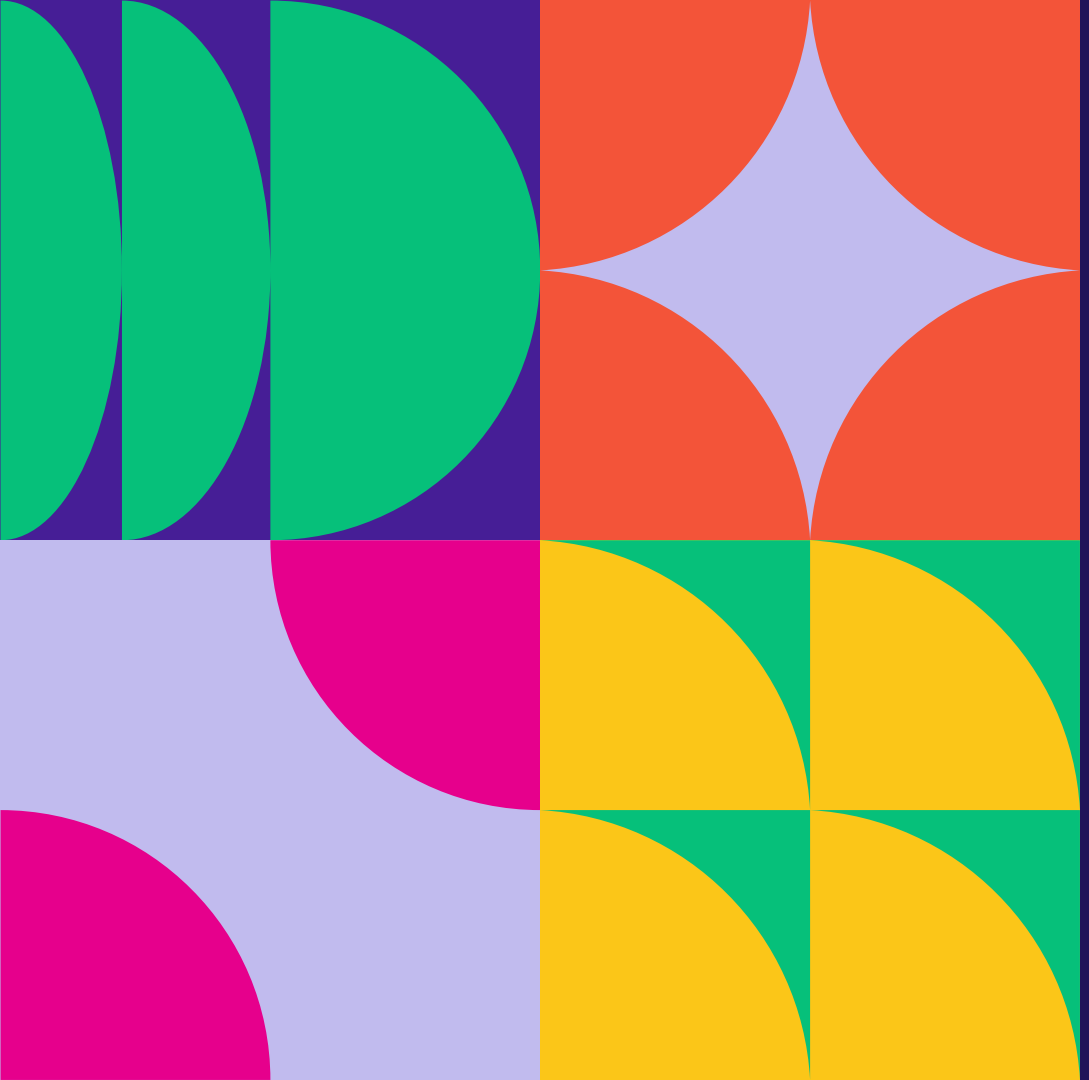


ThoughtSpot

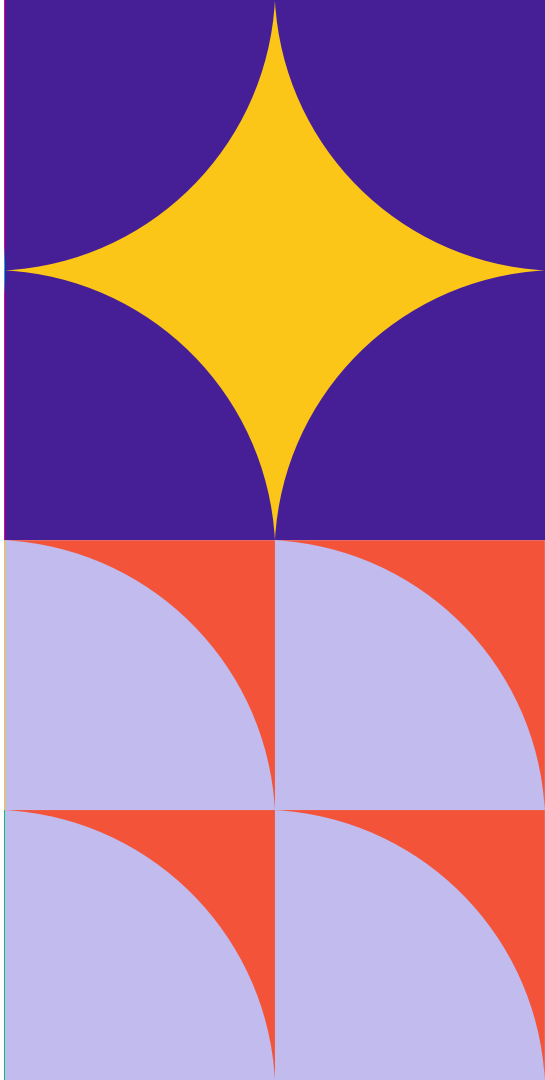
Shot Topics:
What's New in Vaccines for 2024-2025

Amanda Applegate, PharmD, BCACP
Director of Practice Development
Kansas Pharmacists Association

Disclosure Statement

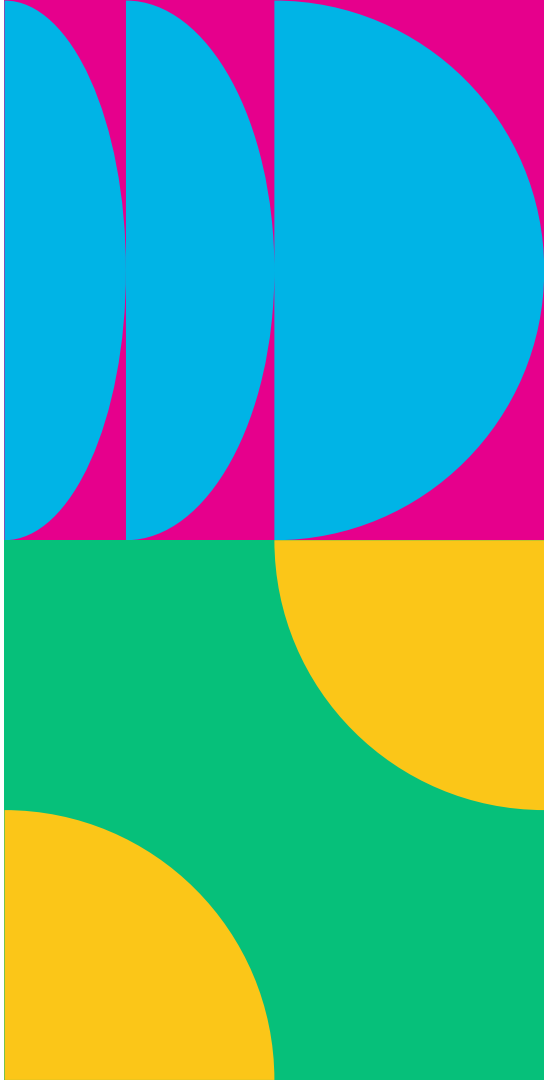
Amanda Applegate has/had a financial interest with Sunflower Health Plan and the relationship has been mitigated through peer review of this presentation. There are no relevant financial relationships with ACPE defined commercial interests for anyone else in control of the content of the activity.

This presentation contains product names and images for educational purposes only. It is not meant to be an endorsement or advertisement of any particular product or product categories.



Learning Objectives

1. Describe current ACIP recommendations for routine and seasonal immunizations, including pneumococcal, RSV, and meningococcal vaccinations.
2. Identify common mistakes in storage and handling of immunizations.
3. Recognize best practices for documentation, reporting, and referral strategies to support immunization services.



Speaker

Amanda Applegate, PharmD, BCACP

Director of Practice Development

Kansas Pharmacists Association

Where are we going today?

- Legal Updates
- Clinical Updates
- Storage and Handling
- Resources

NFID Vaccine Memes. https://www.nfid.org/resource/infectious-disease-memes/

Legal Notes

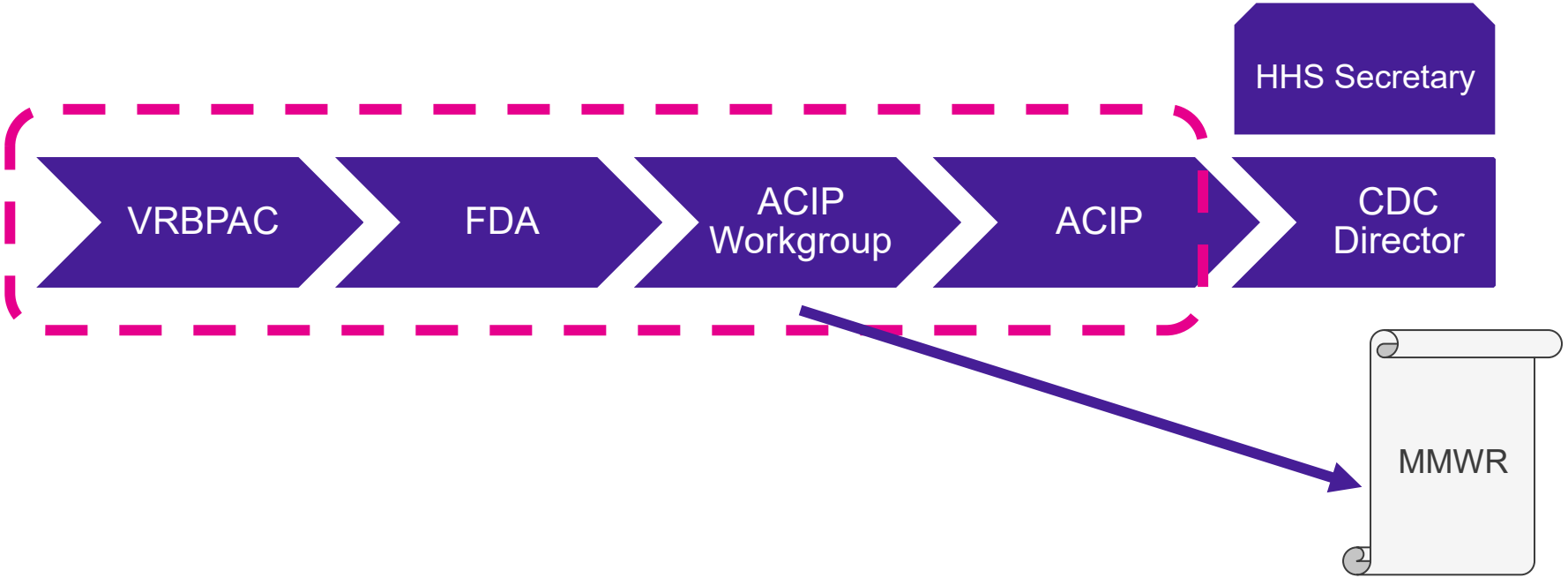
Public Readiness and Emergency Preparedness (PREP) Act

- 12th Amendment, effective through December 31, 2029
  - Pharmacists, pharmacy interns, and qualified pharmacy technicians
  - Patients 3 years and older
  - COVID & influenza only
  - Tests & vaccinations

i. The vaccine must be authorized, approved, or licensed by the FDA;
ii. Vaccination must be ordered and administered according to CDC's/ACIP's COVID-19 vaccine recommendation(s)

FDA – Food and Drug Administration, CDC – Centers for Disease Control and Prevention, ACIP – Advisory Committee for Immunization Practices
https://public-inspection.federalregister.gov/2024-29108.pdf

United States Vaccine Approval Process



VRBPAC - Vaccines and Related Biological Products Advisory Committee; HHS – Health and Human Services; MMWR – Morbidity and Mortality Weekly

https://www.cdc.gov/acip/downloads/Policies-Procedures-508_1.pdf

Centers for Disease Control and Prevention's Advisory Committee for Immunization Practices

- "*Federal advisory committee that develops recommendations on the use of vaccines in the civilian population of the United States*"
  - Voting members
    - Up to 19 medical professionals
    - *1 consumer representative knowledgeable about social/community aspects of immunization programs*
  - 8 non-voting ex officio members from federal agencies
  - 31 liaison members representing professional societies

https://www.cdc.gov/acip/downloads/Policies-Procedures-508_1.pdf

What's next?

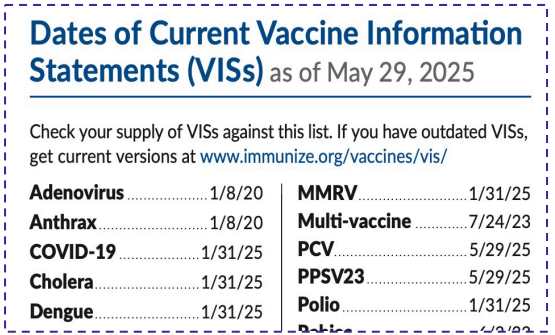
- American Health Insurance Providers and the Alliance of Community Health Plans affirmed their commitment to covering this fall's vaccinations
- Does your state statute or statewide protocol require you to follow ACIP guidelines?
- Does your physician protocol allow for flexibility?

https://www.cdc.gov/acip/downloads/Policies-Procedures-508_1.pdf

Consent form

Required documentation

- Date of administration
- Vaccine manufacturer
- Vaccine lot number
- Name and title of person who administered vaccine
- Address of the facility where permanent record resides
- Vaccine information statement (VIS)
  - VIS Date
  - Date VIS given to patient/parent/guardian



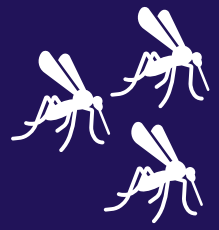
Dates of Current Vaccine Information Statements (VISs) as of May 29, 2025

Check your supply of VISs against this list. If you have outdated VISs, get current versions at www.immunize.org/vaccines/vis/

Adenovirus	1/8/20	**MMRV**	1/31/25
Anthrax	1/8/20	**Multi-vaccine**	7/24/23
COVID-19	1/31/25	**PCV**	5/29/25
Cholera	1/31/25	**PPSV23**	5/29/25
Dengue	1/31/25	**Polio**	1/31/25

https://www.cdc.gov/vaccines/hcp/admin/document-vaccines.html

Chikungunya



Chikungunya Vaccine Schedule

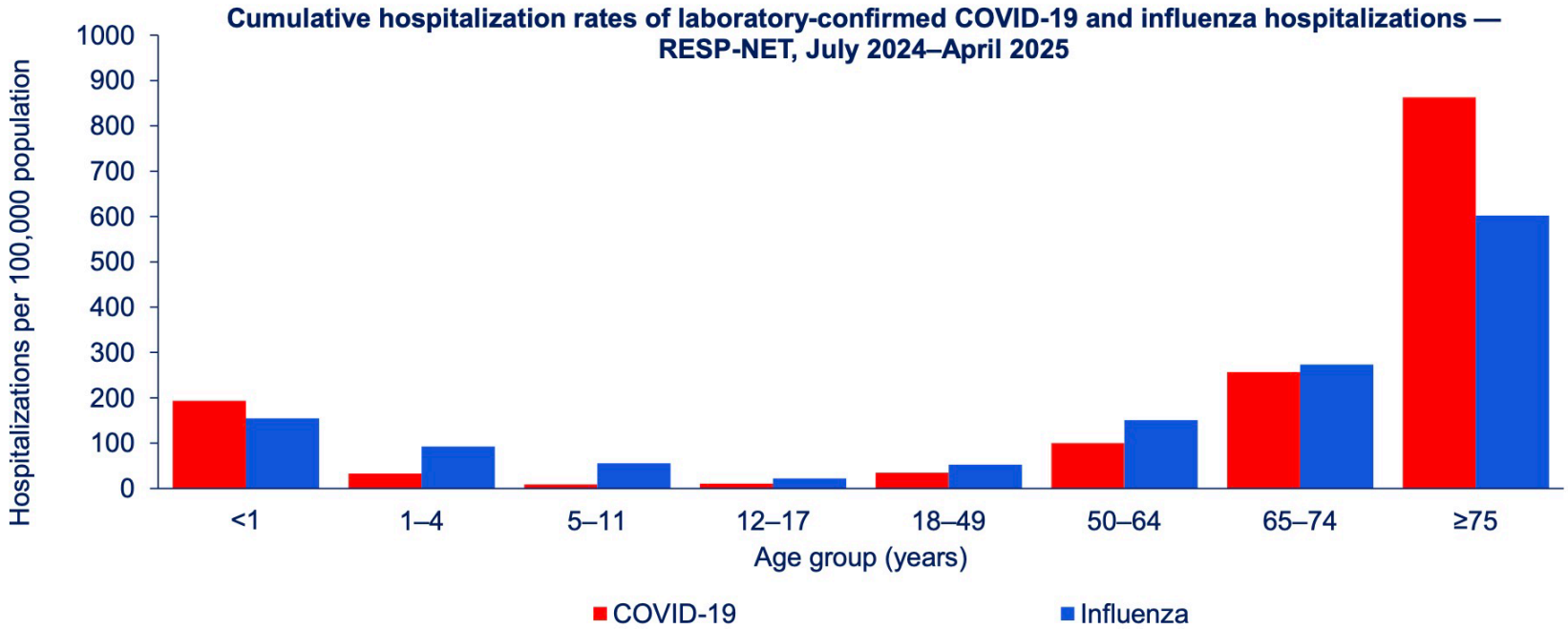
- Live attenuated (Ixchiq, Valneva) FDA approved November 2023 for 18 years of age and older
  - Safety signal detected – serious adverse events with Ixchiq in adults >60 years, use has been paused
- Virus-like particle (Vimkuna, Bavarian Nordic) FDA approved February 2025 for 12 years of age and older

- ACIP recommended for people traveling to an area with a chikungunya outbreak and lab workers who might be exposed to the virus; consider for moving or extended travel to an area without risk
  - ACIP added Vimkuna April 2025

FDA Safety Communication. https://www.fda.gov/vaccines-blood-biologics/safety-availability-biologics/fda-and-cdc-recommend-pause-use-ixchiq-chikungunya-vaccine-live-individuals-60-years-age

COVID-19

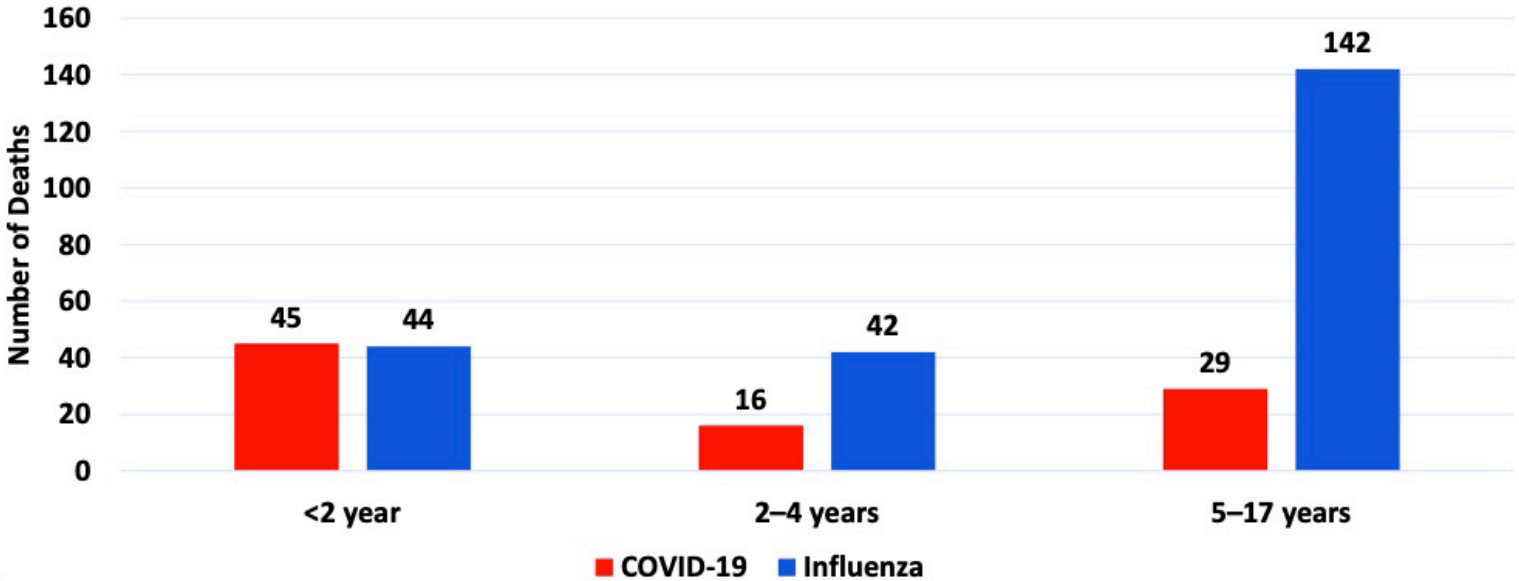
From July 2024 – April 2025, a period that included a high severity influenza season[1], more infants <1 and adults ≥75 had hospitalizations associated with COVID-19 than influenza.



Cumulative hospitalization rates with laboratory-confirmed SARS-CoV-2 and influenza hospitalizations — RESP-NET, July 2024–April 2025. Note that influenza surveillance is conducted from October–April annually. Data source: https://www.cdc.gov/resp-net/dashboard/. Note that rates are not adjusted for testing nor limited to admissions where the respiratory infection is the likely primary reason for admission. [1]https://www.cdc.gov/flu/php/surveillance/in-season-severity.html

MacNeil, A. COVID-19 Epidemiology. ACIP Meeting. June 2025.

Total number of COVID-19- and Influenza-associated deaths[1,2], among ages 0–17 years in July 2024–June 2025, United States

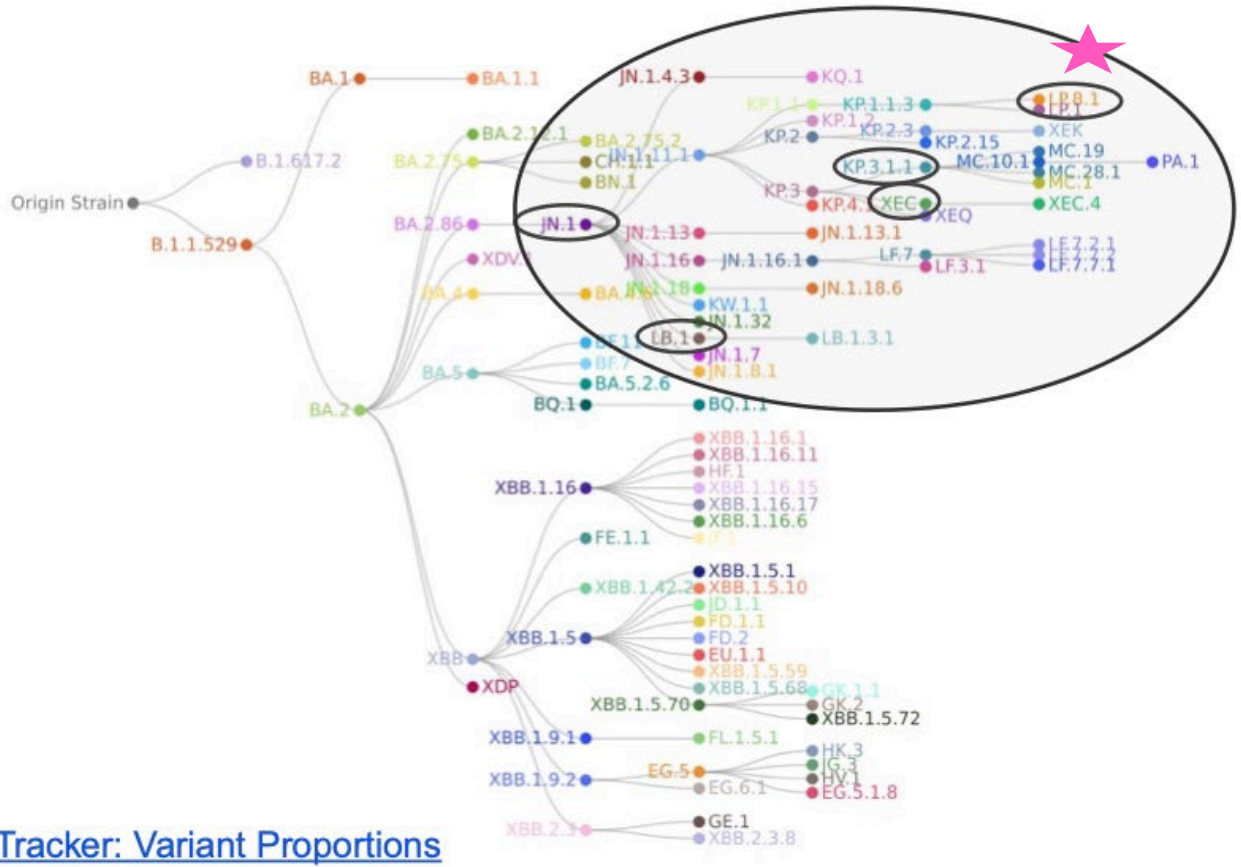


1. Provisional data
2. Underlying cause of death Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Provisional Mortality on CDC WONDER Online Database. Data are from the final Underlying Cause of Death Files, provisional data for 2024 and provisional and partial data from 2025, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Number of deaths includes influenza codes (J09-J11) or COVID-19 code (U07.1) as the underlying cause of death. http://wonder.cdc.gov/mcd-icd10-provisional.html, accessed June 20, 2025

Note: Estimates of pediatric influenza deaths reported to CDC can be found here: https://www.cdc.gov/fluview/surveillance/2025-week-15.html. Estimates will vary due to differences in reporting methods and timeframes used.

MacNeil, A. COVID-19 Epidemiology. ACIP Meeting. June 2025.

Viruses that have predominated since January 2025 are all JN.1 descendants.



CDC COVID Data Tracker: Variant Proportions

MacNeil, A. COVID-19 Epidemiology. ACIP Meeting. June 2025.
FDA. COVID-19 Vaccines (2025-2026 Formula) for Use in the United States Beginning in Fall 2025. May 22, 2025.

New vaccine option

- Low dose mRNA (mNexspike, Moderna) – 10 µg/0.2mL
  - Approved for those who have previously received a COVID vaccine
    - 65 years and older
    - 12-64 years at high risk for severe COVID-19
  - Storage – prefilled syringe
    - Frozen to expiration date
    - Fridge 90d
    - Room temp 24h

FDA. Package Insert – mNexspike. https://www.fda.gov/media/186738/download?attachment
Moderna. Relative vaccine efficacy against COVID-19. https://products.modernatx.com/mnexspikepro/efficacy

COVID-19 Notes

FDA Approves Required Updated Warning in Labeling of mRNA COVID-19 Vaccines Regarding Myocarditis and Pericarditis Following Vaccination

June 25, 2025

FDA Safety Communication

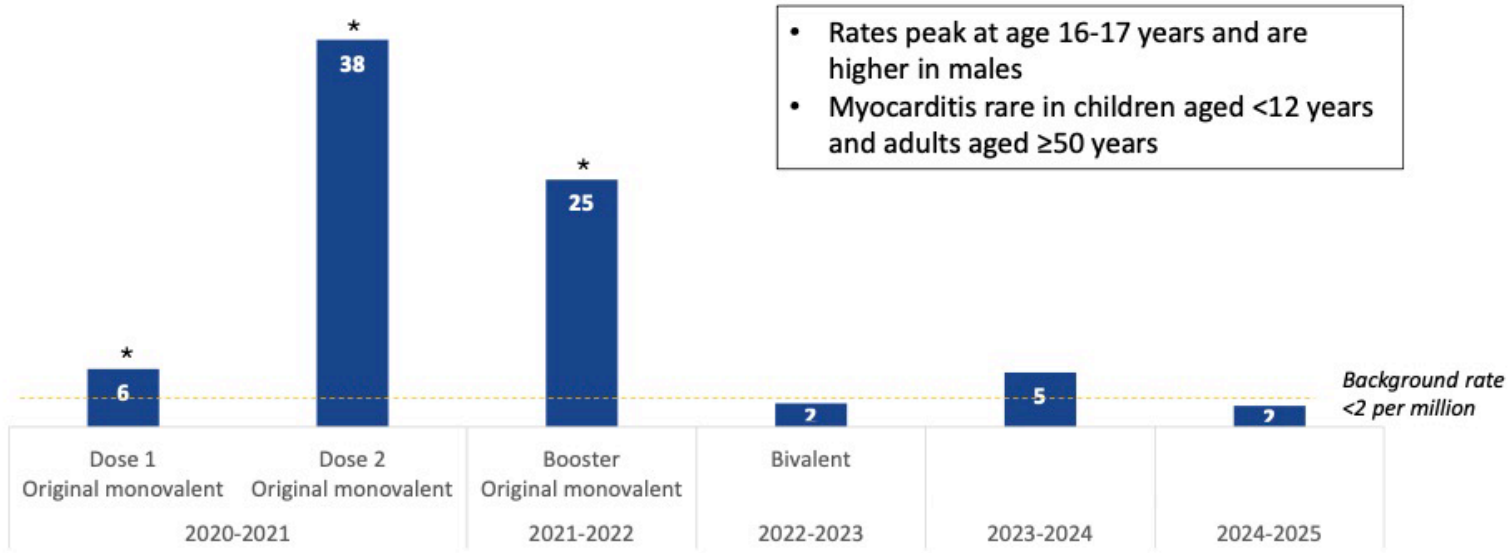
Purpose: To inform the public and healthcare providers that FDA has required and approved updates to the Prescribing Information for Comirnaty (COVID-19 Vaccine, mRNA) manufactured by Pfizer Inc. and Spikevax (COVID-19 Vaccine, mRNA) manufactured ModernaTX, Inc. to include new safety information about the risks of myocarditis and pericarditis following administration of mRNA COVID-19 vaccines.

FDA. FDA Approves Required Updated Warning in Labeling of mRNA COVID-19 Vaccines Regarding Myocarditis and Pericarditis Following Vaccination. June 25, 2025.

COVID-19 Notes

Myocarditis Following mRNA COVID-19 Vaccination Among People Ages 12–39 Years in the Vaccine Safety Datalink

Incidence of myocarditis within 7 days of vaccination per million mRNA vaccine doses administered



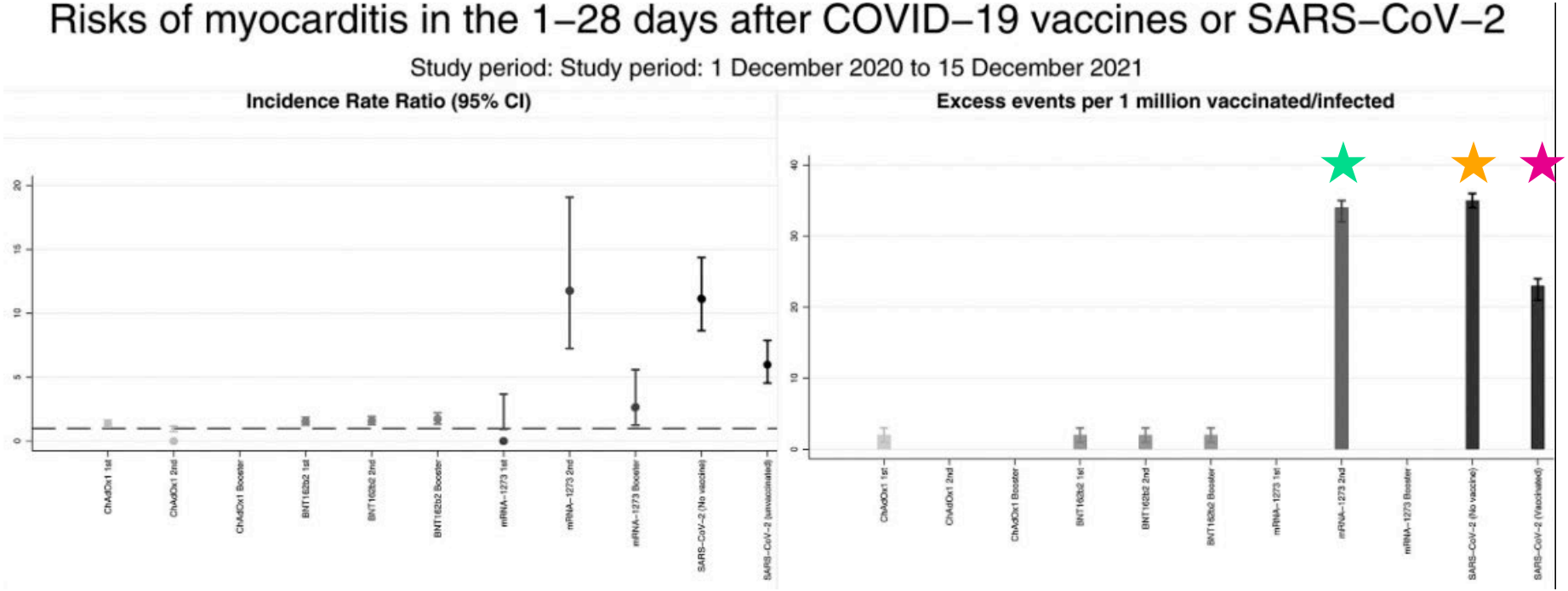
*Statistically significant increased rate ratio in vaccinated concurrent comparator analysis. Source: CDC Immunization Safety Office

22

Meyer, S. Update on CDC's COVID-19 Vaccine Safety Monitoring. ACIP Meeting. June 2025.

COVID-19 Notes

- Not cited:



FDA. FDA Approves Required Updated Warning in Labeling of mRNA COVID-19 Vaccines Regarding Myocarditis and Pericarditis Following Vaccination. June 25, 2025.
Patone M et al. Risk of Myocarditis After Sequential Doses of COVID-19 Vaccine and SARS-CoV-2 Infection by Age and Sex. Circulation. August 2022

COVID-19 Notes

- Not cited:

Table 3. Associations Between Clinical Outcomes and Myocarditis Groups Over 18 Months

Outcome	Postvaccine myocarditis (n = 558)		Post-COVID-19 myocarditis (n = 298)		Conventional myocarditis (n = 3779)	
	No. of events (%)	Weighted hazard ratio[a]	No. of events (%)	Weighted hazard ratio[a]	No. of events (%)	Weighted hazard ratio[a]
Rehospitalization for myopericarditis	18 (3.2)	0.75 (0.40-1.42)	12 (4.0)	1.07 (0.53-2.13)	220 (5.8)	1
Cardiovascular event (excluding myopericarditis)	15 (2.7)	0.54 (0.27-1.05)	22 (7.4)	1.01 (0.62-1.64)	277 (7.3)	1
Heart failure, heart rhythm and conduction disorders, cardiomyopathy[b]	6 (1.1)	0.53 (0.07-4.28)	11 (3.7)	1.23 (0.58-2.63)	132 (3.5)	1
Hospitalization for any cause	68 (12.2)	0.69 (0.50-0.94)	63 (21.1)	1.04 (0.73-1.48)	739 (19.6)	1
Death from any cause	1 (0.2)		4 (1.3)		49 (1.3)	1
Composite outcome 1[c]	32 (5.7)	0.55 (0.36-0.86)	36 (12.1)	1.04 (0.70-1.52)	497 (13.2)	1
Composite outcome 2[c]	75 (13.4)	0.64 (0.48-0.85)	76 (25.5)	1.03 (0.75-1.40)	874 (23.1)	1

Semenzato L et al. Long-Term Prognosis of Patients With Myocarditis Attributed to COVID-19 mRNA Vaccination, SARS-CoV-2 Infection, or Conventional Etiologies. JAMA. August 2024.

COVID-19 Recommendations

- FDA – any new COVID vaccine approval must undergo placebo-controlled clinical trials focusing on symptomatic illness to earn a general recommendation

- Announcement made that CDC has removed recommendation for COVID-19 vaccine for healthy children and pregnant women from routine schedules

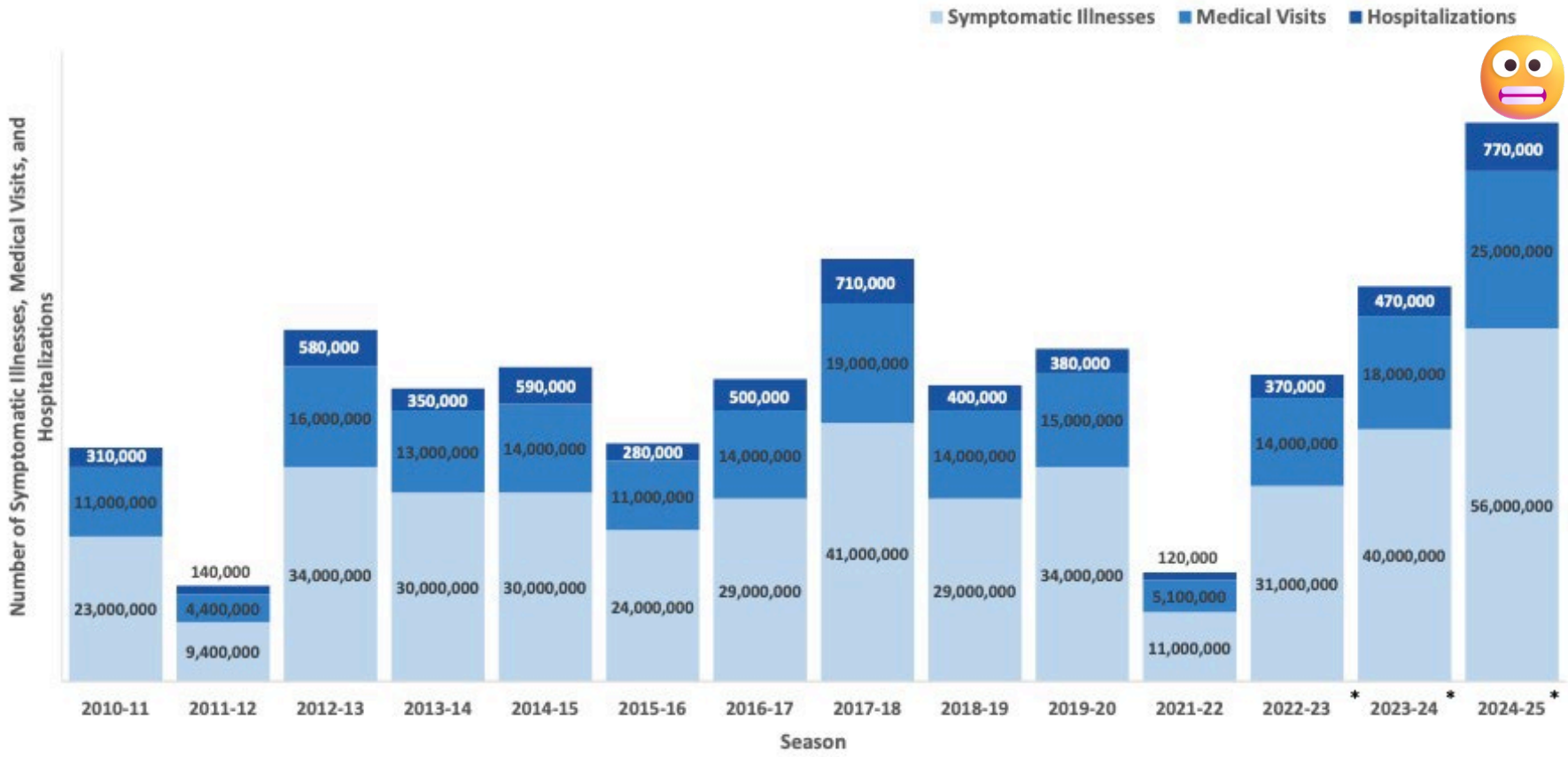
COVID-19 notes

ACIP COVID workgroup discussions only – NOT OFFICIAL POLICY

6-23 months	≥65 years
• Universal recommendation • Age-appropriate series	• Universal recommendation • 2 doses
2-64 years	**≥6 months, moderate to severe immunocompromise**
• Anyone at high risk of severe COVID-19, including during pregnancy • Anyone with high risk of exposure • Shared clinical decision making for everyone else	• Universal recommendation • 2 doses

Influenza

Influenza Disease Burden Varied by Season



*Preliminary Estimates

Dugan V. Estimates of influenza burden and burden averted through vaccination. ACIP Meeting. June 2025.
CDC. FluVaxView. Accessed June 7, 2025.

New vaccine option

- Live attenuated influenza vaccine (FluMist , AstraZeneca) *for home delivery and self/caregiver administration*
  - Nasal spray flu vaccine
    - Indicated for ages 2-49 years

    - Disposal via mail-back

AstraZeneca. FluMist Home Delivery. https://www.flumist.com/home-orders.html

Influenza Notes

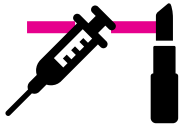
- Trivalent vaccine

- Recombinant influenza vaccination (Flublok, Sanofi)
  - FDA approved age range increase to 9 years and older March 2025

- ACIP affirmed existing recommendation that everyone aged 6 months and older should receive a flu shot
  - Preferential recommendation for high dose (Fluzone High Dose, Sanofi), adjuvanted (Fluad, Seqiris), or recombinant influenza (Flublok, Sanofi) vaccinations for all persons aged 65 years and older
  - Avoid vaccinating during July/August for most adults

https://www.fda.gov/media/179778/download?attachment
Grohskopf LA, Ferdinands JM, Blanton LH, Broder KR, Loehr J. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 Influenza Season. MMWR Recomm Rep. 2024 Aug 29;73(5):1-25. doi: 10.15585/mmwr.rr7305a1. PMID: 39197095; PMCID: PMC11501009.

Influenza Notes

- ACIP voted to remove flu shots containing thimerosal from the recommendation
  - Ethylmercury-based preservative 
  - Found in cosmetics, eye drops, disinfectants, and other medications
- Methylmercury found in fish 
- Multi-dose vials affected

https://www.fda.gov/media/179778/download?attachment
Grohskopf LA, Ferdinands JM, Blanton LH, Broder KR, Loehr J. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 Influenza Season. MMWR Recomm Rep. 2024 Aug 29;73(5):1-25. doi: 10.15585/mmwr.rr7305a1. PMID: 39197095; PMCID: PMC11501009.

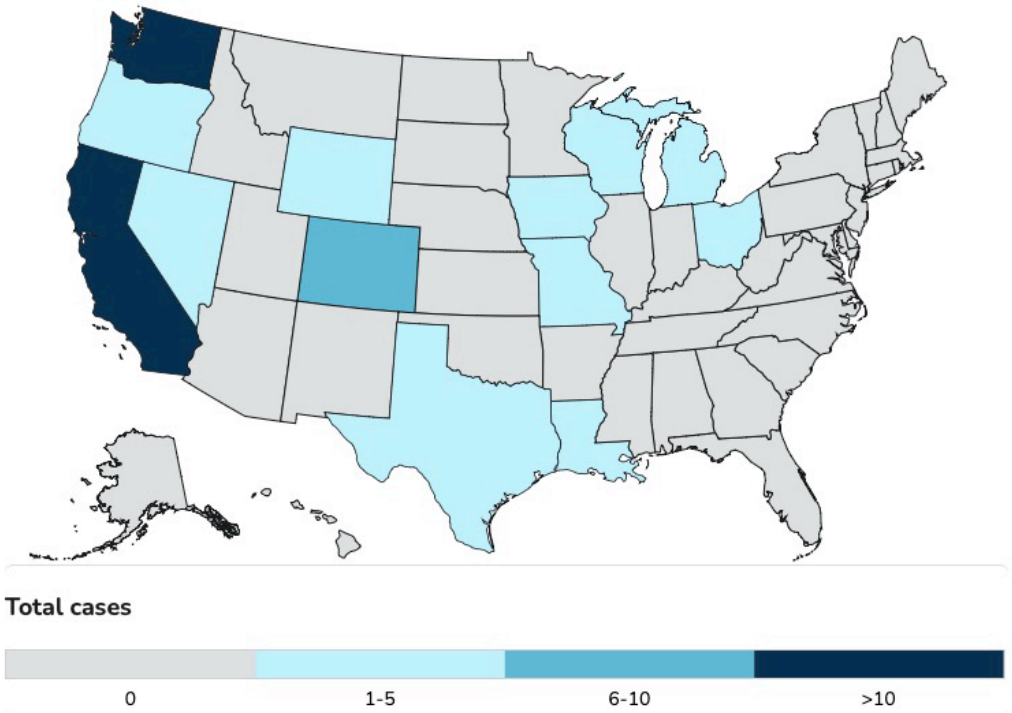
Highly Pathogenic Avian Influenza (HPAI)

- No known person to person spread

- 70 total cases
- 7 probable cases
- 1 death

July 7, 2025

Confirmed Human Cases of HPAI since 2024



- 41 – Dairy herds
- 24 – Poultry farms
- 2 – Other animal
- 3 – Unknown source

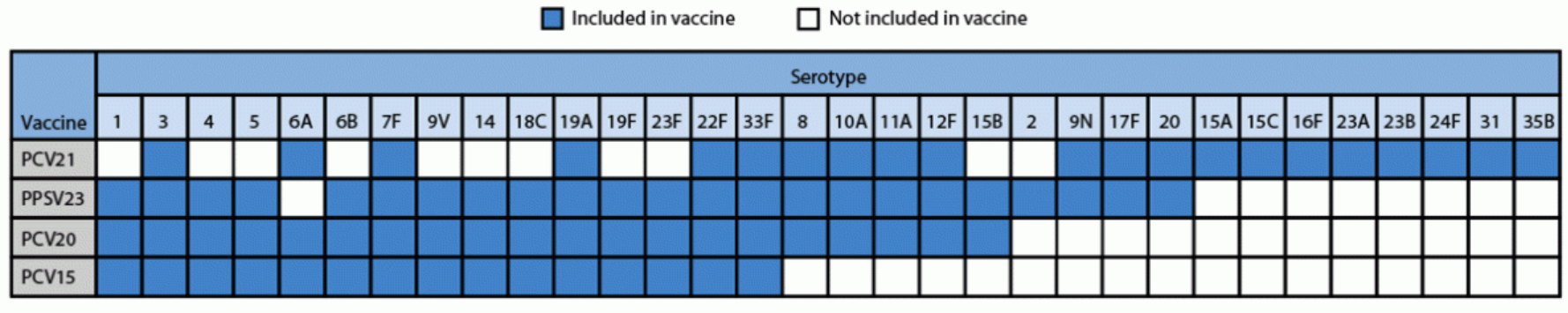
CDC. H5 Bird Flu: Current Situation. https://www.cdc.gov/bird-flu/situation-summary/index.html?cove-tab=0

Invasive pneumococcal disease (IPD)

Invasive pneumococcal disease

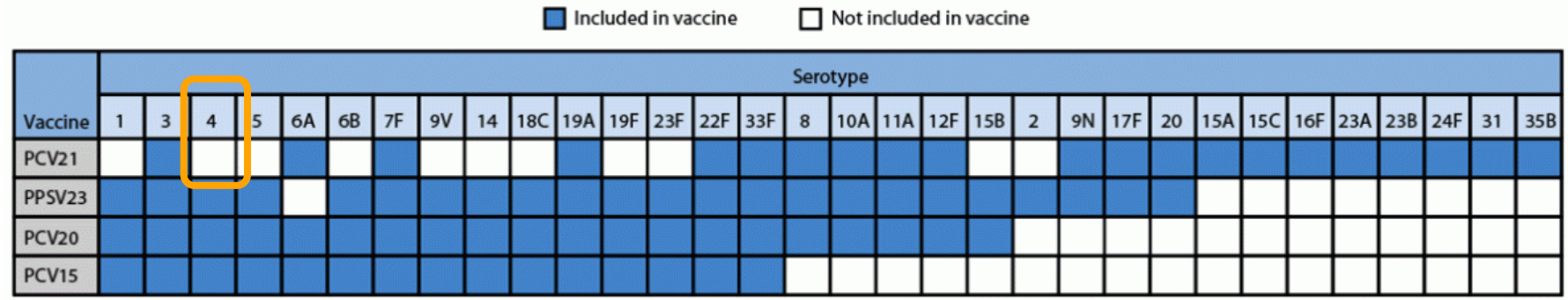
- ACIP recommends a single dose of any PCV vaccine for all PCV-naïve adults aged ≥50 years

- 32-54% of adults aged 50-64 years had ≥1 qualifying risk
- 37% of adults aged 50-64 years with a risk were vaccinated
- IPD rates in black adults peak at 55-59 years



Kobayashi M, Leidner AJ, Gierke R, et al. Expanded Recommendations for Use of Pneumococcal Conjugate Vaccines Among Adults Aged ≥50 Years: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024. MMWR Morb Mortal Wkly Rep 2025;74:1–8. DOI: http://dx.doi.org/10.15585/mmwr.mm7401a1.

Invasive pneumococcal disease

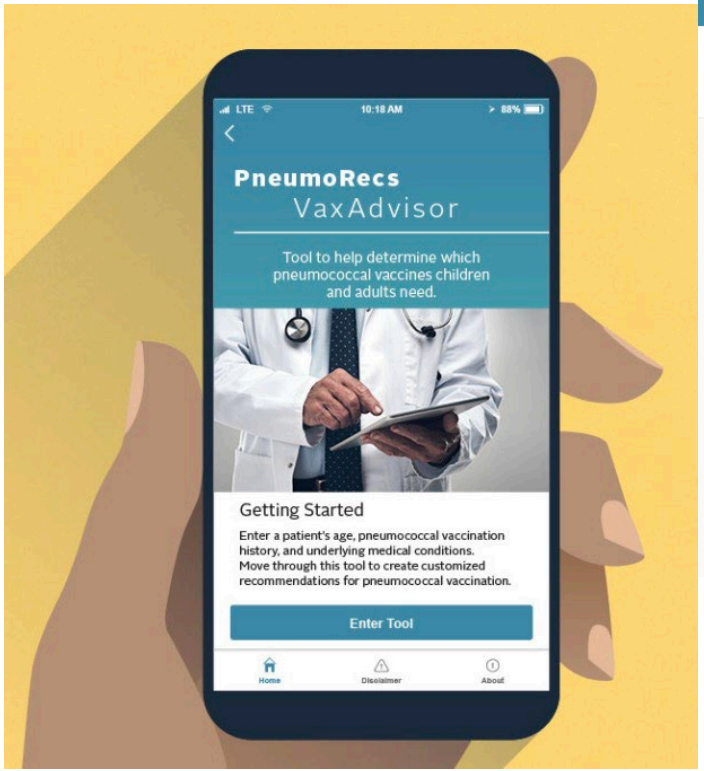


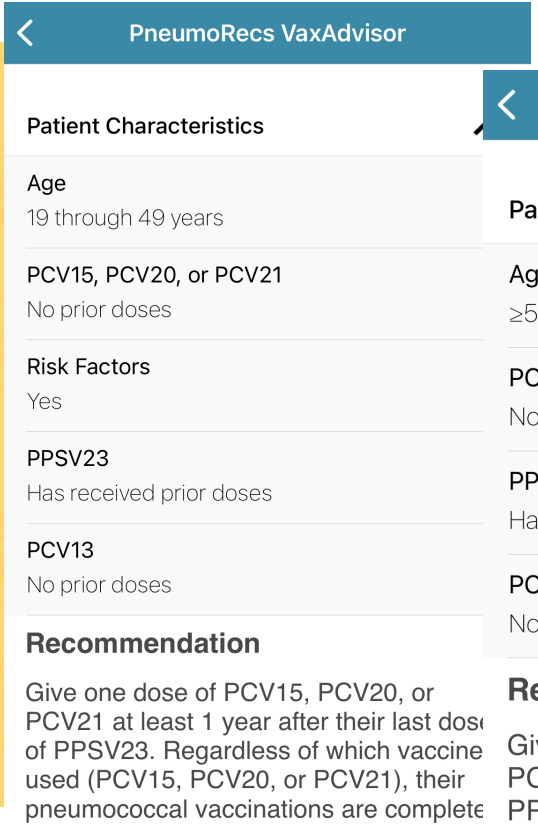
- Consider PCV20 or PCV15 + PPSV23 in areas where serotype 4 causes ≥30% of IPD cases or in specific underlying conditions:

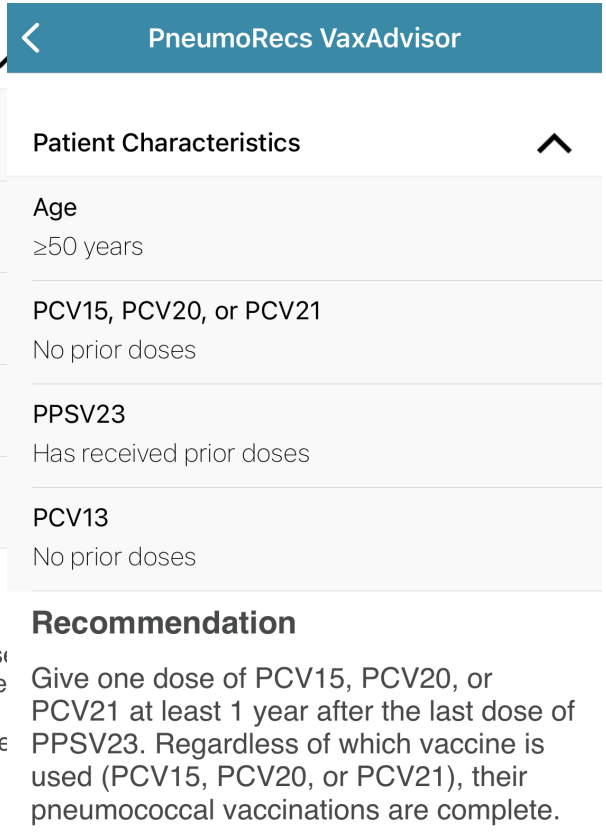
- Alaska
- Colorado
- Navajo Nation
- New Mexico
- Oregon
- Alcoholism
- Chronic lung disease
- Cigarette smoking
- Homelessness
- Injection drug use

Kobayashi M, Leidner AJ, Gierke R, et al. Expanded Recommendations for Use of Pneumococcal Conjugate Vaccines Among Adults Aged ≥50 Years: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024. MMWR Morb Mortal Wkly Rep 2025;74:1–8. DOI: http://dx.doi.org/10.15585/mmwr.mm7401a1.

PneumoRecs VaxAdvisor

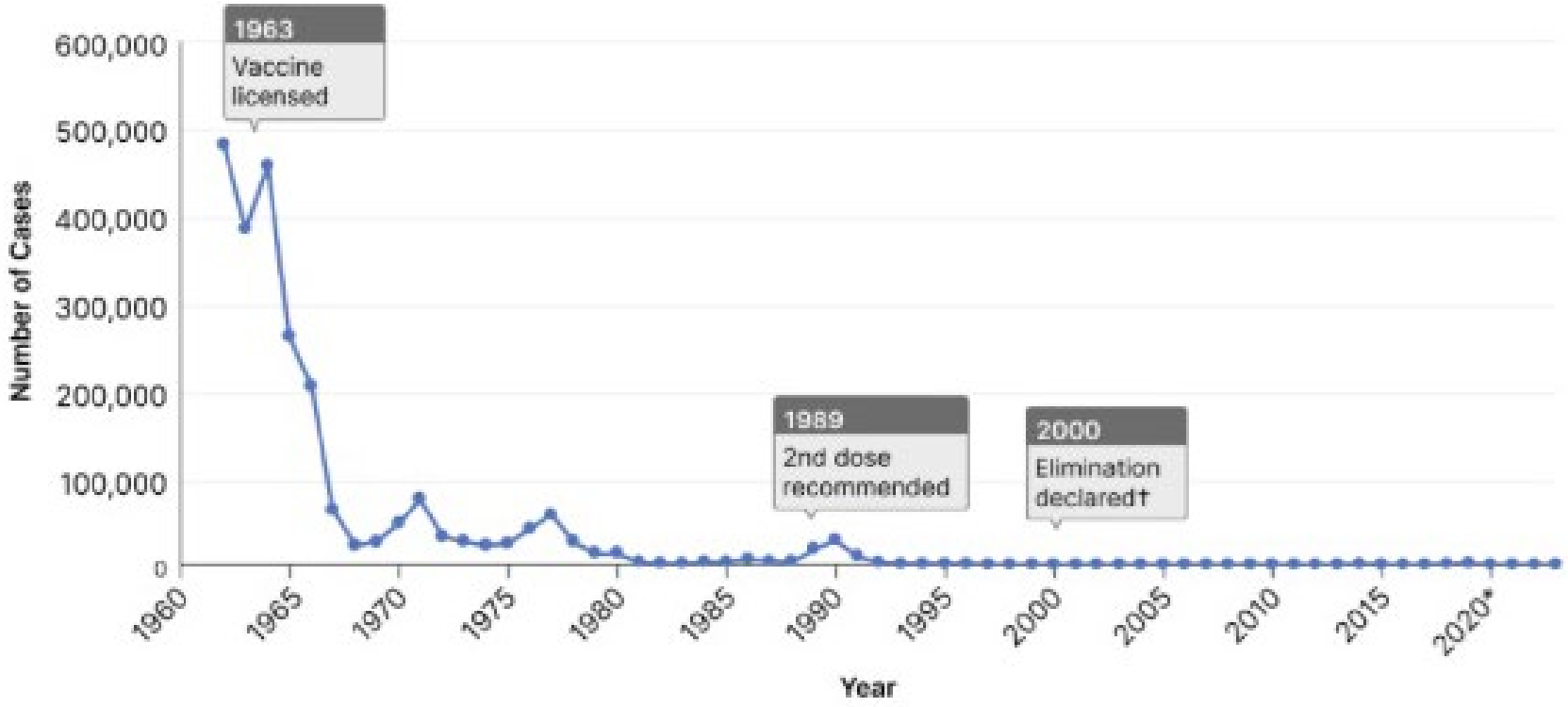






Measles

Reported Measles Cases in the United States from 1962 – 2023*

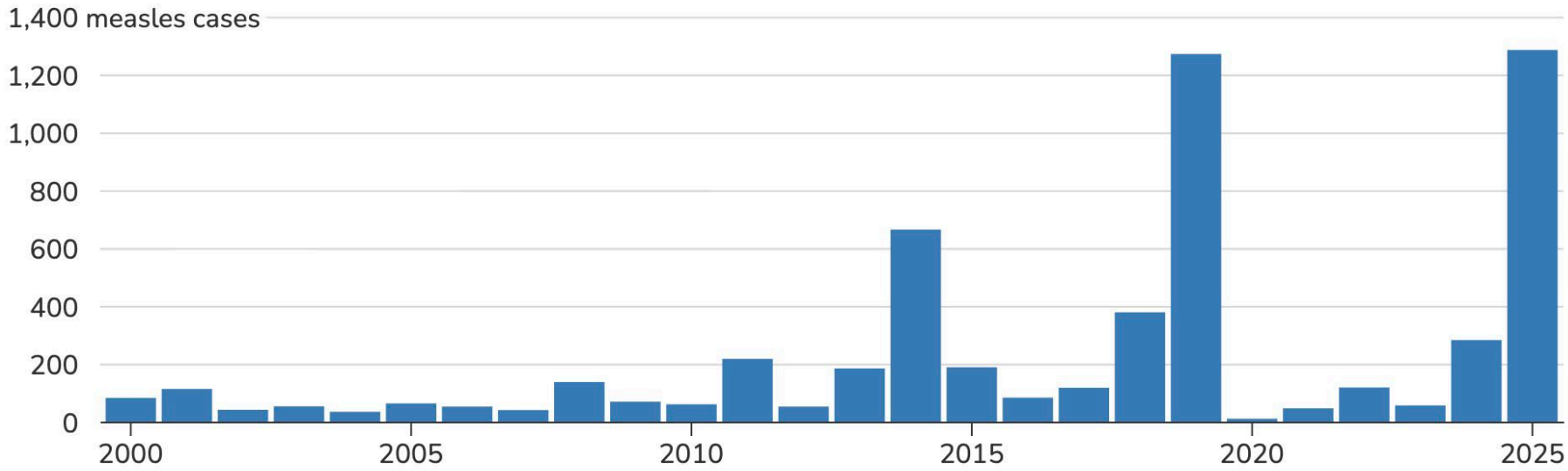


https://www.cdc.gov/measles/data-research/index.html, https://www.cdc.gov/measles/about/history.html, https://www.idsociety.org/ID-topics/infectious-disease/measles/know-the-facts

Yearly measles cases

as of July 8, 2025

2000–Present* 1985–Present*



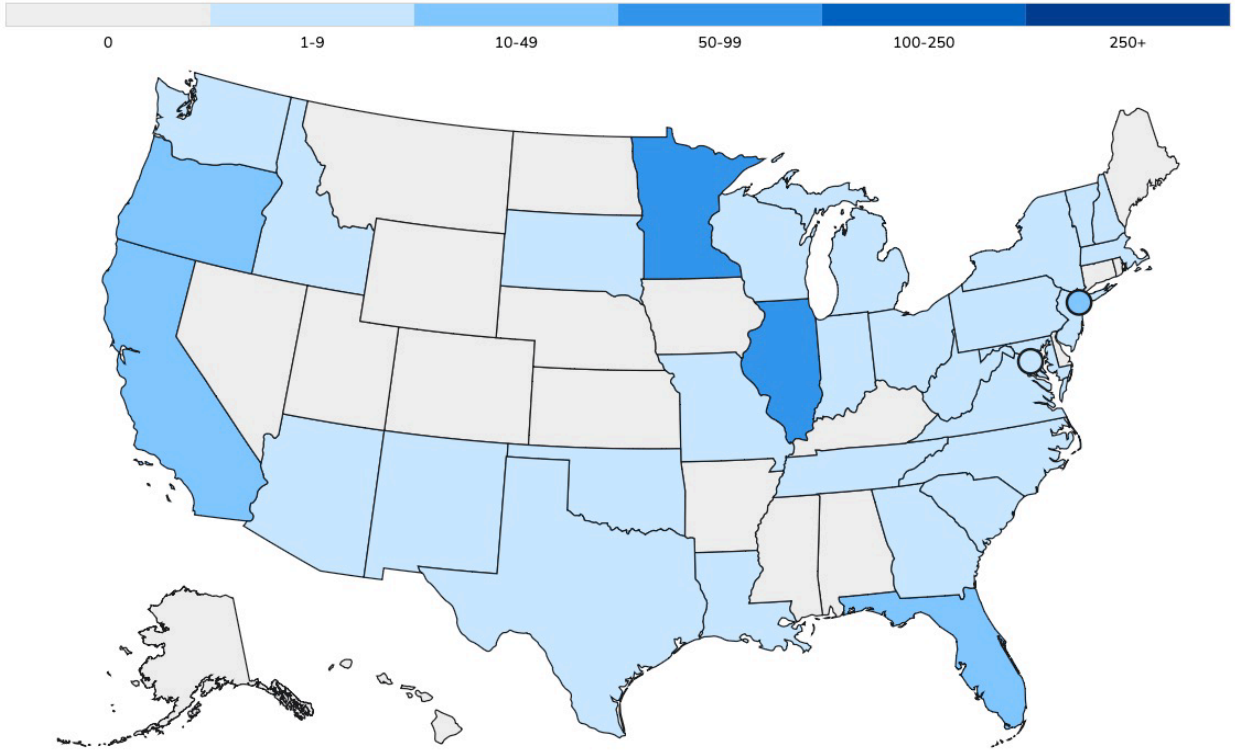
https://www.cdc.gov/measles/data-research/index.html

Total cases: 285
Hospitalizations: 114 (40%)

Age
<5 years: 120 (42%)
5-19 years: 88 (31%)
≥20 years: 77 (27%)

Vaccination Status
Unvaccinated or unknown: 89%
One MMR dose: 7%
Two MMR doses: 4%

US Measles Cases 2024



https://www.cdc.gov/measles/data-research/index.html

Total cases: 1288
Hospitalizations: 162 (13%)
Deaths: 3

Age

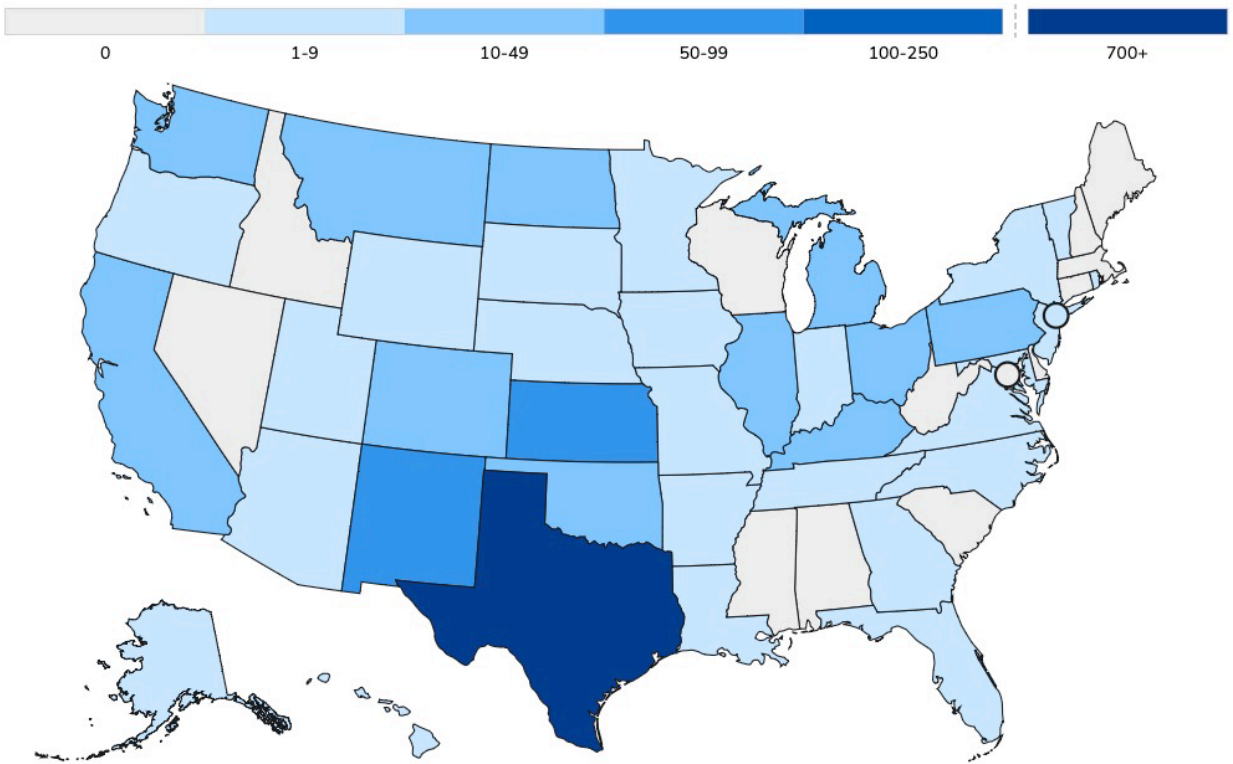
<5 years: 368 (29%)
5-19 years: 469 (36%)
≥20 years: 439 (34%)

Vaccination Status

Unvaccinated or unknown: 92%
One MMR dose: 4%
Two MMR doses: 4%

July 7, 2025

US Measles Cases 2025



https://www.cdc.gov/measles/data-research/index.html

What is measles (rubeola)?

- Highly contagious airborne virus causing severe flu-like illness with a rash
- Complications occur in 3 in 10 patients
  - 1 in 20 – pneumonia
  - 1 in 1000 – encephalitis causing deafness and intellectual disability
  - 3 in 1000 – death

https://www.cdc.gov/measles/hcp/communication-resources/consider-measles-infographic.html, https://www.idsociety.org/ID-topics/infectious-disease/measles/know-the-facts, https://www.who.int/news-room/fact-sheets/detail/measles

Approximate Timeline

- **Day 0 – Exposure**
- **Day 10-14 – Prodrome**
  - 3 C's – cough, coryza, conjunctivitis
  - Fever – 103º-105º
  - Koplik spots on mucous membranes
- **Days 14-20 – Rash**
  - Head → neck → trunk → limbs
- **Day 21 – 2-3 years - Post measles**
  - Immune amnesia

Contagious 4 days before rash and 4 days after rash appears

CDC. Epidemiology and Prevention of Vaccine Preventable Diseases – 14th Edition. https://www.who.int/news-room/fact-sheets/detail/measles
https://asm.org/articles/2019/may/measles-and-immune-amnesia; Mina MJ, et al. Measles virus infection diminishes preexisting antibodies that offer protection from other pathogens. Science 2019;366:599-606.

Measles Vaccinations

MMRII (Merck)

- Live
- 0.5mL
- Admin subQ or IM
- ≥12 months
- Vaccine frozen, diluent fridge or room temp
- Contains gelatin

ProQuad- MMRV (Merck)

- Live
- 0.5mL
- Admin subQ or IM
- 12 mo – 12 years
- Vaccine frozen, diluent fridge or room temp
- Contains gelatin

Priorix (GSK)

- Live
- 0.5mL
- Admin subQ
- ≥12 months
- Vaccine refrigerated, diluent fridge or room temp

https://www.fda.gov/media/75191/download; https://www.fda.gov/media/158941/download

Routine

Measles Vaccination Recommendations

Children

- 2 doses MMR or MMRV recommended for all children
- First dose at 12-15 months
- Second dose at 4-6 years (before school)

Adults

- One dose is recommended for all adults ≥18 years if no previous evidence of immunization or immunity
- Two doses 28 days apart are recommended for adults working in healthcare or attending college

Children

- Early dose at 6-11 months
- Subsequent dose at 12-15 months
- Final dose at 4-6 years (before school)

- Children >12 months with no history of MMR vaccine should receive one dose immediately then another dose after 28 days

Teens & Adults

- One dose is recommended for all who have received one previous dose of any MMR vaccine

- Two doses 28 days apart are recommended for all with no history of vaccination

Outbreak

Measles Vaccination Guidance

Bacterial meningitis

Meningococcal Vaccine Schedule

- **MenACWY** recommended for *all* healthy persons aged 11-18 years
  - Single dose at 11-12 years
  - Booster dose at 16 years

- **MenB** recommended for healthy persons 16-23 years based on *shared clinical decision making*
  - 2 dose series

CDC Pink Book; Teen image from Pixabay; Meningitis image from testimony submitted by bacterial meningitis survivor to Kansas Senate – March 22, 2021.

Meningococcal Vaccine Schedule

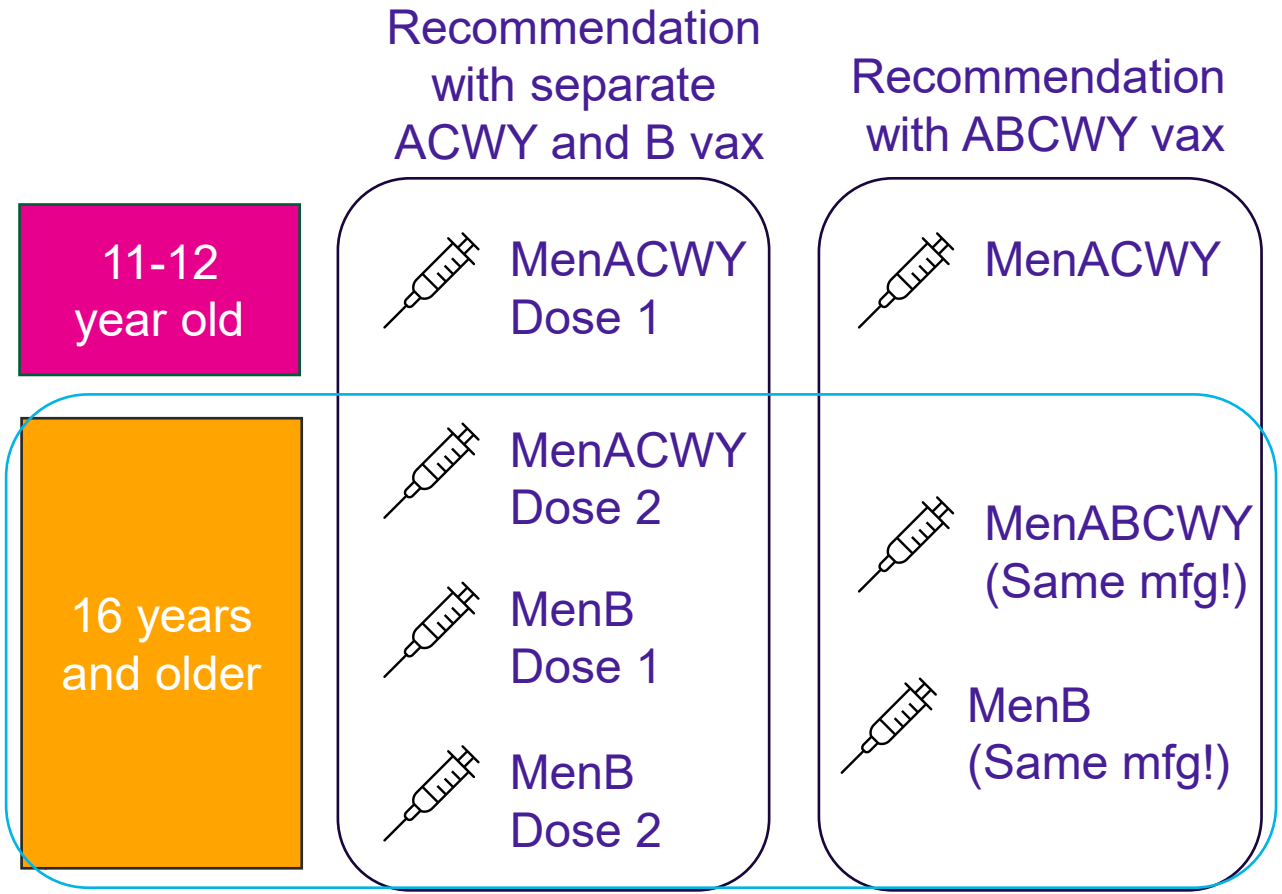
- MenABCWY (Penbraya, Pfizer) FDA approved October 2023
- MenABCWY (Penmenvy, GSK) FDA approved February 2025

- ACIP recommended for people aged 10-25 years who are receiving MenACWY and MenB vaccines at the same visit
  - ACIP added Penmenvy April 2025

- Use same manufacturer for second MenB vaccine when due
  - Penbraya → Trumenba
  - Penmenvy → Bexsero, 6 months later

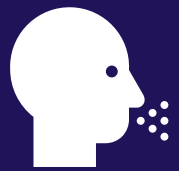
Collins et al. Use of the Pfizer Pentavalent Meningococcal Vaccine Among Persons Aged ≥10 Years: Recommendations of ACIP— US, 2023. MMWR 2024;73:345–350.
DOI: http://dx.doi.org/10.15585/mmwr.mm7315a4

Meningococcal Vaccine Schedule



Collins et al. Use of the Pfizer Pentavalent Meningococcal Vaccine Among Persons Aged ≥10 Years: Recommendations of ACIP— US, 2023. MMWR 2024;73:345–350. DOI: http://dx.doi.org/10.15585/

Respiratory syncytial virus (RSV)



RSV Vaccine Recommendations – Older Adults

- All adults aged ≥75 years and adults aged 60-74 years at increased risk of severe RSV disease should receive a single dose of RSV vaccine
- Adults aged 50-59 years at increased risk of severe RSV disease should receive a single dose of RSV vaccine

Recombinant protein (Arexvy, GSK)	Recombinant protein (Abrysvo, Pfizer)	mRNA (mRESVIA, Moderna)
FDA approved for 50 years and older	FDA approved for 18 years and older	FDA approved for 18 years and older

ACIP Meeting. RSV – Older Adults. April 2025.
FDA Package inserts – Arexvy, Abrysvo, mRESVIA. Accessed June 2025.

Increased risk for severe RSV – Older Adults

	Chronic heart disease (eg. heart failure, coronary artery disease, congenital heart disease		Diabetes with CKD and/or end organ damage (eg. neuropathy, retinopathy) or treatment with insulin or SGLT2i
	Chronic lung disease (eg. COPD, emphysema, asthma, cystic fibrosis, interstitial lung disease)		Neurologic or neuromuscular conditions causing impaired airway (eg. poststroke dysphagia, ALS, muscular dystrophy)
	End-stage renal disease, hemodialysis, other renal replacement therapy		Chronic hematologic conditions (eg. sickle cell disease, thalassemia)
	Moderate or severe immune compromise		Chronic liver disease (eg. cirrhosis)
	Severe obesity (BMI ≥40 kg/m^2)		Residence in a nursing home

Other chronic medical conditions or risk factors that a healthcare provider determines would increase the risk for severe disease (eg. frailty, concern for undiagnosed chronic conditions, residency in a remote or rural community where transportation of patients for escalation of medical care is challenging)

Britton A, Roper LE, Kotton CN, et al. Use of Respiratory Syncytial Virus Vaccines in Adults Aged ≥60 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2024. MMWR Morb Mortal Wkly Rep. ePub: 6 August 2024. DOI: http://dx.doi.org/10.15585/mmwr.mm7332e1

New RSV Antibody Option - Infants

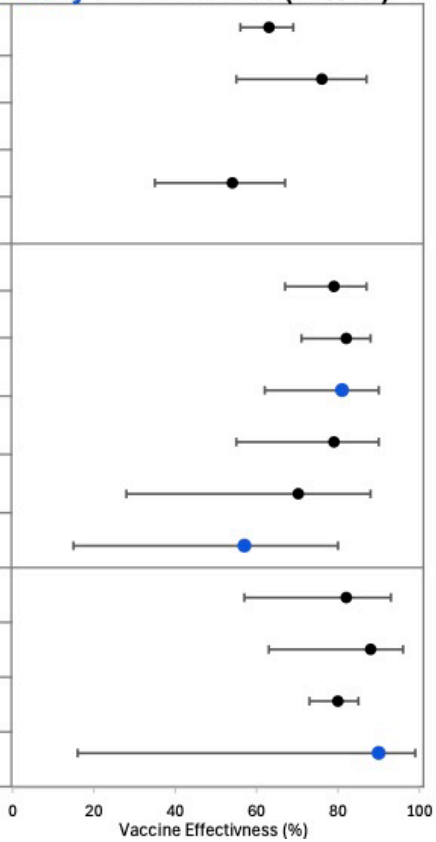
- Nirsevimab (Beyfortus, Pfizer) FDA approved July 2023
  - Recommended for infants <8 months who are born during or entering their first RSV season (October-March) if there is not evidence of vaccination during pregnancy
  - Recommended for children aged 8-19 months who are at increased risk and entering their second RSV season

- Clesrovimab (Enflonsia, Merck) FDA approved June 2025
  - Recommended for infants <8 months who are born during or entering their first RSV season (fall through spring) if there is not evidence of vaccination during pregnancy

https://www.cdc.gov/rsv/hcp/vaccine-clinical-guidance/infants-young-children.html
ACIP Meeting, June 2025.

Summary of RSV prevention product effectiveness (PE) among infants in their first RSV season, 2024–2025

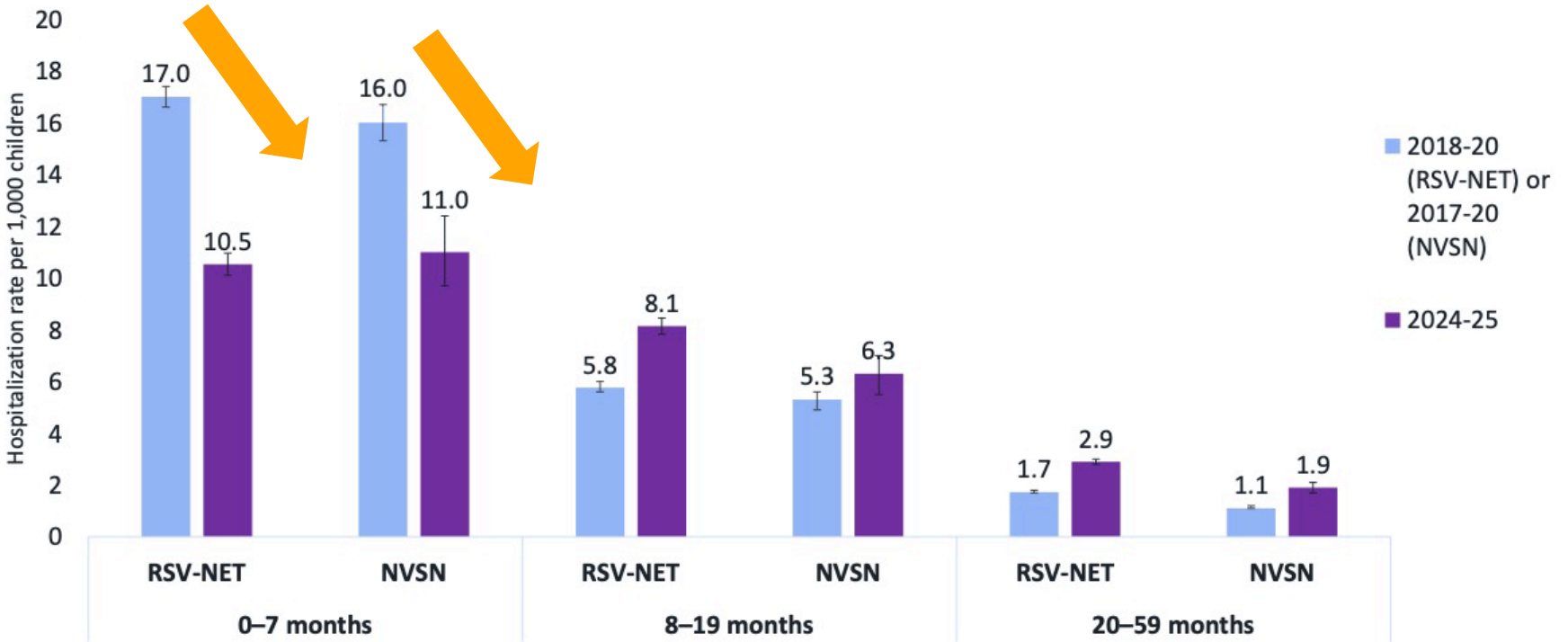
Outcome	Product	CDC Network	Product Efficacy*/Effectiveness (95% CI)
RSV-associated ED visit	Nirsevimab	VISION	63 (56-69)
		NVSN	76 (55-87)
		Clinical Trial	Not Applicable
	Maternal Vaccine	VISION	54 (35-67)
		Clinical Trial	Not Applicable
RSV-associated hospitalization	Nirsevimab*	VISION	79 (67-87)
		NVSN	82 (71-88)
		Clinical Trial	81 (62-90)
	Maternal Vaccine†	VISION	79 (55-90)
		NVSN	70 (28-88)
		Clinical Trial	57 (15-80)
RSV-associated Intensive Care Unit (ICU) admission	Nirsevimab*	VISION	82 (57-93)
		NVSN	88 (63-96)
		Overcoming	80 (73-85)
		Clinical Trial	90 (16-99)



*Jones et al. *MMWR* 2023. Available: https://www.cdc.gov/mmwr/volumes/72/wr/mm7234a4.htm
†Kampmann et al. *NEJM* 2023. Available: https://www.nejm.org/doi/full/10.1056/NEJMoa2216480

ACIP Meeting. Effectiveness and impact of RSV prevention products in infants during the 2024–2025 RSV season. June 2025.

Cumulative adjusted RSV-associated hospitalization rates in 2024–25 were compared to seasons before product introduction by age group



Bar labels indicate cumulative laboratory-confirmed RSV-associated hospitalizations per 1,000 children as of April 30 (RSV-NET) or March 31 (NVSN) each season. Rates use U.S. population denominators. RSV-NET rates are adjusted to account for RSV underdetection because of testing practices and test sensitivity. NVSN rates are adjusted to account for weeks with <7 days of surveillance, the proportion of eligible children not enrolled, sensitivity of respiratory syncytial virus reverse-transcription polymerase chain reaction testing compared to serology, and each site's estimated market share of acute respiratory illness hospitalizations by age. Error bars denote 95% confidence intervals (95% CI).

ACIP Meeting. Effectiveness and impact of RSV prevention products in infants during the 2024–2025 RSV season. June 2025.

Storage and Handling

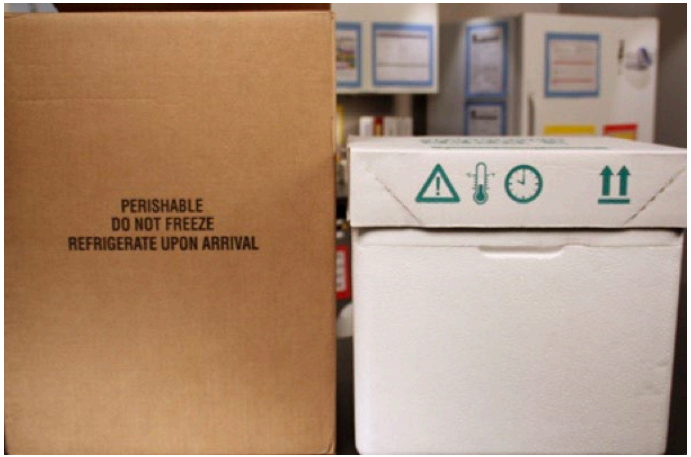
Emergency Response

Keep printed storage and handling document physically attached to the vaccine fridge

- Emergency contact(s)
- Plan (and backup plan!) for where the fridge contents go

CDC Storage & Handling Toolkit; Image: https://www.governmentnews.com.au/building-resilience-in-a-time-of-climate-uncertainty/

Off-Site Transport



Emergency Transport

Manufacturer shipping containers, food coolers

Planned Transport

Purpose-built vaccine cooler

Routine Storage

- Purpose-built where possible
- Accurate thermometer
- Airflow (in & out!)
- Drugs/vaccine only
- Protect from light

Immunization Resources

Immunization Neighborhood

American Pharmacists Association

Collaboration

--

Coordination

--

Communication

Patient Resources

The Meg Foundation

- Decreasing pain & anxiety for painful procedures in children
- Poke Plans by age
- SuperMeg Poke Planner app

Pokes are a problem.

What's Buzzy?

Buzzy's vibrations block the pain signal so you don't have to feel the poke!

What's numbing cream?

It's a cream that you put on 30-60 minutes before the poke that numbs your skin!

What's Shotblocker?

Shotblocker is a plastic device with little "nubs" that distract your nerves. Your brain feels the nubs, but not the poke!

Patient Resources

Does mRNA Alter DNA?

By Heather Simpson,
Back to the Vax

One of the biggest rumors floating around about the mRNA inside of the Moderna and Pfizer COVI
surface, this see
can enter a cell
seems like it co

Nope, it can't

What exactly is
for protein proc

Were COVID-19 Vaccines Rushed?

By Lydia Greene, Back to the Vax

There is a difference between something be
rushed and something being prioritized an
expedited. The word "rushed" implies steps
missed. Say you are at a restaurant and you
cheeseburger.

Somehow, your cheeseburger was forgotte
the kitchen made the rest of your table's or
ensues and they quickly throw your order to
their food at the same time. You get your bu

Do Vaccines Cause Autism?

By Lydia Greene, Back to the Vax

Short Answer: No. Wow, that was easy. (kidding).

Long Answer: Here is how I realized that **vaccines do not cause autism** from the lens of a former anti-vax parent. I have 3 children, and I stopped vaccinating when my oldest was just 4 months old. My next 2 children were completely unvaccinated. Being in the anti-vax crowd led me to have the wrong idea of what autism is. Parents in

Thank you!

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