

Healthcare Practitioners' View of Incorporating Pharmacists in the HPV Immunization Neighborhood

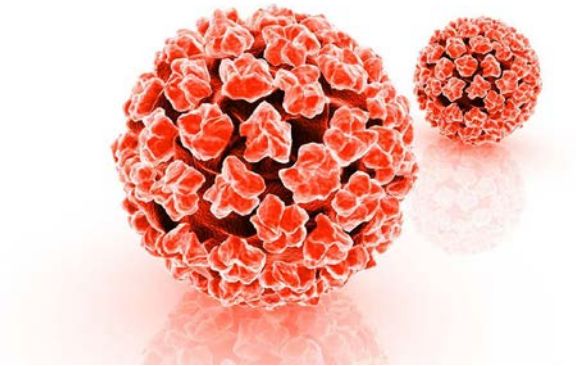


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Facts about HPV

- Cause over 30,000 cancer cases per year in US
- Oncogenic strains responsible for various types of cancer
 - Cervical (99%)
 - Anal (91%)
 - Vaginal (75%)
 - Oropharyngeal (70%)
 - Vulvar (69%)
 - Penile (63%)
- Two non-oncogenic strains (HPV 6 and 11) cause over 90% of genital warts



HPV Vaccines



- **Gardasil-4**

- Types 6 and 11 (warts)
- Types **16** and **18** (cancerous strains)

- **Gardasil-9**

- Types 6 and 11 (warts)
- Types **16, 18, 31, 33, 45, 52, 58** (cancerous strains)

- Reaching herd immunity (80% vaccine coverage) could reduce HPV-related cancers by 90%.

HPV Vaccination for HIV+

- At a higher risk for HPV-related cancers
 - Antiretroviral therapy does **not** reduce risk
 - Longer lifespan = Increased risk of HPV-related cancer
- HPV vaccine recommendations
 - Same ages as general population

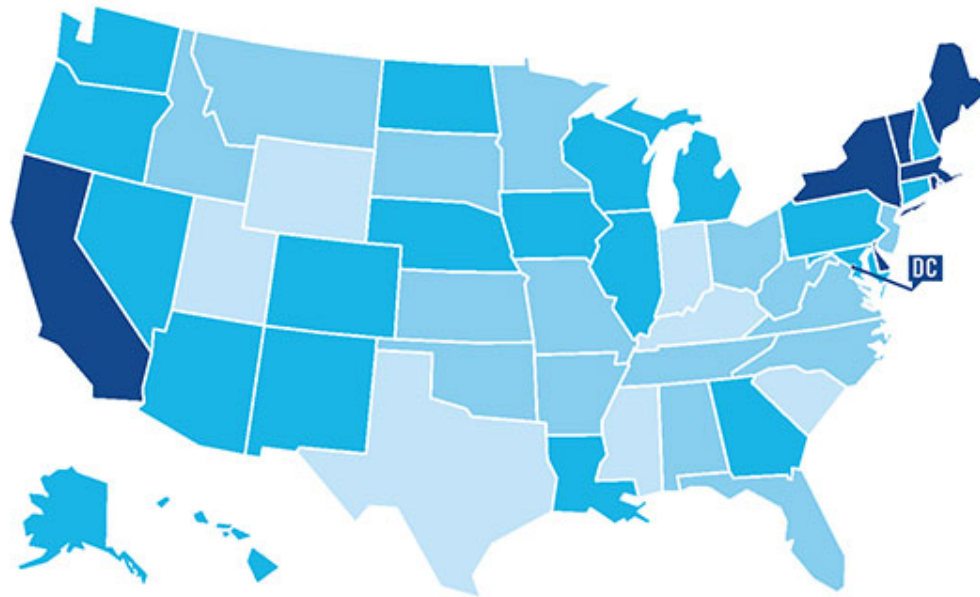
Table 1: HPV Dosing and Administration

| Age in Years Immune Function | <u>Dosing Schedule</u> | | |
|---------------------------------|------------------------|--------|---------|
| | Time 0 | 2 mo. | 6-12mo. |
| 9-14 *Healthy | Dose 1 | | Dose 2 |
| 15 + *Immunocompromised | Dose 1 | Dose 2 | Dose 3 |

HPV Vaccination Rates

[HPV vaccination is the best way to protect your children from cancers caused by HPV]

Percentage of adolescent boys and girls who have received one or more doses of HPV vaccine*



NATIONWIDE
6 OUT OF 10

parents are choosing to get the human papillomavirus vaccine for their children.

National coverage is 60%

Coverage by state:



[**CDC RECOMMENDS THE HPV VACCINE AT AGES 11-12**]
Talk to your child's doctor about HPV cancer prevention

*Estimated coverage with ≥1 dose of human papillomavirus (HPV) vaccine among adolescents aged 13-17 years, National Immunization Survey-Teen (NIS-Teen), United States, 2016. Source: MMWR August 25, 2017

www.cdc.gov/hpv

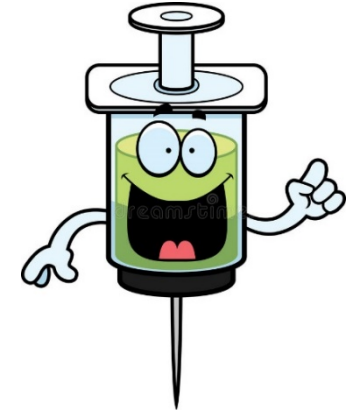
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Role of the Pharmacist

- Pharmacists can administer additional vaccine doses
- May be more convenient method of ensuring vaccine adherence due to pharmacies' extended hours and lack of required appointment
- Desire to be a more integrated part of the “Immunization Neighborhood”



Understanding the Landscape: Related Studies

- Surveys and Interviews with pharmacists /pharmacy interns
 - **Purpose:** Identify barriers, facilitators, and beliefs about promoting the HPV vaccine
- Interviews with Caregivers
 - **Purpose:** To ask caregivers how receiving the HPV vaccine from their local pharmacist would impact their children's healthcare

Study Objectives

- Interview HIV primary care practitioners
- Interview practitioners who do not specialize in HIV care but serve HIV+ patients
- **Larger Study Goal:** Explore what primary care providers do in terms of anal cancer prevention
- **Secondary goal:** Explore healthcare practitioners' views of **incorporating pharmacists in HPV vaccine administration**

Methods

- **Data Collection:** November 2017 – Current
- **Location:** Phoenix, Arizona
- **Method:** Semi-structured in-depth interviews
- **Recruitment:** Phone calls, faxes, meetings, snowball sampling
- **Data Analysis:** Qualitative content analysis approach
- **Organizing findings:** ATLAS.TI software

21 Providers Interviewed

Specializes in Infectious Disease

- MD, Infectious Disease (n=5)
- Physician Assistant (n=2)
- Nurse Practitioner (n=4)
- Registered Nurse (n=2)

Does not specialize in Infectious Disease

- MD, Primary Care (n=5)
- MD, Colorectal Surgeon (n=2)
- MD, Resident (n=1)

General Results

View about HPV Vaccine

All participating providers described the importance of the HPV vaccine for their HIV-positive patients

View about Pharmacists Administering HPV Vaccine

- 19 providers – Favorable
- 2 providers – Against

Results: Favorable

19 providers approved pharmacists administering the vaccine

| Theme | Supporting Quote |
|--|---|
| Prescribe vaccine to be filled by pharmacist | <p><i>“Oh yeah. This is the public health service. We have pharmacists doing everything, just about.”</i></p> <p>MD—Primary Care</p> |
| Believe this is one more option for patients | <p><i>“I think it’s a good idea. I think to have more resources in place to get people vaccinated is always a great idea.”</i></p> <p>PA—Infectious Disease</p> |
| | <p><i>“As long as it’s done, I don’t really care who does it.”</i></p> <p>MD—Primary Care</p> |
| Do not offer the HPV vaccine in their clinic | <p><i>“But we do not carry it [the HPV vaccine], so I have to send a prescription to the pharmacy.”</i></p> <p>MD—Infectious Disease</p> |

Results: Favorable with Contingencies

| Theme | Supporting Quote |
|--------------------|---|
| Care coordination | <p><i>“I think it’s more fragmentation of care. I mean if they go one place, and the another place, it’s just we have to obtain records from that place. So it’s like the more things I can get done in my office, the easier for me...”</i></p> <p>MD—Infectious Disease</p> |
| Insurance coverage | <p><i>“If we just give them a prescription to go fill at their pharmacy and get a vaccine there, it may not be covered. And so, we’ve tried that in the past and the patient basically says, ‘Well, it would cost me this much so I didn’t get it.’ So that’s why we’ve gone through the route of telling them to go through their primary care doctor.”</i></p> <p>PhD, RN</p> |

Results: Against

2 providers were against pharmacists administering the vaccine

| Theme | Supporting Quote |
|-------------------------------------|--|
| Fragmented healthcare | <p><i>“I’m frustrated that the practice of medicine now has been handed over to PAs, nurse practitioners, pharmacists, pharmacy techs, housekeeping; you can go on and on.... And when they do those things, then they fax me over a sheet of the vaccine that I’m supposed to keep in my chart and be responsible for, the patient having been vaccinated by that pharmacy.”</i></p> <p>MD—Primary Care</p> |
| View of pharmacists as “for profit” | <p><i>“The community pharmacists, I don’t think I’ve ever seen a not-for-profit pharmacy... They’re not interested in health promotion so much as they are as selling their product”</i></p> <p>MD—Colorectal Surgeon</p> |

Discussion

- **Most providers welcome pharmacists into the Immunization Neighborhood**
 - Could help increase HPV vaccine completion rates
 - Geographically closer
 - Do not require appointments
 - Open longer hours than clinics
- **Need for improved PCP/Pharmacist communication**
- **Ensure that vaccine registries are updated**



NEXT STEPS

Limitations

- Interviewer variability
- Various types of healthcare providers – not infectious disease, specifically
 - Not all practices work with pediatric patients
- Low generalizability

Conclusion

- The majority of providers believed that involving pharmacists in the “immunization neighborhood” could aid in HPV vaccine completion.
- Involving pharmacists to provide the vaccine may reduce the burden on PCPs and help patients overcome structural barriers (e.g. time, distance to PCP’s office) for their children to receive HPV vaccine doses.

Thank you for your time



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References

Saraiya M, Unger ER, Thompson TD, et al. US assessment of HPV types in cancers: implications for current and 9-valent HPV vaccines. *Journal of the National Cancer Institute* 2015;107:djv086.