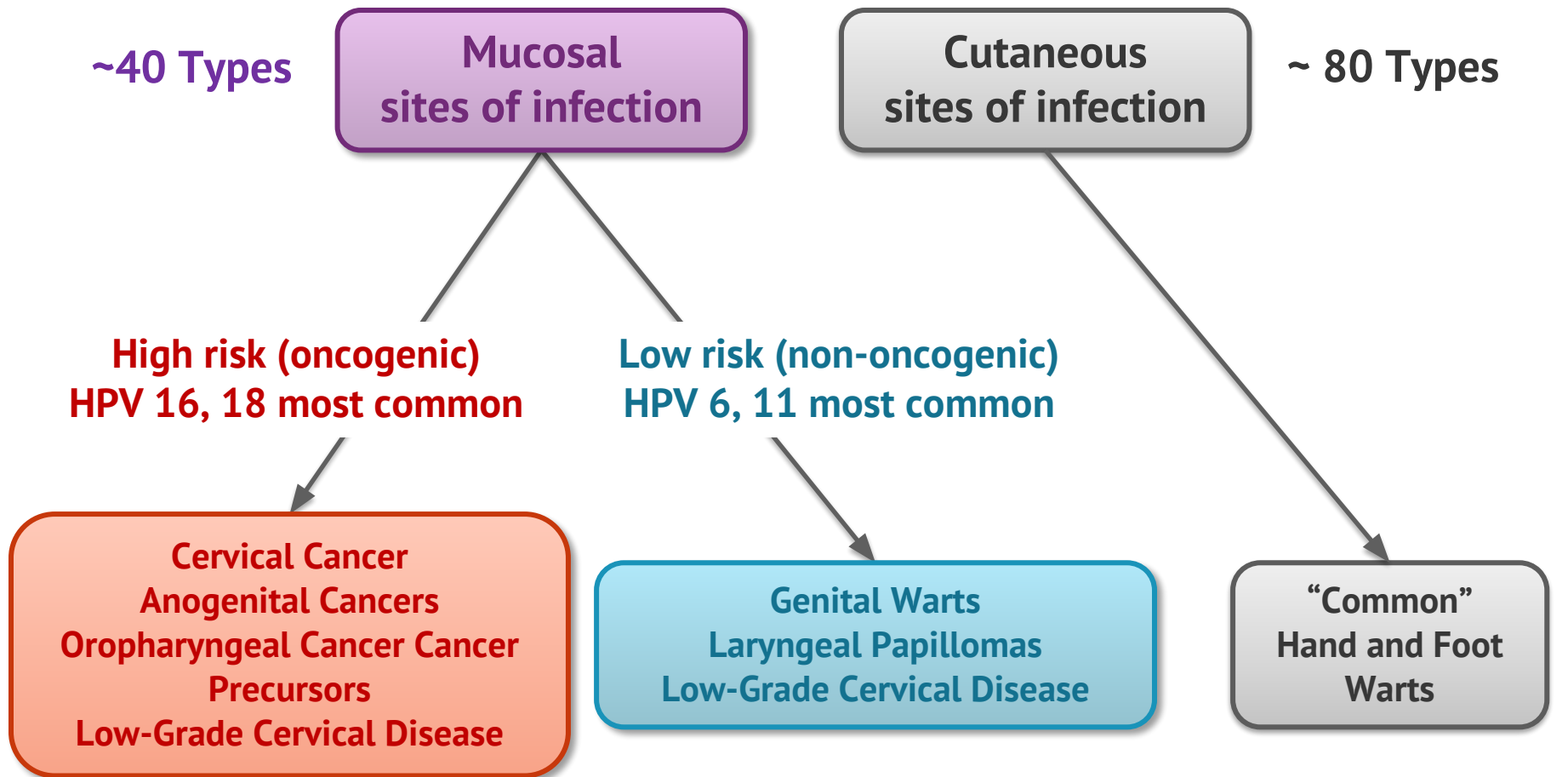


**HPV**  
(Human papillomavirus)

Understanding the Burden

# HPV INFECTION & DISEASE

# HPV Types Differ in Their Disease Associations



# HPV Infection

- **Most females and males will be infected with at least one type of mucosal HPV at some point in their lives**
  - Estimated 79 million Americans currently infected
  - 14 million new infections/year in the US
  - HPV infection is most common in people in their teens and early 20s
- **Most people will never know that they have been infected**

# Cancers Caused by HPV per Year, U.S., 2010–2014

Cancer site	Percentage probably caused by any HPV type	Number probably caused by any HPV type		
		Female	Male	Both Sexes
Cervix	91%	10,600	0	10,600
Vagina	75%	600	0	600
Vulva	69%	2,600	0	2,600
Penis	63%	0	800	800
Anus*	91%	3,800	1,900	5,700
Oropharynx	70%	2,100	10,100	12,200
<b>TOTAL</b>		<b>19,700</b>	<b>12,800</b>	<b>32,500</b>

\*Includes anal and rectal squamous cell carcinomas

Sources: <https://www.cdc.gov/cancer/hpv/statistics> and Saraiya M et al. J Natl Cancer Inst.

2015;107:djv086





**HPV vaccine is cancer prevention.**

Talk to the doctor  
about vaccinating  
your 11–12 year old  
**sons and daughters**  
against HPV.

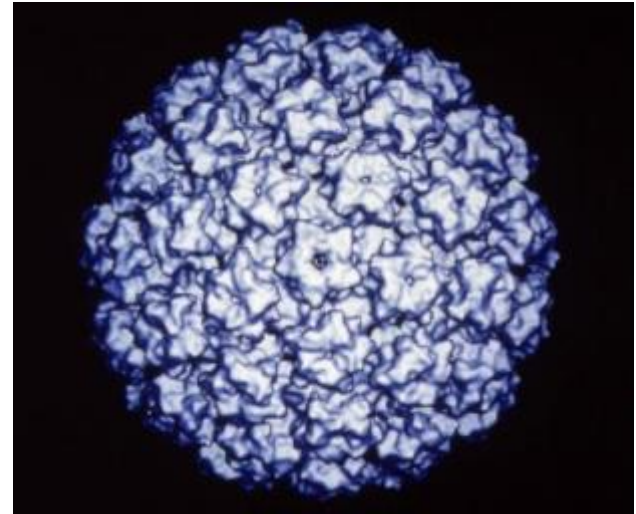
#UCanStopHPV

Evidence-Based HPV Disease Prevention

**HPV VACCINE**

# HPV Prophylactic Vaccines

- Recombinant L1 capsid proteins that form “virus-like” particles (VLP)
- Non-infectious and non-oncogenic
- Produce higher levels of neutralizing antibody than natural infection

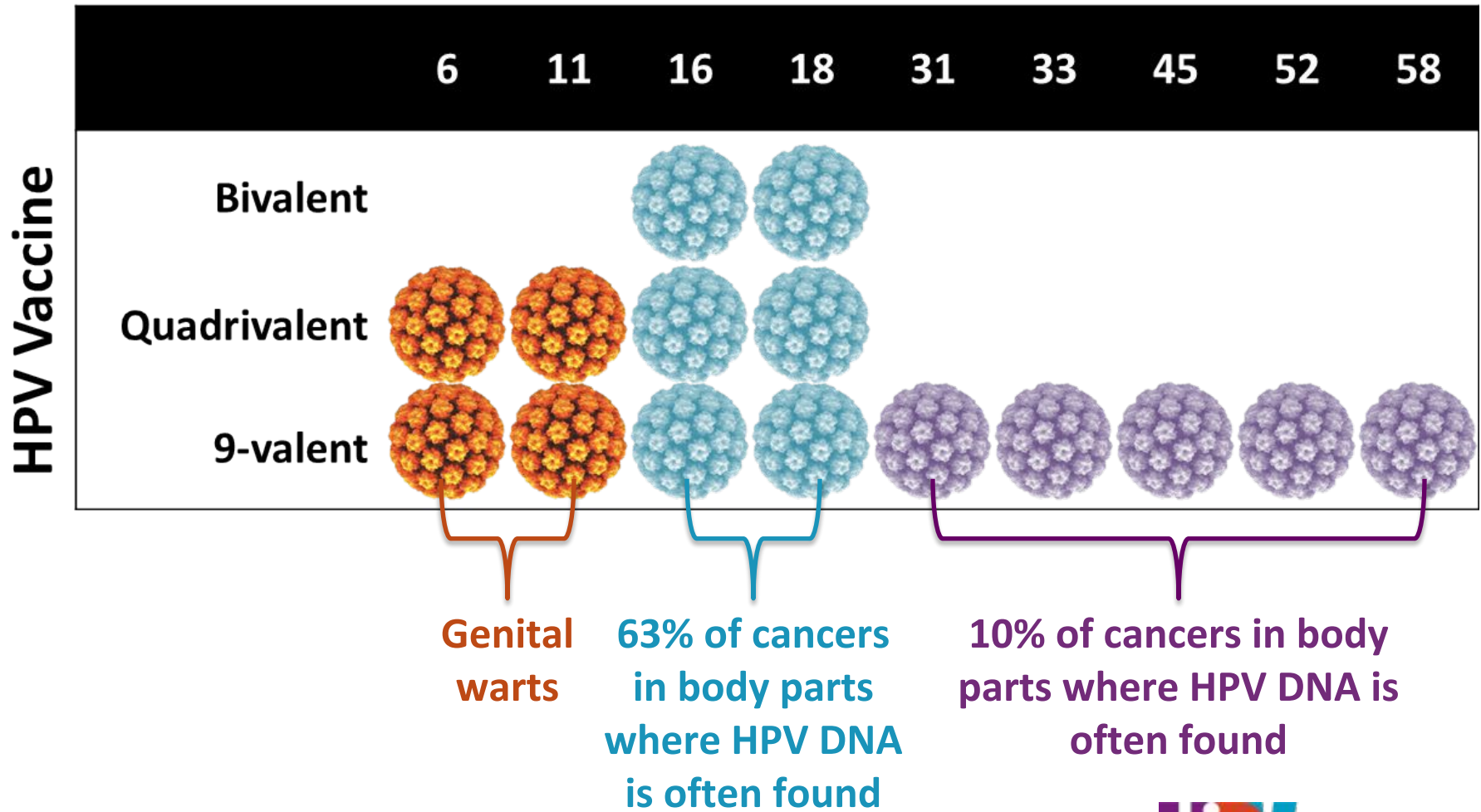


HPV Virus-Like Particle



# HPV Vaccine Comparison

## HPV Types Included in Vaccine



# HPV Vaccine Recommendation

**CDC recommends routine vaccination at age 11 or 12 years to prevent HPV cancers**

- **The vaccination series can be started at age 9 years.**
- **2 doses of vaccine are recommended.**
- **The second dose of the vaccine should be administered 6 to 12 months after the first dose.**



# HPV Vaccine Recommendations: Catch-Up/Late

- **Vaccination for females through age 26 years and for males through age 21 years who were not previously adequately vaccinated. Males aged 22 through 26 years may be vaccinated.**
- **Vaccination is also recommended through age 26 for gay, bisexual, and other men who have sex with men (MSM), transgender people, and people with certain immunocompromising conditions (including HIV infection).**

# Dosing Schedules

## Starting the vaccine series before the 15<sup>th</sup> birthday

### Recommended schedule is 2 doses of HPV vaccine

- Second dose should be administered 6–12 months after the first dose (0, 6–12 month schedule)
- Minimum interval between dose 1 and dose 2 in a 2-dose schedule is 5 months

## Starting the vaccine series on or after the 15<sup>th</sup> birthday\*

### Recommended schedule is 3 doses of HPV vaccine

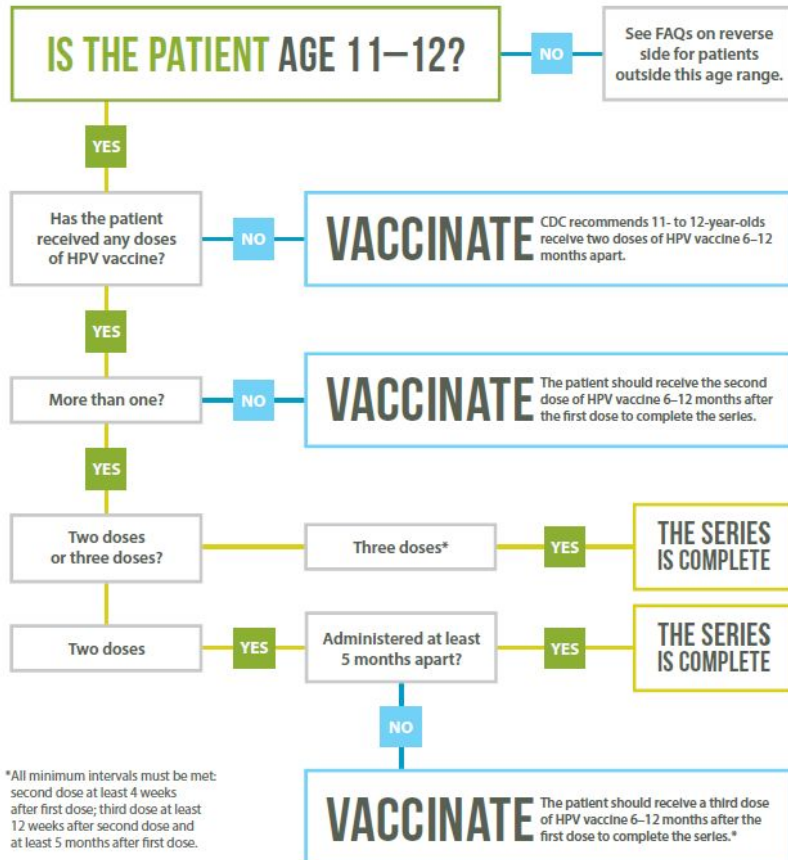
- Second dose should be administered 1–2 months after the first dose, and the third dose should be administered 6 months after the first dose (0, 1–2, 6 month schedule)
- Minimum interval between dose one and dose three in a 3-dose schedule is 5 months

\*And immunocompromised persons 9-26 years



# PREVENTING CANCER JUST GOT EASIER

HPV vaccine protects against cancers and other diseases caused by human papillomavirus (HPV). Follow the chart below to determine whether your patient needs two or three doses of HPV vaccine.



## CDC RECOMMENDS TWO HPV DOSES FOR YOUNGER ADOLESCENTS

The Centers for Disease Control and Prevention (CDC) now routinely recommends two doses of HPV vaccine for 11- or 12-year-olds to prevent HPV cancers. This recommendation makes it easier for parents to protect their children by reducing the number of doses and trips to the doctor. HPV vaccination is an important cancer prevention tool and two doses of HPV vaccine will provide safe, effective, and long-lasting protection. Some specifics of the recommendation include:

- A two-dose schedule is recommended for adolescents starting the schedule at ages 9 through 14 years. For this age group, follow the decision tree on the reverse side.
- Adolescents aged 9 through 14 years who have already received two doses of HPV vaccine less

than 5 months apart will require a third dose. The third dose should be given 6–12 months after the first dose to complete the series.

- A three-dose schedule is recommended for teens and young adults who start the series at ages 15 through 26 years. Under this schedule, the second dose of HPV vaccine should be given 1–2 months after the first dose, and the third dose should be given 6 months after the first dose.
- Three doses are recommended for people aged 9–26 years with certain immunocompromising conditions.

Read the full policy note: [www.cdc.gov/mmwr/volumes/65/wr/mm6549a5.htm](http://www.cdc.gov/mmwr/volumes/65/wr/mm6549a5.htm)

## TALKING TO PATIENTS AND THEIR PARENTS ABOUT 2-DOSE SCHEDULES FOR HPV VACCINATION

With patients aged 11–12 years, start the vaccine discussion with their parents by making the following recommendation: *"Now that your child is 11 (or 12) years old, they are due for three vaccines today to help protect them from the infections that cause meningitis, HPV cancers, and pertussis—or whooping cough."* Many parents are accepting of this bundled recommendation because it demonstrates that HPV vaccination is a normal part of adolescent vaccination. Parents may be interested in vaccinating, yet still have questions. Some parents might just need additional information from you, the clinician they trust. Clarify the parent's question or what additional information they need.

For parents who have a question or need more information about "why now/why 11–12?" *"As with all vaccine-preventable diseases, we want to protect your child early. If we start now, it's one less thing for you to worry about. Also, your child will only need two doses of HPV vaccine at this age. If you wait, your child may need three doses in order to get complete protection. We'll give the first dose today and then you'll need to bring your child back in 6 to 12 months from now for the second dose."*

If a parent asks, or needs more information about "How long can we wait and still give just two doses?" *"The two-dose schedule is recommended if the series is started before the 15th birthday. However, I don't recommend waiting to give this cancer-preventing vaccine. As children get older and have busier schedules, it becomes more difficult to get them back in. I'd feel best if we started the series today to get your child protected as soon as possible."*

For patients aged 9–14 who have already had two doses given less than 5 months apart *"The recommended schedule is two doses given 6 to 12 months apart. The minimum amount of time between those doses is 5 months. Because your child received two doses less than 5 months apart, we'll need to give your child a third dose."*

For parents asking about the duration of protection or how well the vaccine will work with just two doses *"Studies have shown that two doses of HPV vaccine work very well in younger adolescents and we expect the same long-lasting protection with two doses that we expect with three doses." You can also access guidance on answering parents' questions about HPV vaccine by using our tip sheet, *Talking to Parents about HPV Vaccine*, at [www.cdc.gov/HPV](http://www.cdc.gov/HPV).*



**HPV VACCINE**  
IS CANCER PREVENTION

MARCH 2017

# HPV Vaccination Is Recommended at Age 11 or 12 Years

Girls & Boys can start HPV vaccination at age 9

Preteens should finish the HPV vaccine  
series before their 13<sup>th</sup> birthday



Plus girls 13-26 years old who  
haven't started or finished  
HPV vaccine series



Plus boys 13-21 years old who  
haven't started or finished  
HPV vaccine series



# HPV Vaccination Is Safe, Effective, and Provides Lasting Protection

## HPV Vaccine Is SAFE

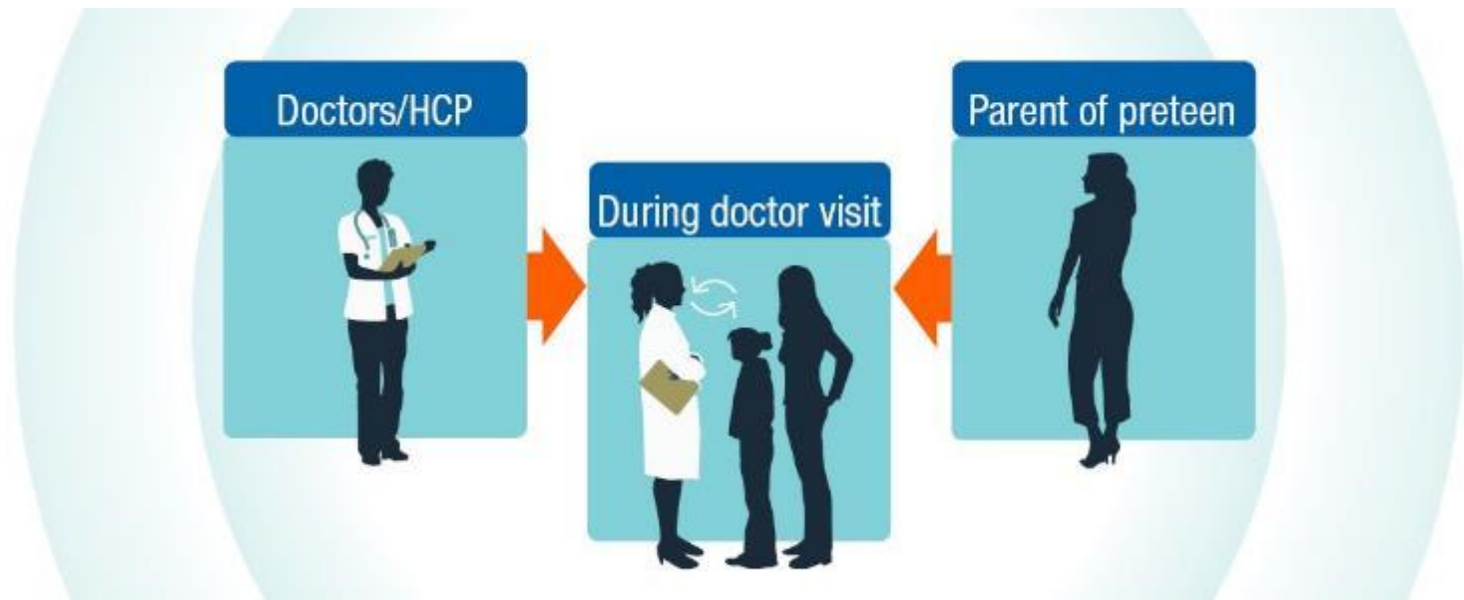
- Benefits far outweigh any potential risks
- Safety studies findings for HPV vaccination are reassuring and similar to MenACWY and Tdap vaccine safety reviews

## HPV Vaccine WORKS

- Population impact against early and mid outcomes has been reported in multiple countries

## HPV Vaccine Protection LASTS

- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection

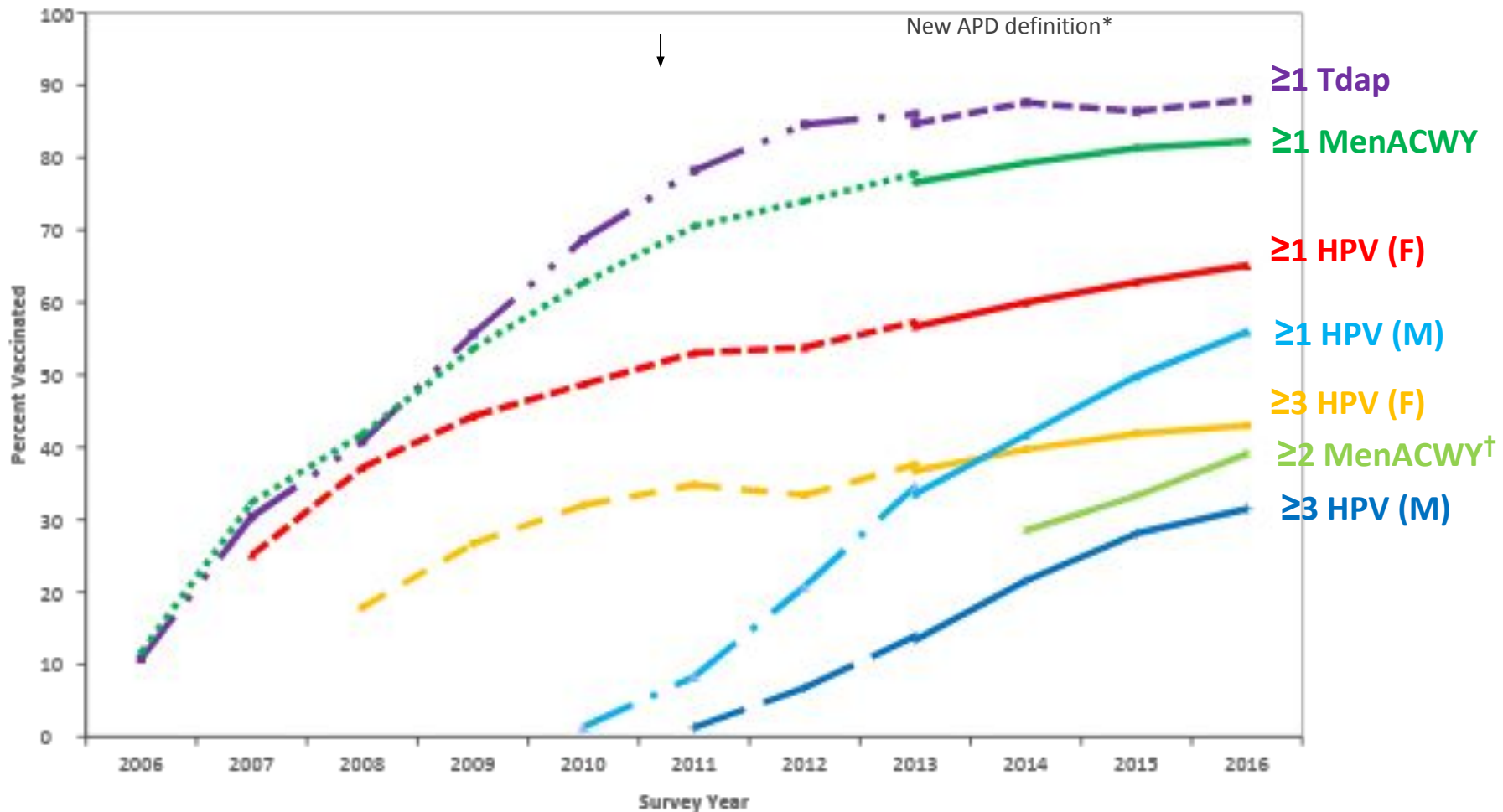


Talking About HPV Vaccine

## **FRAMING THE CONVERSATION**



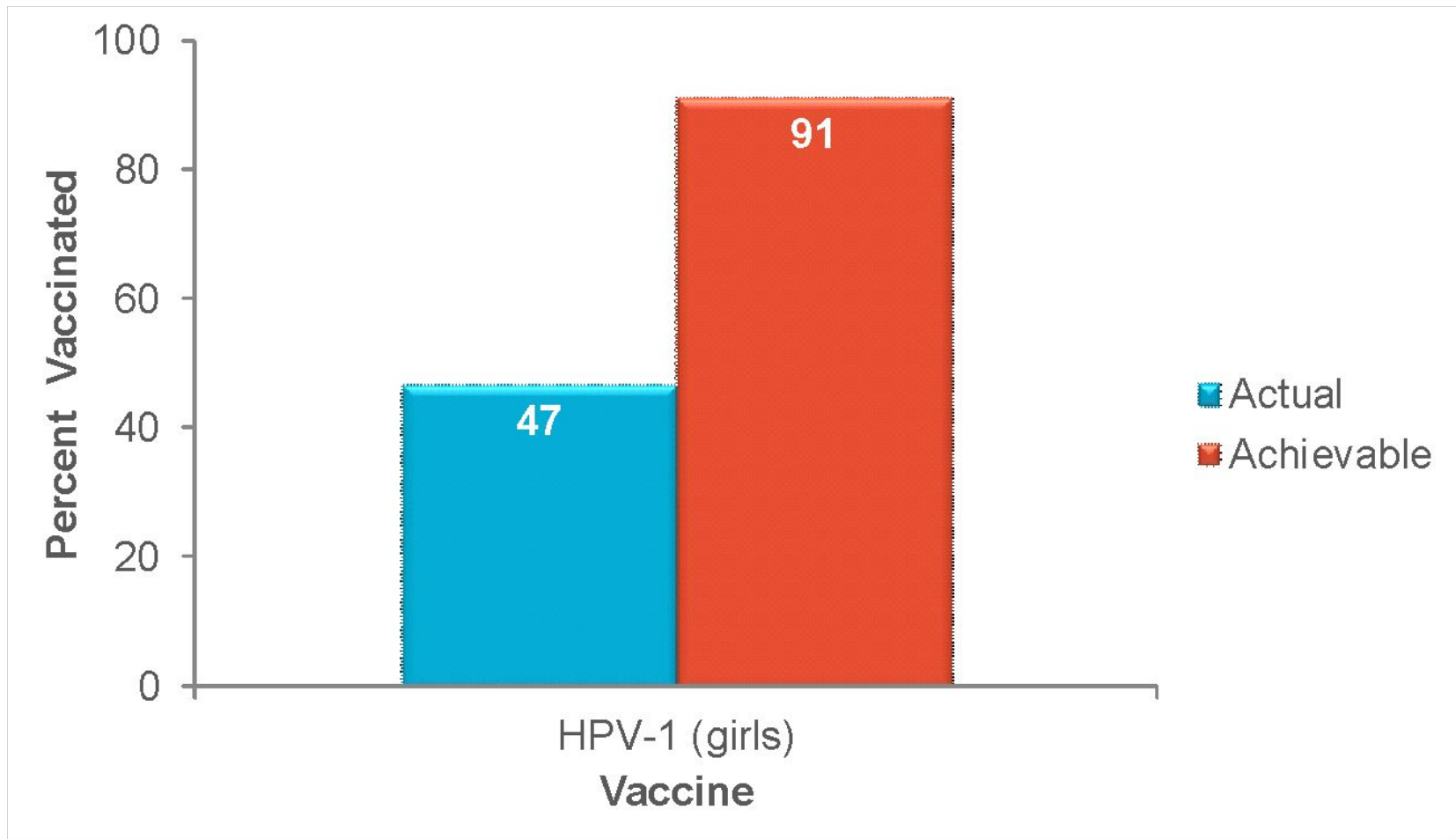
# Adolescent Vaccination Coverage United States, 2006-2016



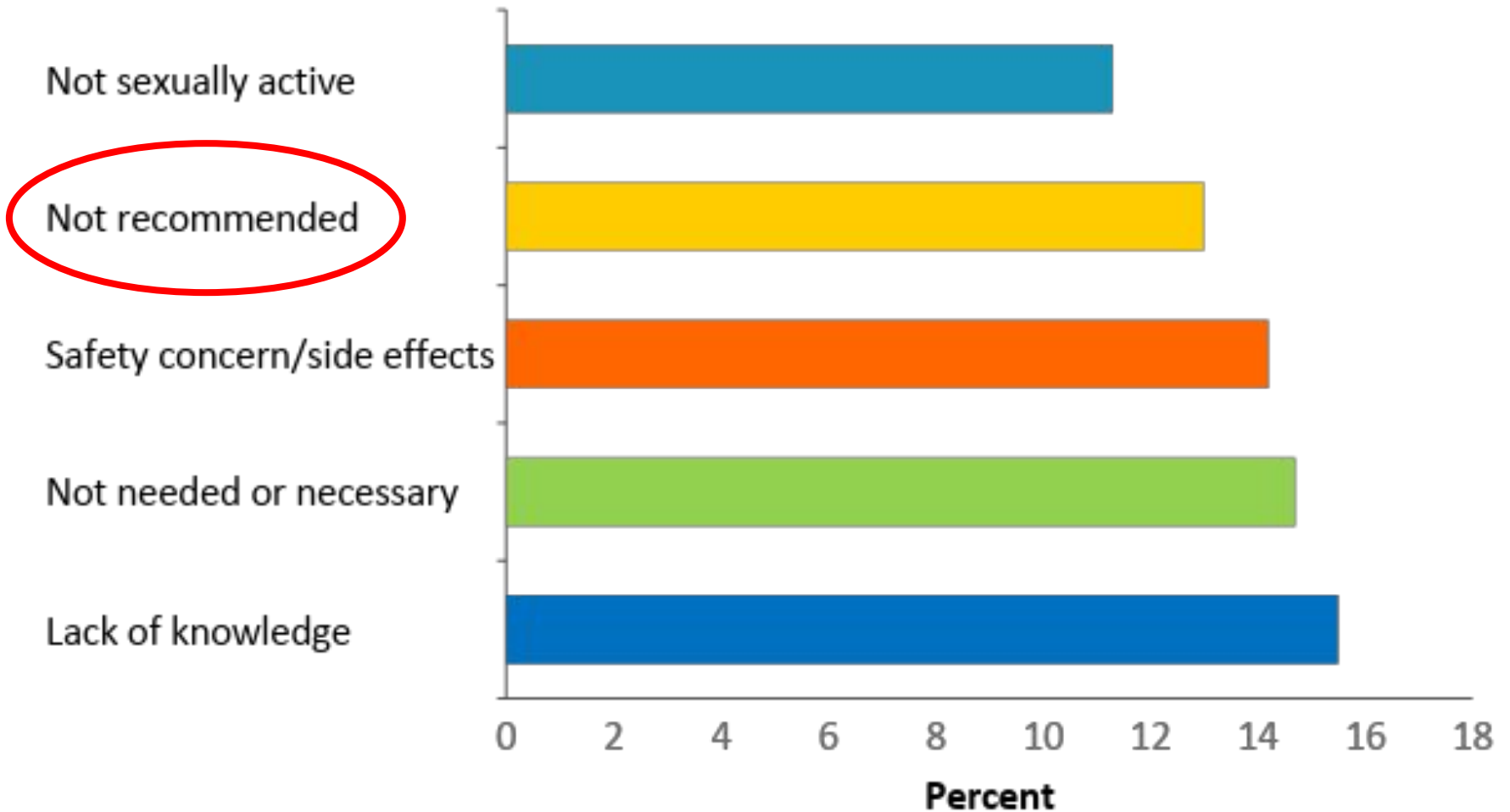
\*APD = Adequate provider data; †≥2 doses MenACWY among adolescents aged 17 years  
Walker et al. *MMWR* 2017.



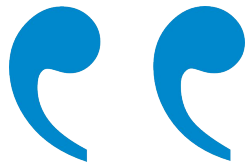
# Impact of Eliminating Missed Opportunities by Age 13 Years in Girls Born in 2000



# Parents of unvaccinated girls – top reasons for not starting HPV vaccine series



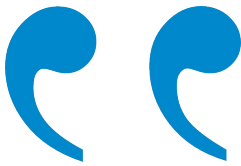
What is an  
**EFFECTIVE**  
recommendation  
for HPV vaccination?



Now that Sophia is 11, she is due for three vaccines.

These will help protect her from the infections that can cause meningitis, HPV cancers, and pertussis.

We'll give those shots today. ” ”



Now that Sophia is 11, she is due today for three important vaccines.

The first is to help prevent an infection that can cause meningitis, which is very rare, but potentially deadly. The second is to prevent a very common infection, HPV, that can cause several kinds of cancer. The third is the tetanus booster which also protects against pertussis, so she doesn't get whooping cough.

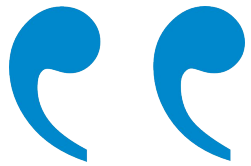
We'll give those shots at the end of the visit. Do you have any questions for me?

# Some Parents Need Reassurance

- Many parents simply accept this bundled recommendation
- Some parents may be interested in vaccinating, yet still have questions. Interpret a question as **they need additional reassurance from YOU, the clinician they trust with their child's health care**
- Ask parents about their main concern (be sure you are addressing their real concern)

*Is my child really at risk for  
HPV?*





HPV is a very common virus that infects both females and males.

We can help protect your child from the cancers and diseases caused by the virus by starting HPV vaccination today.

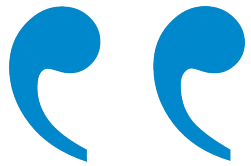


***Why at 11 or 12 years old?***

# When should the bike helmet go on?



- A. Before they get on their bike
- B. When they are riding their bike in the street
- C. When they see the car heading directly at them
- D. After the car hits them



As with all vaccine-preventable diseases, we want to protect your child early. If we start now, it's one less thing for you to worry about.

Also, your child will only need 2 shots of HPV vaccine at this age. If you wait until 15, your child will need three shots.

We'll give the first shot today and then you'll bring your child back in 6 to 12 months for the second shot.

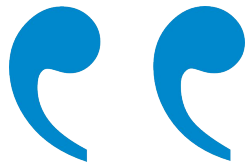


***I'm just worried that my child will perceive this as a green light to have S-E-X.***

“ Numerous research studies have shown that getting the HPV vaccine does NOT make kids more likely to be sexually active or start having sex at a younger age.

Starting the HPV vaccine series today will give your child the best possible protection for the future. ”

*How long can we wait and  
still give just two doses?*



The two-dose schedule is recommended if the series is started before the 15th birthday.

However, I don't recommend waiting to give this cancer-preventing vaccine. Older teens have busier schedules and it becomes more difficult to schedule an appointment.

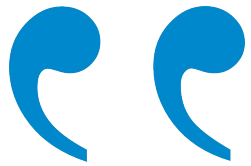
It's best to start the series today so your child is protected as soon as possible.





*I'm concerned about the safety  
of the vaccine—I read things  
online that say HPV vaccine  
isn't safe.*

*Do you really know if it's safe?*

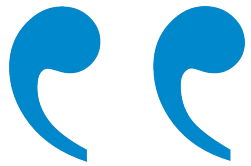


It sounds like you want what's best for your child and have concerns about the safety of HPV vaccine. Is that right?

We both want what's best for your child. Can you tell more about your concerns?

I have researched HPV vaccine including safety. Can I share with you what I have learned?

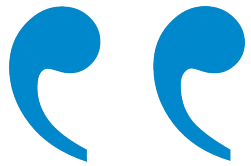




I know there are stories in both the media and online about vaccines. However, I want you to know that HPV vaccine has been carefully studied for many years by medical and scientific experts.

Based on all these studies, I believe HPV vaccine is very safe.



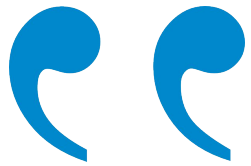


Vaccines, like any medication, can cause side effects. With HPV vaccination, this could include pain, swelling, and/or redness where the shot is given, or possibly a headache.

No serious side effects have been associated with HPV vaccine.



*Can HPV vaccine cause future fertility problems?*



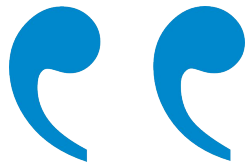
There is no evidence available to suggest that HPV vaccine will affect future fertility.

However, women who develop cervical cancer could require treatment that would limit their ability to have children.

Starting the HPV vaccine series today could prevent that from happening and protect your daughter's ability to bear children.



*How do you know if the  
vaccine works?*



Ongoing studies continue to show that HPV vaccination works very well.

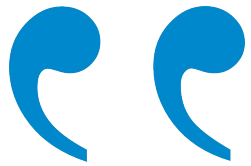
HPV infections, genital warts, and cervical precancers in young people have all decreased in the years since the vaccine has been available.

Starting the vaccine series today will help ensure your child gets the best protection possible.





***Why do boys need to be vaccinated?***




HPV infection can cause cancers of the penis, anus, and throat in men.

HPV infection can also cause genital warts.

Getting HPV vaccine today for your son can help prevent the infection that can lead to these diseases.




***We only want the vaccines  
needed for school.***



School-entry requirements don't  
always reflect the current  
recommendations  
to keep your child healthy.

HPV vaccine, along with other  
adolescent vaccines, will provide your  
child with the best protection.



***Would you give HPV vaccine  
to your kids?***

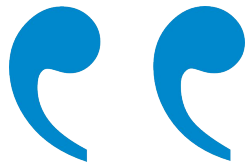


Yes, I have given HPV vaccine to my child. I believe strongly in the importance of this cancer-preventing vaccine.

Also, the American Academy of Pediatrics, the American Academy of Family Physicians, NIH cancer centers, and CDC agree that HPV vaccination is very important for your child.



***When do we need to come  
back?***

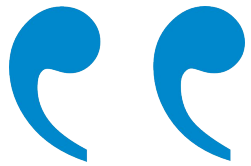


**Since your child is younger than 15, she will need a second shot in 6 months to a year.**

**When you check out, please make sure to make an appointment for the second shot and put that appointment on your calendar before you leave today!**





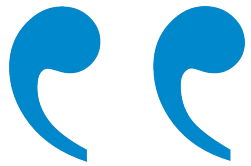


**Since your child is already 15, she will need a second shot in 1-2 months. The third shot is due 6 months from today.**

When you check out, please make sure to make an appointment for about 1-2 months from now and 6 months from now, and put those appointments on your calendar before you leave today!



***My child is less than 15 years old, so why does she need a third shot?***



The recommended schedule is 2 shots given  
6 to 12 months apart.

The minimum amount of time between those  
shots is five months.

Because your child received two shots *less*  
than five months apart, we'll need to give  
your child a third shot.





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**HPV VACCINE IS  
CANCER PREVENTION**  
*And YOU are the key!*

**#WeCanStopHPV**

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