Opportunities for improving provider communication about HPV vaccination

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Disclosures

• Data collection for this research was funded in part through an unrestricted educational grant from Pfizer.

• My time is supported through a career development award from NCI.
Background
HPV vaccination guidelines

- **Routine administration**
  - Males and females, ages 11-12

- **Catch up**
  - Females to age 26
  - Males to age 21

- **Concomitant vaccination**
  - Tetanus, diphtheria, pertussis (Tdap)
  - Meningococcal vaccine
Accumulating data on effectiveness

Diagnosed with genital warts

Women <21 years

Men <21 years

HPV vaccine introduction

(Ali, et al., 2013)
Gardasil 9

- HPV types 6, 11, 16, 18, 31, 33, 45, 52, 58
- Could prevent ~90% of cervical cancers with widespread adoption
U.S. adolescent immunization coverage

Data from National Immunization Survey-Teen
U.S. adolescent immunization coverage

Data from National Immunization Survey-Teen

Healthy People 2020 Goal

53,000 preventable cervical cancers

53,000 preventable cervical cancers
Need to improve provider recommendations

Highly influential
- Adolescents whose parents receive recommendations have \(~18\)x higher odds of being vaccinated

Infrequent
- 36% of girls and 58% of boys, ages 13-17, have not received a recommendation

Late
- >60% of providers prefer to recommend HPV vaccine as “optional” for 11- to 12-year-olds

(Stokley et al., 2014; McRee et al., 2014)
Study 1
HPV Vaccine Recommendation Quality
Study aims

1. Assess physicians’ HPV vaccine recommendation practices on 5 quality indicators

2. Identify correlates of overall recommendation quality
Physician Communication Study, 2014

- Cross-sectional, online survey
- Eligibility criteria
  - Pediatric or family medicine specialty
  - Provider of preventive care to patients ages 11-17
- National sample (n=776)
  - 53% pediatrics specialty
  - 68% male
  - 55% ≥20 years in practice
What is a “strong” recommendation?

<table>
<thead>
<tr>
<th>Quality measures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness</td>
<td>Recommend by target age</td>
</tr>
<tr>
<td>Strength of endorsement</td>
<td>Say vaccine is very important</td>
</tr>
<tr>
<td>Consistency</td>
<td>Deliver routine vs risk-based</td>
</tr>
<tr>
<td></td>
<td>recommendations</td>
</tr>
<tr>
<td>Urgency</td>
<td>Recommend same-day vaccination</td>
</tr>
</tbody>
</table>

(Gilkey & McRee, *Hum Vaccin Immunother*, 2016)
Timeliness: Age of routine recommendation

<table>
<thead>
<tr>
<th>Gender</th>
<th>Early (≤ 10 yrs)</th>
<th>On time (11-12 yrs)</th>
<th>Late (≥13 yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>7%</td>
<td>54%</td>
<td>39%</td>
</tr>
<tr>
<td>Females</td>
<td>11%</td>
<td>63%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Strength of endorsement

- **HPV**
  - Extremely important: 28%
  - Very important: 45%
  - Less important: 27%

- **Meningococcal**
  - Extremely important: 53%
  - Very important: 33%
  - Less important: 14%

- **Tdap**
  - Extremely important: 58%
  - Very important: 37%
  - Less important: 5%
Consistency

- Use a risk-based approach?
  - 41% disagreed
  - 20% neither agreed/disagreed
  - 39% agreed
Urgency

- When to get HPV vaccine?
  - 60% current visit
  - 40% later visit or give a choice
Overall recommendation quality

![Bar graph showing the distribution of quality scores for overall recommendation quality. The x-axis represents the quality score ranging from 0 to 5, and the y-axis represents the percentage ranging from 0% to 25%. The graph shows a clear increase in the percentage of high-quality recommendations with higher quality scores.](image-url)
Candidate correlates

- Physician characteristics
  - Specialty
  - Sex
  - Years in practice

- Clinic characteristics
  - Practice type (private vs. other)
  - Size
  - National region

- Physician perceptions
  - Talking about an STI uncomfortable?
  - Parents feel HPV vaccine is important?
Physician perceptions

- Does having to talk about an STI make discussions about HPV vaccine uncomfortable?
  - 50% strongly/somewhat disagree
  - 50% somewhat/strongly agree/neither
Physician perceptions

- Does having to talk about an STI make discussions about HPV vaccine uncomfortable?
  - 50% strongly/somewhat disagree
  - 50% somewhat/strongly agree/neither

- How important do parents feel HPV vaccine is for their 11- to 12-year-old children?
  - 53% moderately/very/extremely important
  - 47% not/slightly important
Candidate correlates

- Physician characteristics
  - Specialty
  - Sex
  - Years in practice

- Clinic characteristics
  - Practice type (private vs. other)
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  ▫ National region

• Physician perceptions
  ▫ Talking about an STI uncomfortable?
  ▫ Parents feel HPV vaccine is important?
## Correlates of recommendation quality

<table>
<thead>
<tr>
<th></th>
<th>% with high quality scores</th>
<th>Multivariable OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking about an STI uncomfortable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly/somewhat disagree</td>
<td>57%</td>
<td>1</td>
</tr>
<tr>
<td>Strongly/somewhat agree/neither</td>
<td>35%</td>
<td>0.45**</td>
</tr>
<tr>
<td>Parents feel HPV vaccine is important?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately/very/extremely</td>
<td>51%</td>
<td>1</td>
</tr>
<tr>
<td>Not/slightly</td>
<td>41%</td>
<td>0.60**</td>
</tr>
</tbody>
</table>

**p<0.01
Study 1: Key findings

- Half of physicians reported ≥2 recommendation practices that likely compromise guideline-consistent delivery of HPV vaccine

- Recommendation quality was lower among physicians with negative perceptions of HPV vaccine discussions

(Gilkey et al, Cancer Epidemiol Biomarkers Prev, 2015)
Doctors Failing To Recommend HPV Vaccine

Though the CDC recommends all children age 11-12 receive the HPV vaccine, researchers have found that up to 27 percent of doctors do not actively recommend it to adolescent patients, a trend that could indicate general discomfort discussing sexual matters with younger patients. What do you think?

“I’m worried we’re spoiling the next generation with all these immunities.”

Joelle Nussen • SYSTEMS ANALYST

“Just because they’re doctors doesn’t mean they’re not horrified by the human body like the rest of us.”

Calvin Hempel • POSTAL ADVOCATE
Modeling effective recommendations

Now that Michael is 11, he’s due for three shots that are really important for all kids his age: meningitis, HPV, and Tdap. We’ll give these at the end of the visit.
Modeling effective recommendations

Now that Michael is 11, he’s due for three shots that are really important for all kids his age: meningitis, HPV, and Tdap. We’ll give these at the end of the visit.
Conclusions

- Providers have a lot of influence on parents’ decision making about HPV vaccination
- Raising coverage will require more frequent and more effective recommendations
- HPV vaccination provides an opportunity to think more critically about what a recommendation is
BE A CHAMPION FOR HPV VACCINATION
Tips for protecting the children in your care.

How can I best respond to parents' questions?

How can I improve HPV vaccine rates in my practice?

What's working for other pediatricians?

I want 100% of my patients to be vaccinated. Any suggestions?
Thank you

Harvard Medical School
Grace Lee, MD
Melanie Kornides, ScD

University of North Carolina
Noel Brewer, PhD
Jennifer Leeman, DrPH
William Calo, PhD
Teri Malo, PhD
Jen MacKinnon, MPH

University of Minnesota
Annie-Laurie McRee, DrPH

Johns Hopkins
John Bridges, PhD
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Pfizer
National Cancer Institute

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