HPV VACCINE IS CANCER PREVENTION: INCREASING ACCEPTANCE AMONG PROVIDERS AND PARENTS

CENTERS FOR DISEASE CONTROL AND PREVENTION

May 17, 2017
AGENDA AND PRESENTERS

- Background and Planning: Katherine Nicol, MS
- Implementation: Cecily Naron, MA
- Evaluation: Christina Nicols, MPH, MS, MS
ACKNOWLEDGEMENTS

• *HPV Vaccine Is Cancer Prevention* is a campaign of the Centers for Disease Control and Prevention’s National Center for Immunization and Respiratory Diseases
BACKGROUND AND PLANNING
“Cancer Vaccine Exists, Goes Unused”
– Reuters

“There’s a Vaccine Against Cancer, But People Aren’t Using It”
– TIME

“Doctors still hesitate to urge HPV vaccine for teenagers: Inoculation rate is ‘unacceptably low,’ says CDC.”
– The Boston Globe
THE CHALLENGE

• Nearly 80 million people in the U.S. are infected with human papillomavirus (HPV)
  • HPV causes approximately 27,000 cases of cancer each year
• HPV vaccine introduced in 2006; recommended for adolescents ages 11–12
  • HPV vaccination rates significantly lower than other adolescent vaccines

Why would anyone pass up the opportunity to prevent cancer?
THREE KEY BARRIERS

• **Access**
  - 3-dose/2-dose series

• **Understanding**
  - Introduced in 2006, but perception is that vaccine is still ‘new’
  - HPV is sexually transmitted; vaccine is most effective when administered well before exposure

• **Missed clinical opportunities**
  - Clinicians not making as strong of a recommendation for HPV vaccine as for other adolescent vaccines
FORMATIVE RESEARCH

- Research to inform outreach to health care providers included:
  - Review of previously conducted research
  - Key informant interviews among five pediatricians
  - Exploratory online survey among 700 pediatricians
  - Follow-up interviews among 25 pediatricians
FORMATIVE RESEARCH: KEY FINDINGS

• Pediatricians—key findings:
  • Offer information vs. effective recommendation
  • Perceive lower importance for HPV vaccine compared with other adolescent vaccines
  • Believe that parents value HPV vaccine less than other vaccines
  • Anticipate uncomfortable conversations when recommending HPV vaccine for 11- and 12-year-olds
  • Concerns that “pushing the vaccine” could jeopardize the relationship with parent
CALL TO ACTION

- Health care provider recommendation is the **single biggest predictor** of vaccination
  - Need providers to make a strong, effective, bundled recommendation
  - “Same way, same day!”
- Shift conversation to cancer prevention
TARGET AUDIENCE

• Clinicians who treat 11- to 12-year-old patients
  • Pediatricians
  • Family physicians
  • Physician assistants
  • Nurse practitioners
OBJECTIVES

• Develop research-driven program to:
  • Effectively reach clinicians with health messages
  • Change/refine desired behaviors
    • Increase clinician quality of HPV vaccination recommendation
    • Increase clinicians’ confidence that they influence parents’ acceptance of HPV vaccination for their children
  • Share innovative methods for reaching target audiences with tailored messages using paid media
INTEGRATED INTERVENTION MIX
‘FOUR P’S’

• Product: A vaccine that protects against certain cancers
• Price: Clinicians’ commitment to “Same Way, Same Day” recommendation
• Place: Any clinical opportunity with 11- to 13-year-olds (annual or acute visit)
• Promotion: Research-based messaging; targeted outreach including paid advertising and partner engagement
IMPLEMENTATION
CLINICIAN TOUCHPOINTS

Annual Conferences
Pediatricians attend annual conferences

Quarterly Journal
Hospital Pediatrics is released quarterly, but can be reread over the quarter by pediatricians

Monthly Journal
Pediatricians read AAP News and Pediatrics Journal to stay updated on CPT coding, news, and vaccines

Weekly E Newsletter
Pediatricians read e newsletters on a weekly basis to read timely news. Pediatricians also receive surveys to help evaluate information

Daily Mobile Updates
Pediatricians can read books on the go as well as read any AAP resources through the variety of app options

Daily Search
Seven websites are available for research and solutions to urgent pediatric coding questions
CLINICIAN ENGAGEMENT

• Partner engagement
  • Clinician tools and co-branded materials
  • Partner webinar series
  • Speakers Bureau
  • Clinician recognition program
• Medical meetings and conferences
• Paid media
PARTNER ENGAGEMENT
CLINICIAN TOOLS AND CO-BRANDED MATERIALS

PREVENTING CANCER JUST GOT EASIER

HPV vaccine protects against cancer 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.

**IS THE PATIENT AGE 11–12?**

- **YES**
  - Yes, HPV vaccine is recommended at age 11–12.
  - Two doses for 11–12 year-olds.
  - The series is complete.

- **NO**
  - Check to see if patient is outside this age range.

**HAS THE PATIENT RECEIVED ANY DOSES OF HPV VACCINE?**

- **YES**
  - Complete vaccination series.

- **NO**
  - Continue with vaccination.

**MORE THAN ONE?**

- **YES**
  - Complete vaccination series.

- **NO**
  - Complete vaccination series.

**TWO DOSES?**

- **YES**
  - Complete vaccination series.

- **NO**
  - Complete vaccination series.

**ADMINISTERED AT LEAST 6 MONTHS APART?**

- **YES**
  - Complete vaccination series.

- **NO**
  - Complete vaccination series.

**THE SERIES IS COMPLETE**


BE A CHAMPION FOR HPV VACCINATION

Tips for protecting the children in your care.

HOW CAN I HELP RESPOND TO PARENTS' QUESTIONS?

- HPV vaccine:
  - HPV is a common cause of cancer.

- HPV vaccine:
  - HPV vaccine is recommended at age 11–12.
  - Two doses for 11–12 year-olds.
  - The series is complete.

WHAT’S WORKING FOR OTHER PROVIDERS?

- HPV vaccine:
  - HPV vaccine is recommended at age 11–12.
  - Two doses for 11–12 year-olds.
  - The series is complete.

I WANT 100% OF MY PATIENTS TO BE VACCINATED. ANY SUGGESTIONS?

- HPV vaccine:
  - HPV vaccine is recommended at age 11–12.
  - Two doses for 11–12 year-olds.
  - The series is complete.
### PARTNER WEBINAR SERIES

<table>
<thead>
<tr>
<th>Webinar</th>
<th>Date</th>
<th>Registration</th>
<th>Attendance</th>
<th>Conversion*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV Vaccine Recommendation Update</td>
<td>April 3, 2015</td>
<td>2,334</td>
<td>1,086</td>
<td>46%</td>
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<tr>
<td>HPV Vaccine Is Cancer Prevention: CDC’s Clinician Engagement Initiative</td>
<td>April 30, 2015</td>
<td>890</td>
<td>624</td>
<td>70%</td>
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<tr>
<td>June ACIP Update and Opportunities for Summer HPV Vaccination</td>
<td>June 26, 2015</td>
<td>1,210</td>
<td>601</td>
<td>46%</td>
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<tr>
<td>Vaccine Hesitancy, Public Health, and Evidence-based Research</td>
<td>Jan. 8, 2016</td>
<td>2,010</td>
<td>1,104</td>
<td>54%</td>
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<tr>
<td>To Engage or Not to Engage: That Is the Question for Social Media Comments</td>
<td>Jan. 14, 2016</td>
<td>1,269</td>
<td>527</td>
<td>42%</td>
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<tr>
<td>But I Saw It on the Internet! Addressing Safety Concerns That Have Gone Viral</td>
<td>Jan. 22, 2016</td>
<td>1,587</td>
<td>630</td>
<td>40%</td>
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<tr>
<td>CDC Update: The Importance of Being AFIX and Tools for Successful Visits</td>
<td>Sept. 8, 2016</td>
<td>1,434</td>
<td>595</td>
<td>41%</td>
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<tr>
<td>HPV Vaccine Schedule Change Update: What It Means and How to Implement Today!</td>
<td>Nov. 18, 2016</td>
<td>2,192</td>
<td>1,129</td>
<td>52%</td>
</tr>
</tbody>
</table>

*Webinar registrant to attendee conversion rates are typically between 30 and 35 percent.*
SPEAKERS BUREAU

Sharon G. Humiston, MD, MPH, FAAP
Professor of Pediatrics
Children’s Mercy Hospital
Kansas City, MO

Rebecca B. Perkins, MD, MSc, FACOG
Associate Professor of Obstetrics & Gynecology
Boston University School of Medicine and Boston Medical Center
HPV VACCINE IS CANCER PREVENTION CHAMPION AWARD

- Partnership between CDC, the Association of American Cancer Institutes, and the American Cancer Society
- Recognition of clinicians, clinics, practices, groups, and health systems that:
  1. Adopt effective HPV vaccination recommendation practices that incorporate key campaign messages, and
  2. Whose recommendations have a positive impact on HPV vaccine administration for patients age 11 and 12 years
MEDICAL MEETINGS & CONFERENCES
KEY MEDICAL CONFERENCES

- American College of Obstetricians and Gynecologists: Annual Clinical and Scientific Meeting
- American Academy of Family Physicians: Family Medicine Experience
- American Academy of Pediatrics: National Conference and Exhibition
TOOLS FOR ENGAGEMENT

- In-booth presentations
- Peer-to-peer engagement
- Combined expertise of CDC, pediatricians, and OB-GYNs
TOOLS FOR ENGAGEMENT

1. MAKE YOUR ELECTRONIC OFFICE SYSTEMS WORK FOR YOU

Verify that your electronic health record system has protocols in place to alert you to low immunization status for your patients upon a 1-2-3-4 series appointment. The use of the appointment system allows for scheduling appointments up to six months in the future, and provides alerts for future appointments for the remaining HPV vaccines before they check in.

2. INCORPORATE THIS STANDARD OF IMMUNIZATION IN YOUR PRACTICE

Start the vaccine discussion for all patients. For example, “your child needs three vaccines to prevent hepatitis B, from your pediatrician’s office.” You can mention HPV vaccine for young patients as well, such as talking about the future and adding into the other adolescent vaccines.

3. RALLY YOUR STAFF AROUND CANCER PREVENTION TO IMPROVE RATES

You can have many of your 10 year-old patients have started or finished the HPV vaccine series and share those data, along with the rates of HPV in the nation, with your staff. Have someone in the position should be able to contact parents for HPV vaccine questions with concise answers, starting with “HPV vaccine is cancer prevention.”
PAID MEDIA
CLINICIAN DIGITAL ADS

American Family Physician

AAP News

Centers for Disease Control and Prevention shared:

Your voice is significant. Recommend HPV vaccine before age 13. https://linkd.in/evEnRTg

HPV Vaccine is Cancer Prevention

cdc.gov - HPV vaccinations prevent infection with the HPV types that most commonly cause cancer

HAGER SHARP
EVALUATION
## MEASURABLE RESULTS: OUTCOME MEASURES

### Post-campaign Follow-up Survey Among Pediatricians

<table>
<thead>
<tr>
<th>Objective: Increase clinician quality of HPV vaccination recommendation</th>
<th>Significant increases in percentage of pediatricians that:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mention first that the child is due to get the vaccine</td>
<td></td>
</tr>
<tr>
<td>• Recommend that 11- and 12-year-old patients get HPV vaccine at the current visit</td>
<td></td>
</tr>
<tr>
<td>• Strongly agree it is their job as a clinician to ensure that all adolescents in their practice receive HPV vaccine at the recommended age</td>
<td></td>
</tr>
<tr>
<td>• Strongly agree that they often make their recommendation for HPV vaccine at the same time they are recommending other vaccines</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective: Increase clinician confidence that they influence parents’ acceptance of HPV vaccination</th>
<th>Significant increases in percentage of pediatricians that:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strongly agree that they are influential in parents’ decisions regarding HPV vaccine</td>
<td></td>
</tr>
<tr>
<td>• Tell their patients that HPV vaccine is extremely important</td>
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</table>
### MEASURABLE RESULTS: PROCESS MEASURES

#### Measures of Engagement in Campaign Tactics

**Engagement through partnerships and conferences**
- Twelve webinars drew 8,300+ participants; consistently achieved above-standard registrant-to-attendee conversion rates
- Prominent engagements for CDC Speakers Bureau in key states
- Strong presence at priority medical conferences yielded face-to-face conversations with 1,300+ clinicians

**Engagement through paid media**
- 466,000 clinicians saw print ads 23 times each
- 3.1 million clinicians saw digital ads 27 times each
  - Nearly 272,000 click-throughs to the CDC website
  - Click-through rate was about four times greater than expected and cost per click was below expectation, using benchmarks based on government health outreach campaigns
  - Search volume for key terms increased significantly after ad launch, indicating the campaign successfully boosted interest in HPV vaccination
POTENTIAL IMPACT

• While 2016 HPV vaccination rates are not yet available, from 2014 to 2015, rates among adolescents ages 13–17 increased among males from 41.7% to 49.8% and among females from 60.0% to 62.8%

• This time frame overlaps with the first year of the campaign, which suggests our targeted outreach to clinicians may have been a positive factor
