A Local Perspective on HPV: Challenges and Successes in the Fight Against HPV-Associated Cancers

Marielle J. Fricchione, MD FAAP
Immunization Program Medical Director
Chicago Department of Public Health
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Objectives

• Local epidemiology of HPV-associated and HPV-attributable cancers
• State and local HPV vaccination trends
• Chicago HPV vaccination initiatives
• Thoughts on sustainability
Estimated Average Annual Number of New HPV-Associated Cancers by Sex – US, 2011-2015

Women (N=24,391)
- Cervix: 49%
- Anus: 18%
- Vulva: 16%
- Oropharynx: 14%
- Vagina: 3%

Men (N=18,280)
- Oropharynx: 81%
- Penis: 7%
- Anus: 12%

Trends in age-adjusted incidence of cervical carcinoma (F) and oropharyngeal SCC (M) – US, 1999-2015

## Annual number, annual age-adjusted rate, and trends of HPV-associated cancer cases, by sex, MIDWEST — United States, 1999–2015

<table>
<thead>
<tr>
<th>MIDWEST REGION</th>
<th>1999 No. (rate)</th>
<th>2015 No. (rate)</th>
<th>1999-2015 AAPC (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oropharyngeal CA (F)</td>
<td>536 (1.6)</td>
<td>813 (1.9)</td>
<td>1.5* (1.0 to 2.0)</td>
</tr>
<tr>
<td>Oropharyngeal CA (M)</td>
<td>1,569 (5.4)</td>
<td>3,423 (8.5)</td>
<td>3.2* (2.9 to 3.6)</td>
</tr>
<tr>
<td>Anal SCC (F)</td>
<td>465 (1.3)</td>
<td>979 (2.3)</td>
<td>3.6* (3.0 to 4.1)</td>
</tr>
<tr>
<td>Anal SCC (M)</td>
<td>230 (0.8)</td>
<td>400 (1.1)</td>
<td>2.7* (1.9 to 3.4)</td>
</tr>
</tbody>
</table>

* Significant at p<0.05

Rate: Per 100,000 persons, age-adjusted to the 2000 U.S. standard population.

AAPC: average annual percent change

Estimated number of HPV-associated cancers by cancer type and HPV type, Illinois, 2010-2014

- 93% (1,262/1,361) of HPV-attributable cancers could have been prevented with the 9-valent HPV vaccine

Adapted from May 2018 Chicago HPV Vaccination Quarterly Report. Source: Data are from population-based cancer registries participating in the CDC National Program of Cancer Registries and/or the NCI Surveillance, Epidemiology, and End Results Program, meeting criteria for high data quality for all years 2010 to 2014. Saraiya et al. US assessment of HPV types in cancers: implications for current and 9-valent HPV vaccines. J National Cancer Institute 2015; 107(6):djv086.
Cervical Cancer in Illinois, 2015

- 495 new cases of cervical CA in 2015
- Overall IL incidence: 7.2
- 184 women died of cervical CA in 2015

Cervical Cancer in Illinois, 2015

Rate of New Cancers by Sex and Race/Ethnicity

Cervix
Rate per 100,000 women

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>7.0</td>
</tr>
<tr>
<td>Black</td>
<td>9.4</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>Data Suppressed</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>6.2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Healthy Chicago 2.0 Goal: Reduce the incidence of and inequities in invasive and late stage cancer, cancer mortality

- High Economic Hardship strongly correlates with cervical cancer incidence and mortality

OBJECTIVES:
- Increase the percentage of adolescent females that are vaccinated against HPV to 80%
- Increase cervical cancer screenings among adult females by 5%
Estimated vaccination coverage, all adolescents aged 13-17 years, Chicago, NIS-Teen, 2011–2017

2017 HPV Vaccination Coverage Among Adolescents Aged 13-17 Years by Region and Sex

Chicago Projects to Increase HPV Vaccine Coverage

2013-2014 Project
• HPV stakeholder group
• Communications campaign
• Reminder/recall system

2017-2018 Project
• HPV vaccinator quality improvement visits
• Provider training

[ROUTinely RECOMMEND CANCER PREVENTION]
2017-2018 HPV Project

50 clinics (2017)
• Low HPV vaccine ordering behaviors
• High adolescent volume
• High economic hardship

50 clinics (2018)
• Large networks with high adolescent patient volume and low HPV vaccine utilization
• 17 school-based health centers
Project Components

• In-person initial visit by CDPH staff and peer-clinician coach
  – Vaccine coverage assessment
  – Selection of QI strategies
  – Review of resources
• 2 month peer-clinician check-in
• 6 month peer-clinician follow-up

GOALS: Increase HPV vaccination coverage, decrease missed opportunities and create a culture of immunization
Focus on resonant strategies

• Provider level:
  – Recommend the HPV vaccine the same day and the same way you recommend the Tdap and meningococcal vaccines for all boys and girls aged 11–12 years.
  – Designate an immunization champion to focus on QI measures, reducing vaccination barriers, and improving coverage levels

• Systems level:
  – I-CARE (immunization registry) strategies: recall, refresh
  – Scheduling to improve series completion
  – Medical Assistants 2-part webinar series
Adolescent Vaccine Coverage (13-17) Chicago, 2017

- ≥1 Tdap: 90.5%
- ≥1 MenACWY: 90.9%
- ≥1 HPV: 81.9%
- HPV UTD: 66.6%

Healthy People 2020 Goal
Lessons from the doctor’s office...

• HPV champions
• Presumptive recommendation/Less is more/Announcement vs conversation
• Scheduling vaccine-only appointments for 2\textsuperscript{nd} or 3\textsuperscript{rd} dose before the patient leaves the office
• Sustainable platforms for continuing education across all healthcare roles
• Frequent feedback with data to overcome other competing priorities
• Interoperability challenges with I-CARE
Lessons from the community...

• The conversation has changed
• Chicago Public Schools are crucial partners  
  – Back-to-school packet letter  
  – Minimum school health requirements
• “Parent universities” hold promise of developing peer parent HPV champions
• Finding the right space to have the right conversations
• Collaborate with other stakeholders
Challenges of Sustainability

• Focus on HPV has strengthened our entire adolescent platform

• EverThrive IL HPV Stakeholder Workgroup has proven sustainable and dynamic
  – Measuring outcomes
  – Assessing duplicate efforts
  – Sharing best practices

• Who organizes advocacy opportunities and identifies funding?
Sustainable Partnerships

- Chicago Department of Public Health
- EverThrive Illinois
- HPV Workgroup
- Chicago Public Schools — School Based Health Centers
- IL Chapter AAP
- American Cancer Society

Protecting Our Children from HPV Cancers

HPV vaccination is cancer prevention. We can reduce the risk of cancer in our children by helping them make a lifetime of healthy choices.

We can also help prevent most HPV cancers with just 2 shots of HPV vaccine at age 11 or 12.

HPV vaccine is for both boys and girls. HPV vaccination helps prevent the infections that can cause 6 types of cancers.

Don’t wait to vaccinate.
Doctors recommend that boys and girls get HPV vaccine at age 11 or 12. Teens who start the series late may need 3 shots.

Age matters. When you vaccinate your child on time, you give them the best protection from HPV cancers. In fact, HPV cancer prevention decreases the longer you wait to vaccinate.

HPV vaccination is safe.
The most common reactions from HPV vaccine are mild and like those of other vaccines. Scientists and doctors around the world monitor HPV vaccine safety and are confident that HPV vaccination is extremely safe.

Learn more at cancer.org/hpv, and ask your child’s doctor for the HPV vaccine.
Marielle.Fricchione@cityofchicago.org