CDPH California Department of Public Health | Immunization Branch

ACOG The American College of Obstetricians and Gynecologists

Affirming Maternal Vaccination Against Seasonal Respiratory Illness

Tuesday, August 26, 2025

12:00 pm – 1:00 pm

Q&A

During today's webinar, please click and open the Q&A icon to ask your questions so CDPH panelists and subject matter experts (SMEs) can respond.

Links are blue and underlined.

CDPH | Immunization Branch

Housekeeping

Reminder to Attendees:

Today's session is being recorded. For slides, webinar recordings, and other postings, see the EZIZ Provider Education Webpage

If you have post-webinar questions, please email leslie.amani@cdph.ca.gov.

CDPH | Immunization Branch

Agenda: Tuesday, August 26, 2025

No.	Topic	Presenters	Time (PM)
1	Welcome and Announcements	Leslie Amani	12:00 – 12:05
2	Role of Vaccines in Pregnancy: COVID, RSV, and Flu	Neil Silverman, MD	12:05 – 12:15
3	Recommendations: National Medical Organizations	Neil Silverman, MD	12:15 – 12:25
4	Overcoming Barriers: Coverage, Billing, and Reimbursement	Neil Silverman, MD	12:25 – 12:45
5	Resources and Q&A	Leslie Amani and SMEs	12:45 – 1:00

Announcements

Leslie Amani, CDPH

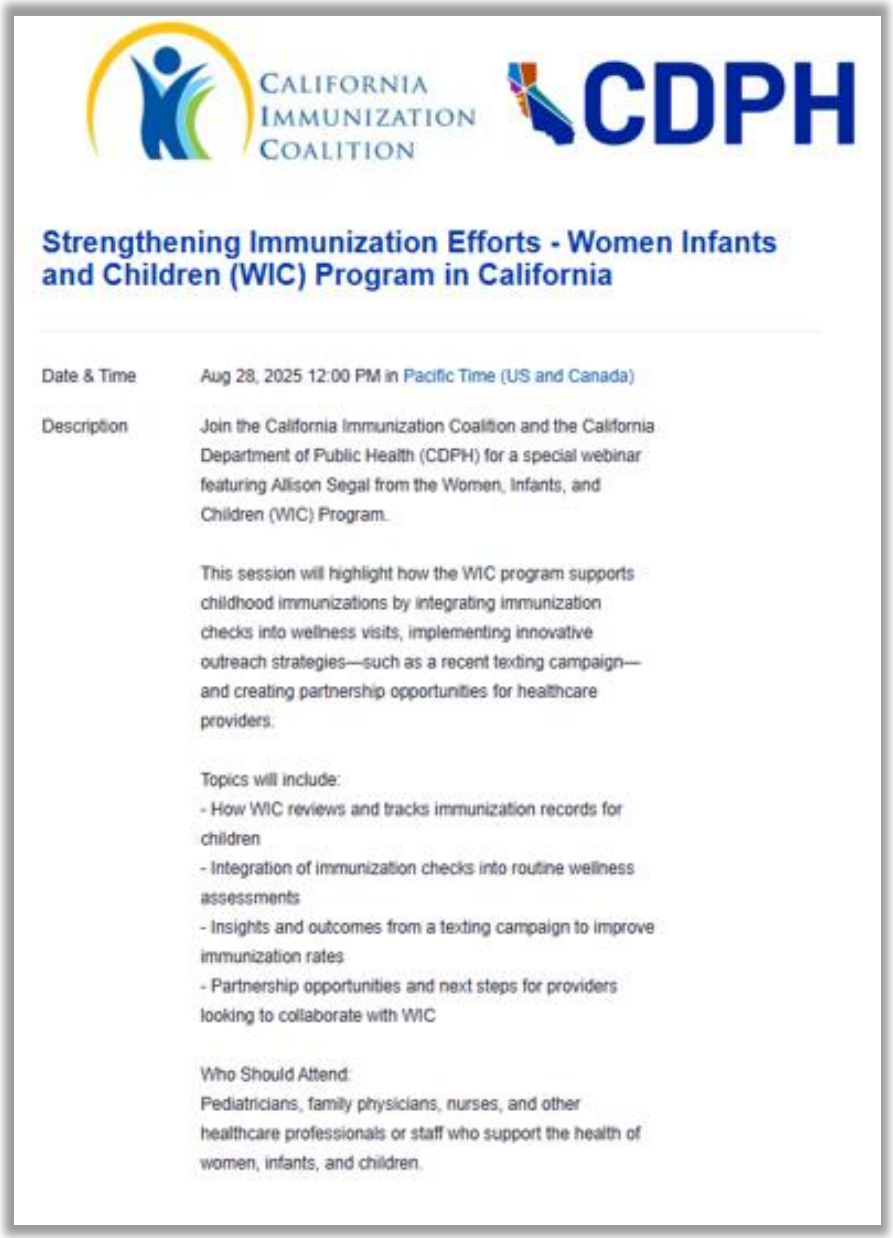
CIC and CDPH Webinar

Topic: Strengthening Immunization Efforts: Women, Infants, and Children (WIC) Program in California

When: Thursday, August 28, 2025

Time: 12:00pm – 1:00pm, PT

Register today: Registration Link



California Immunization Coalition

CDPH

Strengthening Immunization Efforts - Women Infants and Children (WIC) Program in California

Date & Time: Aug 28, 2025 12:00 PM in Pacific Time (US and Canada)

Description: Join the California Immunization Coalition and the California Department of Public Health (CDPH) for a special webinar featuring Allison Segal from the Women, Infants, and Children (WIC) Program.

This session will highlight how the WIC program supports childhood immunizations by integrating immunization checks into wellness visits, implementing innovative outreach strategies—such as a recent texting campaign—and creating partnership opportunities for healthcare providers.

Topics will include:
- How WIC reviews and tracks immunization records for children
- Integration of immunization checks into routine wellness assessments
- Insights and outcomes from a texting campaign to improve immunization rates
- Partnership opportunities and next steps for providers looking to collaborate with WIC

Who Should Attend:
Pediatricians, family physicians, nurses, and other healthcare professionals or staff who support the health of women, infants, and children.

CDPH Virtual Grand Rounds

Topic: Provider Consultation Programs for Supporting Youth and Maternal Mental Health

When: Tuesday, September 9, 2025

Time: 12:00pm – 1:00pm, PT

Register here: [Virtual Grand Rounds Registration Link]

CALIFORNIA MEDICAL ASSOCIATION

Affirming Maternal Vaccination Against Seasonal Respiratory Illness

Neil S. Silverman, MD
Professor of Clinical Obstetrics and Gynecology
Director, MFM Fellowship Program
Director, Infections in Pregnancy Program
David Geffen School of Medicine at UCLA

ACOG-CDPH Joint Webinar: August 26, 2025

Vaccine Importance and Strategies

- Children have benefited the most from vaccines in terms of declines in disability and death, primarily because vaccination programs are generally targeted to children
  - Each year, more than 50,000 adults in the United States die from vaccine-preventable diseases—largely from influenza and its complications. Vaccine-preventable diseases are significantly more common in adults than in children.
  - More than 50% of cases of significant vaccine-preventable illnesses reported to the CDC each year are in individuals > 15 years old.
- Many of the most vulnerable adults are seen in practices that provide health care to women.
- **Need to address benefit of vaccination both for women and for the long-term health of their children.**

Categories

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ACOG Frontline Voices

News Releases | Aug 22, 2025

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ACOG Releases Updated Maternal Immunization Guidance for COVID-19, Influenza, and RSV

Washington, D.C.—Today, the American College of Obstetricians and Gynecologists (ACOG) released updated clinical guidance regarding vaccination during pregnancy against COVID-19, influenza, and RSV. The three guidance documents, all of which recommend maternal immunization, lay out the full body of current scientific evidence that underscores the safety and benefits of choosing to be vaccinated against these respiratory conditions during pregnancy.

"It is well documented that respiratory conditions can cause poor outcomes during pregnancy, with pregnant women facing both severe illness and threats to the health of their pregnancy. Thanks to vaccines, severe outcomes from respiratory infections are largely preventable," said Steven J. Fleischman, MD, MBA, FACOG, president of ACOG. "ACOG's updated respiratory guidance documents repeat what we have long known: that vaccines continue to be the best tool available for pregnant patients to protect themselves and their infants from these viruses."

ACOG Releases Updated Maternal Immunization Guidance Link

VACCINES AND PREGNANCY:
TALKING POINTS / EFFECTIVENESS

Pregnancy and Influenza Risks

- Pregnant women are disproportionately affected by severe disease in influenza pandemics.
- Increased illness/hospitalization rates for pregnant women in every trimester compared to rates in nonpregnant persons.*
  - When no comorbidities: risk ratio 1.7 (1st tri) – 5.1 (3rd tri)
  - With comorbidities: risk ratio 2.9 (1st tri) – 7.9 (3rd tri)
- Demonstrated benefit for mothers **and** newborns
- Live-attenuated nasal flu vaccine **should not** be given in pregnancy.
- **Immunization with the season-current inactivated flu vaccine is recommended for all pregnant women.**

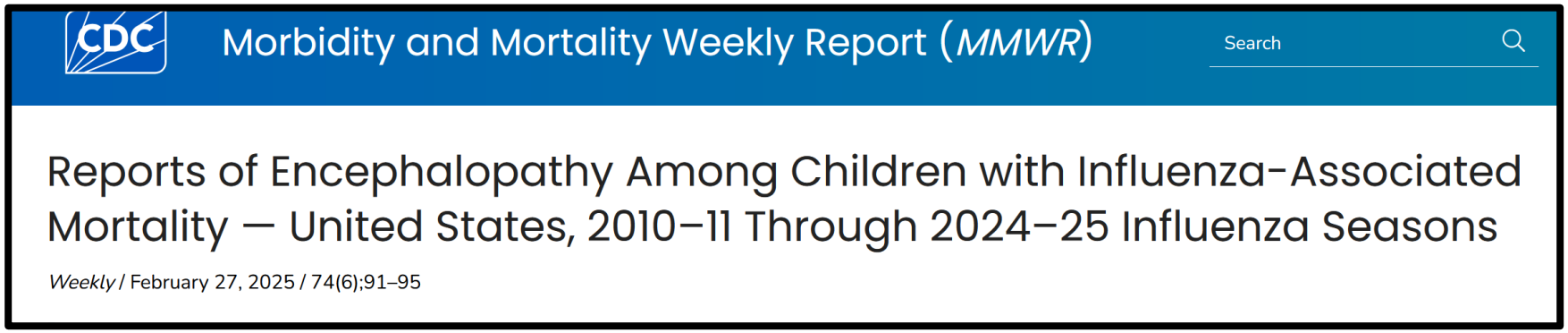
*(Dodds L et al, CMAJ 2007)

Neonatal Benefits of Maternal Influenza Vaccination

- Flu vaccine is not recommended for children < 6 months of age.
- Pregnant women have been shown to have protective levels of anti-influenza antibodies after vaccination.

- Randomized study of flu vaccine during pregnancy to assess neonatal impact: NEJM 2008
  - 340 women received either flu vaccine or pneumococcal vaccine.
  - 63% lower risk of lab-confirmed neonatal influenza in children of vaccinated moms, up to 6 months of age.

Severe childhood Morbidity from Influenza: Recent Reports



Among 1,840 pediatric influenza-associated deaths during the 2010–11 through 2024–25 influenza seasons, 166 (9%) Influenza-Associated Encephalopathy (IAE)

Preliminary data for the 2024–25 season (through February 8, 2025) indicate that nine of 68 (13%) had IAE.

Across seasons, the median age of patients with fatal IAE was 6 years.

54% had no underlying medical conditions, and only 20% had received influenza vaccination.

JAMA

Influenza-Associated Acute Necrotizing Encephalopathy in US Children

JAMA
Published Online: July 30, 2025
doi: 10.1001/jama.2025.11534

Influenza-Associated Acute Necrotizing Encephalopathy (IA-ANE) Working Group

- In this multicenter case series of 41 children from 23 US hospitals, during the 2023-24 and 2024-25 seasons, influenza-associated ANE carried a 27% mortality rate despite multimodal therapy.
- Most patients (76%) had no significant medical history
- Only 16% had received influenza vaccination
- Among survivors, 63% had moderate to severe disability at 90-day follow-up.

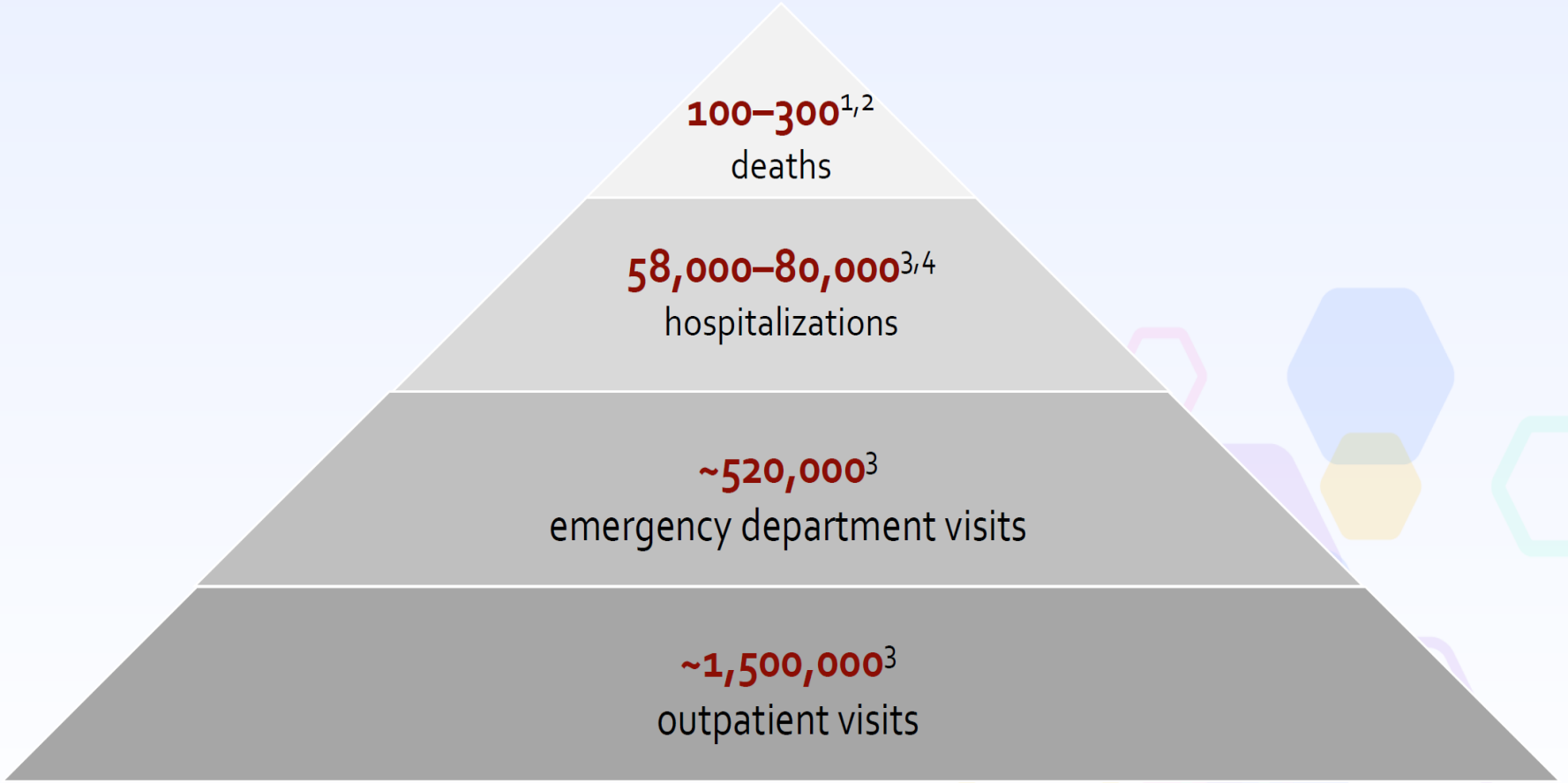
RSV is the leading cause of hospitalization in U.S. infants[1]

- Most (68%) infants are infected in the first year of life and nearly all (97%) by age 2 years[2]
- 2–3% of young infants will be hospitalized for RSV[3,4,5]
- RSV is a common cause of lower respiratory tract infection in infants
- Highest RSV hospitalization rates occur in first months of life and risk declines with increasing age in early childhood[3,5]
- 79% of children hospitalized with RSV aged <2 years had no underlying medical conditions[3]

Image: Goncalves et al. Critical Care Research and Practice 2012

[1]Suh et al. JID 2022; [2]Glezen et al, Arch Dis Child, 1986; [3]Hall et al, Pediatrics, 2013; [4]Langley & Anderson, PIDJ, 2011; [5]CDC NVSN data

Each year in U.S. children aged less than 5 years, RSV is associated with…



[1]Thompson et al, JAMA, 2003; [2]Hansen et al, JAMA Network Open, 2022; [3]Hall et al, NEJM, 2009; [4]McLaughlin et al, J Infect Dis, 2022 (*estimate 80,000 hospitalizations in infants <1y)

Primary Endpoint: Infant RSV-Positive Severe LRTD

Time Interval	Maternal Vaccine Group (as Randomized) RSVpreF 120 µg N = 3495 n	Placebo N = 3480 n	Vaccine Efficacy
0-90 Days after birth	6	33	**81.8%** (40.6, 96.3)
0-120 Days after birth	12	46	**73.9%** (45.6, 88.8)
0-150 Days after birth	16	55	**70.9%** (44.5, 85.9)
0-180 Days after birth	19	62	**69.4%** (44.3, 84.1)

Descriptive subgroup analysis – Immunization 32 through 36 weeks gestational age

Time Interval	RSVpreF 120 µg N = 1572	Placebo N = 1539	Vaccine Efficacy (95% CI)
0-90 Days after birth	1	11	**91.1%** (38.8, 99.8)
0-180 Days after birth	6	25	**76.5%** (41.3, 92.1)

LRTD: Lower Respiratory Tract Disease

COVID-19 and Pregnancy

- **Pregnant women have historically been at an increased risk of severe disease, adverse pregnancy outcomes, and maternal death from COVID-19 infections**.
  - Increased risk of intensive care unit admission, along with need for mechanical ventilation and ventilatory support (ECMO) reported in pregnant women with symptomatic COVID-19 infection, when compared with symptomatic nonpregnant women.
- All currently available COVID-19 vaccines keep up with coronavirus strain changes and remain effective at reducing rates of ER and urgent care visits, hospital and ICU admissions, and death for adults at risk.
- Updated COVID-19 vaccines are particularly effective at reducing morbidity from COVID-19 complications in pregnant patients and their infants.

Link-Gelles R, et al. JAMA Network Open 2025; Ciesla A, et al. Open Forum Infect Dis 2024

Data Support **Dual Benefit** of COVID Vaccine in Pregnancy

- Significant decreases in maternal morbidity and mortality, as well as long COVID risks
- **Maternal COVID-19 vaccination during pregnancy results in significantly greater antibody persistence in infants when compared to infants whose mother experienced infection during pregnancy without vaccination[1]**
  - Infants < 6 months old are at increased risk for severe COVID-19 disease but are not yet eligible for vaccine, and depend upon maternal ab's
  - They continue to be hospitalized for COVID-19 at higher rates than all age groups except adults 75 years and older
  - During the 2023-24 respiratory virus season, **< 5%** of mothers whose infants were hospitalized for COVID-19 were vaccinated during pregnancy[2]
  - Obtaining a COVID-19 booster vaccination during pregnancy reduces the infant's risk of acquiring symptomatic COVID-19 in the first 6 months by 56% (95% CI 8%–79%, P = .03) relative to no boosting[3]

[1]Shook LL, et al. JAMA 2022. [2]Havers FP, et al. MMWR 2024. [3]Cardemil CV, et al. Pediatrics 2024.

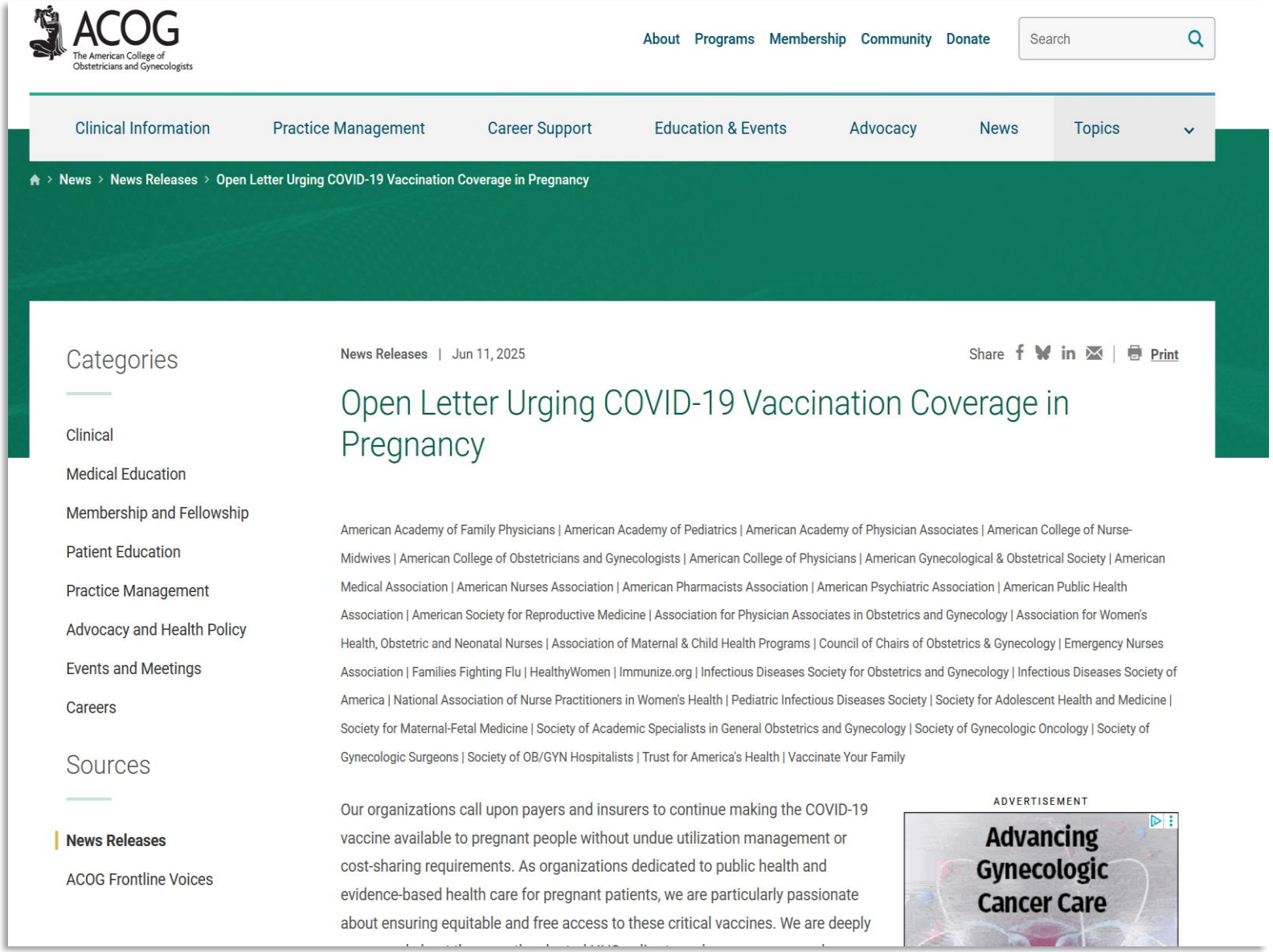
COVID mRNA Vaccine: Safety

- Even as subsequent less-virulent COVID variants have evolved, vaccinated individuals still have improved maternal outcomes.
- With accrued years of study, no safety concerns have been identified in repots on over 700,000 pregnant women, and increasing data support a neonatal benefit to maternal vaccination in pregnancy. *(Fernandez-Garcia S, et al. BMJ Global Health 2024)*
- Studies in both Canada *(Jorgensen SCJ, et al. JAMA Pediatr 2023; n= 85,670)* and Scandinavia *(Norman M, et al. JAMA 2024; n=94,303)* examined receipt of COVID-19 vaccine in pregnancy and found no safety concerns and reduced severe neonatal morbidity and mortality.
- A non-mRNA COVID vaccine will be available and similarly updated for 2025-26.

COVID and other Vaccines in Pregnancy ARE STILL SUPPORTED AND RECOMMENDED

- Over 30 national medical societies and health organizations have advocated for and reinforced the importance of COVID vaccination during pregnancy.

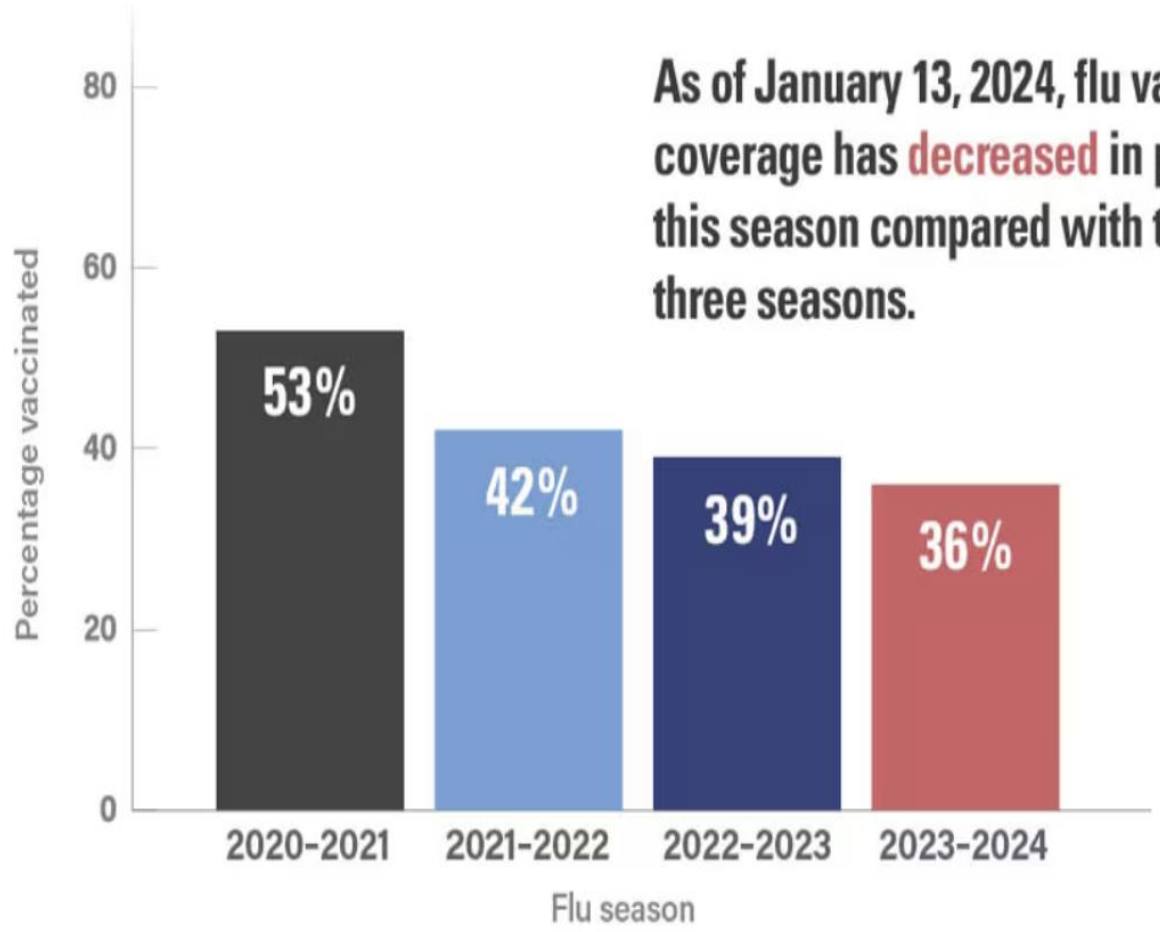
- **“ACOG continues to recommend that all pregnant and lactating individuals receive an updated COVID-19 vaccine or “booster.” All clinicians should provide strong recommendation for updated COVID-19 vaccination to their pregnant and lactating patients.” -***ACOG Practice Advisory, Aug 2025*



[ACOG Open Letter Urging COVID-19 Vaccination Coverage in Pregnancy]

SPECIFICS: INFLUENZA VACCINE

Flu Vaccination Coverage Among Pregnant People 18 to 49 Years of Age



As of January 13, 2024, flu vaccination coverage has decreased in pregnant people this season compared with the previous three seasons.

Data Source: Vaccine Safety Datalink, based on data from January 13, 2024.

CS346889-A 02/22/2024

Figure 3A. Percent of Pregnant Women Ages 18–49 Years Who Have Received an Influenza Vaccine Overall, by Race and Ethnicity, and Season
Data Source: Vaccine Safety Datalink

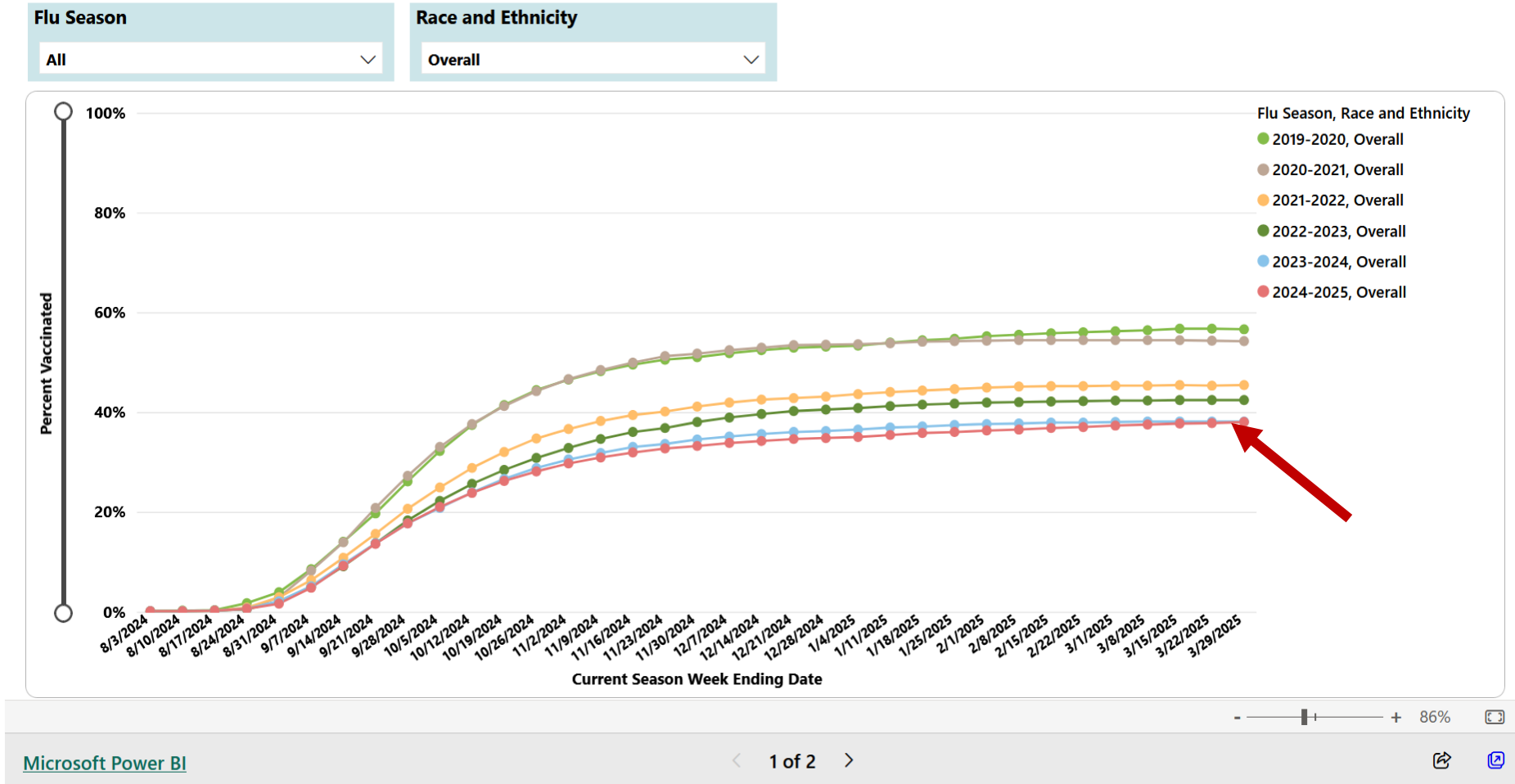


Figure 3B. Percent of Pregnant Women Ages 18–49 Years Who Have Received an Influenza Vaccine by Week, Race and Ethnicity, and Season
Data Source: Vaccine Safety Datalink

Note: Monthly influenza vaccination data from prior seasons have been archived and can be accessed using the following link:

Vaccines and Egg Allergy

- Newest ACOG guidelines reinforce newer data showing that egg allergy no longer viewed as barrier to influenza vaccine. *(Ding H et al, MMWR 2017)*
- Recent study showed that rate of anaphylaxis from vaccine in individuals reporting egg allergy (hives) to be **1.3 per million doses.** *(McNeil MM et al, J Allergy Clin Immun 2017)*
  - These individuals can receive any licensed and recommended flu vaccine otherwise appropriate for age and health status.
- Individuals with more serious egg allergy reactions may also receive any approved vaccine, regardless of prior reaction.
  - All individuals should receive vaccine in a setting where personnel can recognize and respond to a severe reactions.
  - A cell-culture-based or recombinant vaccine is also an option.

What About Thimerosal?

- Thimerosal is a mercury-containing preservative used in very small amounts in multi-dose vials of influenza vaccine.
  - Thimerosal-free formulations are available but **NO** scientific evidence that thimerosal-containing vaccines result in health or developmental problems in newborns whose mothers got them during pregnancy.*
  - Single-dose thimerosal-free preps are still better than no vaccine, regardless of whether fears are legitimate.

** ACOG CO 2018; CDC/ACIP MMWR 2013; WHO 2017*

What the research shows

Fact

Thimerosal use in medical products has a record of being very safe. Data from many studies show no evidence of harm caused by the low doses of thimerosal in vaccines. [1] [2] [3] [4] [5] [6]

The most common side-effects of thimerosal in vaccines are minor reactions like redness and swelling at the injection site. Although rare, some people may be allergic to thimerosal.

No connection with autism

Research does not show any link between thimerosal in vaccines and autism, a neurodevelopmental disorder. Many well conducted studies have concluded that thimerosal in vaccines does not contribute to the development of autism. [1] [3] [5] Even after thimerosal was removed from almost all childhood vaccines, autism rates continued to increase, which is the opposite of what would be expected if thimerosal caused autism.

Fact

A 2010 study by the Centers for Disease Control and Prevention (CDC) has shown that prenatal and infant exposure to vaccines and immunoglobulins that contain thimerosal does not increase risk for autism spectrum disorder (ASD). [1]

Source: CDC Website, Accessed 8/17//25

The Medical Letter® Vol. 66 (1711) September 16, 2024

Table 2. Seasonal Influenza Vaccines for 2024-2025

Vaccine[1]	Available Formulations[2]	Recommended Age[3]	Cost[4]
Standard-Dose Inactivated Trivalent (IIV3); egg-based			
Afluria (Seqirus)[5,6]	0.5 mL syringe	≥3 years	$20.90
	5 mL multidose vial[7]	≥6 months[8]	19.20
Fluarix (GSK)[9]	0.5 mL syringe	≥6 months	19.00
FluLaval (GSK)	0.5 mL syringe	≥6 months	19.00
Fluzone (Sanofi)	0.5 mL syringe, vial	≥6 months[10]	19.90
	5 mL multidose vial[7]	≥6 months[10]	18.50
High-Dose Inactivated Trivalent (HD-IIV3); egg-based			
Fluzone High-Dose (Sanofi)[11]	0.5 mL syringe	≥65 years[12]	72.60
Standard-Dose, Adjuvanted Inactivated Trivalent (aIIV3); egg-based			
Fluad (Seqirus)[13,14]	0.5 mL syringe	≥65 years[12]	72.60
Standard-Dose, Cell Culture-Based Inactivated Trivalent (ccIIV3)			
Flucelvax (Seqirus)[15]	0.5 mL syringe	≥6 months	31.70
	5 mL multidose vial[7]	≥6 months[16]	31.70
Recombinant Trivalent (RIV3)			
Flublok (Sanofi)[17]	0.5 mL syringe	≥18 years	72.60

Influenza Vaccine Products for the 2025–2026 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation)[1]	How Supplied	Mercury Content (mcg Hg/0.5mL)	Age Range	CVX Code	Vaccine Product Billing Code[2] CPT
AstraZeneca	FluMist (LAIV3)	0.2 mL (single-use nasal spray)	0	2 through 49 years	111	90660
					333*	NA*
GSK	Fluarix (IIV3)	0.5 mL (single-dose syringe)	0	6 months & older[3]	140	90656
	FluLaval (IIV3)	0.5 mL (single-dose syringe)	0	6 months & older[3]	140	90656
Sanofi	Flublok (RIV3)	0.5 mL (single-dose syringe)	0	9 years & older	155	90673
	Fluzone (IIV3)	0.5 mL (single-dose syringe)	0	6 months & older[3]	140	90656
		0.5 mL (single-dose vial)	0	6 months & older[3]	140	90656
		5.0 mL multi-dose vial (0.25 mL dose)	25[4]	6 through 35 months[3]	141	90657
		5.0 mL multi-dose vial (0.5 mL dose)	25[4]	6 months & older	141	90658
	Fluzone High-Dose (HD-IIV3)	0.5 mL (single-dose syringe)	0	65 years & older[5]	135	90662
CSL Seqirus	Afluria (IIV3)	5.0 mL multi-dose vial (0.25 mL dose)	24.5[4]	6 through 35 months[3]	141	90657
		5.0 mL multi-dose vial (0.5 mL dose)	24.5[4]	3 years & older[6]	141	90658
		0.5 mL (single-dose syringe)	0	3 years & older[3]	140	90656
	Fluad (aIIV3)	0.5 mL (single-dose syringe)	0	65 years & older[5]	168	90653
	Flucelvax (ccIIV3)	0.5 mL (single-dose syringe)	0	6 months & older[3]	153	90661
		5.0 mL multi-dose vial (0.5 mL dose)	25[4]	6 months & older[3]	320	90661

* Self- or caregiver-administered at home

NOTES

1. All 2025–2026 seasonal influenza vaccines are trivalent. IIV = egg-based inactivated influenza vaccine (injectable); where necessary to refer to cell culture-based vaccine, the prefix "cc" is used (e.g., ccIIV); RIV = recombinant hemagglutinin influenza vaccine (injectable); aIIV = adjuvanted inactivated influenza vaccine.
2. An administration code should always be reported in addition to the vaccine product code. Note: Third party payers may have specific policies and guidelines that might require providing additional information on their claim forms.
3. Dosing for infants and children age 6 through 35 months:
   - Afluria 0.25 mL
   - Fluarix 0.5 mL
   - Flucelvax 0.5 mL
   - FluLaval 0.5 mL
   - Fluzone 0.25 mL or 0.5 mL
4. In June 2025, ACIP voted to no longer recommend use of inactivated influenza multi-dose vials (MDV) containing thimerosal as a preservative. Availability of MDV formulations varies by manufacturer. As of August 4, 2025, CDC's website states that there is no evidence of harm caused by the low doses of thimerosal in vaccines, except for minor reactions like redness and swelling at the injection site.
5. Solid organ transplant recipients age 18 through 64 years who are on immunosuppression medication regimens may receive either high-dose IIV (HD-IIV) or adjuvanted IIV (aIIV) influenza vaccine as options for influenza vaccination, without a preference over other age-appropriate IIVs or RIVs.
6. Afluria is approved by the Food and Drug Administration for intramuscular administration with the PharmaJet Stratis Needle-Free Injection System for persons age 18 through 64 years.

Immunize.org

FOR PROFESSIONALS www.immunize.org / FOR THE PUBLIC www.vaccineinformation.org

www.immunize.org/catg.d/p4072.pdf
Item #P4072 (8/5/2025)
Scan for PDF

SPECIFICS: RSV IMMUNIZATION

Summary of Matisse Final Analysis

Data Largely Consistent with Interim Primary Analysis with Longer Duration of Infant Follow-up

Background

- **Primary analysis (October 2022) was the basis for US/EU licensure and included 97% participants**
- **Final study concluded October 2023 with Y2 infant data and full maternal data**

Topline Results

- **Final efficacy analyses are consistent with the primary analysis**
  - RSVpreF was **82.4%** efficacious in reducing **severe** MA-LRTI due to RSV within **90 days** after birth; efficacy of **70.0%** was observed through **180 days** after birth
  - RSVpreF was **57.6%** efficacious in reducing the incidence of MA-LRTI due to RSV in infant within **90 days** after birth; efficacy of **49.2%** was observed through **180 days** after birth
- **RSVpreF was safe and well tolerated by maternal participants, and no safety signals were detected in infant participants through 24 months after birth**
  - An additional 9 preterm births (6 RSVpreF: 3 placebo) were included in the final analysis with the overall RR (1.2 [0.98-1.46]); unchanged from the Interim;
    Infants overall had good outcomes for up to 2 years.

Data presented at Resvinet Conference 2024, Mumbai

Use of Pfizer RSV Vaccine During Pregnancy

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report

Recommendation

- Maternal Pfizer RSVpreF vaccination in pregnant persons as a one-time dose at 32 weeks and zero days'–36 weeks and 6 days' gestation using seasonal administration (meaning September–January in most of the continental United States) for prevention of RSV-associated LRTI in infants aged <6 months

Clinical Guidance

Adapted from ACOG RSV Practice Guideline
Endorsed by SMFM, last update 8/24

Seasonality of RSV

- Should be administered to pregnant persons during September–January in most of the continental United States
- In jurisdictions with seasonality that differs from most of the continental US (e.g., Alaska, jurisdictions with tropical climates), providers should follow state, local, or territorial guidance on timing of administration

- **The only RSV vaccine approved for use during pregnancy is Pfizer's bivalent RSVpreF vaccine, Abrysvo.**

Simultaneous Administration with Other Vaccines

- Maternal RSVpreF vaccine may be simultaneously administered with other indicated vaccinations (such as tetanus, diphtheria, and pertussis (Tdap), influenza, and COVID-19 vaccines)

Additional Vaccine Doses in Subsequent Pregnancies

- People who received a maternal RSV vaccine during a previous pregnancy are not recommended to receive additional doses during future pregnancies
- Infants born to people who were vaccinated only during a prior pregnancy should receive nirsevimab
- Recommendations can be updated in the future if additional data are available

RSV Vaccine: Expiration?

- Leftover RSV vaccine: Discard at end of season (like influenza vaccine)?
  - **NO!** Seasonal influenza vaccines are reformulated each year; for this reason, all unused seasonal influenza vaccines expire and should be discarded no later than the end of June each season. **BUT,**
  - RSV products (vaccines and preventive antibody) do not change each season.
  - Products in storage unit now may not expire until **AT LEAST** sometime during or after the next season.

Relative Risks and Benefits of Maternal Vaccination and Nirsevimab

Both products are **safe** and **effective** in preventing RSV lower respiratory infection in infants.

Maternal RSV Vaccine

Benefits

- Provides protection immediately after birth
- May be more resistant to virus mutation
- Avoids injection of infant

Risks

- Protection reduced if fewer antibodies produced or are transferred from mother to baby (e.g., mother immunocompromised or infant born soon after vaccination)
- Potential risk of preterm birth

nirsevimab and clesrovimab

Benefits

- Studies of antibody levels suggest that protection might wane more slowly.
- Can provide antibodies directly if infant receives less antibodies from mother
- No risk of adverse pregnancy outcomes

Both approaches are cost effective but vaccine ($295) cheaper than MAb ($556)

Additional RSV Vaccine Doses in Subsequent Pregnancies?

- **Still no data on additional RSV vaccine doses in subsequent pregnancies**

- **There are potentially people who received an RSV vaccine during pregnancy for the in the first 2 RSV seasons who could have a subsequent pregnancy during the 2025-2026 RSV season**

- **Concerning that data in older adults suggest revaccination does not restore antibody levels to those after first dose**
  - Antibody levels are particularly important for maternal vaccination since infants are protected through transplacental transfer of antibodies

- **RSV vaccine differs from Tdap vaccine: it's not the only option**
  - Maternal RSV vaccine has a potential safety concern for preterm birth and hypertensive disorders of pregnancy
  - Alternative product, nirsevimab, exists that can protect infants from severe RSV for subsequent pregnancies

CDC MMWR Use of the Pfizer Respiratory Syncytial Virus Vaccine During Pregnancy for the Prevention of RSV_10/23

ADDRESSING VACCINE BARRIERS FOR PROVIDERS:

FINE POINTS, BILLING, AND REIMBURSEMENT

What has HHS said?

- ..the directive further states the decision to rescind the recommendation for use of the vaccine in pregnant people was based on advice from the FDA, suggesting there is a lack of “high-quality data demonstrating safety of the mRNA vaccines during pregnancy combined with the uncertainty of the benefits of vaccination pose potential risks to the mother and the developing baby.” *5/27/25*
- But:
  - **No comment on non-mRNA COVID vaccines**
  - **Adds role of shared-decision making with provider, with implicit acknowledgement that physician/provider recommendation for vaccine is valid**

HHS: The U.S. Department of Health and Human Services

What does the HHS directive mean?

- Only refers to formal HHS **recommendations** regarding **COVID vaccines** for pregnant patients, and, apparently, only to mRNA COVID vaccines

- May require formal prescription for COVID vaccines for patients if given outside an on-site office or public health clinic: “proof of provider recommendation”

- **National medical societies already issue specialty-specific vaccine guidelines and will continue to do so.**
  - ACOG and AAP have already issued updated guidance (8/22).

Billing for Immunization

- CPT codes
  - 90471 – immunization administration (> age 18)
  - 90472 – each additional vaccine at same visit

    AND
  - Vaccine-specific CPT code (different for each vaccine)
    - CPT for RSV vaccine: 90678

PLUS

- Diagnosis codes (ICD-10)
  - Z23 – encounter for (any) immunization
  - Z29.11 – encounter for RSV monoclonal antibody
  - Z30.XX -- # weeks gestation (especially for RSV vaccine)

Influenza Vaccine Product List and Age Groups --- United States, 2024-2025 Season[1]

*DoD contracted NH vaccines (highlighted green), SH vaccine (highlighted blue); *DVD available vaccines (highlighted orange); Not available in DVD (white/not highlighted)*

Manufacturer	Trade Name (Vaccine abbreviation)	NDC	Presentation	Mercury (thimerosal) µg/0.5 mL	Ovalbumin mcg/0.5 mL	Age Group	CVX	CPT
Seqirus USA, Inc.	**Afluria®[1,2,3,4,9] (IIV3)**	**33332-0024-03**	0.5-mL PFS	0	< 1	3+ yr.	140	90656
		33332-0124-10	5-mL MDV[2] (0.25-mL dose for ages 6-35 mos.)	12.25	< 0.5	6+ mos.	141	90657
			5-mL MDV[2] (0.5-mL dose for ages 3+ yr.)	24.5	< 1			90658
	Fluad®[1,7,9] (aIIV3)	70461-0024-03	0.5-mL PFS	0	≤ 0.4	65+ yr.	168	90653
	Flucelvax®[1,9] (ccIIV3)	70461-0654-03	0.5-mL PFS	0	0	6+ mos.	153	90661
		70461-0554-10	5-mL MDV (0.5-mL dose for ages 6+ mos.)	25	0		320	90661
GlaxoSmithKline	Fluarix®[1,9] (IIV3)	58160-0884-52	0.5-mL PFS	0	≤ 0.05	6+ mos.	140	90656
ID Biomedical Corp (distributed by GlaxoSmithKline)	**FluLaval®[1,9] (IIV3)**	**19515-0810-52**	0.5-mL PFS	0	≤ 0.3	6+ mos.	140	90656
Sanofi Pasteur, Inc.	**Fluzone®[1,5,6,9] (IIV3)**	49281-0424-50	0.5-mL PFS	0	§§	6+ mos.	140	90656
		49281-0641-15	5-mL MDV[5,6] (0.25-mL dose for ages 6-35 mos.)	12.5/0.25 mL	§§	6+ mos.	141	90657
		49281-0641-15	5-mL MDV[5,6] (0.5-mL dose for ages 6+ mos.)	25/0.5 mL	§§			90658
	Fluzone® High-Dose[1,8,9] (HD-IIV3)	**49281-0124-65**	0.5-mL PFS	0	§§	65+ yr.	135	90662
	Fluzone® Southern Hemisphere[1] (SH-IIV4)	**49281-0324-50**	0.5-mL PFS	0	§§	6+ mos.	201	N/A
	FluBlok®[1,9] (RIV3)	49281-0724-10	0.5-mL PFS	0	0	18+ yr.	155	90673
MedImmune, Inc. (AstraZeneca)	FluMist®[1,9] (LAIV3)	66019-0311-10	0.2-mL prefilled single-use intranasal sprayer	0	≤ 0.024	2-49 yr.	111	90660

American Medical Association (AMA) CPT Codes Approved for COVID-19 Immunizations

AMA Join Renew Search

Codes for all immunization products

New Current Procedural Terminology (CPT®) codes have been created that consolidate over 50 previous codes and greatly streamline the reporting of immunizations for the novel coronavirus (SARS-CoV-2, also known as COVID-19).

CPT codes approved for COVID-19 immunizations

The CPT Editorial Panel approved five new COVID-19 vaccine product codes and one administration code in August 2023. These new COVID-19 codes replaced all previously approved specific COVID-19 product and administration codes, except for vaccine product code **91304**for the Novavax vaccine.

Specific information to assist with proper code selection of the more than 50 COVID-related vaccine product and administration codes were contained in Appendix Q of the CPT code set. With the removal of those COVID-19 codes, Appendix Q was also deleted in November.

Some vaccine and immune globulin products are assigned a code in anticipation of eventual approval by the Food and Drug Administration. These codes are marked with a lightning bolt symbol in the Category I Immunization code descriptors (PDF).

The new codes added for 2024 include three Pfizer-product codes and reflect vaccine concentrations developed for different age groups:

- **91318:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, 3 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use in patients 6 months–4 years old.
- **91319:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, 10 mcg/0.2 mL dosage, tris-sucrose formulation, for intramuscular use in patients 5–11 years old.
- **91320:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, 30 mcg/0.3 mL dosage, tris-sucrose formulation, for intramuscular use in patients 12 years and older.

There are also two new Moderna-product codes:

- **91321:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disea vaccine, mRNA-LNP, 25 mcg/0.25 mL dosage, for intramuscular use in patients 6 months–
- **91322:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disea vaccine, mRNA-LNP, 50 mcg/0.5 mL dosage, for intramuscular use was associated for use i older.

The existing CPT code 91304 will continue to be used to report the Novavax vaccine product, including Novavax's updated XBB vaccine:

- **91304:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (vaccine, recombinant spike protein nanoparticle, saponinbased adjuvant, intramuscular use.

- **91320:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, 30 mcg/0.3 mL dosage, tris-sucrose formulation, for intramuscular use in patients 12 years and older.

- **91322:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, 50 mcg/0.5 mL dosage, for intramuscular use was associated for use in patients 12 years or older.

- **91304:** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, recombinant spike protein nanoparticle, saponinbased adjuvant, 5 mcg/0.5 mL dosage, for intramuscular use.

ACIP Changes and the Impact for Pharmacists

Pharmacists may independently initiate and administer any vaccine for persons 3 years and older that is FDA approved or authorized and **recommended by ACIP and CDC** (BP&C 4052.8).

Since pregnant people no longer have a specific recommendation for COVID-19 vaccination from ACIP/CDC, **pharmacists would need a prescription or collaborative practice agreement (provider protocol) to provide COVID-19 vaccination to pregnant people.**

Questions: covidvaccinepharm@cdph.ca.gov

CDPH

Rx

Prescriber Name, Address, Phone Number:

Patient Name:_____ Date: _____

Vaccines recommended during pregnancy:

- ☐ **Tdap** (tetanus, diphtheria, pertussis [whooping cough]) 0.5 mL IM x 1 between 27 and 36 weeks of pregnancy.
- ☐ **Inactivated Influenza** 0.5 mL IM x 1
- ☐ **Updated COVID-19 vaccine**
- ☐ **Respiratory Syncytial Virus (RSV) vaccine (ABRYSVO)** 0.5 mL IM x 1 September-January, between 32 and 36 weeks of pregnancy.

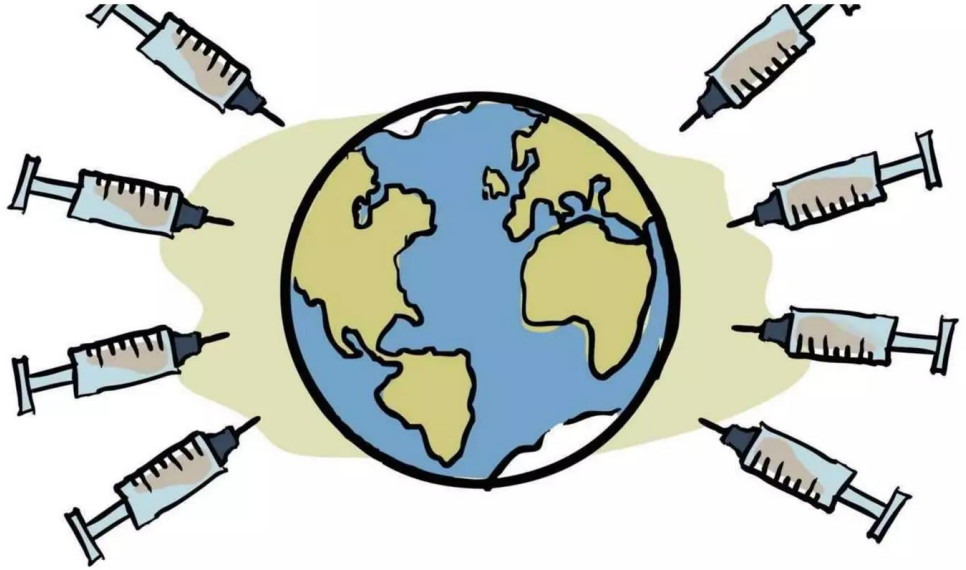
Prescriber's Signature:_____ License #:_____

Per pharmacy regulations (CCR, Title 16, section 1746.4), please notify us within 14 days of administration of the vaccines our patient received at your pharmacy. Also, please give the patient a copy of the vaccine record to bring to their next prenatal visit.

Your baby is counting on you for protection. Get vaccinated.

Print version is now available at
bit.ly/prenatalRX

Thank You



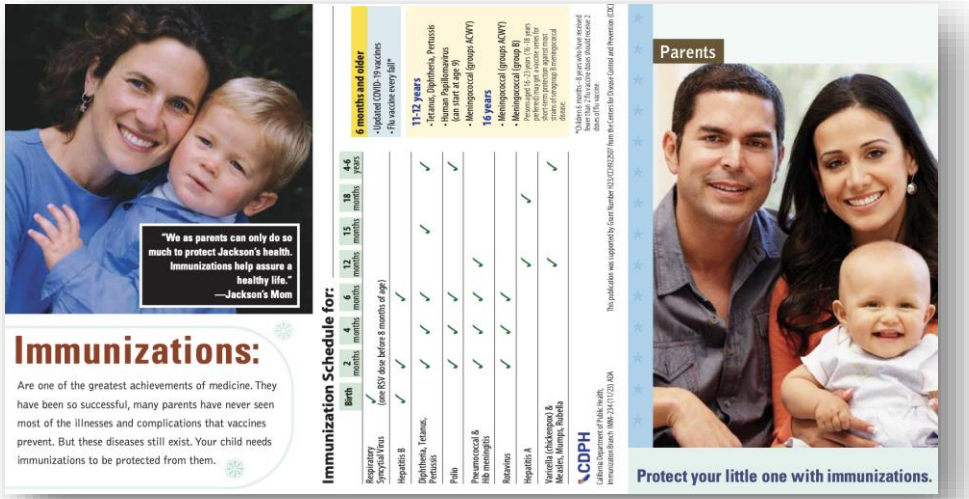
Resources

Leslie Amani, CDPH

CDPH Prenatal Materials

[English](#) & [Spanish](#)

[English](#) & [Spanish](#)



[English](#) & [Spanish](#)

Providers can order this parent brochure from their [local health department](#).

Clinical providers and local health departments can order FREE copies of the above prenatal materials using this [form](#).

Additional Resources

- Maternal Immunization Social Media Toolkit (ACOG)
- Immunizations – HealthyChildren.org
- Parent Education on Vaccine Safety
- ShotbyShot.org

Facing COVID: Vanessa's Story

COVID graphic

Immunization Coding for Obstetrician-Gynecologists

Immunization Coding for Obstetrician-Gynecologists

Introduction

Immunizations are recommended as part of comprehensive care for women. Under the Patient Protection and Affordable Care Act (ACA), vaccines recommended by the Advisory Committee on Immunization Practices are required to be provided with no cost sharing (ie, no co-pay) for children, adolescents, and adults. Check the list of vaccines covered for more information about the ACA.

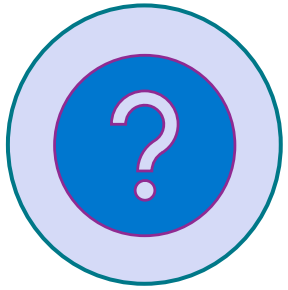
Below are some of the most common ICD-10 diagnosis and CPT/HCPCS codes related to immunizations. These lists are not all inclusive. Additional characters may be required for appropriate code selection. For assistance with proper code selection/use, you may refer to the most recent official copies of each of the following: ICD-10-CM book, ACOG's OB/GYN Coding Manual, American Medical Association Current Procedural Terminology Professional Book and Health Care Common Procedure Coding System books. Proper coding may require analysis of statutes, regulations or carrier policies and, as a result, the proper code result may vary from one payer to another.

ACOG Immunization Coding for Obstetrician-Gynecologists

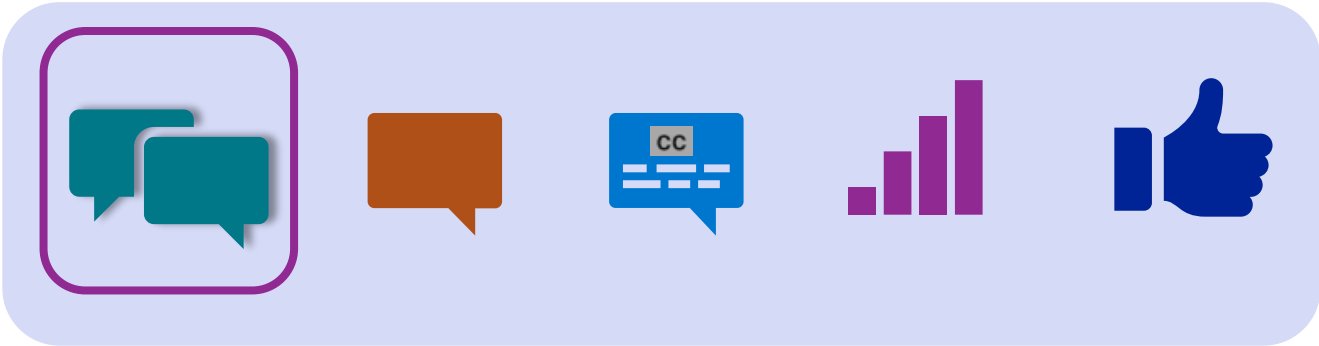
CDPH Immunization Branch Vaccine Support

Support from	Contact Information
Provider Call Center (PCC) Dedicated to medical providers and Local Health Departments in California, specifically addressing questions about State program requirements, enrollment, and vaccine distribution.	**Hours:** Monday – Thursday 9:00 am – 4:30 pm Friday, 9:00 am – 4:00 pm **Call:** 833.502.1245 **Contact email**: providercallcenter@cdph.ca.gov
myCAvax and My Turn Knowledge Center houses key job aids and videos that are updated every release. Log-in credentials required. Virtual Assistant can answer many questions and will direct users to the PCC for live assistance when needed.	**Knowledge Center**: Provider link (myCAvax login required): Providers' myCAvax Knowledge Center LHD link (myCAvax login required): LHDs myCAvax Log-in **Virtual Assistant**: Providers must login to myCAvax (myCAvax Virtual Assistant) and click the 'Chat with us' button on the bottom right of their screen.

Q&A



During today's webinar, please click and open the Q&A icon to ask your questions so CDPH panelists and subject matter experts (SMEs) can respond.



CDPH | Immunization Branch

Thank you for attending!

CDPH California Department of Public Health | Immunization Branch

Next CDPH Immunization Updates for Providers
Friday, September 19, 2025

Registration link: CDPH Immunization Updates for Providers Monthly Webinar