ACIP Influenza Update

Lisa Grohskopf, MD, MPH

National Adult and Influenza Immunization Summit
May 11, 2023

Acknowledgements

• Lynette Brammer
• Alicia Budd
• Arielle Colon
• Peter Daly
• Nicholas Dempster
• Daneisha Hawkins
• Amanda Howa
• Stacy Huang
• Krista Kniss
• Angiezel Merced-Morales
• Shunte Moon
• Benjamin Natkin
• Eugene Pun
• Katie Tastad
• Lenee Blanton
• Jill Ferdinands
• Lindsay Trujillo
• Carrie Reed
ACIP Influenza Statement, 2022-23

• 2022-23 recommendations published August 2022.
  – Vaccine composition update.
  – Updates to the vaccine table.
    › Age indication for Flucelvax Quadrivalent expanded from ≥2 years to ≥6 months.
  – Preferential recommendation for higher dose and adjuvanted influenza vaccines for adults ages ≥65 years.
    › ACIP recommends that adults aged ≥65 years preferentially receive any one of the following higher dose or adjuvanted influenza vaccines: quadrivalent high-dose inactivated influenza vaccine (HD-IIV4), quadrivalent recombinant influenza vaccine (RIV4), or quadrivalent adjuvanted inactivated influenza vaccine (aIIV4).
    › If none of these three vaccines is available at an opportunity for vaccine administration, then any other age-appropriate influenza vaccine should be administered. https://www.cdc.gov/mmwr/volumes/71/rr/rr7101a1.htm

ACIP Influenza Statement, 2023-24

• Will be discussed at the June 2023 ACIP meeting.
• Anticipated publication August 2023
**U.S. Influenza Vaccine Composition, 2023-24**

- FDA Vaccines and Related Biological Products Advisory Committee (VRBPAC) Meeting, March 7, 2023.
- Includes updates to the H1N1pdm09 components for both egg based and non-egg based vaccines:
  - an A/Victoria/4897/2022 (H1N1)pdm09-like virus (egg based vaccines) OR an A/Wisconsin/67/2019 (H1N1)pdm09-like virus (cell based or recombinant vaccines)
  - an A/Darwin/9/2021 (H3N2)-like virus (egg based vaccines) OR an A/Darwin/6/2021 (H3N2)-like virus (cell based or recombinant vaccines)
  - a B/Austria/1359417/2021-like virus (B/Victoria lineage)
  - a B/Phuket/3073/2013-like virus (B/Yamagata lineage)

https://www.fda.gov/advisory-committees/advisory-committee-calendar/vaccines-and-related-biological-products-advisory-committee-march-7-2023-meeting-announcement

---

**Influenza Vaccines by Age Indication, United States, 2022–23 Season**

<table>
<thead>
<tr>
<th>Vaccine type</th>
<th>0 through 6 months</th>
<th>6 through 23 months</th>
<th>2 through 17 years</th>
<th>18 through 49 years</th>
<th>50 through 64 years</th>
<th>≥65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIV4s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egg-based standard-dose, unadjuvanted Inactivated (IIV4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell culture-based unadjuvanted inactivated (ccIIV4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjuvanted inactivated (aIIV4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-dose inactivated (HD-IIV4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIV4</td>
<td>Recombinant (RIV4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAIV4</td>
<td>Live attenuated (LAIV4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **IIV4** = Inactivated influenza vaccine, quadrivalent
- **cc** = cell culture
- **HD** = high-dose
- **a** = adjuvanted
- **RIV4** = Recombinant influenza vaccine, quadrivalent
- **LAIV4** = Live attenuated influenza vaccine, quadrivalent

https://www.cdc.gov/mmwr/volumes/71/rr/rr7101a1.htm
Timing of Vaccination—Considerations

- Variable timing of start, peak, and end of influenza activity each season.
- Potential for waning of vaccine-induced immunity over the course of the season.

Peak Month of U.S. Influenza Activity

Flu activity peak months in the U.S. from the 1982-1983 through 2021-2022 flu seasons*

* There was no discernible peak in activity during the 2020-2021 season due to the uncharacteristically low level of influenza virus circulation that season.

CDC. The Flu Season. https://www.cdc.gov/flu/about/season/index.html
Percent of Specimens Positive: Two Examples from Week 17


Waning of Vaccine-Induced Immunity

- Observed in many studies.
  - Variability in rate and degree to which waning occurs across seasons, as well as among different age groups.
  - Most consistently observed among older adults.
  - Noted among children in a few studies.
    - However, fewer studies specifically included children.
  - In some studies, more pronounced for H3N2 viruses than for H1N1 viruses.
- Variability of results, combined with unpredictability of flu season timing, prevents determination of an ideal time to vaccinate.
Timing of Vaccination—2022-23

- Vaccination during July and August is not recommended for most groups because of the possible waning of immunity over the course of the influenza season.
- For most persons who need only 1 dose of influenza vaccine for the season, vaccination should ideally be offered during September or October.
- However, vaccination should continue after October and throughout the influenza season as long as influenza viruses are circulating and unexpired vaccine is available.

Considerations for specific groups:

- **Most adults (particularly ages ≥65 years) and pregnant persons in 1st or 2nd trimester**: July and August should be avoided unless there is concern that vaccination later in the season might not be possible.
- **Children who require 2 doses**: Should receive first dose as soon as possible (including during July and August, if vaccine is available) to allow the second dose (which must be administered ≥4 weeks later) to be received, ideally, by the end of October.
- **Children who require only 1 dose**: Vaccination during July and August can be considered for children of any age who need only 1 dose of influenza vaccine for the season.
  - Not as much evidence for waning as adults (though there are fewer studies including children).
  - Children in the group might visit healthcare providers in late summer.
- **Pregnant persons in 3rd trimester during July/August**: Vaccination during July and August can be considered (might reduce risk for influenza illness in infants during the first months after birth).