Thank you for joining

The presentation will begin shortly
Rise to Immunize®
Monthly Webinar

Operationalizing CDC's 2024 Adult Immunization Schedule
L.J. Tan, MS, PhD, Chief Policy and Partnerships Officer, Immunize.org, Co-chair, National Adult and Influenza Immunization Summit (NAIIS)

February 15, 2024
Today’s Webinar

**Campaign Updates**
- RIZE Resources Overview
- RIZE Symposium Meeting Summary
- RIZE Casts
- Annual Conference 2024
- RIZE Meet & Greet Breakfast

**Operationalizing CDC’s 2024 Adult Immunization Schedule**
- L.J. Tan, MS, PhD, *Immunize.org*

**Q&A Session**
Webinar Reminders

Today's webinar recording will be available the week of 02/19
- Will be sent via email
- Will be available on website

(RiseToImmunize.org → “Resources” → “Webinars”)

Ask questions during the webinar using the Q&A feature
- Questions will be answered at the end of the presentation
Campaign Resources Overview

Campaign Toolkit

Community Listserv

Monthly Webinars

Success Stories

Tools for patients & providers

Newsletter

- Campaign Resources Overview
- Campaign Toolkit
- Community Listserv
- Monthly Webinars
- Success Stories
- Tools for patients & providers
- Newsletter

Organizational Name: is part of AMGA’s national health campaign. Rise to Immunize® (R2I).

R2I is a four-year initiative focused on empowering organizations and BUs to increase routine adult Immunization rates. The campaign goal is for participants to collectively administer 25 million vaccines by 2023, with a focus on influenza, pneumoccal, Tetanus, and other vaccines. We are one of 92 medical groups who have joined this quality improvement initiative.

As a participant in the campaign, all employees at our organization have access to the following vaccine resources, which are available at RiseToImmunize.org. To be added to the campaign list and receive the newsletter, webinar registration details, and access to the R2I Community email: RiseToImmunize@amga.org.


Campaign Toolkit - digital resources offering tools from peer medical groups and health systems to support implementation of the "campaign plans."

Provider/Patient Resources - timely, educational resources from national partners and corporate sponsors.

Campaign Webinars - monthly webinars featuring speakers from leading health organizations sharing best practices to improve vaccination rates and tackle complex immunization challenges.

RIZE Community - 24/7 live listserv to connect directly with campaign participants. These conversations allow for peer-to-peer problem solving and the sharing of best practices.

RIZE CoPs - on-demand video series sharing tools for improving immunization rates.

Biannual Reporting - quarterly blinded comparative reports, measuring progress and assessing group performance on vaccines administered and documented.

RIZE Monthly - a monthly newsletter to share campaign updates, resources, and opportunities.
Symposium Meeting Summary

Visit RiseToImmunize.org/Symposium and click “meeting summary” to learn about the meeting and key takeaways.
"Navigating the Updated Pneumococcal Recommendations" – Ochsner Health

In this three-part series, AMGA Foundation's National Health Campaigns Program Manager, Morgan Drexler, MPH, CPH, PMP chats with Ochsner Health's Systems Director Population Health & Ambulatory Care, Matthew Malachowski, PharmD, MHA, BCPS about navigating the updated pneumococcal recommendation. The interview was filmed during the 2023 RIZE Symposium.

- Part 1: Operationalizing a New Vaccine Model
- Part 2: Educating Providers and Staff on a New Model
- Part 3: Recognizing the Added Value

RiseToImmunize.org/RIZEVideos
The Super Future: Prepare Your Organization to Thrive in the AI Revolution
Jeremy Gutsche
CEO, Trend Hunter & New York Times Bestselling Author

Leadership: Currency, Change, & Creating a Powerful Presence
The Dr. Scott Hayworth and the Honorable Dr. Nan Hayworth Lecture
Carla Harris
Senior Client Advisor, Morgan Stanley

Election 2024 Perspectives
John Heilemann
Editor-in-Chief & Co-Founder, Recount Media
Mark McKinnon
Creator, Executive Producer & Cohost, Showtime's The Circus
RIZE Meet & Greet Breakfast

Friday, April 12
from 7-8 am ET

Free RIZE branded totes available!
Litjen (L.J.) Tan, MS, PhD, Chief Policy and Partnerships Officer, Immunize.org, Co-chair, National Adult and Influenza Immunization Summit (NAIIS)
Operationalizing Adult Immunizations Throughout the Year

Litjen (L.J) Tan, MS, PhD

Chief Policy and Partnerships Officer, Immunize.org
Co-Chair, National Adult and Influenza Immunization Summit
Disclosures

• I have no conflicts of interest.
• I do NOT intend to discuss an unapproved or investigative use of a commercial product/device in my presentation
Disclaimer

• The opinions expressed in this presentation are solely those of the presenter and do not necessarily represent the official positions of Immunize.org, or the National Adult and Influenza Immunization Summit
Outline

• Highlight
  • Burden of disease from adult vaccine preventable diseases
  • Low vaccination coverage rates

• Highlight strategies to improve coverage rates

• Operationalizing vaccination during the autumn/fall season and moving into year-round adult vaccinations
Why Adult Vaccinations?
Burden Of Adult Vaccine-Preventable Disease Among US Adults

• *Streptococcus pneumoniae*¹
  - Pneumococcal pneumonia >150,000 hospitalizations per year
  - Up to 30% of adult community-acquired pneumonias
  - Pneumococcal bacteremia without pneumonia >5000 cases per year
  - Pneumococcal meningitis ~2000 cases per year; >50% of bacterial meningitis cases

• *Pertussis*²
  - 2388 total reported cases 2022
  - 1089 among adults 20 years of age & older

Burden Of Adult Vaccine-preventable Disease Among US Adults

- **Hepatitis B**
  - 13,300 estimated new infections in 2021
  - 73% among adults 30–59 years of age
  - 14,229 newly reported cases of chronic hepatitis B

- **Zoster**
  - 1 in 3 people in the US will develop shingles
  - 1–4% of people with shingles are hospitalized

- **Measles**
  - California/multi-state 2015 outbreak: 55% of infections were in adults 20 years of age and older

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2. CDC, 2024. Shingles Burden and Trends. [https://www.cdc.gov/shingles/surveillance.html](https://www.cdc.gov/shingles/surveillance.html);
3. Clemmons NS et al. MMWR Morb Mortal Wkly Rep 2015 Apr 17;64;373–376. URLs accessed February 2024
Burden of Influenza, 2010–2022

- For recent seasons, adults aged 65 years and older accounted for:
  - 50–70% of influenza-related hospitalizations
  - 70–85% of influenza-related deaths

1. CDC, 2024. Disease Burden of Flu. [https://www.cdc.gov/flu/about/burden/index.html](https://www.cdc.gov/flu/about/burden/index.html) (accessed February 2024);
Cost Burden of Adult Vaccine-Preventable Diseases, 50 years and older, 2015

Unvaccinated individuals are responsible for almost 80 percent of the financial burden!
Estimates of COVID-19 Attributable Deaths, Hospitalizations, and Infections Averted by the U.S. Vaccination Program Between December 12, 2020, and November 30, 2022

<table>
<thead>
<tr>
<th></th>
<th>Averted number</th>
<th>95% Credible Interval*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths</td>
<td>3,255,656</td>
<td>3,088,126 to 3,410,112</td>
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<tr>
<td>Hospitalizations</td>
<td>18,585,131</td>
<td>17,780,337 to 19,355,830</td>
</tr>
<tr>
<td>Infections</td>
<td>119,851,779</td>
<td>112,698,238 to 127,129,565</td>
</tr>
</tbody>
</table>

* Credible Intervals reflect the range of uncertainty associated with estimates.

Burden of Adult Vaccine-Preventable Disease Globally

- Globally, like in the United States, vaccine preventable diseases in adults cause health, economic, and social impacts\(^1\)
  - COVID-19 pandemic showed us the importance of a sustainable adult immunisation infrastructure
- For example, respiratory infections (including influenza and pneumonia) resulted in more than 1.5 million deaths in adults aged 50 years or older in 2017, and accounted for 23 million years of life lost due to premature mortality\(^1\)
  - Highest incidence was in low-income countries where access to vaccines for adults is almost nonexistent
- And, especially in older adults, vaccine preventable disease can lead to declines in functional ability and quality of life\(^2\)

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Adult Vaccine-Preventable Diseases can Exacerbate Existing Chronic Illness

• In a Canadian study of 332 patients, incidence of admissions for acute myocardial infarction was six times as high during the 7 days after laboratory confirmation of influenza infection versus 1 year before and 1 year after this interval.¹

• In a US cross-sectional study of >80,000 adults hospitalized with influenza, almost 12% of patients had an acute cardiovascular event.²

• A retrospective cohort analysis of wearable digital tracking data from a US health plan (N=167,672 individuals) found that people with diabetes experienced more hyperglycemic events, and substantial increases in pneumonia, sepsis, and coronary heart disease up to 4 weeks after an influenza claim, as compared with a non-influenza period in the same year.³

• Pneumococcal pneumonia and shingles may increase the risk of myocardial infarction or stroke, exacerbated chronic obstructive lung disease and cardiovascular disease, potentially leading to a decline in functional ability, loss of independence, or even premature death.⁴

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³ Samson SI et al. Diabetes 2018;67(Supplement 1):1616;
Yet we are failing our adult populations
Adult Immunization Coverage Rates, National Health Interview Surveys and BRFSS, 2018–2022

Disparities in routinely recommended vaccines for adults

<table>
<thead>
<tr>
<th>Vaccination, age group, increased-risk status</th>
<th>% Vaccinated whites</th>
<th>Vaccination differences (blacks vs. whites)</th>
<th>Vaccination differences, Hispanics vs. whites</th>
<th>Vaccination differences, Asians vs. whites</th>
<th>Vaccination differences, other</th>
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<tbody>
<tr>
<td>Influenza vaccination, 2017-18 season(^1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>219 yrs</td>
<td>49.3</td>
<td>-10.3**</td>
<td>-11.8**</td>
<td>1.4</td>
<td>-7.9**</td>
</tr>
<tr>
<td>19-49 yrs</td>
<td>36.5</td>
<td>-6.3**</td>
<td>-6.0**</td>
<td>5.1</td>
<td>-1.4</td>
</tr>
<tr>
<td>50-64 yrs</td>
<td>49.4</td>
<td>-3.1</td>
<td>-7.4**</td>
<td>2.8</td>
<td>-3.5</td>
</tr>
<tr>
<td>265 yrs</td>
<td>73.5</td>
<td>-13.9**</td>
<td>-4.6</td>
<td>5.7</td>
<td>-6.7</td>
</tr>
<tr>
<td>HCP*, 219 yrs</td>
<td>71.9</td>
<td>-6.2</td>
<td>0.7</td>
<td>-6.4</td>
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<tr>
<td>Pneumococcal vaccination, ever(^6)</td>
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<td></td>
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<tr>
<td>19-49 yrs, increased risk</td>
<td>23.6</td>
<td>2.1</td>
<td>-5.1**</td>
<td>1.2</td>
<td>2.2</td>
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<tr>
<td>265 yrs</td>
<td>72.6</td>
<td>-12.8**</td>
<td>-18.4**</td>
<td>-17.6**</td>
<td>-6.5</td>
</tr>
<tr>
<td>Tetanus vaccination (received in past 10 years)(^1)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>219 yrs</td>
<td>68.3</td>
<td>-18.1**</td>
<td>-14.3**</td>
<td>-13.6**</td>
<td>-6.4**</td>
</tr>
<tr>
<td>19-49 yrs</td>
<td>71.2</td>
<td>-18.3**</td>
<td>-15.5**</td>
<td>-12.9**</td>
<td>-7.7**</td>
</tr>
<tr>
<td>50-64 yrs</td>
<td>69.1</td>
<td>-22.5**</td>
<td>-18.1**</td>
<td>-20.3**</td>
<td>-10.6**</td>
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<tr>
<td>265 yrs</td>
<td>61.9</td>
<td>-15.1**</td>
<td>-13.0**</td>
<td>-12.6**</td>
<td>-3.0</td>
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<tr>
<td>Tetanus vaccination including pertussis vaccine (received in past 10 years)(^3)</td>
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</tr>
<tr>
<td>219 yrs</td>
<td>36.7</td>
<td>-16.6**</td>
<td>-16.2**</td>
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<td>-4.7</td>
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<tr>
<td>19-49 yrs</td>
<td>40.6</td>
<td>-19.6**</td>
<td>-18.9**</td>
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<td>-7.5**</td>
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<td>50-64 yrs</td>
<td>24.6</td>
<td>-8.9**</td>
<td>-13.0**</td>
<td>-8.9**</td>
<td>0.2</td>
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<tr>
<td>265 yrs</td>
<td>60.9</td>
<td>-22.9**</td>
<td>-14.1**</td>
<td>2.6</td>
<td>2.1</td>
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<tr>
<td>Hepatitis A vaccination (at least 2 doses)(^3)</td>
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<td>15-49 yrs</td>
<td>10.2</td>
<td>-5.4**</td>
<td>-2.5</td>
<td>5.8**</td>
<td>3.7</td>
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<tr>
<td>Hepatitis B vaccination (at least 3 doses)(^3)</td>
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<tr>
<td>19-49 yrs</td>
<td>43.6</td>
<td>-8.2**</td>
<td>-10.5**</td>
<td>1.6</td>
<td>-5.8</td>
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<tr>
<td>HCP*, 219 yrs</td>
<td>70.9</td>
<td>-14.5**</td>
<td>-13.6**</td>
<td>-1.8</td>
<td>-9.6</td>
</tr>
<tr>
<td>Herpes zoster (shingles) vaccination, ever(^3)</td>
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<td></td>
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<tr>
<td>265 yrs</td>
<td>38.6</td>
<td>-19.9**</td>
<td>-19.1**</td>
<td>-9.5**</td>
<td>-7.7</td>
</tr>
<tr>
<td>60-64 yrs</td>
<td>25.4</td>
<td>-14.6**</td>
<td>-10.2**</td>
<td>-5.7</td>
<td>-7.8</td>
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<tr>
<td>265 yrs</td>
<td>44.0</td>
<td>-21.4**</td>
<td>-22.2**</td>
<td>-11.4**</td>
<td>-8.4</td>
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<tr>
<td>HPV vaccination among females (at least 1 dose), ever(^4)</td>
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<td></td>
<td></td>
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<td>19-26 yrs</td>
<td>56.5</td>
<td>-11.3</td>
<td>-6.9</td>
<td>-17.2**</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Abbreviations: HCP = Health care personnel; HPV = Human papillomavirus; Td = Tetanus and diphtheria toxoids; Tdap = Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine.

Surveillance of Vaccination Coverage Among Adult Populations — United States, 2018: https://www.cdc.gov/mmwr/volumes/70/ss/ss7003a1.htm.
Adult immunization rates still need to be improved!

• AND...REMINDER

• Routinely recommended vaccinations have fallen further during the COVID-19 pandemic

Vaccine track. Available at: https://www.vaccinetrack.com/ (accessed November 2023)
Adolescents and Adults Missed An Estimated 26M+ Doses of Recommended Vaccines in 2020 vs 2019

Adolescents

-6,729,354
-2,079,931
-8.8 M

Adults

-11,795,478
-1,839,131
-708,767
-2,889,928
-17.2 M

FFS: Fee-for-service. Note: Avalere used national enrollment data to extrapolate the difference between observed 2019 and 2020 vaccine claims to estimate the potential number of “missed doses” in 2020 on a national level. Here, “missed doses” refers to the decrease in doses of recommended adolescent and adult vaccines from 2019 to 2020.

And what about Influenza?
2022-2023 Adult Influenza Vaccination Coverage*

- Coverage similar to the 2021-2022 season. However, that season was about 3-5% lower than pre-COVID coverage levels
  - 46.9% of all adults over 18 years of age vaccinated
  - 69.7% of those over 65 years of age vaccinated
  - 50.1% of adults between 50 -64 years of age vaccinated
  - Only 35.2% of adults 18-49 years of age vaccinated
    - 40.7% of high risk vaccinated

2023-2024 Influenza Vaccination Coverage (through January 27, 2024)

Figure 4A. Influenza Vaccination Coverage, by Selected Demographics, 2023-24 and Jurisdiction
Adults 18 years and Older, United States, \textsuperscript{+}\textsuperscript{+}\textsuperscript{+}\textsuperscript{+}\textsuperscript{+}
Data Source: National Immunization Survey-Adult COVID Module

47.1% over 18 years vaccinated
Historical Medical/Retail Claims by Week
Retail Week Ending January 12, 2024
Medical Week Ending January 13, 2024

• Flu seasons run for 35 weeks Aug to Mar
• Week 1 represents: Aug 08, 2020; Aug 07, 2021; Aug 06, 2022; Aug 05, 2023
• 1 Data only reflects active Flu season, Season to Date (August – March); Medical claims are a week behind Retail claims therefore Retail claim week ending dates are adjusted to be consistent with Medical claims

Change from prior season:
2021-22 -13%
2022-23 -4%
YTD 2023-24 -11%
2023 Private Market Immunizations trending 12.0% behind Previous Year

IQVIA NATIONAL CLAIMS DATA
- COVERAGE FOR MEDICAL IS 65%.
- NOT COVERED SEGMENTS – KAISER, VA, CDC, FQHC, LTC, CASH PAYMENTS, MEDICARE PART A – HOSPITALS, NON-AMA AFFILIATED HCP IMMUNIZATIONS

Claims as of week 01/13
The Overall Influenza-immunized population continues to decline each year.
18+ Flu season claims in Medical vs. Retail segment

**Data Source:** IQVIA National Pharmacy Claims Report; Medical (as of 01/13/2024) and Retail (as of 01/13/2024)

**IQVIA national claims at CPT code level. IQVIA doesn’t capture claims from Public, Kaiser, VA, LTC, FQHCs, Hospital and Non-AMA affiliated Physicians.**
And Maternal Immunization Coverage Rates remain Low
Tdap vaccination coverage* among pregnant women by race and ethnicity, 2019-20 through 2022-23† influenza seasons

Coverage was significantly higher overall and for White women in 2022-23 compared with 2021-22

NOTE: Estimates that met suppression criteria are not presented.
*Women who reported a pregnancy since August 1 of each season who had a live birth by the time of the survey and were vaccinated during most recent pregnancy were counted as vaccinated.
†The estimates for 2022-23 season are preliminary and have not been published.

Source: CDC COCA Call, August 2023
Influenza vaccination coverage* among pregnant women by race and ethnicity, 2019-20 through 2022-23† influenza seasons

Coverage for 2022-23 season was similar to that of 2021-22 (Overall and by race and ethnicity)

Note: Estimates that met suppression criteria are not presented.
*Women pregnant anytime between Oct to January who were vaccinated before/during pregnancy since July 1 were counted as vaccinated.
†The estimates for 2022-23 season are preliminary and have not been published.
COVID-19 vaccination coverage* among pregnant women by race and ethnicity, April 2023†

*COVID-19 vaccination coverage was assessed among women who reported being pregnant at the time of the survey. If a woman reported receiving two doses of the Moderna, Pfizer-BioNTech, or Novavax vaccines or a single dose of the Janssen vaccine, she was considered to have completed the primary series. An additional dose was required for women who reported being immunocompromised.

†The estimates are preliminary and have not been published.
# Impact of the Provider Recommendation*

<table>
<thead>
<tr>
<th>Provider Recommendation /Offer</th>
<th>Influenza</th>
<th>Tdap</th>
<th>Both Vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vaccinated, weighted % (95% CI)</td>
<td>Vaccinated, weighted % (95% CI)</td>
<td>Vaccinated, weighted % (95% CI)</td>
</tr>
<tr>
<td>Offered or referred (Ref)</td>
<td>1427 (70.2)</td>
<td>62.3 (58.6–65.9)</td>
<td>573 (70.1)</td>
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<tr>
<td></td>
<td>63.7 (59.2–68.0)</td>
<td>466 (57.7)</td>
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<tr>
<td></td>
<td>35.2 (30.4–40.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended, no offer or referral</td>
<td>121 (6.4)</td>
<td>31.8 (20.9–44.3)$</td>
<td>45 (5.8)</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td></td>
<td>276 (31.4)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>7.3 (3.7–12.7)$</td>
</tr>
<tr>
<td>No recommendation</td>
<td>451 (23.3)</td>
<td>12.2 (8.5–16.7)$</td>
<td>220 (24.1)</td>
</tr>
<tr>
<td></td>
<td>1.2 (0.1–4.2)$</td>
<td>93 (10.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0 (0.0–3.9)$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

§ Statistically significant

* [https://www.cdc.gov/flu/fluvaxview/pregnant-women-apr2022.htm](https://www.cdc.gov/flu/fluvaxview/pregnant-women-apr2022.htm)
The “Orphan” vaccine – Hepatitis B
New hepatitis B virus infections are in adults 19 years and up
Hepatitis B vaccination coverage in adults with ≥1 risk factor decreases with increasing age.
Limitations of previous risk-based testing approach

Over 2/3 of reported acute cases were either missing risk data or reported no identified risk

Hepatitis B Routine Vaccination Recommendation

• The following groups **are recommended to** receive hepatitis B vaccines:
  • Adults aged 19 - 59 years
  • Adults aged > 60 years with risk factors for hepatitis B

• The following groups **may** receive hepatitis B vaccines:
  • Adults aged > 60 years without known risk factors for hepatitis B

• **Screening should not be a barrier to vaccination**
  • Screening is recommended for all adults aged >18 years at least once in a lifetime
  • Anyone who requests hepatitis B testing should receive it, regardless of disclosure of risk
Integrating the Hepatitis B Routine Vaccination Recommendation with the Routine Screening Recommendation

Nonpregnant adults >18 years without a known history of HBV infection

Completed HepB vaccine series?

- No/Unk
  - Previously screened for HBV infection?
    - Yes
      - Had an activity, exposure, or condition associated with increased risk since the last screening?
        - No
          - Offer vaccine
        - Yes
          - Offer testing and vaccine
    - No/Unknown
      - Offer screening
- Yes
  - Offer vaccine

Operationalizing adult vaccination uptake!

Everyday readiness IS pandemic preparedness
ACIP recommended vaccinations for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

- **COVID-19**
  - 1 updated Pfizer-BioNTech or updated Moderna COVID-19 vaccine, OR
  - 2 doses of updated Novavax COVID-19 vaccine
  - People aged 12 years and older who got COVID-19 vaccines before September 12, 2023, should get 1 updated Pfizer-BioNTech, Moderna, or Novavax COVID-19 vaccine

- **Hepatitis B**
  - For adults less than 60 years of age, one primary series of vaccination
  - Adults 60 years and older may get hepatitis B vaccine

- **HPV**
  - 15 through 26 years of age, 2- or 3-dose series
  - SCDM for those 27-49 years of age

- **Influenza**
  - 1 dose annually

- **Mumps, measles, and rubella**
  - 1 dose

ACIP, Advisory Committee on Immunization Practices; HPV, human papillomavirus
ACIP recommended vaccinations for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

- **Pneumococcal Disease**
  - 1 dose PCV15 followed by PPSV23; OR 1 dose PCV20, for those over 65 years
- **RSV**
  - A single dose of RSV vaccine, by shared clinical decision-making for those ≥60 years
  - Pregnant people should get a single dose of Pfizer’s bivalent RSVpreF vaccine (Abrysvo) during weeks 32 through 36 (+ 6 days) of pregnancy during September through January.
- **Tdap/Td**
  - 1 dose Tdap, then Td or Tdap booster every 10 years
- **Zoster**
  - For those ≥50 years, 2-dose series of recombinant zoster vaccine

ACIP, Advisory Committee on Immunization Practices; PCV, pneumococcal conjugate vaccine; PPSV, pneumococcal polysaccharide vaccine; RSV, respiratory syncytial virus; Tdap, tetanus, diphtheria and acellular pertussis; Td, tetanus and diphtheria

Standards for Adult Immunization Practice*

- In response to low adult vaccination rates, multi-sector partners from NAIIS developed and National Vaccine Advisory Committee updated and published standards in 2014

- Acknowledges that:
  - Not all medical providers choose to stock all recommended vaccines;
  - The providers’ recommendation is critical; and
  - The need to accurately track patients’ vaccinations, including in immunization information systems (i.e. vaccine registries)

- Further reductions in already low adult vaccination prompted the Summit, CDC and partner organizations to develop Call to Action on Adult Immunizations released on Aug. 23, 2021
National Adult and Influenza Immunization Summit (NAIIS) Call to Action*

https://www.izsummitpartners.org/call-to-action-adult-immunizations/

A Call to Action to Protect All Adults from Vaccine-Preventable Disease and Disability

Majority of U.S. Adults Are Missing Routine Vaccinations
Call to Action to Protect All Adults from Vaccine-Preventable Disease and Disability
June 20, 2021

Majority of U.S. Adults Are Missing Routine Vaccinations
A Call to Action to Protect All Adults From Vaccine-Preventable Diseases and Disability

Dear Colleagues,

Vaccines are critical components of public health for children. They prevent protein-managed severe illnesses, disability, and death from 15 different national diseases such as Blurs, primary and secondary dermatitis (influenza), meningitis, hepatitis B, HPV-related cancers, rubella, and mumps. Influenza is a public health emergency that requires a coordinated response to prevent its spread. Despite the tremendous benefit of vaccines, at least 20% of adults receive one or more recommended vaccines. Given the recognized health benefits of routine vaccinations and the vaccine optional status of some vaccines, the National Adult and Influenza Immunization Summit (NAIS) members call on providers across the healthcare system to take action to improve vaccination rates.

Specifically, NAIS calls on all primary care and other healthcare providers, such as pharmacists, occupational health, and clinic and hospital, to follow the National Vaccination Advisory Committee (NAVAC) Standards for Adult Immunization Practice including:

- **Assess** the vaccination status of patients at all clinical encounters.
- **Identify** vaccines patients need, then clearly **recommend** needed vaccines.
- **Offer** needed vaccines or refer patients to another provider for vaccination.
- **Document** vaccinations given.
- **Measure** vaccination rates of providers’ patient panels.

Standards for Adult Immunization Practice

*https://www.izsummitpartners.org/call-to-action-adult-immunizations/*
• The IRA has eliminated deductibles and imposed a maximum beneficiary cost sharing of $0 for all adult vaccines recommended by the ACIP. This includes vaccines for shingles, whooping cough, tetanus, and COVID-19.

• The IRA also expands cost-sharing assistance for low-income people with Medicare. For example, starting October 1, 2023, most adults with coverage from Medicaid and CHIP will be guaranteed coverage of ACIP-recommended vaccines at no cost.
COVID-19 Vaccination Efforts That Can Benefit Routine Adult Vaccination

• Infrastructure improvements
  • Including expanded use of immunization information systems

• New or expanding partnerships
  • CDC funded partnerships focusing on equity, Area Agencies on Aging and Disability-focused organizations, HUD-HRSA collaboration for persons in HUD-supported housing, rural health association, others

• Greater awareness of barriers for adults
  • E.g., among persons with disabilities, in rural areas, homebound, other disproportionately impacted populations

• Leveraging experience with increasing access to COVID-19 vaccination to all adult vaccinations
Harnessing the adult provider network established from COVID-19

- 38,000 participating providers in jurisdictions
- 138,000 locations administering COVID vaccine
- 41,000 pharmacy locations administering COVID vaccine
  - 43% of COVID doses have been administered at a retail pharmacy
  - 54% received their flu vaccine at a pharmacy in 2021-2022 flu season

Data from AIM presentation, HHS Region 6 Meeting, April 2022
Strategies from the Community Preventive Services Task Force

Immunize.org
From the Community Guide

- Enhance Access to Vaccines
  - Innovative access points
  - Eliminate out-of-pocket costs
- Increase Community Demand for Vaccines
  - Patient reminder recalls
  - Family incentives
- Leverage your Healthcare Provider
  - Concise consistent confident recommendation
  - Presumptive
- Healthcare system/practices are crucial
  - Systems-based change: provider reminders, assessment and feedback, standing orders, health IT

Adult Immunization Needs to be a Year-Round Effort
Big Picture: Operationalizing adult vaccinations

• Maintain year-round approach to assessing and offering vaccinations for adult patients
• Operational aspects of adult vaccinations must be brought into alignment as much as possible
  • COVID-19, influenza and pneumococcal
• Facilitation of co-administration through advance planning should be encouraged to ensure that vaccines are available in clinics attended by people eligible for both vaccines
• Facilitating co-administration by improving compatibility of IT systems, will help ensure availability of critical patient data across sites
Preparing for the fall respiratory viral season

• Autumn/Fall 2023 presented unique challenges for immunizations
  • Introduction of RSV immunizations for the older adult, infants, and pregnant persons
  • New COVID-19 2023–2024 booster vaccine
  • Continued impact of low influenza vaccination coverage rates
• Summit organized a meeting on August 2nd to discuss with partners best ways to implement three vaccines against respiratory pathogens
  • Developed three educational products to assist providers and consumers
  • Launched early September
  • Still relevant for the next fall season – updates being planned
RSV Observations

• Coordination of Care Important
  • Between OB-GYNs, birthing hospitals, and pediatricians

• Role of the pharmacist
  • SCDM
  • Pregnant persons often turned away, despite being referred from OB-GYN

• Inadequate use of IIS

• Window period between vaccination during pregnancy and birth

• Delayed payment processes

• Administration Errors
Summit - Tools created

- A personalized immunization action plan, completed jointly by the provider and patient, to help patients plan when and where they will get recommended vaccines for the coming year, ideally in conjunction with other routine or planned care

- A flyer about operationalizing adult immunizations specifically for autumn/fall 2023 that includes education about billing and presumptive vaccine recommendations and highlights suggestions

- A one-page document that offers education on making presumptive vaccine recommendations and key information for providers about COVID-19, RSV, and influenza, with links to authoritative sources of information

- All available for free at: https://www.izsummitpartners.org/2023-naiis-august-2/

[Immunize.org]
Fall 2023 will provide a unique challenge as providers will have to find ways to accelerate success in providing multiple ACIP-recommended adult vaccines to their patients. It is essential to prepare providers and health and COVID-19 vaccines in the other adult vaccines through workshop on August 2nd to do

**Fall 2023 Respiratory Season Vaccination Decision Making for Adults**

**Vaccine Administration (see 3) Strategies for People 60 and Over**

**Vaccines You Currently Have in Stock**

If vaccines are not available at your location, identify and refer to providers who can administer those vaccines, if you do not have the RV vaccine, proceed with current ACIP recommendations for the other vaccines. Counsel and inform patient out for RV vaccination.

VACCINE

<table>
<thead>
<tr>
<th>Scenario A</th>
<th>Scenario B</th>
<th>Scenario C</th>
<th>Scenario D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal (see 2)</td>
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</tbody>
</table>

**Vaccine Administration Strategies**

1. At June 21, 2023, the CDC recommends people with a dose of respiratory syncytial viral season decision making. This includes those with chronic respiratory conditions, such as immunocompromising conditions, COPD, asthma, inhaled insulin, heart disease, lung disease, age 5 (including asthma, diabetes, immunocompromising conditions, and stroke). Check out CDC’s Pre-Kidney Watermark Middle School.

2. Administer RV vaccine with one or more other vaccines at the same visit might increase local or systemic reactogenicity. Data are only available for coinoculation of RV and influenza vaccines, and evidence is derived from increased reactogenicity. Data are not available for coinoculation of other vaccines. Patients might want to consider recommending for ages 60 and over, such as COVID-19 and Pneumococcal Vaccines. Discuss safety-related concerns with patient before or during dosing with RV vaccine.

3. For additional information, please see the Adult Vaccination Schedule for more information.

**My One-Year Vaccination Action Plan**

The selected vaccines are recommended for you by your healthcare provider to be given during the next year.

**Influenza**

**COVID-19**

**HSV**

**IPV**

**Pneumococcal**

**Prophylaxis and Vaccination**

**Vaccine Action Plan**

**JANUARY**

**FEBRUARY**

**MARCH**

**APRIL**

**MAY**

**JUNE**

**JULY**

**AUGUST**

**SEPTEMBER**

**OCTOBER**

**NOVEMBER**

**DECEMBER**

**Installations and Tips**

1. Start by writing the vaccine due each month. Start with today’s month and then fill in the rest.

2. Fill in any appointments you already have.

3. Add vaccine based on your provider’s recommendations.

4. Notify your health care team to report your vaccinations to your local or state immunization information system (ISI).

**Resources available at:**

https://www.izsummitpartners.org/2023-nais-august-2/
### Personalized Year-Round Vaccination Action Plan

#### Instructions and Tips

1. Start by writing in the year next to each month. Start with today’s month and then fill in the rest.
2. Fill in any upcoming appointments you already have.
3. Add vaccines based on your provider’s recommendations.
   - Note: vaccines may require multiple doses.
4. Schedule appointments as needed, and note them in your calendar.
5. Remind your healthcare team to report your vaccinations to your local or state immunization information system (registry).

![Vaccine Chart](https://www.izsummitpartners.org/2023-naiis-august-2/)

#### Sample Scenario for a 52-year-old woman with diabetes

It is September 2023 and she needs vaccines for COVID-19, hepatitis B, influenza, and shingles.

<table>
<thead>
<tr>
<th>JANUARY 2023</th>
<th>FEBRUARY 2023</th>
<th>MARCH 2023</th>
<th>APRIL 2023</th>
<th>MAY 2023</th>
<th>JUNE 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Doses vaccine (pneumococcal)</td>
<td>1st Doses vaccine (Tdap)</td>
<td>2nd Doses vaccine (Hepatitis B)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Resource Available at:

Vaccine-Preventable Adult Diseases*

COVID-19 (coronavirus disease 2019) can be very contagious and spreads quickly. COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia.

Hepatitis A can cause fever, tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, and jaundice (yellowing of the skin and eyes). An infected person may have no symptoms, mild illness, or severe illness that requires hospitalization. Hepatitis A is often spread through contaminated food.

Hepatitis B is a blood-borne disease that causes a flu-like illness with loss of appetite, nausea, vomiting, rash, joint pain, and jaundice. Hepatitis B can cause severe diseases, including cancer.

Human papillomavirus (HPV) is common, especially among young adults and teens, and many people don’t know they have it. HPV is the major cause of cervical cancer in women, as well as anal cancer and genital warts in both women and men and other types of cancer.

Influenza can cause a sudden high fever, chills, a dry cough, headache, runny nose, sore throat, and muscle and joint pain. Extreme fatigue can last for days or weeks. Influenza may lead to hospitalization or even death.

Measles is a very contagious respiratory disease. Measles can cause persistent fever, rash, and coughing. Measles can also cause pneumonia, seizures, brain damage, or death.

Mumps causes fever, headaches, painful swelling of the salivary glands under the jaw, fever, muscle aches, tiredness, and loss of appetite. Mumps can lead to meningitis (infection of the covering of the brain and spinal cord), encephalitis (inflammation of the brain), permanent hearing loss, or swelling of the testes.

Rubella disease usually causes a milder illness with fever, swollen glands, and a rash. It can lead to encephalitis (brain infection) in adults. Rubella during pregnancy can cause miscarriage or serious birth defects.

Meningococcal disease causes bacterial meningitis (infection around the brain and spinal cord). It can cause nausea, vomiting, sensitivity to light, confusion, and sleepiness. Meningococcal disease also causes blood infections. About one out of every 10 people who get the disease dies from it. Survivors of meningococcal disease may lose their arms or legs, become deaf, have problems with their nervous systems, become developmentally disabled, or suffer seizures or strokes.

Poliomyelitis (polio) is caused by the Monkeypox virus, can be spread through close, personal, often skin-to-skin contact.† Polio causes a range of symptoms, including a rash and flu-like symptoms, that start within 3 weeks of exposure to the virus.

Pneumococcal disease is caused by bacteria and can range from ear and sinus infections to more serious lung and blood infections. In some cases pneumococcal disease can be life-threatening or result in long-term problems, like brain damage, hearing loss, or loss of arms or legs.

Pertussis (whooping cough) can cause prolonged cold symptoms, with spells of violent coughing and choking that make it hard to breathe, drink, or eat. Babies too young to get vaccinated are most at risk of severe illness and sometimes death. Babies often get the disease from a parent, caregiver, or relative.

Diphtheria can cause weakness, sore throat, low-grade fever, and swollen glands in the neck. It can also lead to swelling of the heart muscle and, in some cases, heart failure. In severe cases, the illness can cause coma, paralysis, and even death.

Varicella (chickenpox) causes an itchy rash with blisters, tiredness, headache, and fever. It is usually mild but can lead to severe skin infections, pneumonia, encephalitis (brain swelling), or even death.

For more information about vaccines for adults, visit CDC’s website, www.cdc.gov/vaccines/adults/vpd.html

* Adapted from Centers for Disease Control and Prevention. Vaccine-preventable adult diseases, www.cdc.gov/vaccines/adults/vpd.html. Some of these diseases are prevented by vaccines routinely given in childhood.


‡ Centers for Disease Control and Prevention. Monkeypox vaccines. www.cdc.gov/vaccines/vpd/monkeypox-vaccine.html

§ Centers for Disease Control and Prevention. What is polio? www.cdc.gov/polio/what-is-polio/information.html

Revised: 9/13/23

National Adult and Influenza Immunization Summit
August 2, 2023 | www.lzsummitpartners.org

Resource available at: https://www.lzsummitpartners.org/2023-nais-august-2/
Summit Tip Sheet for implementing new ACIP recommendations

Get Adults’ Vaccinations Back on Track

Tip sheet for providers on new CDC adult vaccine recommendations and tools to help adults catch up on needed vaccinations

At least 3 out of every 4 adults are behind on routine vaccines like influenza (flu), tetanus (Td/Tdap), hepatitis A, and HPV. In addition, COVID-19 vaccine recommendations continue to evolve, and new changes were made to hepatitis B, shingles, pneumococcal, and flu vaccine recommendations since 2021.

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>NEW RECOMMENDATION</th>
<th>DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>Everyone 19-59 years. ≥60 years who want vaccination or have high-risk indication.</td>
<td>2- or 3-dose series depending on brand</td>
</tr>
<tr>
<td>Zoster (shingles)</td>
<td>Everyone ≥50 years. ≥19 years immunocompromised.</td>
<td>2-dose series</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>Everyone ≥65 years. ≥19 years immunocompromised. or high-risk medical condition.</td>
<td>Either PCV15 then PPSV23 one year later or one dose PCV20</td>
</tr>
<tr>
<td>Preferred flu vaccines for adults ≥65 years</td>
<td>≥65 years: give flu vaccines preferred by CDC for this age group. If not available, give any age-appropriate flu vaccine.</td>
<td>Annual vaccination</td>
</tr>
</tbody>
</table>

Tip: Utilize available resources for determining patients’ vaccination needs

- CDC Adult on-line vaccination quiz
  www2.cdc.gov/nip/adultimm sched
- CDC vaccine schedule app for all adult vaccines
  www.cdc.gov/vaccines/schedules/hcp/schedule-app.html#download

ACIP, Advisory Committee on Immunization Practices; PCV, pneumococcal conjugate vaccine; PPSV, pneumococcal polysaccharide vaccine; Tdap, tetanus, diphtheria and acellular pertussis; Td, tetanus and pertussis; National Adult and Influenza Immunization Summit (NAIIS). Get Adults’ Vaccination Back on Track. Available at: https://www.izsummitpartners.org/content/uploads/Tip-Sheet-on-New-Adult-Vaccine-Recommendations-and-Implementation-Resources.pdf (accessed November 2023)
Co-administration of influenza vaccines with COVID-19 vaccines

How to Administer Multiple Intramuscular Vaccines to Adults During One Visit

It is not unusual for adults to need more than one vaccination at an office visit. When that occurs, CDC recommends giving all needed vaccines at the same visit to reduce missed opportunities.

These vaccines commonly administered to adults are administered via the intramuscular route:

- COVID-19
- Hepatitis A (HepA)
- Hepatitis B (HepB)
- Human papillomavirus (HPV)

Influenza
- Pneumococcal
- Tdap and Td
- Zoster

Determine vaccines to be administered.
- Review each patient’s vaccine history and determine needed vaccines (see CDC’s recommended schedule of immunizations for adults at www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf).

Determine which vaccines to give in separate limbs.
- Administer vaccines more likely to cause a local reaction in separate limbs, if possible. Vaccines that cause injection site pain in at least half of recipients include COVID-19, zoster, HepA, HPV, pneumococcal (PCV, PPSV), and tetanus-containing vaccines (Tdap, Td).¹
- If administration in separate limbs is not feasible or desired, administration in the same limb, separated by at least 1” (inch), is appropriate.

Select the injection site(s) for intramuscular injections.
- Determine which vaccine(s) will be administered in each limb (see options in diagrams at right). You can administer 1, 2, or 3 injections per deltoid, spaced at least 1” apart.
- Deltoid muscle: Locate the central and thickest portion of the deltoid muscle.

The diagrams below illustrate options for administering one, two, or three vaccinations in a single arm, spaced at least 1” apart. Additional injections can also be administered in the opposite arm.

Use anatomical landmarks to determine the injection site in the deltoid muscle (a large, rounded, triangular shape). Find the acromion process, which is the bony point at the end of the shoulder. Then, locate the injection site which will be approximately 2” below the bone and above the axillary fold/armpit.

CDC, Centers for Disease Control and Prevention; IM, intramuscular; Tdap, tetanus, diphtheria and acellular pertussis; Td, tetanus and diphtheria

Addressing Vaccination Anxiety in Adolescents and Adults

Strategies for Healthcare Professionals

Anxiety about injections is common among adolescents and adults, and can contribute to dreading, delaying, or even avoiding vaccination. However, anxiety and pain are subjective feelings; what you do and say can help an anxious patient gain confidence and more readily accept vaccinations in the future. Below are strategies that can improve the vaccination experience for adolescents and adults. Consider what is practical. Simply acknowledging the patient’s feelings and letting them know you care can help.

Before the Visit

Pre-registration may minimize time in the waiting room where anxiety can mount. Establish expectations; if possible, let patients know they will be offered any needed vaccinations and that you will work with them to make the experience comfortable.

During the Visit

Screen for vaccination-related anxiety. Immunize.org’s screening checklist for contraindications to vaccines now asks about anxiety.

Inquire to patients who ask questions about the vaccination process so they feel prepared.

Watch your words! Use words that help the patient cope during vaccinations. Using fear-provoking words (e.g., shots, sting, burns, injections) (“It won’t hurt a bit!”) can increase distress and pain.

Non-pharmacological Pain Management Options to minimize pain signals from the skin

Cooling the injection site with a water-coolant spray immediately before injection.

Using injection techniques that diminish the pain experience. Dose varies per immunization injection. Inject quickly, if injecting multiple injections, give the most painful vaccine last.

After the Visit

Use of pain-reducing medicines (e.g., ibuprofen or acetaminophen) before vaccinations is not recommended because it might diminish the immune system’s response to vaccination. They may be used to treat pain or fever after vaccination.

Set up the vaccination room so it’s comfortable and private; use needless if out of sight until necessary.

Consider topical analgesia (e.g., 5% lidocaine cream, spray, or patch). This may help with pain but needs to be applied to the vaccination site 30 to 60 minutes ahead of time. With patience, some patients may accomplish this before arriving.

Ask each patient what helps them feel comfortable. Make suggestions if needed. (Deep breaths can be calming. A lot of people like to be distracted (snowdon’t) and they can be encouraged to chat or use their mobile devices.

Other pain management options, if feasible, are available. For more information, see Immunize.org’s resources on Addressing Vaccination Anxiety, available at www.immunize.org/handouts.

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Immunize.org

Examine the vaccination experience as stress-free as possible!

Addressing Vaccination Anxiety in Adolescents and Adults

Strategies for Vaccine Recipients and Caregivers

Anxiety about injections is common for people of all ages, including adolescents and adults. Some feel so anxious that they dread, delay, or even avoid vaccination, even when they know vaccines are important. You can do simple things to make yourself (or the person you are with) feel better about the vaccination visit while being protected from serious diseases.

Before the Visit

Pre-register for your visit, if possible, so your visit time is convenient.

Know what to expect. When setting up the visit, ask if vaccinations are expected. If you are a caregiver of an anxious person, do not mention these facts. For example, don’t promise “no shots today” or “in case their healthcare provider recommends that they need one or two more vaccinations.”

Ask questions about the vaccination process so you feel prepared.

Tell the person vaccinating you what helps feel better. Do you prefer sitting (or) (not) lying down? Do you prefer to look away or to watch what is happening?

Relax. For example, taking a few slow deep breaths before, during, and after vaccination can be calming.

Distract. Most people prefer to be distracted during vaccination. Consider using an app or game on your mobile device or simply talking about something else.

Options for Making Shots Less Painful without Medicine

In addition to new medicines described in “Before the Visit,” there are other ways to distract patients in the skin so the person getting the vaccine won’t notice it and feel pain. Options include:

Cooling the injection site. The person giving the vaccine may use a “freezing spray” just before injection.

For more information, see Immunize.org’s resources on Addressing Vaccination Anxiety, available at www.immunize.org/handouts.

Immunize.org
Visit Immunize.org and NAlIS Resources!

Read our publications!
- http://www.immunize.org/publications/

Visit our websites!
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Thank You for your attention!
Upcoming Webinar

**Topic:** Leveraging Artificial Intelligence to Increase Immunization Rates

**Date/ Time:** Thursday, March 21 at 2pm ET

**Presenters:** Brisa Urquieta De Hernandez, PhD, Karen O'Connor, RN, and Shawna Sharp, *CommonSpirit*
Questions?

Submit your questions using the Q&A feature at the bottom of the screen.