Accelerating HPV Vaccine Uptake:
Urgency for Action to Prevent Cancer

A Report to the President of the United States
from the President’s Cancer Panel

National Cancer Advisory Board
February 27, 2014
The Panel shall monitor the development and execution of the activities of the National Cancer Program, and shall report directly to the President.

Any delays or blockages in rapid execution of the Program shall immediately be brought to the attention of the President.

Authority: 42 U.S.C. 285a-4; Sec. 415 of the Public Service Act, as amended
PCP Members

- **Barbara K. Rimer, DrPH**
  - Univ. of North Carolina at Chapel Hill (Chair)

- **Hill Harper, JD**
  - Cancer Survivor, Actor, and Best-Selling Author (Member)

- **Owen N. Witte, MD**
  - Univ. of California Los Angeles (Member)
Overview

- **2012-2013 Series**
  *Accelerating Progress in Cancer Prevention: The HPV Vaccine Example*

- **2012-2013 Report to the President**
  *Accelerating HPV Vaccine Uptake: Urgency for Action to Prevent Cancer*

- **2014 Series**
  *Cancer Communication in the Digital Era: Opportunities & Challenges*

- Discussion
Accelerating Progress in Cancer Prevention: The HPV Vaccine Example

Increasing HPV vaccination is one of the most profound opportunities for cancer prevention.
Accelerating Progress in Cancer Prevention: The HPV Vaccine Example

2012-2013 Series Workshops

1. HPV Vaccination as a Model for Cancer Prevention

2. Achieving Widespread HPV Vaccine Uptake

3. Creating an Integrated HPV Vaccination and Screening Program

4. Global HPV Vaccination: Opportunities and Challenges
Accelerating HPV Vaccine Uptake: 
Urgency for Action to Prevent Cancer

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The President’s Cancer Panel
HPV Vaccines Are Underused in the United States.

In 2012:

- 33.4% of girls ages 13-17 completed three-dose series (state rates vary widely and are as low as 12%).*
- 6.8% of boys ages 13-17 completed three-dose series.

*Healthy People 2020 goal: 80 percent of girls ages 13-15 complete HPV vaccine series.
Routine Vaccination Recommended by ACIP:

- Tdap & MenACWY
- HPV (Girls)
- HPV (Boys)

1. After age 10 years.
2. ≥ 3 doses HPV vaccine, either Cervarix® or Gardasil®, among females. ACIP recommends either Cervarix® or Gardasil® for females.
3. ≥ 3 doses HPV vaccine, either Cervarix® or Gardasil®, among males. ACIP recommends Gardasil® for males but some males may have received Cervarix®.

U.S. Uptake Behind That of Several Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>71.2%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>60.4%</td>
</tr>
<tr>
<td>United States</td>
<td>33.4%</td>
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</tbody>
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Note: National data on HPV vaccine coverage in Canada are not available. However, Canadian provinces report three-dose coverage among target age groups between 50 and 85 percent.

Sources:
Increasing HPV Vaccine Uptake Must Be a Public Health Priority.

- Increasing HPV vaccination rates from current levels to 80%* would prevent an additional 53,000 future cervical cancer cases among girls now 12 years or younger (CDC).
- Thousands of non-cervical HPV-associated cancers likely could also be prevented.
- A growing proportion of future HPV-associated cancers (esp. oropharyngeal cancers) will occur in males. Benefits of vaccination accrue to males and females.

*Healthy People 2020 goal: 80 percent of girls ages 13-15 complete HPV vaccine series.
Key Audiences and Objectives for Increasing U.S. HPV Vaccine Uptake

Providers

Strong recommendation for HPV vaccination
Use of electronic office systems to support HPV vaccination

Parents, Caregivers, and Adolescents

Communication strategies to increase knowledge regarding cancer prevention benefits, efficacy, and safety of HPV vaccines

Organizations

- Adequate reimbursement for HPV vaccines and administration
- Expansion of HEDIS measure regarding HPV vaccination to include adolescent males
- Healthy People 2020 HPV vaccination goal for males
- Development of centralized immunization information systems that are interoperable and integrated with office-based electronic health records

Promotion and facilitation of HPV vaccination in additional settings
Increased authority of pharmacists to administer HPV vaccines
Removal of barriers to paying for HPV vaccines
Accelerating HPV Vaccine Uptake in the United States

Three Goals

1. Reduce Missed Clinical Opportunities to Recommend and Administer HPV Vaccines.


Goal 1: Reduce Missed Clinical Opportunities to Recommend and Administer HPV Vaccines

Objective 1.1: CDC should develop, test, disseminate, and evaluate the impact of integrated, comprehensive communication strategies for physicians and other relevant health professionals.
Goal 1: Reduce Missed Clinical Opportunities to Recommend and Administer HPV Vaccines

Objective 1.2: Providers should strongly encourage HPV vaccination of age-eligible males and females whenever other vaccines are administered.
Goal 1: Reduce Missed Clinical Opportunities to Recommend and Administer HPV Vaccines

Objective 1.3: Healthcare organizations and practices should use electronic office systems, including electronic health records (EHRs) and immunization information systems (IIS), to avoid missed opportunities for HPV vaccination.
Goal 1: Reduce Missed Clinical Opportunities to Recommend and Administer HPV Vaccines

- **Objective 1.4**: Healthcare payers should reimburse providers adequately for HPV vaccines and for vaccine administration and services.

- **Objective 1.5**: The current Healthcare Effectiveness Data and Information Set (HEDIS) quality measure for HPV vaccination of adolescent females should be expanded to include males.

- **Objective 1.6**: Create a *Healthy People 2020* HPV vaccination goal for males.
Objective 2.1: CDC should develop, test, and collaborate with partner organizations to deploy integrated, comprehensive communication strategies directed at parents and other caregivers, and also at adolescents.
Goal 3: Maximize Access to HPV Vaccination Services

- **Objective 3.1**: Promote and facilitate HPV vaccination in venues outside the medical home.
- **Objective 3.2**: States should enact laws and implement policies that allow pharmacists to administer vaccines to adolescents, including younger adolescents.
- **Objective 3.3**: Overcome remaining barriers to paying for HPV vaccines, including payment for vaccines provided outside the medical home and by out-of-network or nonphysician providers.
Authority of Pharmacists in 2012 to Administer HPV Vaccines to Girls Age 12

Percentage of U.S. States (including District of Columbia)

- 39%: Not permitted to administer
- 24%: Prescription required
- 31%: Supervision agreement with prescriber required
- 6%: No prior approval required

Source: Brewer NT, Chung JK, Baker HM, Rothholz MC, Smith JS. Pharmacist authority to provide HPV vaccine: novel partners in cervical cancer prevention. Gynecol Oncol. [Epub 2013 Dec 19]
Increasing Global HPV Vaccination

Numbers of HPV-Associated Cancers in Less Developed and More Developed Regions

Less Developed Regions Total = 490,000

More Developed Regions Total = 120,000

Note: Global estimates of genital warts and RRP incidence are not available.
Goal 4: Promote Global HPV Vaccine Uptake

Global Cervical Cancer Mortality Rates

Objective 4.1: The United States should continue its collaboration with and support of GAVI Alliance to facilitate HPV vaccine introduction and uptake in low-income countries.

Objective 4.2: The United States should continue to support global efforts to develop comprehensive cancer control plans and cancer registries in low- and middle-income countries.
High-Priority Research to Advance Prevention of HPV-Associated Cancers

1. Investigate more convenient dosing schedules for current vaccines (e.g., extended dosing schedules, fewer doses).

2. Develop next-generation vaccines that provide broader protection and/or are easier to store and administer.

3. Explain the natural history of oropharyngeal HPV infections.

4. Develop more effective ways to communicate about HPV-associated diseases and HPV vaccines.

5. Determine how best to integrate HPV vaccination with cervical cancer screening.
Implementation of Panel Recommendations

The Panel is committed to achieving the vision of increased HPV vaccine uptake. The Panel suggests that a credible organization, such as NVAC, be given responsibility for monitoring the status of uptake and implementation of these recommendations.
Implementation of Panel Recommendations

That accountability, in combination with the Panel’s commitment to monitor implementation of recommendations outlined in this report, will increase the likelihood that the report and its recommendations will become agents for change.
Acknowledgements

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2014 Series

Cancer Communication in the Digital Era: Opportunities & Challenges
Goal of Workshop

Shape the direction of an overall series focused on the potential of new media, especially social and participative media technologies, to improve the control of cancer.
Workshop 1: March 3, 2014

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