Adolescent AFIX Study: Reviewing the Science & Rationale for HPV Vaccination Quality Improvement

Research Team
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Presentation to AFIX study state partners to describe quality improvement approaches for HPV vaccines, key components of the AFIX intervention, and rationale for the study.
Overview

• HPV vaccination: Epi and behavioral science

  ➔ Questions

• AFIX: Theory and prior evaluation

• Our project: Aims, progress, and next steps

  ➔ Questions
HPV Vaccination

Epidemiology and Behavioral Science
HPV vaccination guidelines

• Routine administration
  ▫ Males and females, ages 11-12

• Catch up
  ▫ Males to age 21
  ▫ Females to age 26

• Concomitant vaccination
  ▫ Tetanus, diphtheria, pertussis (Tdap)
  ▫ Meningococcal vaccine
HPV vaccine is safe and effective

Diagnosed with genital warts

Women <21 years
Men <21 years

HPV vaccine introduction

(Ali, et al., 2013)
HPV vaccine coverage is very low

Data from National Immunization Survey-Teen
We miss opportunities to give HPV vaccine

Actual: 47%
Achievable: 91%

HPV vaccine initiation, 13-year-old girls
Parents are important

- Reasons for not getting HPV vaccine vary

  - Lack of knowledge: 16% (Girls) vs. 16% (Boys)
  - Not needed: 15% (Girls) vs. 18% (Boys)
  - Not recommended: 13% (Girls) vs. 23% (Boys)
  - Safety/side effects: 14% (Girls) vs. 7% (Boys)
  - Not sexually active: 11% (Girls) vs. 8% (Boys)

National Immunization Survey – Teen, 2013 (Stokley et al., 2014)
Providers are **even more** important

**National Immunization Survey – Teen, 2013 (Stokley et al., 2014)**

![](chart.png)

- **Girls**
  - Yes: 70%
  - No: 20%

- **Boys**
  - Yes: 70%
  - No: 30%

**Received recommendation**
- Yes
- No
Recommendations need improvement

- No recommendation
  - 36% of girls and 58% of boys, ages 13-17, have not received a recommendation

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

(Stokley et al., 2014; McRee et al., 2014)
Key points

- Increasing HPV vaccine coverage is an urgent public health problem
- Improving provider recommendations is critical

Questions
AFIX

Theory and prior evaluation
CDC’s AFIX Model

- Informed by Continuous Quality Improvement
  - Data-driven approach
  - Use of short, PDSA cycles
  - Spirit of experimentation, collaboration
Coverage change for 15 studies of “assessment and feedback,” 1997-2007

Study design: ♠ RCT  ■ observational  ▲ low quality design

Groom, Hopkins, Lawrence, & Cruse, 2008
NC AFIX Pilot: 3-arm RCT with 91 clinics

<table>
<thead>
<tr>
<th>In-person consultation</th>
<th>Webinar consultation</th>
<th>Control</th>
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<tr>
<td>• Face-to-face meetings in clinics</td>
<td>• Online meetings using video conferencing software</td>
<td>• No intervention</td>
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Vaccine coverage changes at 5 months, ages 11-12
Additional findings

- AFIX impact disappeared by 12 months
- AFIX did little to improve catch-up vaccination for older adolescents, ages 13-18, at either time
UNC Adolescent AFIX Study

Aims, progress, and next steps
Goal: Increase HPV vaccine coverage

1. Develop an improved adolescent AFIX consultation, focusing specifically on HPV vaccination
2. Deliver in-person or webinar consultations to 270 clinics in 3 states
3. Assess the longitudinal impact of consultations on adolescents’ vaccination status
Formative research findings

- AFIX visits vary in content, length, and participant role
- AFIX is often overshadowed by VFC visits
- Clinicians may be doubtful that AFIX will change HPV vaccination coverage in their clinic
- Physicians are not usually present for AFIX visits
- Incentives are not always provided
Intervention process goals

- Involve vaccine providers
- Communicate problem of HPV vaccination
  - Low coverage
  - Inadequate recommendations
- Use data to set measurable goals
- Sustain focus on quality improvement
YOUR IMMUNIZATION REPORT CARD

1 REVIEW
your clinic’s adolescent immunization coverage.
ABC Pediatrics, August 8, 2014

<table>
<thead>
<tr>
<th></th>
<th>HPV</th>
<th>Meningococcal</th>
<th>Tdap</th>
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<tbody>
<tr>
<td>Males, ≥1 dose</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Females, ≥1 dose</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
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Note. Coverage estimates are for overdue patients (ages 13-17) with records in the IL RVAME.

2 SET A GOAL
to improve HPV vaccine coverage in the next 6 months.

<table>
<thead>
<tr>
<th>Your clinic has...</th>
<th>HPV Vaccination Goal</th>
<th>Progress at 3 months</th>
<th>Progress at 6 months</th>
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</thead>
<tbody>
<tr>
<td>1,546 patients, age 11-12</td>
<td>135 patients</td>
<td>75</td>
<td>75</td>
</tr>
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Note. Goals represent 10% of male and female patients in your clinic with records in the IL RVAME. A typical clinic may give HPV vaccine to 5% of their adolescent patients in 6 months. The goal is to double this ratio.

3 RECOMMEND
HPV vaccination for adolescents, starting at age 11.

Offer HPV vaccine in the same direct way you recommend other vaccines. Try saying:

“Your child needs three shots today: HPV vaccine, Tdap vaccine, and meningococcal vaccine.”

Your recommendation is the single biggest influence on parents’ decision to get HPV vaccine for their child. The vaccine produces a better immune response in younger adolescents. Vaccinating in the preteen years is best.

EARN FREE CMEs ONLINE!
Build skills in communicating about HPV vaccine at:
http://www.cdc.gov/vaccines/ed/hpv/
Next steps for state partners

• Review intervention materials
  ▫ Report card
  ▫ Protocol
• Provide feedback during next call
• Prepare for training and intervention pilot

➡ Questions