Understanding Current COVID-19 and HPV Vaccination Challenges

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Conflicts of interest

I have no conflicts of interest to disclose
Learning objectives

• Describe similarities between HPV and COVID-19 vaccine challenges
• Discuss current issues related to HPV and COVID-19 vaccine hesitancy
• Describe local efforts to address adolescent vaccine hesitancy

Goal

• Provide evidence-based approaches to tackling vaccine hesitancy in clinical practice
Background information: HPV and COVID-19 vaccines
Why now?

Boston Doctors Explain ‘Dramatic Uptick’ in COVID Wastewater Levels as XBB Subvariant Spreads

Rising levels of COVID-19 in Massachusetts wastewater data comes on the heels of the holidays and as the new omicron subvariant XBB continues to spread across the region

By Mary Markos • Published January 3, 2023 • Updated on January 9, 2023 at 10:53 am

Challenges to Adolescent HPV Vaccination and Implementation of Evidence-Based Interventions to Promote Vaccine Uptake During the COVID-19 Pandemic: “HPV Is Probably Not at the Top of Our List”

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Current rates: HPV vaccination

- HPV vaccination, up-to-date, Massachusetts, ages 13-17
  - 78% females
  - 72% males
- HPV vaccination, up-to-date, United States, ages 13-17
  - 64% females
  - 60% males

*NIS-Teen data, 2021
## Current rates: COVID-19 vaccination, Massachusetts, January 11, 2023²

<table>
<thead>
<tr>
<th>Age group</th>
<th>Fully vaccinated?</th>
<th>Received booster?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>14%</td>
<td>--</td>
</tr>
<tr>
<td>5-11</td>
<td>54%</td>
<td>32%</td>
</tr>
<tr>
<td>12-15</td>
<td>80%</td>
<td>45%</td>
</tr>
<tr>
<td>16-19</td>
<td>75%</td>
<td>55%</td>
</tr>
</tbody>
</table>
Current HPV + COVID-19 Vaccine Recommendations

• HPV$^3$
  • 2 doses for 9 to 14 year olds (0, 6-12 months)
  • 3 dose if series initiated at age 15 (0, 1-2, 6 months)

• COVID-19$^4$
  • Primary series (4-8 weeks between doses) and bivalent booster (at least 8 weeks following completion of primary series)
Similarities between HPV and COVID-19 vaccinations in pediatric populations
Why talk about HPV and COVID-19 vaccines together?⁵

- Multi-dose adolescent vaccines with low rates for second and third doses
- Unable to rely on vaccine mandates
- Politicization of vaccines
- Strongly affected by mis- and dis-information on social media
Growing vaccine hesitancy fueled by social media

- Vaccine hesitancy=top 10 threats to global health
  - “We’re not just fighting an epidemic; we’re fighting an infodemic.”
- Concerns about HPV vaccine safety rising

Mis- and dis-information on social media

- **Misinformation**: false or inaccurate information
- **Disinformation**: deliberate and malicious
Local research and community efforts on pediatric HPV and COVID-19 vaccine hesitancy
Survey of Massachusetts pediatricians about COVID-19 and HPV vaccination

• Recruited in partnership with MCAAP in Summer 2022
• Online survey about:
  • COVID-19 vaccination status for self and child
  • Current practices for COVID-19 vaccine delivery and COVID-19/HPV vaccine recommendation
  • Common reasons cited by parents hesitant about COVID-19 and HPV vaccination
## Results: Demographics (n=109)

<table>
<thead>
<tr>
<th></th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary place of practice</strong></td>
<td></td>
</tr>
<tr>
<td>Pediatric outpatient</td>
<td>83 (76.1)</td>
</tr>
<tr>
<td>Family/internal medicine</td>
<td>5 (4.6)</td>
</tr>
<tr>
<td>Community Health Center</td>
<td>8 (7.3)</td>
</tr>
<tr>
<td>Academic medical center</td>
<td>12 (11.0)</td>
</tr>
<tr>
<td><strong>Credentials</strong></td>
<td></td>
</tr>
<tr>
<td>MD</td>
<td>101 (92.7)</td>
</tr>
<tr>
<td>DO</td>
<td>5 (4.6)</td>
</tr>
<tr>
<td>PhD</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td>NP</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28 (25.7)</td>
</tr>
<tr>
<td>Female</td>
<td>78 (71.6)</td>
</tr>
<tr>
<td>Non-binary</td>
<td>2 (1.8)</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>20 (18.3)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>4 (3.7)</td>
</tr>
<tr>
<td>White</td>
<td>86 (78.9)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3 (2.8)</td>
</tr>
</tbody>
</table>
Massachusetts pediatricians got themselves and their children vaccinated as soon as possible

<table>
<thead>
<tr>
<th>Personal vaccination behavior</th>
<th>Got vaccinated right away</th>
<th>106 (97.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Waited, but are now vaccinated</td>
<td>2 (1.8)</td>
</tr>
<tr>
<td>For parents with children ages 5-11: vaccination status</td>
<td>Got child vaccinated as soon as possible</td>
<td>28 (96.5)</td>
</tr>
<tr>
<td></td>
<td>Still waiting</td>
<td>1 (3.5)</td>
</tr>
<tr>
<td>For children ages 12 to 17: vaccination status</td>
<td>Got child vaccinated as soon as possible</td>
<td>23 (100.0)</td>
</tr>
</tbody>
</table>
# HPV and COVID-19 vaccine practices

<table>
<thead>
<tr>
<th>Survey item</th>
<th>Response option</th>
<th>N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you <em>recommend the COVID-19 vaccine</em> to eligible pediatric patients?</td>
<td>Always</td>
<td>87 (79.8%)</td>
</tr>
<tr>
<td>How often do you <em>recommend the HPV vaccine</em> to eligible patients?</td>
<td>Always</td>
<td>99 (90.8%)</td>
</tr>
<tr>
<td>I am confident that I can <em>respond to parental hesitancy about COVID-19 vaccination</em> for children between ages 5 and 17.</td>
<td>Strongly agree</td>
<td>47 (43.1%)</td>
</tr>
<tr>
<td>I am confident that I can <em>respond to parental hesitancy about HPV for children</em> between ages 9 and 17</td>
<td>Strongly Agree</td>
<td>79 (72.4%)</td>
</tr>
</tbody>
</table>
**HPV and COVID-19 recommendations**

<table>
<thead>
<tr>
<th>I am confident that I can respond to parental hesitancy about COVID-19 vaccination for children between ages 5 and 17.*</th>
<th>Have a child between ages 5 and 17</th>
<th>Do not have a child between ages 5 and 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>13 (29.6)</td>
<td>34 (54.0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am confident that I can respond to parental hesitancy about HPV for children between ages 9 and 17.*</th>
<th>Have a child between ages 5 and 17</th>
<th>Do not have a child between ages 5 and 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>26 (59.1)</td>
<td>53 (82.8)</td>
</tr>
</tbody>
</table>

* Statistically significant difference, p<.05
Results: Similarities in reasons for resistance
Implications: Where to focus time in clinic visits on vaccine hesitancy?

• Long-term side effects and overall vaccine confidence

• Share local data
  • Almost 100% of pediatricians got themselves and their children vaccinated against COVID-19
Clinic-level intervention: COVID-19 vaccine hesitancy
Example from Massachusetts: CONFIDENCE Intervention

• Low touch, multicomponent intervention to support pediatric practices with COVID-19 vaccination uptake
  • Integrates: Strong recommendation, sharing personal stories, and motivational interviewing

• Small pilot test in Spring 2022
CONFIDENCE: Counseling Algorithm

RECOMMEND
Start by strongly recommending the vaccine at every encounter with parents of pediatric and adolescent patients.

SHARE
Share your personal vaccine story in your conversation with parents.

ASSESS
Assess whether the parent is hesitant or resistant using an open-ended question.

- There are different strategies for talking with hesitant versus resistant parents.

EMPATHIZE WITH HESITANT PARENTS
Focus on empathetic language and listening to their concerns. Use open-ended questions to explore motivations and ask before sharing information.

OR

EXPLORE REASONS FOR RESISTANCE
Listen to what the parent has to say and re-state their concerns without criticism. Ask before sharing information and plan to revisit the topic at another appointment.

HONOR PARENT’S AUTONOMY

PERSISTENCE IS CRITICAL: DISCUSS VACCINATION AT EVERY VISIT
CONFIDENCE: Poster Campaign

I got my children vaccinated to keep them safe at school, visit my mom, and to protect my entire family! One of my children was in the COVID-19 vaccine trial when he was 17. My oldest was 2 months old when he was in the trial for the pneumococcal vaccine. I wanted him to get as much protection as possible.

Get the COVID-19 Vaccine Here!

Offers COVID-19 vaccinations to all our eligible patients and family members at every visit. We also recommend getting a yearly influenza vaccine!

Clinic Hours & Contact
Monday - Friday: 8 am - 5 pm
774-442-2853

Where can you find us?

ALL vaccines are administered by medical professionals.

It's important for anyone who can get vaccinated to get vaccinated! Children especially need to get vaccinated so schools can stay open, and activities can continue to happen.

Clinic Hours & Contact
Monday - Friday: 8 am - 5 pm
774-442-2853

ALL vaccines are administered by medical professionals.
CONFIDENCE: Parent-facing materials

I’ve heard that COVID-19 doesn’t affect kids as much, why should I get my child vaccinated?

- Over 6 million children in the United States have been infected by COVID-19. Most infections are mild, and the children fully recover. But, some children have gotten really sick and even died from COVID-19.
- Children who have mild or severe disease can develop “long COVID” where the infection causes long-term health problems.
- Even if your child doesn’t get very sick, they can easily spread COVID-19 to others and they will miss out on school and other activities.
- Vaccines are important to make sure children can go to school and activities, play sports, and see their friends!

What is the recommendation for COVID-19 vaccination for children ages 5 to 11?

- Children should receive 2 doses of the Pfizer-BioNTech vaccine. The second dose should be 3 weeks or more after the first dose. Three doses are recommended for children who are immunocompromised.
- The dose is smaller than the dose for teens and adults, but it is the same vaccine.

I heard these vaccines were developed quickly. Should I be nervous about getting this vaccine for my child?

- No. The COVID-19 vaccines went through rigorous clinical trials and FDA approval process. No steps were cut.
- Scientists have worked on the technology for these vaccines for decades. We already had a lot of important data before the pandemic started.

Does my child need to keep wearing a mask after getting vaccinated?

- The CDC recommends wearing a mask in areas where there are a lot of COVID cases, even if you are vaccinated.
- Towns, schools, and businesses may have their own rules about wearing masks. It’s best to pay attention to local and state recommendations about where to wear a mask.

FACTS ABOUT COVID-19 VACCINATION FOR CHILDREN AGES 5 TO 11

January, 2022

- Yes. The Pfizer-BioNTech vaccine was studied in a clinical trial of more than 2,200 children. In the clinical trial, the vaccine was 90% effective in preventing symptomatic cases of COVID-19. No serious side effects were observed.
- Over 4.8 million children of ages 5-11 have safely received at least one dose.

Should my child get vaccinated if they have already had COVID-19?

- Yes! It is possible to be reinfected after having COVID-19.
- Getting vaccinated after having been infected with COVID-19 will give your child a greater level of protection.
CONFIDENCE: Preliminary results and next steps

• Providers reported that this approach fit into existing practice and was easy to implement\(^8\)
  • +11% parental satisfaction with conversation about COVID-19
  • +17% reported same-day COVID-19 vaccination

• Larger trial in progress
• Potential applications to other vaccines?
Community-level efforts: COVID-19 vaccine hesitancy
Community-level outreach: Worcester, MA

How to Talk With Parents About COVID-19 Vaccinations for Their Children: What Worcester Parents Are Saying

Questions about the vaccine or vaccine clinics?

Call the Worcester Department of Health and Human Services Mobile Clinic at 508-654-6633 or visit https://www.respondingtoCOVID19.org/vaccination for more information about vaccines in Worcester.

**FREE COVID-19 Vaccines in Worcester Available at these Walk-In Clinics:**

- Adams Project Worcester, 106 Southbridge Street, Holyoke: Tues 1 - 4 PM
- Edward M. Kennedy Community Health Center, 19 Terrace Street, Monday 10 AM – 1 PM
- Labor-Community Center, 365 Court Street, Monday 11 AM – 4 PM
- Lawrence Community Health Center, 365 Court Street, Monday 11 AM – 4 PM
- Labor-Community Center, 365 Court Street, Tuesday 10 AM – 3 PM
- Labor-Community Center, 365 Court Street, Wednesday 11 AM – 4 PM
- Labor-Community Center, 365 Court Street, Thursday 10 AM – 3 PM
- Labor-Community Center, 365 Court Street, Friday 10 AM – 3 PM
- Labor-Community Center, 365 Court Street, Saturday 10 AM – 3 PM

Key messages about COVID-19 vaccines should emphasize & highlight:

- Personal experiences of doctors and experts choosing to vaccinate their own children.
- Vaccines provide PROTECTION and SAFETY against COVID-19.
- The risks from COVID-19 are for greater than the risks associated with vaccination.
- Vaccines help children return to normal/reduce spread.
- Vaccines are effective in preventing hospitalization and severe disease.

Focus Group Methods:

- The University of Rochester Prevention Research Center of Ulster County hosted and conducted focus groups with 107 participants, all 18 years and older, in 10 languages.
- Four groups were held in English and nine in Spanish.
- Participants were invited by social media and community partners at a clinic in Harlem.

Parents state that they trust:

- Their child’s healthcare provider and other parents.

Parents want to know:

- FROM PEDIATRICIANS AND OTHER PROVIDERS:
  - The benefits of vaccination, including decreasing severity of disease and decreasing disruption of school.
  - Advice and guidance regarding side effects (short-term, long-term), speed of vaccine development, timing.
  - Decisions that pediatrics have made in vaccinating their own children and reasons for these decisions.

Parents say:

- I would like to hear hypothetically if my child, I vaccinated COVID children and there has been some side effects similar to some of these.

FROM OTHER PARENTS:

- Stories why they decided to vaccinate their own children.
- Stories & personal experiences with their own children.

Parents say:

- Would like to see cases of children who have already been vaccinated, and how they have impacted.

Parents most concerned about:

- Emotional and physical support.
- Potential side effects and long-term effects of the vaccine on their child.
- Changing names, recommendations, guidelines.
- The exact dosage of the vaccine for a child’s age and size.
Conclusions: evidence-based strategies to tackle vaccine hesitancy in clinical practice
What strategies do work?

- Strong, presumptive recommendation\(^9\)
  - “Your child is due for these vaccines today”

- Sharing personal stories
  - Parents want to hear them\(^{10}\)
  - Providers reported that these seem to be effective for COVID-19\(^{11}\)
  - Evidence of this strategy from HPV vaccination research\(^{12}\)

- Motivational interviewing\(^{13,14}\)
What strategies do work?

• Identify and correct misinformation$^{15}$ and target the “moveable middle”

• Take advantage of every visit to offer vaccines to avoid missed opportunitites$^{16,17}$

• Vaccinate as soon as eligible
  • HPV start at age 9 (AAP + ACS endorsed)
  • COVID-19 at 6+ months
What can public health and local communities do?

• We need multi-level, multi-component strategies to promote vaccine confidence
  • Pediatricians are a big part of these efforts, but they need reinforcement
    • Local community champions
    • Create community norms around vaccine uptake
    • Consistent, coordinated communication
Acknowledgements

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• All of our research participants for giving us their time!
References


Other resources:


Questions?

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