You Are the Key to Human Papillomavirus (HPV) Cancer Prevention
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Disclosures

- I have directed my financial advisor to exclude vaccine manufacturers from my portfolio.
- Opinions expressed are NOT those of Immunize Milwaukee!, the University of Wisconsin, the City of Milwaukee Health Department, or the Advisory Committee on Immunization Practices (ACIP) of the United States Centers for Disease Control and Prevention.
- ACIP recommendations are standard of care and scientifically supported, but occasionally differ with indications for use approved by the United States Food and Drug Administration.
Objectives

1. Define the importance of HPV vaccination for cancer prevention and the rationale for vaccinating at ages 11 or 12.
2. List the recommendations for HPV vaccine for girls and for boys.
3. Provide useful and compelling information about HPV vaccine to parents to aid in making the decision to vaccinate.
4. Locate resources relevant to current immunization practice.
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

New Cancers Caused by HPV per Year
United States 2006-2010

Women (n = 17,600)

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

Men (n = 9,300)

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

CDC, United States Cancer Statistics (USCS), 2006-2010
Without vaccination, annual burden of genital HPV-related disease in U.S. females:

- 4,000 cervical cancer deaths
- 10,846 new cases of cervical cancer
- 330,000 new cases of HSIL: CIN2/3 (high grade cervical dysplasia)
- 1 million new cases of genital warts
- 1.4 million new cases of LSIL: CIN1 (low grade cervical dysplasia)

Nearly 3 million cases and $7 billion

HPV Vaccine Comparison

HPV Types Included in Vaccine

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These HPV Types Cause:
- Genital warts
- ~66% of Cervical Cancers
- ~15% of Cervical Cancers
HPV VACCINE SAFETY

Vaccine efficacy: Ability of a vaccine to work as intended to protect from illness.

Vaccine-associated risk: Probability increased adverse event that harm the individuals or population.
VAERS: HPV Vaccine Safety Monitoring

- Ongoing safety monitoring has shown most reports are non-serious.
- Among the 7.6% of reports coded as “serious,” most frequently cited possible side effects are headache, nausea, vomiting, and fever.
- Syncope (fainting) continues to be reported following vaccination among adolescents.
  - Adherence to a 15-minute observation period after vaccination is encouraged.

MMWR. 2014;63(RR05);1-30.
9vHPV Vaccine Safety

- Seven pre-licensure studies including 15,000 males and females
- Generally well tolerated
  - Adverse event profile similar to that of 4vHPV across age, gender, race, and ethnicity
  - More injection-site reactions expected among those who receive 9vHPV
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:
  - **Genital warts**
    - Australia, New Zealand, Denmark, Sweden, Germany, Quebec, US
  - **HPV prevalence**
    - Australia, Norway, Denmark, Sweden, UK, US
  - **Cervical lesions**
    - Australia, British Columbia, Denmark, Sweden, US
HPV Vaccine
Duration of Immunity

Studies suggest that vaccine protection is long-lasting; no evidence of waning immunity

- Available evidence indicates protection for at least 8-10 years
- Multiple cohort studies are in progress to monitor the duration of immunity
HPV Vaccine Recommendations

2 doses if

1\textsuperscript{st} dose before 15\textsuperscript{th} birthday
healthy and not MSM
at least 5 months between doses

Ages 9 through 26 years

- Men ages 22 through 26 years who are not MSM \textbf{may} get HPV
- \textbf{May} give to 9-10 year olds. Should give to 11-12 year olds
HPV Vaccine Recommendations

For healthy clients who are not MSM:

- **1st dose before age 15 years →**
  - 2 doses: 0 and 6-12 months
  - Minimum interval = 5 months

- **1st dose at age 15 years or later →**
  - 3 doses: 0, 1-2, and 6 months

For immunocompromised and men who have sex with men (MSM)

- 3 doses: 0, 1-2, and 6 months
Immunocompromising conditions for which a 3-dose series of HPV vaccine is indicated are:

- primary or secondary immunocompromising conditions that might reduce cell-mediated or humoral immunity, e.g.,
- B-lymphocyte antibody deficiencies,
- complete or partial T-lymphocyte defects,
- HIV infection,
- malignant neoplasm,
- transplantation,
- autoimmune disease, and
- immunosuppressive therapy.
Standards for Adult Immunization Practice

Call to action for healthcare professionals for adults to

- **ASSESS** vaccination status
  - all patients at
  - every clinical encounter

- **Strongly RECOMMEND** vaccines that patients need

- **ADMINISTER** needed vaccines or
  - REFER to a vaccine provider

- **DOCUMENT** vaccines received by patients in
  - state vaccine registries

Reducing Missed Opportunities

- Clearly written standing medical orders
- Check vaccination status on every visit by using immunization registries (WIR)
- Provider education with feedback
- Provider reminder and client recall systems
Use the Registry

Basic Functions

➤ At every visit
  ➤ Not just at health maintenance visits, but also
  ➤ At disease management, acute care, procedures, hospitalizations, nursing home, home visits

➤ Enter data
  ➤ Support clinic policies to enter data daily
  ➤ Advocate for info tech staff to work with state on two way, real-time data exchange
Benefits of Standing Orders

- Efficient assessment for and administration of vaccines
- Improve vaccination rates in your practice.
- Protect more of your patients from preventable diseases
- Empower nurses & medical assistants
- Decrease opportunities for disease transmission in your clinic
Increase Access to Immunizations

- Vaccinate at all appointment types including urgent care, follow up for problems, chronic disease management, and physicals
- “Nurse-only” visits for vaccinations
- Use standing orders on a walk-in basis
- Give vaccinations on evenings or weekends
- “Express” service for vaccination during regular office hours
- Provide an easy-to-access site, separated from usual traffic pattern
Clinic Practices to Increase Vaccinations

Add best practice alerts (prompts) to medical record
- Standing orders protocols
- Screening questionnaires

Determine current immunization rates of clinic’s patients
- Generate standard reports from state registry
- Use medical record or billing to identify rates
Use the Registry

Advanced Functions

- Advocate for medical assistants to get training in and regularly use the advanced functions
- Order vaccine and manage inventory
  - Decrease staff time and expiring vaccines
- Generate reports
  - Remove inactive patients from denominator
  - Document quality measures
  - Identify patients who need to come in for vaccinations
Communication Principles

• Make simple, clear, consistent recommendations
  – “These are the vaccines you need today”
• Only if objections, then stop & listen to concerns
  – Express surprise that refusal is not the social norm
  – Assume patients have their own welfare as the goal
• Positive messages: Vaccine safety & efficacy
• Build trust - multiple visits
  – Motivational interviewing
  – CASE: Corroborate, About me, Science, Explain/advise
Fence sitters

<table>
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<tr>
<th>Vaccinators</th>
<th>Hesitant 25%</th>
<th>Non-Vaccinators</th>
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<tr>
<td>Accepters 35%</td>
<td>Vaccine-Hesitant 30%</td>
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<tr>
<td>Agree with or do not question vaccination</td>
<td>Accept vaccination but have concerns</td>
<td>Late Vaccinators 9%</td>
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<td>↑ ↑ ↑ ↑</td>
<td>Rejecters 1%</td>
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<td>Completerly reject vaccination</td>
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In the middle ... Similar desires for knowledge & approach to obtaining information

Strength of Recommendation

Clinician’s recommendation are the factor most strongly associated with the patient choosing to be vaccinated

pediatrics.aappublications.org/content/early/2011/10/14/peds.2011-0950.abstract
Talking about HPV vaccine

FRAMING THE CONVERSATION
Clinicians Underestimate the Value Parents Place on HPV Vaccine

Give a Strong Recommendation to Receive HPV Vaccine at Ages 11 or 12

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

A strong 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.

MMWR 2014; 63(29);625-633; Unpublished CDC data, 2013.
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.

Unpublished CDC data, 2013.
Clinicians can give a strong and effective HPV vaccine recommendation by announcing:

Sophia is due for three vaccines today. These will help protect her from meningitis, HPV cancers, and pertussis. We’ll give those shots at the end of the visit.
If main concern is “Why does my child need this vaccine” try saying:

HPV vaccine is very important because it prevents cancer.

I know we’d like to protect Maureen from cancer and I’d feel better if she got her first dose of the HPV vaccine series today.
If main concern is “My daughter will wait for marriage/won’t be exposed”, try saying:

**HPV is so common that almost everyone will be infected at some time.**

When your daughter marries, she could catch HPV from her husband. He might have been infected before he ever met her.
If main concern is “why now, let’s wait until child is older,” try saying:

*HPV vaccination provides the best protection when given at age 11 or 12, which is why I recommend starting the HPV vaccine series today.*
If main concern is “would you give it to your child,” try saying:

Yes, I gave it to my child (or grandchild, etc) because I think preventing cancer is very important.
If main concern is “side effects,” try saying:

Vaccines, like any medication, can cause side effects. With HPV vaccine most are mild, primarily pain or redness in the arm. This should go away quickly.

HPV vaccine has not been linked with any serious or long-term side effects.
Before leaving the exam room, remind parents when to come back. Try saying:

To work, Robert needs the full HPV vaccine series, so . . .
When you check out, please make sure to make an appointment for about 6 weeks from now for the next shot, and put that appointment on your calendar before you leave the office today!
HPV VACCINE IS CANCER PREVENTION

And YOU are the key!

#WeCanStopHPV