Strategies to Promote COVID-19 Vaccine among Adolescents and their Families

May 26, 2021

Maternal and Child Health Bureau (MCHB)

Vision: Healthy Communities, Healthy People
Welcome/Opening Remarks

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Maternal and Child Health Bureau (MCHB)
Deputy Associate Administrator
Presenters

Amy Middleman, MD, MDEd, MPH
University of Oklahoma

Henna Budhwani, PhD, MPH
University of Alabama at Birmingham

Annie-Laurie McRee, DrPH, FSAHM
University of Minnesota

Jean Emans, MD
Boston Children’s Hospital and Harvard University
COVID-19 Vaccines for Teens

AMY B. MIDDLEMAN, MD, MSED, MPH
PROFESSOR OF PEDIATRICS
CHF KASTERKE-GRIGGS-MCLAUGHLIN CHAIR IN PEDIATRICS
UNIVERISTY OF OKLAHOMA HEALTH SCIENCES CENTER
Where to Find Up-To-Date Data

COVID-19 Data: covid.cdc.gov/covid-data-tracker/#datatracker-home
COVID-19 and Teens

Adjusting for underreporting, 22.2 million SARS-CoV-2 infections have occurred among children and adolescents 5-17 years of age from February, 2020 and March, 2021.

As more adults have been vaccinated, adolescents aged 12-17 years of age make up an increased proportion of total COVID-19 cases: 9% of cases reported in April, 2021.

61% of hospitalized adolescents have one or more underlying medical conditions, most commonly obesity and asthma.

COVID-19 accounts for 1.3% of deaths among 12-17 year olds from January, 2020 and April, 2021; it is among the top ten causes of death in this age group.
COVID-19 Vaccine for 12-15 Year Olds
Pfizer-BioNTech dosing and administration

<table>
<thead>
<tr>
<th>Authorized age groups</th>
<th>12+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of doses in series</td>
<td>2 doses</td>
</tr>
<tr>
<td>Interval between 1st and 2nd doses*</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Dose volume</td>
<td>0.3 ml</td>
</tr>
<tr>
<td>Route</td>
<td>Intramuscular</td>
</tr>
</tbody>
</table>

*If it is not feasible to adhere to the recommended interval, the second dose may be administered up to 6 weeks (42 days) after the first dose.
Efficacy – Subjects 12 – 15 years

The COVID-19 vaccine is just as effective in 12-15 year-olds as in older populations.

In the test group (n=1005), there were no COVID-19 occurrences 7 or more days after the second vaccine dose, compared to 16 occurrences in the placebo group (n=978).

Presented at ACIP meeting, May 12, 2021
Side-Effects/Precautions of the Vaccine

Rates of local reactions (redness, swelling, and pain at injection site) within 7 days after each dose were similar in 12-15 year olds and 16-25 year olds.

The side effects from COVID-19 vaccination include tiredness, headache, or chills for a few days after the vaccine. These are normal signs that the body is building protection.

Rates of adverse events were similar between 12-15 year olds and 16-25 year olds.

As with other vaccines, adolescents may feel faint or have syncope after immunizations and should sit or lie down for 15-30 minutes after each dose.

Known polysorbate allergy is no longer a contraindication to mRNA vaccination but is a contraindication to Janssen COVID-19 vaccine and thus, a precaution to mRNA COVID-19 vaccination.

COVID-19 Vaccine and Myocarditis in Adolescents and Young Adults

At the May 17, 2021 meeting, the Advisory Committee on Immunization Practices (ACIP) COVID-19 Vaccine Safety Technical (VaST) Work Group concluded that there are relatively few reports of myocarditis following COVID-19 vaccination to date and that these cases seem to occur:

- Predominantly in adolescents and young adults
- More often in males than females
- More often following dose 2 than dose 1
- Typically within 4 days after vaccination

Most cases appear to be mild, and follow-up of cases is ongoing. Rates of myocarditis reports in the window following COVID-19 vaccination have not differed from expected baseline rates.

Information regarding these reports should be communicated to providers.

The safety systems in place for alerting for rare, potential adverse events related to the use of vaccines are extremely sensitive and are working as designed.
Use of v-safe for Adolescent COVID-19 Vaccination

CDC encourages parents and guardians to enroll their vaccinated adolescents into v-safe, a smartphone-based tool that uses text messages and web surveys to provide personalized health check-ins after receiving a COVID-19 vaccination.

Parents and guardians can complete health surveys on behalf of their adolescents, describing symptoms and health events after vaccination:
- CDC encourages completing health surveys even if vaccinated persons are feeling well and have no side effects.

Participation in v-safe will help CDC continue to monitor the safety of COVID-19 vaccines as use is expanded into younger populations.

Promote v-safe participation at vaccination locations:
- Take advantage of the post-vaccination observation period to encourage v-safe participation.

vsafe.cdc.gov
Getting the Shots to Teens
Surveys of Parents (intent to have children vaccinated)

Among parents surveyed, 46-60% plan to get their children vaccinated

Reasons for not vaccinating
- Not sure it will be safe (59%)
- Vaccine developed too quickly (59%)
- Won’t trust right away (44%)
- Don’t have enough info (43%)

Parents reported similar or slightly lower intent to vaccinate their children compared to intent to vaccinate themselves

Axios/ipsos April 2-5; Axios/ipsos April 16-19; Calarco and Anderson preprint; WebMD March 2021.
Parents Together March 2021 Survey
Where are parents comfortable getting their teens vaccinated?

Doctor’s offices are overwhelmingly preferred by parents and teens for COVID-19 vaccination, followed by local pharmacy, vaccination clinics, and child’s school. Data from 2011 showed similar trends.
Stepwise approach to increasing vaccine access for adolescents

- **Step 1**: Augment existing infrastructure for vaccination
- **Step 2**: Strategically add providers that can reach adolescents
- **Step 3**: Apply school-focused strategies to ensure vaccination opportunities
Equity

As of May 4, 2021, a lower percentage of Black and Hispanic/Latino adults were fully vaccinated compared with the percentage of these groups represented in the overall population

May see similar patterns in adolescents
Opportunities to increase equitable access

Pfizer-BioNTech COVID-19 vaccine characteristics

◆ Submitted new data to FDA supporting stability of vaccine when stored for up to one month (31 days) at 2-8°C
◆ Encourage strategies to efficiently utilize doses and support local redistribution, smaller tray sizes would improve access for smaller providers and rural areas

Need for 2-dose series

◆ In adults, only 3% missed the second dose of a 2-dose series, but differences were seen by jurisdiction, race/ethnicity, and age

Multipronged approach to improve access

◆ Primary care providers serving adolescents, FQHCs, rural health clinics, community health centers, children’s hospitals, pharmacies, school-located vaccination clinics
Routine adolescent vaccines

Updated co-administration recommendations may facilitate catch up vaccination of adolescents
- COVID-19 and other vaccines may now be administered without regard to timing. This includes simultaneous administration of COVID-19 and other vaccines on the same day, as well as co-administration within 14 days.

As of May 2, 2021, overall VFC provider orders (other than influenza) are down by 11.7 million doses compared with 2019

This gap is largest in vaccines primarily given to adolescents
- Tdap – down 18.9%
- HPV – down 19.3%
- Meningococcal conjugate vaccine – down 15.1%

A majority of parents continue to believe routinely recommended vaccines are important for their teen’s health
Vaccinating Adolescents Against COVID-19

Lessons Learned from other Adolescent Vaccines

Annie-Laurie McRee, DrPH
University of Minnesota
Comfort with settings for COVID-19 vaccine administration

- 76% of parents and 68% of teens are comfortable in a teens doctor's office or clinic.
- 39% of parents and 27% of teens are comfortable in a pharmacy.
- 34% of parents and 29% of teens are comfortable in a walk-in or urgent care clinic.
- 32% of parents and 26% of teens are comfortable in a local public health clinic.
- 22% of parents and 19% of teens are comfortable in a teen's school.
- 27% of parents and 19% of teens are comfortable in an organized immunization event.
- 3% of parents and 10% of teens are comfortable in a don't know setting.

Data from UNITY Consortium www.unity4teenvax.org
Comfort with settings for COVID-19 vaccine administration

Doctor’s offices and clinics are preferred by parents and teens for COVID-19 vaccine administration

<table>
<thead>
<tr>
<th>Setting</th>
<th>Parents</th>
<th>Teens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor's offices or clinic</td>
<td>76</td>
<td>68</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>39</td>
<td>27</td>
</tr>
<tr>
<td>Walk-in or urgent care clinic</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>Local public health clinic</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>Teen's school</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td>Organized immunization event</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Don't Know</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

Data from UNITY Consortium www.unity4teenvax.org
A provider recommendation is one of the strongest predictors of vaccination.
Quality vaccination recommendations
1
Quality vaccination recommendations

Presumptive

Bundled
Quality vaccination recommendations
Clinical Communication Beyond Initial Recommendations

• Make the environment vaccine +
• Unify the team
• Keep trying
• Address hesitancy as it arises
  – Motivational interviewing
Improving clinical systems to increase vaccination

1

Standing orders
Improving clinical systems to increase vaccination 2
Improving clinical systems to increase vaccination

- Standing orders
- Reminder/recall
- Provider prompts and scripts
Improving clinical systems to increase vaccination

- Standing orders
- Reminder/recall
- Provider prompts and scripts
- Assessment and feedback
Comfort with settings for COVID-19 vaccine administration

- **Teens doctor's office or clinic**: 68% (Parents: 76%)
- **Pharmacy**: 39% (Parents: 27%)
- **Walk-in or urgent care clinic**: 34% (Parents: 29%)
- **Local public health clinic**: 32% (Parents: 26%)
- **Teen's school**: 22% (Parents: 19%)
- **Organized immunization event**: 27% (Parents: 19%)
- **Don't Know**: 3% (Parents: 10%)

Data from Unity Consortium www.unity4teenvax.org
Alternative settings for administration of adolescent vaccines

Data from Middleman et al., Vaccine, 2010
But...
61% consented to receive vaccines in a school setting despite stated preferences

Alternative settings for administration of adolescent vaccines

<table>
<thead>
<tr>
<th>Setting</th>
<th>Percent willing to vaccinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical home</td>
<td>65</td>
</tr>
<tr>
<td>School</td>
<td>41</td>
</tr>
<tr>
<td>City/county clinic</td>
<td>32</td>
</tr>
<tr>
<td>Mobile clinic</td>
<td>14</td>
</tr>
<tr>
<td>Emergency room</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>5</td>
</tr>
</tbody>
</table>
Alternative settings

Incentives

Other strategies for vaccination
Translating lessons learned to other settings
Resources

UNITY Consortium
www.unity4teenvax.org/

V-Safe
vsafe.cdc.gov
PROMOTING VACCINES TO ADOLESCENTS

HENNA BUDHWANI, PHD, MPH
UNIVERSITY OF ALABAMA AT BIRMINGHAM (UAB)
SCHOOL OF PUBLIC HEALTH
Engagement, Communication, and Structure

**ENgAGEMENT:** Engaging social networks is critical to promoting vaccine uptake.

**COMMUNICATION:** Multilayered and tailored communication approaches are required to maximize uptake.

**STRUCTURE:** Structural barriers affect underserved communities and rural residents.
Adolescents and Youth
It is imperative that we ask young people what they want and how we should approach messaging.

Community Leadership
"...my pastor was sayin’... this vaccine is very important... ya'll should go take it. Keep all us safe. Keep your family and friends safe. The vaccine is good."

Parents and Guardians
"I'm gonna get it... My mama she already got her second. My mama and my dad already got their second shot."

From Left to Right: Mrs. Barge, Dr. Henna Budhwani, and Ms. Wilnadia Murrell. Mrs. Barge has been teaching in Selma, Alabama (rural) for 28 years. When Mrs. Barge is an ally, your projects are more likely to succeed. MISP #60590
COMMUNICATION

Traditional Methods
Letters, Posters, Handouts

Ask Tell Ask
Tailored Responses and Autonomy Support in the Tell

Social Media, Online Messages, and Digital Health Interventions
(R01MD016834)
HEALTH EQUITY
STRUCTURAL RACISM
RURAL COMMUNITIES?
IN SUMMARY

Dr. Middleman
COVID-19 disease, vaccine efficacy, and general vaccination distribution issues for teens

Dr. McRee
Effective strategies for other adolescent vaccines, alternative settings, and resources

Dr. Budhwani
Broad engagement, communication in clinics, and effects of structure on behavior.

Open Discussion
Let's address your pre-submitted questions.
Panel Discussion
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