Update on CDC Activities to Rapidly Increase HPV Vaccine Coverage Among US Adolescents

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National Estimated HPV Vaccination Coverage Levels among Adolescents 13-17 Years, NIS-Teen 2006-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Tdap*</th>
<th>MCV4</th>
<th>1 HPV - Girls</th>
<th>3 HPV - Girls</th>
<th>1 HPV - Boys</th>
<th>3 HPV - Boys</th>
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</thead>
<tbody>
<tr>
<td>2006</td>
<td>10.8</td>
<td>11.7</td>
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<td>2007</td>
<td>30.4</td>
<td>32.4</td>
<td>25.1</td>
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<tr>
<td>2008</td>
<td>40.8</td>
<td>41.8</td>
<td>37.2</td>
<td>17.9</td>
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<tr>
<td>2009</td>
<td>55.6</td>
<td>53.6</td>
<td>44.3</td>
<td>26.7</td>
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<tr>
<td>2010</td>
<td>68.7</td>
<td>62.7</td>
<td>48.7</td>
<td>32</td>
<td>1.4</td>
<td></td>
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<tr>
<td>2011</td>
<td>78.2</td>
<td>70.5</td>
<td>53</td>
<td>34.8</td>
<td>8.3</td>
<td>1.3</td>
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<tr>
<td>2012</td>
<td>84.6</td>
<td>74</td>
<td>53.8</td>
<td>33.4</td>
<td>20.8</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Source: MMWR 2013;62:635-639
# Coverage of 1 of More Doses of HPV Vaccine among Adolescent Girls 13-17 Years by State, NIS-Teen 2012

<table>
<thead>
<tr>
<th>Coverage Level</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤44% (8)</td>
<td>Utah, Kansas, Arkansas, Mississippi, Florida, South Carolina, Maryland, Delaware</td>
</tr>
<tr>
<td>≥65% (6)</td>
<td>Nebraska, California, Vermont, Massachusetts, Delaware, Rhode Island</td>
</tr>
<tr>
<td>45-54% (19)</td>
<td>Idaho, Wyoming, South Dakota, Wisconsin, Michigan, Indiana, Kentucky, Virginian, West Virginia, Tennessee, Alabama, Georgia, Texas, New Mexico, Arizona, Alaska, New Jersey, New Hampshire</td>
</tr>
</tbody>
</table>

Source: MMWR 2013;62;685-93
Actual and Achievable HPV Vaccination Coverage if Missed Opportunities Were Eliminated: Girls 13-17 Years, NIS-Teen 2012

Missed opportunity: Encounter when some, but not all rec’d vaccines are given.

HPV-1: Receipt of at least one dose of HPV.

Among girls unvaccinated for HPV, 84% had a missed opportunity.
Providers underestimate the value parents place on HPV vaccine

Providers wait too long to make strong recommendations for HPV vaccine

Strength of recommendation, females, pediatricians and family physicians (n=609)
Why HPV Vaccine Coverage Matters

26 million: number of girls under 13 years of age in the United States

168,400: number who will develop cervical cancer if none are vaccinated

54,100: number will die from cervical cancer if none are vaccinated

For each year we stay at 30% coverage instead of achieving 80%,

4,400: number of future cervical cancer cases we will not prevent

1,400: number of cervical cancer deaths we will not prevent

Adapted from Chesson HW et al, Vaccine 2011;29:8443-50
Preventing morbidity and mortality from HPV-related cancers is a CDC priority

- Invest funding and resources to accelerate increase in HPV coverage:

  - HPV is safe and effective
  - HPV is a “regular” pre-teen vaccine
  - HPV prevents cancer
  - Need to complete 3 dose series

Strong provider recommendation and parental demand
Key Strategies Guiding CDC Activities

- Messaging to media and public the importance of adolescents receiving HPV at 11-12 years

- Building and leveraging partnerships to reach providers to strongly recommend HPV
  - State and local health departments, Provider organizations, immunization coalitions
  - New opportunities: Cancer prevention programs and coalitions, Pharmacists

- Using systems and technology to support and reinforce vaccination, especially series completion
Communication Goals Based on Formative Research

Parents want these communication messages that:

• HPV Vaccine is Cancer Prevention
• Describe types of cancers prevented
• Importance of vaccination at 11 or 12
• More information about side effects
• Name credible organizations that support HPV vaccine recommendation

Providers want to have:

• Materials physicians can provide to parents and patients
• Materials that help physicians have the conversation about HPV vaccine with parents
• Physicians providing HPV vaccine, especially pediatricians, do not routinely see the results of not vaccinating and therefore may benefit from peer-to-peer education from physicians who routinely treat HPV-related cancers
Communication Goals Based on Formative Research

We want parents to:
- Realize HPV vaccine is CANCER PREVENTION
- Understand HPV vaccine is best at 11 or 12 years old
- Recognize importance of getting all 3 shots

We want healthcare professionals to:
- Be familiar with all of the indications for HPV vaccine
- Make strong recommendations for receiving vaccine at 11 or 12
- Be aware of, and interested in, systems that can improve practice vaccination rates
HPV Vaccine Promotion

- **Social media and marketing to parents and clinicians**
  - Search engine optimization, banner ads on top parent and clinician sites, traditional print and radio media
  - Ongoing development of new PSAs, fact sheets, etc., to support CDC and partner activities

- **Speakers’ bureau to share HPV information and cancer ‘reality’ with vaccinators**
  - Linking gyn-onc and other HPV experts with pediatricians through grand rounds and other speaking opportunities

- **Continued focus on clinician education and outreach**
  - Outreach at Conferences AAP, AAFP
  - CME courses and training tools
  - Web portal
External Communication Partnerships

- **Funded project with AAP for direct clinician education**
  - Chapters choose from various HPV vaccine promotion activities including webinars and other clinician training
  - Utilize CDC materials whenever possible
  - 15-month contract initiated 11/13
  - Emphasis on improving rates and targeting areas not reinforced with state funds

- **Funded project with NFID, 12/13-12/14**
  - Supplemental efforts for clinician training and mobilizing partners

- **Non-funded partnerships to support vaccine outreach and education**
  - New partners include Tamika and Friends (cervical cancer survivors), Society of Gynecological Oncologist (SGO), private sector partnerships also being developed
HPV Vaccination Resources for HCPs

http://www.cdc.gov/vaccines/who/teens/index.html
HPV Vaccination Resources for Clinicians-2

How to Give a Strong Recommendation

- Talk about HPV vaccine like every other vaccine
- This tip sheet can help
  - Developed from message testing with mothers and research with doctors
  - Each statement answers a question a parent might have about HPV vaccine
  - Available as a PDF download and as web content

http://www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.html
HPV Vaccination Resources for HCPs

- Digital Advertising specifically for HCPs
- Video Tools

A five minute video stressing the importance of HPV vaccination

HPV Resources for Parents

http://www.cdc.gov/vaccines/who/teens/for-parents.html
Resources for Parents and Patients-2

http://www.cdc.gov/vaccines/who/teens/products/print-materials.html
SUPPORTING STATE AND LOCAL PARTNERSHIPS
State and Local Partnerships

- Leveraging PPHF funding to support health department activities to increase HPV coverage
- “Call to Action” for health departments to increase coverage at the local and state level
- Encouraging local immunization coalitions to join forces with cancer prevention coalitions to increase provider awareness
2013 PPHF HPV Immunization Awardees

Awarded 2013 PPHF Funding

1. Minnesota
2. Massachusetts
3. New York
4. New York City
5. Philadelphia
6. District of Columbia
7. Ohio
8. Chicago
9. Georgia
10. Utah
11. Arizona

Abbreviations:
PPHF = Prevention and Public Health Fund;
HPV = Human papillomavirus
2013 HPV PPHF Awardee Activities

- Develop a jurisdiction-wide joint initiative with immunization stakeholders;
- Implement a comprehensive communication campaign targeted to the public
- Implement Immunization Information System (IIS)-based reminder / recall for adolescents
- Implement adolescent AFIX (Assessment, Feedback, Incentives, and Exchange) for quality improvement
- Implement strategies targeted to immunization providers to decrease missed opportunities by making a strong recommendation
CDC “Call to Action” for Health Departments

- Support healthcare providers in recommending HPV vaccine for adolescent girls and boys
  - CDC developed communication resources, state-specific webinars

- Increase HPV vaccine coverage in the state or local area by using data to drive program decision making
  - Use of immunization registries to identify areas of low coverage

- Develop new partnerships and leverage existing partnerships with state-based provider organizations and cancer prevention groups
  - Local chapters of AAP and AAFP and clinical oncologists
  - State and local immunization coalitions
Joining forces with cancer coalitions and provider organizations

- End-stages of HPV disease isn’t seen in the pediatric office where HPV vaccine should be given.

- Gynecologists, oncologists and periodontists see HPV-related cancers regularly, which drives their motivation to prevent HPV infection with vaccination.

- Peer-to-peer education is most effective with clinicians and will provide opportunity for clinicians share experiences, thus turning a “case” into a person.
SYSTEMS SUPPORT FOR SERIES COMPLETION
Using Immunization Information Systems to Reinforce HPV Vaccination

- Use IIS to conduct reminder/recall activities
- Use IIS to conduct adolescent AFIX
- Routinely monitor local level vaccination coverage and missed opportunities
HEDIS 2014: Healthcare Effectiveness Data and Information Set

- **Current Measure:**
  - Percentage of 13 year old females who had three doses of the human papillomavirus (HPV) vaccine by their 13th birthday
  - Measure added in 2012 and tested for two years, reportable in 2014

- **President’s Cancer Panel recommends setting HEDIS measure for adolescent males**
How do we measure progress?

- 2013 NIS-Teen data to be published in July
  - Provides best estimate of progress but not in real time
  - Key data points around age of vaccination receipt, proportion completing series, state coverage, etc.

- Monitoring VFC ordering and public/private vaccine distribution more frequently
  - Can’t differentiate between uptake in girls or boys

- Using enhanced IIS sites for more regular coverage estimates
Total HPV doses (public and private purchased) distributed by month (2012-2014)

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<td>290462</td>
<td>341,032</td>
<td>485,757</td>
<td>449863</td>
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<tr>
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<td>465825</td>
<td>566,868</td>
<td>701,539</td>
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<td>Mar</td>
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<td>746,005</td>
<td>1138546</td>
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<tr>
<td>Apr</td>
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<td>548,513</td>
<td>460,299</td>
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<tr>
<td>May</td>
<td>653408</td>
<td>776,527</td>
<td>726,200</td>
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<tr>
<td>Jun</td>
<td>530460</td>
<td>677,196</td>
<td>986,064</td>
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<tr>
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<tr>
<td>Dec</td>
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Total HPV doses (public and private purchased) distributed – Year-to-date (2012-2014)

<table>
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<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tr>
<td>Jan</td>
<td>290,462</td>
<td>341,032</td>
<td>485,757</td>
<td>449,863</td>
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<tr>
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<td>907,900</td>
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<td>1,908,312</td>
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<td>2,561,720</td>
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<td>Jun</td>
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<td>Dec</td>
<td>8,156,197</td>
<td>10,295,540</td>
<td>11,399,999</td>
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Immediate next steps

- Support activities that increase the evidence base for HPV effectiveness and safety

- Focus funding opportunities in priority areas for increasing HPV vaccine coverage
  - Mobilize partners and stakeholders
  - Strengthen providers’ commitment and recommendation
  - Increase public awareness of HPV vaccine as cancer prevention
  - Address vaccine safety concerns at every opportunity
  - Focus on high priority states
  - Use systems approaches to improve vaccine coverage

- Funding announcements at http://www.grants.gov
Acknowledgements

- **NCIRD Office of the Director**
  - Anne Schuchat
  - Kris Sheedy
  - Michelle Basket
  - Jill Roark

- **Immunization Services Division**
  - Shannon Stokley
  - Melinda Wharton
  - Robin Curtis
HPV Vaccine is Cancer Prevention

Watch a short video to remind you why YOU are the key to preventing HPV-related cancers. [5:35 mins]
http://www.cdc.gov/vaccines/who/teens/for-hcp/hpv-resources.html
Thank you!
acohn@cdc.gov

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov  Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
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