You are the Key to HPV Cancer Prevention

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March 10, 2019

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April 14, 2019

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March 31, 2019

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This presentation is brought to you by the National Area Health Education Center office and the SEID, SWID and N Idaho AHEC's.
Objectives

1. Describe the burden of HPV disease.
2. Define the importance of HPV vaccination for cancer prevention.
3. Explain the rationale for vaccinating youth at ages 11 or 12.
4. List the recommendations for HPV vaccine for girls and for boys.
5. Provide useful and compelling information about HPV vaccine to parents to aid in making the decision to vaccinate.
6. Locate resources relevant to current immunization practice.
7. Provide appropriate care and counsel for patients and their families.
8. Provide accurate and appropriate counsel as part of the treatment team.
Objective 1: Understanding the Burden

HPV INFECTION & DISEASE
### Number of HPV-Associated and HPV-Attributable Cancer Cases per Year

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Average number of cancers per year in sites where HPV is often found (HPV-associated cancers)</th>
<th>Percentage probably caused by any HPV type&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Number probably caused by any HPV type&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervix</td>
<td>11,866</td>
<td>91%</td>
<td>10,751</td>
</tr>
<tr>
<td>Vagina</td>
<td>846</td>
<td>75%</td>
<td>635</td>
</tr>
<tr>
<td>Vulva</td>
<td>3,934</td>
<td>69%</td>
<td>2,707</td>
</tr>
<tr>
<td>Penis</td>
<td>1,269</td>
<td>63%</td>
<td>803</td>
</tr>
<tr>
<td>Anus&lt;sup&gt;a&lt;/sup&gt;</td>
<td>6,530</td>
<td>91%</td>
<td>5,957</td>
</tr>
<tr>
<td>Female</td>
<td>4,333</td>
<td>93%</td>
<td>4,008</td>
</tr>
<tr>
<td>Male</td>
<td>2,197</td>
<td>89%</td>
<td>1,949</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>18,226</td>
<td>70%</td>
<td>12,885</td>
</tr>
<tr>
<td>Female</td>
<td>3,412</td>
<td>63%</td>
<td>2,160</td>
</tr>
<tr>
<td>Male</td>
<td>14,814</td>
<td>72%</td>
<td>10,725</td>
</tr>
<tr>
<td>TOTAL</td>
<td>42,671</td>
<td>79%</td>
<td>33,737</td>
</tr>
<tr>
<td>Female</td>
<td>24,391</td>
<td>83%</td>
<td>20,260</td>
</tr>
<tr>
<td>Male</td>
<td>18,280</td>
<td>74%</td>
<td>13,477</td>
</tr>
</tbody>
</table>

<sup>a</sup>HPV types detected in genotyping study; most were high-risk HPV types known to cause cancer (Saraiya M et al. U.S. assessment of HPV types in cancers: implications for current and 9-valent HPV vaccines. Journal of the National Cancer Institute 2015;107:djv686).

<sup>a</sup>Includes anal and rectal squamous cell carcinomas.

### Number of HPV-Associated Cancer Cases: Idaho, 2016

(Ian's unpublished estimate)

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Number of Cancers</th>
<th>Percentage Probably Caused by HPV</th>
<th>Number of Cancers Probably Caused by HPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervix</td>
<td>336</td>
<td>91%</td>
<td>306</td>
</tr>
<tr>
<td>Vagina</td>
<td>5</td>
<td>75%</td>
<td>4</td>
</tr>
<tr>
<td>Vulva</td>
<td>17</td>
<td>69%</td>
<td>12</td>
</tr>
<tr>
<td>Penis</td>
<td>6</td>
<td>63%</td>
<td>4</td>
</tr>
<tr>
<td>Anus/Rectum</td>
<td>213</td>
<td>91%</td>
<td>194</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>265</td>
<td>70%</td>
<td>186</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>842</strong></td>
<td></td>
<td><strong>704</strong></td>
</tr>
</tbody>
</table>


HPV-Associated Cancer Incidence-IDAHO (2013)

Rate of adults diagnosed with HPV associated cancers

<table>
<thead>
<tr>
<th>Idaho</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

(rates per 100,000)

Public Health Districts 1, 2, 3 & 5 have higher incidence rates than the state overall.
HPV-Associated Cancers per Year, United States, 2009–2013

Average number of new cancers probably caused by HPV, United States 2006-2010

Women (n = 17,600)
- Cervix n=10,400 (59%)
- Oropharynx n=1,800 (10%)
- Vulva n=2,200 (13%)
- Anus n=2,600 (15%)
- Vagina n=600 (3%)

Men (n = 9,300)
- Oropharynx n=7,200 (77%)
- Anus n=1,400 (15%)
- Penis n=700 (8%)

CDC, United States Cancer Statistics (USCS), 2006-2010
HPV is a common virus that infects teens and adults.

80% of people will get an HPV infection in their lifetime.

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

Satterwhite et al. Sex Transm Dis. 2013
HPV Types Differ in their Disease Associations

~40 Types

Mucosal sites of infection

High risk (oncogenic)
HPV 16, 18 most common

Cervical Cancer
Anogenital Cancers
Oropharyngeal Cancer
Cancer Precursors
Low Grade Cervical Disease

Low risk (non-oncogenic)
HPV 6, 11 most common

Genital Warts
Laryngeal Papillomas
Low Grade Cervical Disease

~ 80 Types

Cutaneous sites of infection

“Common”
Hand and Foot Warts

Low risk (non-oncogenic)
HPV 6, 11 most common

Cervical Cancer
Anogenital Cancers
Oropharyngeal Cancer
Cancer Precursors
Low Grade Cervical Disease
There is no reliable way to determine who will have complications from HPV infection, such as genital warts or cancers.
HPV-Associated Cancer Rates by Sex, Race and Ethnicity, United States, 2009–2013

HPV-Associated Cervical Cancer Rates by Race and Ethnicity, United States, 2009–2013

HPV-Associated Oropharyngeal Cancer Rates by Sex, Race and Ethnicity, United States, 2009–2013

HPV-Associated Anal Cancer Rates by Sex, Race and Ethnicity, United States, 2009–2013

HPV-Associated Penile Cancer Rates by Race and Ethnicity, United States, 2009–2013

HPV-Associated Vaginal Cancer Rates by Race and Ethnicity, United States, 2009–2013

Cervical Cancer

- Cervical cancer is the most common HPV-associated cancer among women
  - 528,000 new cases and 266,000 deaths world-wide in 2012
  - 12,000 new cases and 4,000 deaths in the U.S. in 2013

- Half of cervical cancers occur in women <50 years
  - A quarter of cervical cancers occur in women 25-39 years

http://gco.iarc.fr/today/home
Cervical pre-cancer in U.S. females

- 1.4 million new cases of low grade cervical dysplasia
- 330,000 new cases of high grade cervical dysplasia

Screening won’t protect your patients from most HPV cancers.

**HPV Vaccine**

You are the key to cancer prevention.

**CDC (2018b).** Human Papillomavirus (HPV): Infographic: Screening won’t protect your patients from most HPV cancers. Retrieved from https://www.cdc.gov/hpv/hcp/hpv-important/more-than-screening-infographic.html

Australia is on Track to Eliminate Cervical Cancer

A new study predicts that by 2028, there will be fewer than four new cervical cancer cases per 100,000 Australian women.

The incidence of oropharyngeal cancers has increased over the past 20 years.

During this time:
- Smoking and alcohol-related cancers decreased 50%.
- HPV-related cancers increased by 225%.
Oropharyngeal Cancer

- Oropharyngeal cancer is the most common HPV-associated cancer among men
  - HPV can infect the mouth and throat and cause cancers of the oropharynx (throat, back of tongue, near/in folds of tonsils)
  - Four to five-fold increase in oropharynx cancers over the last decade
  - ~10% of men and 3.6% of women have active oral HPV infection
  - HPV is thought to cause 70% of oropharyngeal cancers
Oropharyngeal Cancer

http://www.ghorayeb.com/OropharyngealCarcinoma.html
Objective 2: Evidence-Based HPV Disease Prevention

**HPV VACCINE**

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

#UCanStopHPV


HPV vaccination works.

71%

Infections with HPV types that cause most HPV cancers and genital warts have dropped 71 percent among teen girls.

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 Vaccine Comparison

Adapted from Petrosky et al. MMWR. 2015.

Genital warts

63% of cancers in body parts where HPV DNA is often found

10% of cancers in body parts where HPV DNA is often found

Adapted from Petrosky et al. MMWR. 2015.
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 13th 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


Meites et al. MMWR. 2016.
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).


Meites et al. MMWR. 2016.
Dosing Schedules

Starting the vaccine series before the 15th 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 one and dose two in a 2-dose schedule is 5 months

Starting the vaccine series on or after the 15th 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

Meites et al. MMWR. 2016.
HPV VACCINE SAFETY
HPV vaccination provides safe, effective, and long-lasting protection.

With over 100 million doses distributed in the U.S., data continues to show HPV vaccine is safe and effective.


The Journey of Your Child's Vaccine

**HOW A VACCINE'S SAFETY CONTINUES TO BE MONITORED**

FDA and CDC closely monitor vaccine safety after the public begins using the vaccine.

- The purpose of monitoring is to watch for adverse events (possible side effects).
- Monitoring a vaccine after it is licensed helps ensure that possible risks associated with the vaccine are identified.

**VACCINE ADVERSE EVENT REPORTING SYSTEM**

VAERS collects and analyzes reports of adverse events that happen after vaccination. Anyone can submit a report, including parents, patients, and healthcare professionals.

**VACCINE SAFETY DATALINK**

- Network of healthcare organizations across the U.S.
- Healthcare information available for a population of over 9 million people.
- Scientists use VSD to conduct studies to evaluate the safety of vaccines and determine if possible side effects are actually associated with vaccination.

Vaccine recommendations may change if safety monitoring shows that the vaccine risks outweigh the benefits (like if scientists detect a new serious side effect).
<table>
<thead>
<tr>
<th>System</th>
<th>Collaborators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine Adverse Event Reporting System (VAERS)</td>
<td>CDC and FDA</td>
<td>Frontline spontaneous reporting system to detect potential vaccine safety issues</td>
</tr>
<tr>
<td>Vaccine Safety Datalink (VSD)</td>
<td>CDC and 9 Integrated Health Care Systems</td>
<td>Large linked database system used for active surveillance and research ~9.4 million members (~3% of US pop.)</td>
</tr>
<tr>
<td>Clinical Immunization Safety Assessment (CISA) Project</td>
<td>CDC and 7 Academic Centers</td>
<td>Expert collaboration that conducts individual clinical vaccine safety assessments and clinical research</td>
</tr>
<tr>
<td>Post-Licensure Rapid Immunization Safety Monitoring Program (PRISM)</td>
<td>FDA and 6 partner organizations</td>
<td>Large distributed database system used for active surveillance and research ~170 million individuals</td>
</tr>
</tbody>
</table>
Evaluating and Monitoring 9-valent HPV Vaccine Safety in the United States

Monitoring of VAERS Reports
- Clinical review of deaths and other pre-specified adverse events
- Data mining to identify disproportional reporting

Vaccine Safety Datalink
- Near real time monitoring of 10 pre-specified outcomes
- Evaluation of spontaneous abortion

Sentinel System
- Near real time active surveillance and surveillance of serious, unexpected events
- Evaluation of spontaneous abortion

Manufacturer post-marketing commitments
- Two, 10-year studies to assess long term safety
- Observational study to further characterize the safety profile in 10,000 persons
- Pregnancy registry
Over 10 Years of HPV Vaccine Safety Data

- HPV vaccine is safe
- Reactions after vaccination may include
  - Injection site reactions: pain, redness, and/or swelling in the arm where the shot was given
  - Systemic: fever, headaches
- HPV vaccines should not be given to anyone who has had a previous allergic reaction to the vaccine or who has an allergy to yeast (Gardasil/Gardasil 9)
- Brief fainting spells (syncope) and related symptoms (such as jerking movements) can happen soon after any injection, including HPV vaccine
- Patients should be seated (or lay down) during vaccination and remain in that position for 15 minutes

HPV Vaccination is Safe

HPV vaccine safety studies have been very reassuring: HPV vaccine has a good safety profile.

To date, we have not observed any signal that shows that HPV vaccination causes death, neurologic conditions, autoimmune conditions, or venous thromboembolism (VTE).

Clinicians can reassure parents who may have concerns, that HPV vaccination is safe.

Monitoring Impact of HPV Vaccine Programs on HPV-Associated Outcomes

HPV VACCINE IMPACT
HPV vaccine impact monitoring

- Post licensure evaluations are important to evaluate real world effectiveness of vaccines
- Population impact against early and mid outcomes have been reported:
  - **HPV prevalence**
    - Australia, Norway, Denmark, Sweden, UK, US
  - **Genital warts**
    - Australia, New Zealand, Denmark, Sweden, Germany, Quebec, US
  - **Cervical lesions**
    - Australia, British Columbia, Denmark, Sweden, US
Prevalence of HPV before & after introduction of HPV vaccination in the United States

Impact of HPV vaccination in Australia

Proportion of Australian born females and males diagnosed as having genital warts at first visit, by age group, 2004-11

Systematic Review and Meta-Analysis: Population-Level Impact of HPV Vaccination

- Review of 20 studies in 9 high income countries
- In countries with >50% coverage, among 13-19 year olds
  - HPV 16/18 prevalence decreased at least 68%
  - Anogenital warts decreased by ~61%
- Evidence of herd effects
- Some evidence of cross protection against other types

Drolet et al. Lancet Infect Dis. 2015
HPV Vaccine
Duration of Protection

- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection
  - Available evidence indicates protection for at least 10 years
  - Multiple studies are in progress to monitor
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 have been reported in multiple countries

**HPV Vaccine Protection LASTS**
- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection
Adolescent Vaccination Coverage
United States, 2006-2015

Reagan-Steiner et al. MMWR 2016.
Human papillomavirus (HPV) vaccination coverage among adolescents 13-17 years by State, HHS Region, and the United States, National Immunization Survey-Teen (NIS-Teen), 2008 through 2017


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

Stokley et al. MMWR. 2014.
Objective 5, 7, and 8: Talking about HPV vaccine

FRAMING THE CONVERSATION
Reasons parents won’t initiate HPV vaccination for children

- Not recommended
- Safety concern/Side effects
- Not needed or necessary
- Lack of knowledge
- Not sexually active

Stokley et al. MMWR. 2014.
Value Parents Place on the Vaccines

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Median Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningitis</td>
<td>9.4</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>9.5</td>
</tr>
<tr>
<td>Pertussis</td>
<td>9.5</td>
</tr>
<tr>
<td>Influenza</td>
<td>9.3</td>
</tr>
<tr>
<td>HPV</td>
<td>9.3</td>
</tr>
<tr>
<td>Adolescent vaccines</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Adapted from Healy et al. Vaccine. 2014.
Clinician estimations

<table>
<thead>
<tr>
<th>Condition</th>
<th>Parent</th>
<th>Clinician's estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningitis</td>
<td>9.4</td>
<td>9.2</td>
</tr>
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<td>9.2</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Healy et al. Vaccine. 2014.
Clinicians underestimate the value parents place on HPV vaccine

Adapted from Healy et al. Vaccine. 2014.
“The perceived and real concerns of parents influence how the clinician recommends and administers HPV vaccine.”

Adapted from Healy et al. Vaccine. 2014.
Give an Effective Recommendation to Receive HPV Vaccine at Ages 11 or 12

An effective recommendation from you is the main reason parents decide to vaccinate

Many moms in focus groups stated that they trust their child’s doctor and would get the vaccine for their child as long as they received a recommendation from the doctor

What is an effective recommendation for HPV vaccination?
Same Way
Same Day
Make an Effective Recommendation

- **Same way: Effective recommendations group all of the adolescent vaccines**
  Recommend HPV vaccination the *same way* you recommend Tdap & meningococcal vaccines.

- **Same day: Recommend HPV vaccine *today***
  Recommend HPV vaccination the *same day* you recommend Tdap & meningococcal vaccines.

Your preteen needs three vaccines today to protect against meningitis, HPV cancers, and pertussis.
Now that Sophia is 11, she is due for three vaccines today. These will help protect her from the infections that can cause meningitis, HPV cancers, and pertussis. We’ll give those shots at the end of the visit.
Preteen Vaccines

- Tdap
- Mean ACWY
- HPV
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 your child doesn’t get whooping cough, but also to protect babies too young to be vaccinated. 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)

Unpublished CDC data, 2013.
Why does my child need HPV vaccine?
HPV vaccination is important because it prevents cancer. That’s why I’m recommending that your child start the HPV vaccine series today.
What cancers are caused by HPV infection?
Certain HPV types can cause cancer of the cervix, vagina, and vulva in females, cancer of the penis in men, and in both females and males, cancers of the anus and the throat.

We can help prevent infection with the HPV types that cause these cancers by starting the HPV vaccine series today.
Is my child really at risk for HPV?
HPV is a very common and widespread 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
When do we put our seat belts on?

A. Before turning on car

B. When leaving driveway

C. After a near accident

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 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 need to bring your child back in 6 to 12 months from now 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 protection possible 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. 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.
I have some concerns about the safety of the vaccine—I keep reading things online that says HPV vaccination isn’t safe. Do you really know if it’s safe?
It sounds like you are generally in support of vaccines, but you have concerns about the safety of HPV. Is that right?

So if you had information that convinced you the HPV vaccine was safe you might consider letting your daughter get it?

I’d like to share with you what I know about the safety of HPV vaccine...
I know there are stories in the media and online about vaccines, and I can see how that could concern you. However, I want you to know that HPV vaccine has been carefully studied for many years by medical and scientific experts. Based on all of the data, 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 headache. Sometimes kids faint when they get shots and they could be injured if they fall from fainting. We’ll protect your child by having them stay seated after the shot.
Could HPV vaccine cause my child to have problems with...?
There is no data 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.
More than a decade of HPV vaccine safety studies have been very reassuring. To date, we have not observed any signal that shows that HPV vaccination causes death/ neurologic conditions/ autoimmune conditions/ venous thromboembolism/ postural orthostatic tachycardia syndrome/ complex regional pain syndrome.
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 HPV vaccine?
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.
All three vaccines are strongly and equally recommended by the CDC. All three are also recommended by Pediatric, Adolescent, and Family Medicine doctors and groups. School-entry requirements don’t always reflect the current recommendations for your child’s health.
Would you get HPV vaccine for your kids?
Yes, I have given HPV vaccine to my child.
I believe strongly in the importance of this cancer-preventing vaccine.
The American Academy of Pediatrics, the American Academy of Family Physicians, NIH cancer centers, and the CDC, also agree that getting the HPV vaccine is very important for your child.
I heard there is a new HPV vaccine that works better. Should I be getting that for my child who already was vaccinated?
Currently there is no recommendation for additional vaccination for someone who has already completed an HPV vaccine series. All HPV vaccines protect against the infections that cause most of the cancers.
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.
Will my child be protected with just two shots?
Yes! Studies have shown that just two shots given at least six months apart when kids are between 9 and 14 years worked as well or better than three shots given to older adolescents and young adults.
If a parent doesn’t say yes today...

<table>
<thead>
<tr>
<th>Ask</th>
<th>• Clarify &amp; restate their concerns to make sure you understand</th>
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| Acknowledge | • Emphasize it is the parents’ decision  
• Acknowledge risks & conflicting info sources  
• Applaud them for wanting what is best for their child  
• Be clear that you are concerned for the health of their child, not just public health safety |
| Advise | • Allow time to discuss the pros & cons of the vaccine  
• Be willing to discuss parents’ ideas  
• Offer written resources for parents  
• Tailor your advice using this presentation |

Adapted from Henrickson Vax Northwest 2014.
If a parent declines today...

- Declination is not final. The conversation can be revisited.
- End the conversation with at least 1 action you both agree on.
- Because waiting to vaccinate is the risky choice, many pediatricians ask the parent to sign a Declination Form.
The Opener by the Nurse/MA

- **Encourage convenient same-day vaccination**
  
  “Today, Pat should have 3 vaccines. They’re designed to protect him from the infections that cause meningitis, HPV cancers, and pertussis. Do you have any questions for me?”

- **If a parents hesitates, the MA/nurse should say**
  
  “Our practice is so dedicated to cancer prevention that I’m sure the doctor will want to talk with you about your concerns.”
How to increase the number of target patients who come in & leave vaccinated

1. Know your coverage rates

- Clinic-level rates are great, but rates for individual clinicians are even better!
- Other than coverage assessment and feedback (including AFIIX), rates can come from
  - Data from EHR
  - IIS inputs
How to increase the number of target patients who come in & leave vaccinated

2. Align office/clinic policy with mission

- Immunize at every opportunity
- Implement and utilize standing orders
- Prompt the person ordering the vaccine in multiple ways
- Reminders & Recalls

Top 10 List for HPV #VaxSuccess

1. Appreciate the significance of the HPV vaccination recommendation.
2. Acknowledge the importance of your recommendation to parents to get their children vaccinated.
3. Use the right approach by presenting immunizations the correct way, especially with the HPV vaccine.
4. Motivate your team and facilitate their immunization conversations with parents.
5. Establish a policy to vaccinate at every visit. Create a system to check immunization status ahead of check-in and well visits. Before seeing the patient, staff should indicate if the patient is due for immunization, with special consideration to HPV vaccination. Use standing orders.
6. Utilize your local health department’s resources.
7. Know your rates of vaccination and refusal.
8. Maintain strong doctor-patient relationships to help with challenging immunization conversations.
9. Be prepared with answers to vaccinate accurately, and compassionately inform parents with the most current medical facts. Skype often accepts your provider’s explanations if presented correctly.
10. Use personal examples of how you choose to vaccinate children in your family.

3. Align communication with mission

- Give staff a cancer-prevention mission
- All staff need to be saying the same thing
- Share talking points
- Use the Tip Sheet
- Hold an in-service
Human Papillomavirus (HPV)

For Clinicians

KNOW THE FACTS
Get information on the burden of HPV cancers, the importance of HPV vaccination, and how to help parents overcome hesitancy about HPV vaccine.

COMMIT TO THE CAUSE
Find ways to help improve HPV vaccination rates by promoting vaccination in your offices. Get CDC resources to help raise awareness among parents about the importance of HPV vaccine for preventing cancer.

LEAD THE CONVERSATION
Learn how to successfully communicate about HPV vaccine with the parents of your preteen patients, as well as how to become an HPV vaccination champion with your colleagues and in your community.

www.cdc.gov/hpv
HPV Vaccination Month
February 2019

Your organization can participate in a variety of ways, examples include:
• Promoting HPV vaccine month and referring patients to walk-in clinics
• Providing HPV vaccination education

...and many more!

Visit hpvfreedid.org
CLOSING THOUGHTS...
Today you learned...

- HPV infection is more common than you thought, and most patients will be exposed.
- HPV vaccination works very well at the recommended age of 11-12 (early vaccination is more effective than later vaccination).
- HPV vaccination is very, very safe.
- More parents want this vaccine than you think.
- There ARE evidence-based ways to recommend HPV vaccine.
Tell parents that almost everyone gets HPV and HPV can cause a variety of cancers in women and men.

Remind parents that HPV vaccine is for cancer prevention.

Provide a strong recommendation for HPV vaccine when patients are 11 or 12 years old.

Listen carefully to and welcome patient and parent questions especially about safety.
HPV VACCINE IS CANCER PREVENTION
And YOU are the key!

#WeCanStopHPV
References

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- Petrosky et al. Use of 9-Valent Human Papillomavirus (HPV) Vaccine: Updated HPV Vaccination Recommendations of the Advisory Committee on Immunization Practices. MMWR. 2015 64(11);300-304
- Temte JL. Comment: Timing of HPV Vaccine. Available at http://pediatrics.aappublications.org/content/early/2014/08/12/peds.2014-0442.comments#-timing-of-hpv-vaccine
Ian’s additional References