Vaccines 2026

Helmut Albrecht, MD

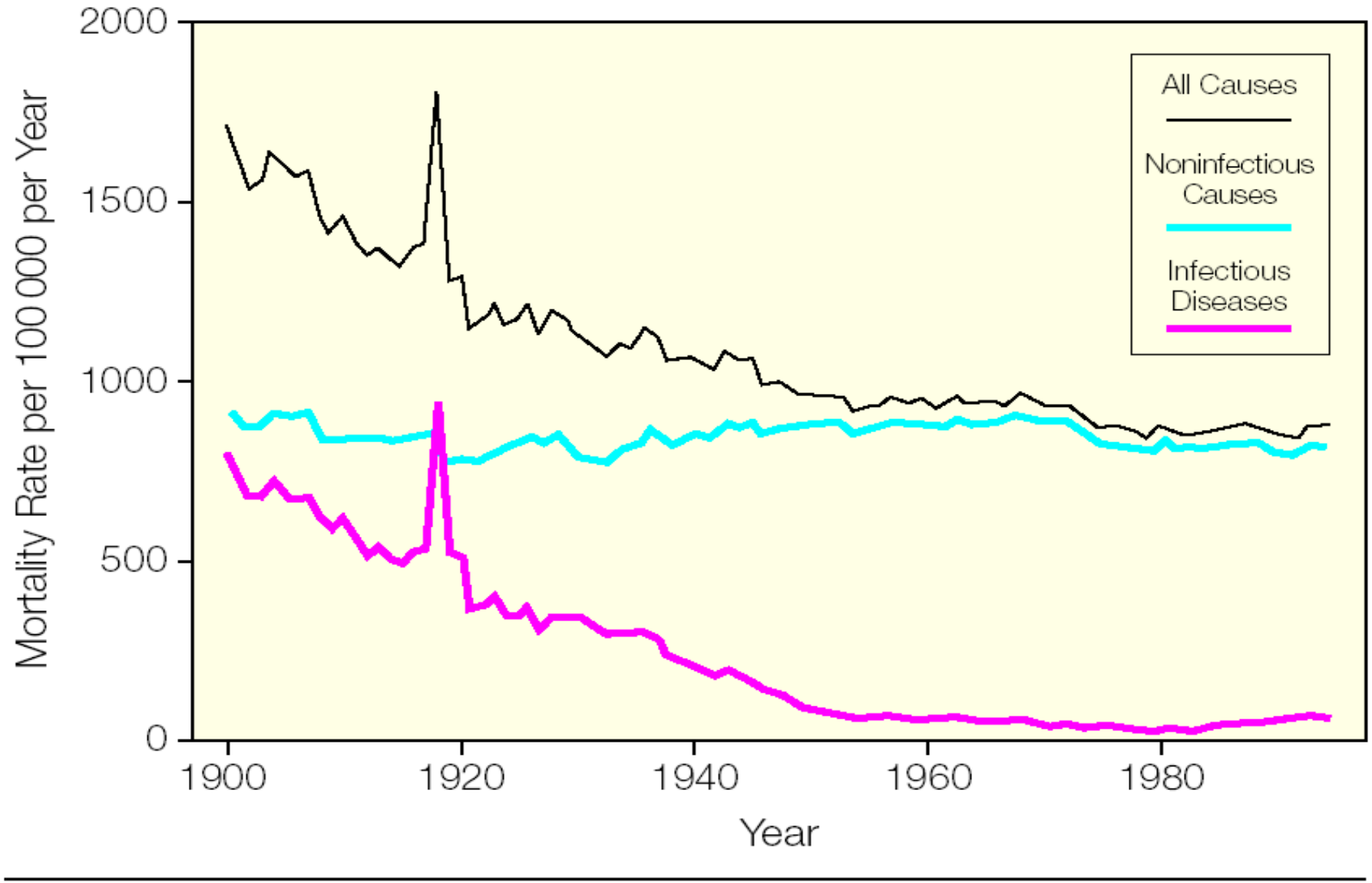
Heyward Gibbes Distinguished Professor of Internal Medicine

Medical Director, Center for Infectious Diseases Research & Policy

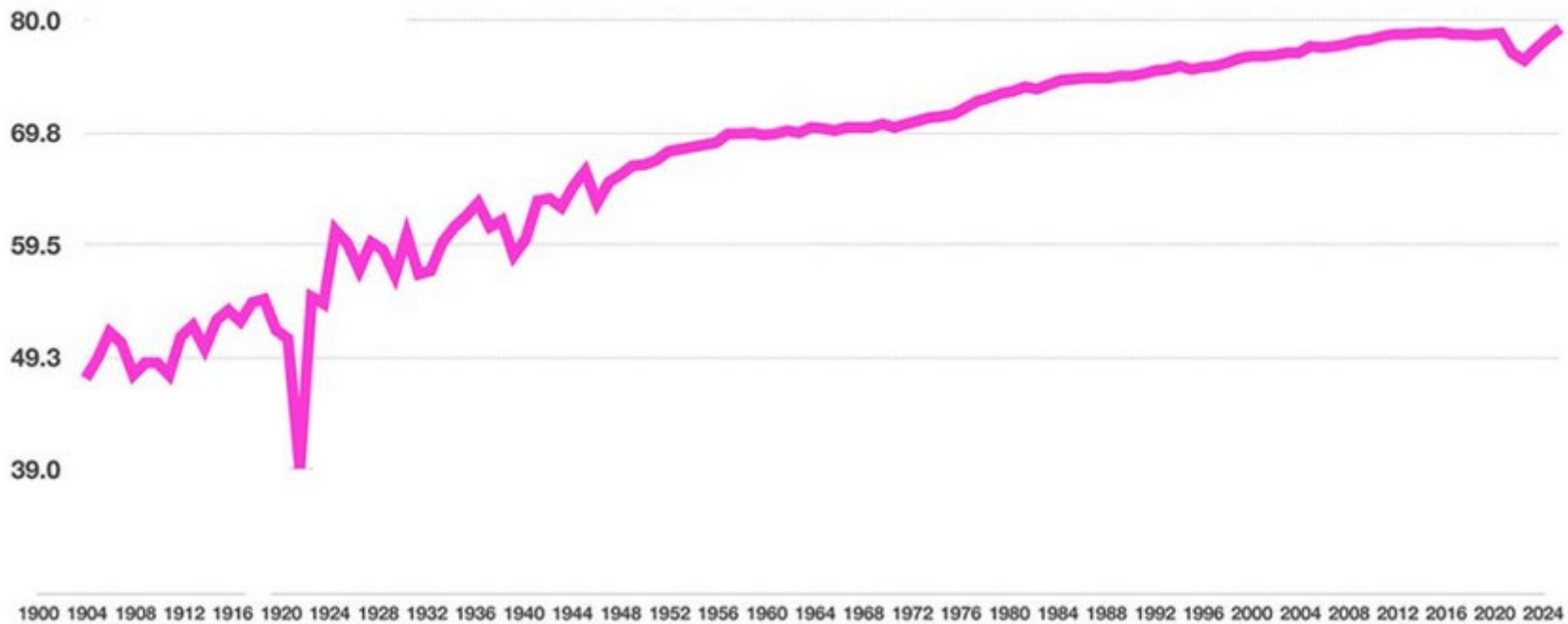
Interim ID Division Chief, Prisma Health/USC

Disclosures

- I am certainly conflicted about the topic but I have no relevant financial interests pertaining to this topic
- I hate giving talks with a political bend – but, alas, vaccines have become a political issue
- I was asked to do this – I do not know why I said yes


2000
1500
1000
500
0
Mortality Rate per 100 000 per Year
1900
1920
1940
1960
1980
Year
All Causes
Noninfectious Causes
Infectious Diseases

U.S Life Expectancy (1900-2024)



For decades it was clear what caused this

- Clean water
- Vaccines

Reduction in Morbidity: Vaccine–Preventable Diseases

Disease	Maximum Cases	2004/5	Change(%)
Diphtheria	206,939	0	-100.00
Hepatitis B	200,500	17,358	-73.80
Hepatitis A	35,200	4,488	-79.33
Measles	894,134	66	-99.99
Pertussis	265,269	25,616	-87.05
Polio (paralytic)	21,269	1	-100.00
Rubella	57,686	11	-99.99
Congenital rubella syn.	20,000	1	100.00
Tetanus	1,733	34	-94.12
Hib (<5 years)	20,000	30	-99.94
Varicella	83,500	11,250	-86.53
Pneumoccocal Disease	63,933	37,775	-41.00

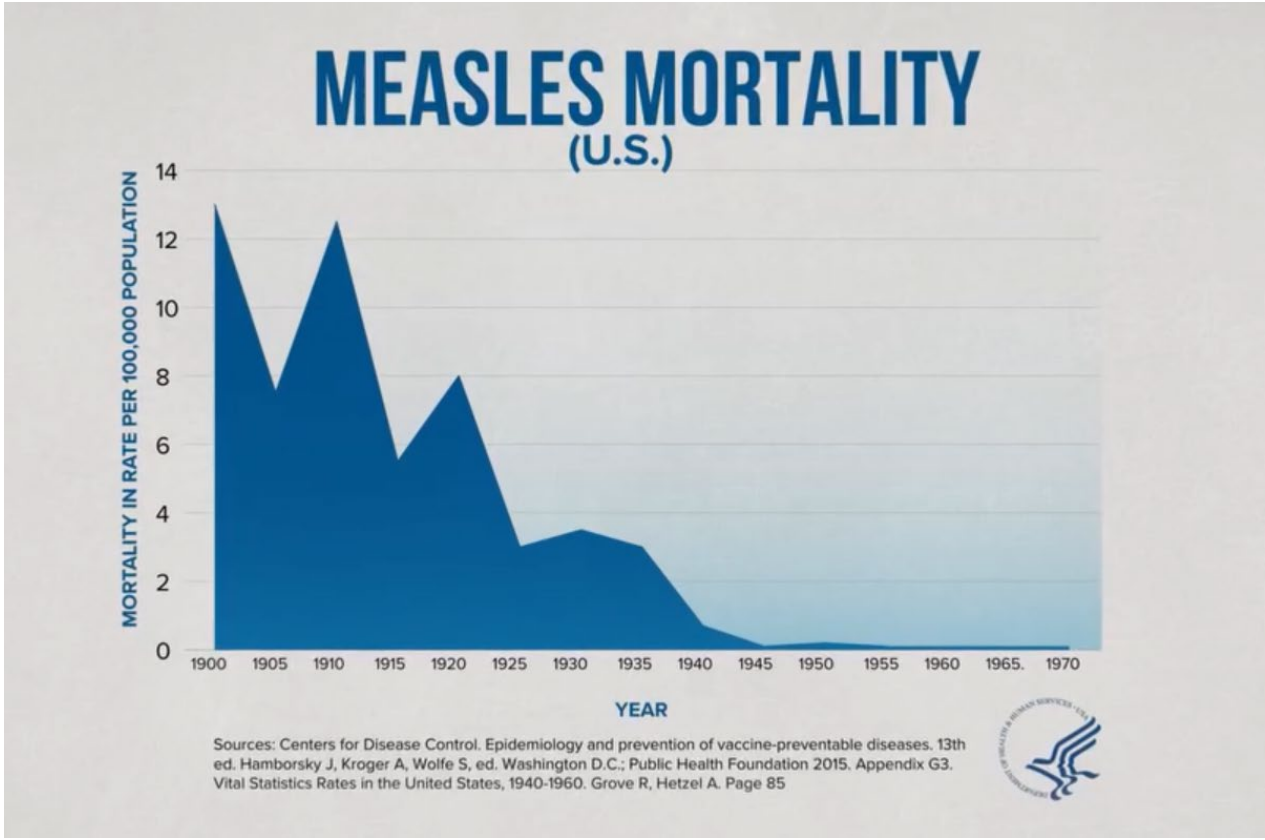
CDC,MMWR 54(47);1214.12/2/05,NIC,3/5/07

Is this really a talk about vaccines and even about measles in 2026?

- In 2025/2026 SC experienced the largest measles outbreak in the US in the last 30+ years
- Measles causes few deaths but every single one is preventable
- Death is not the worst thing that can happen with measles
- “They” will talk about it
- If we don’t talk about it, it may get worse

RFK: Measles mortality decline and MMR introduction are unrelated – could he be correct?

- https://www.instagram.com/reel/DPM6xxKDTov/
- 1:08

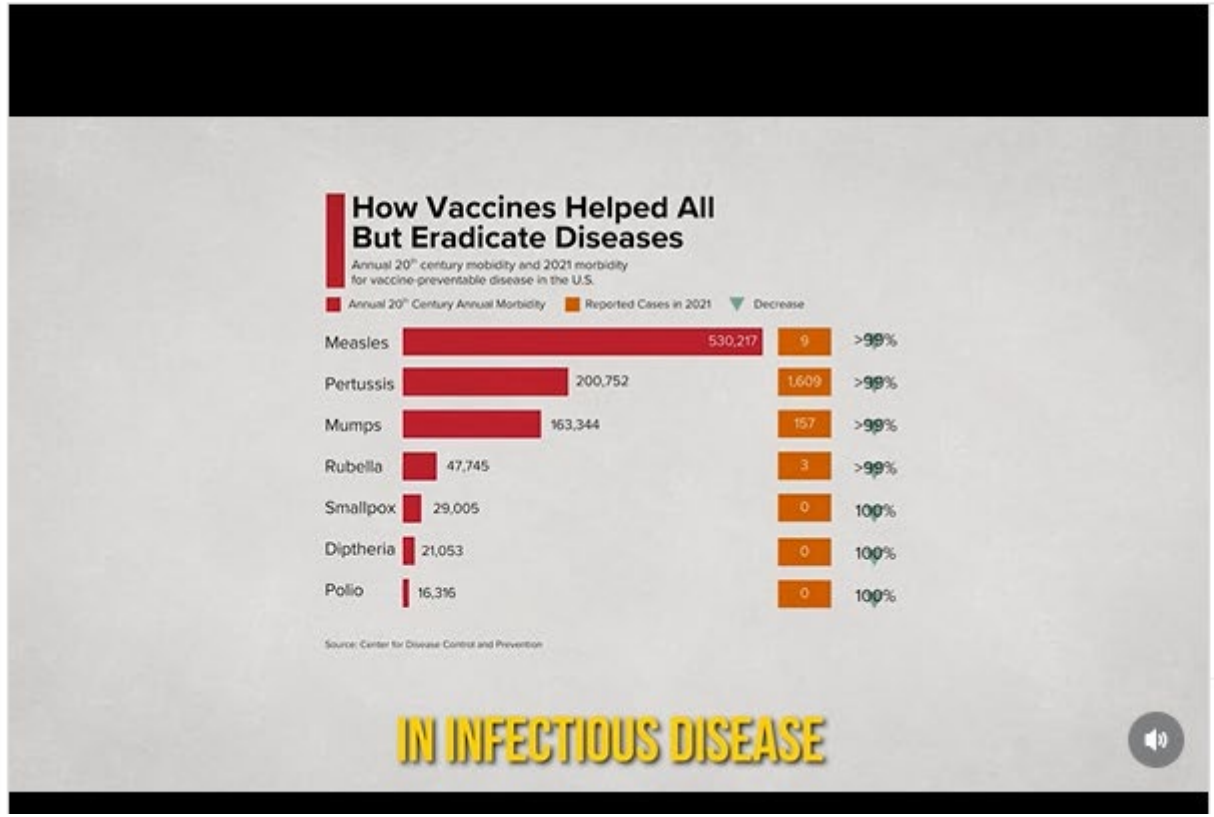


RFK: Measles mortality decline and MMR introduction are unrelated – could he be correct?

- https://www.instagram.com/reel/DPM6xxKDTov/
- Ok, so he is not correct
- He is, however, cherry picking, giving conflicting statements, using mis-, disinformation, half-truths and is dishonest (lying would be perjury)
- RFK ran in the democratic primary, then as an independent, then supported President Trump to qualify for a cabinet position
- It is not a left or right question, it is science or anti-science
- There are measured responses out there (example “Dr. Mike”)
  - https://www.youtube.com/watch?v=i0q_Oj425cU

Instagram

Log In Sign Up



seckennedy • Follow
Original audio

@seckennedy ❤️

Like Reply

View all 15 replies

dr.josh_shields 17w
So nice to finally hear somebody telling the whole story!

Like Reply

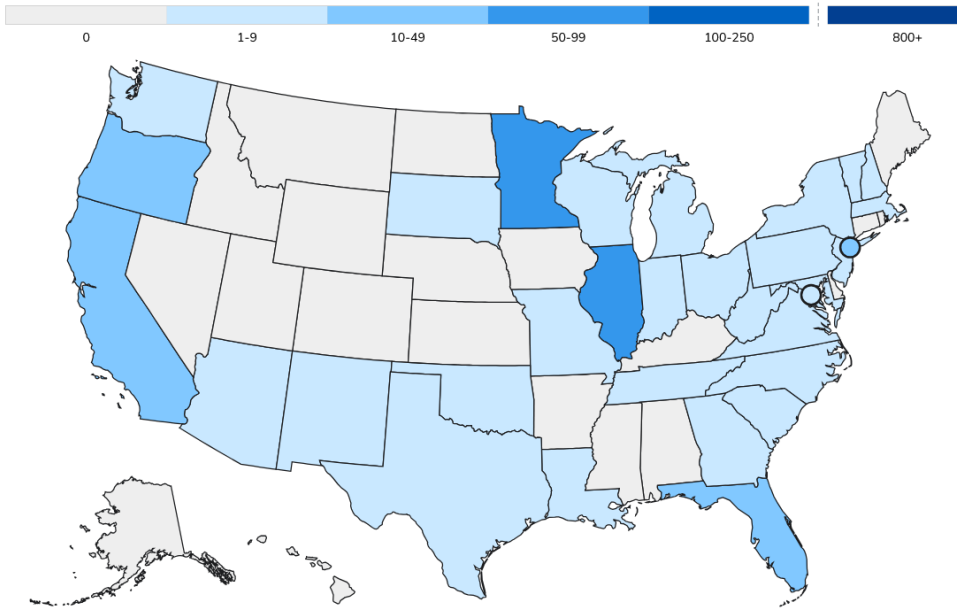
tcspiceoflife 23w
The strategy to patiently and slowing chip away at the psyop is so brilliant 🍗❤️

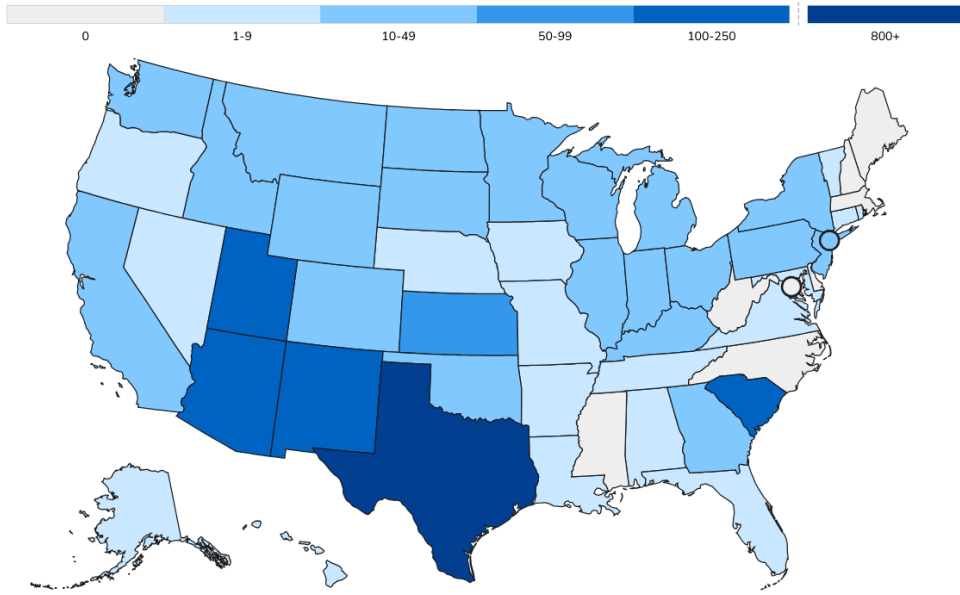
Like Reply

41.6K 2K

September 29, 2025

Measles in US 2024 2025

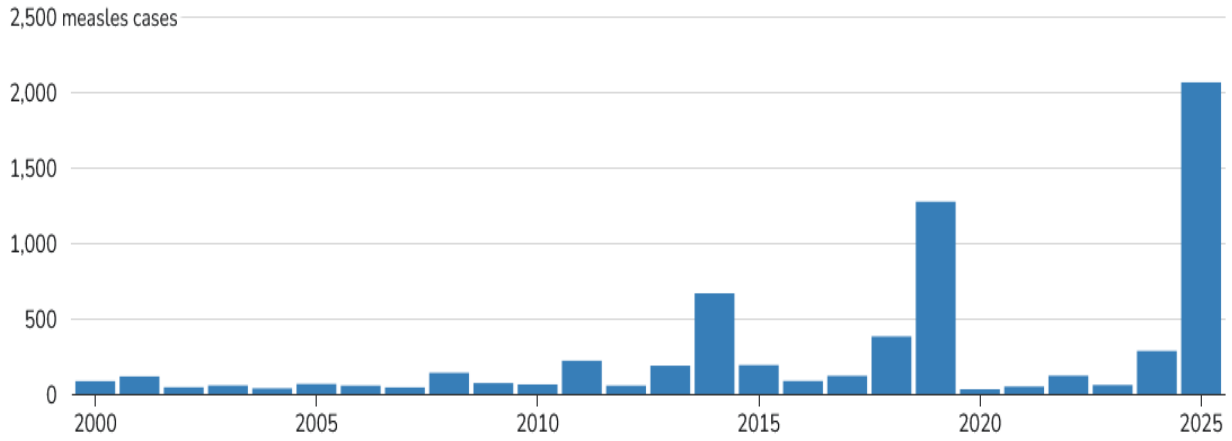




Yearly measles cases

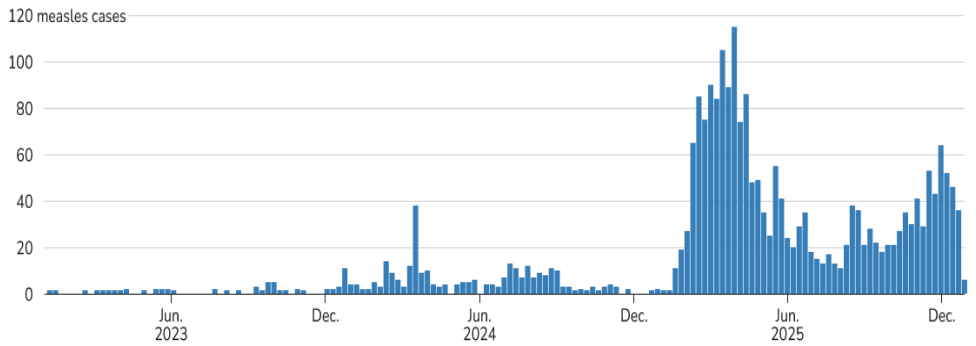
as of December 30, 2025

2000-Present* 1985-Present*



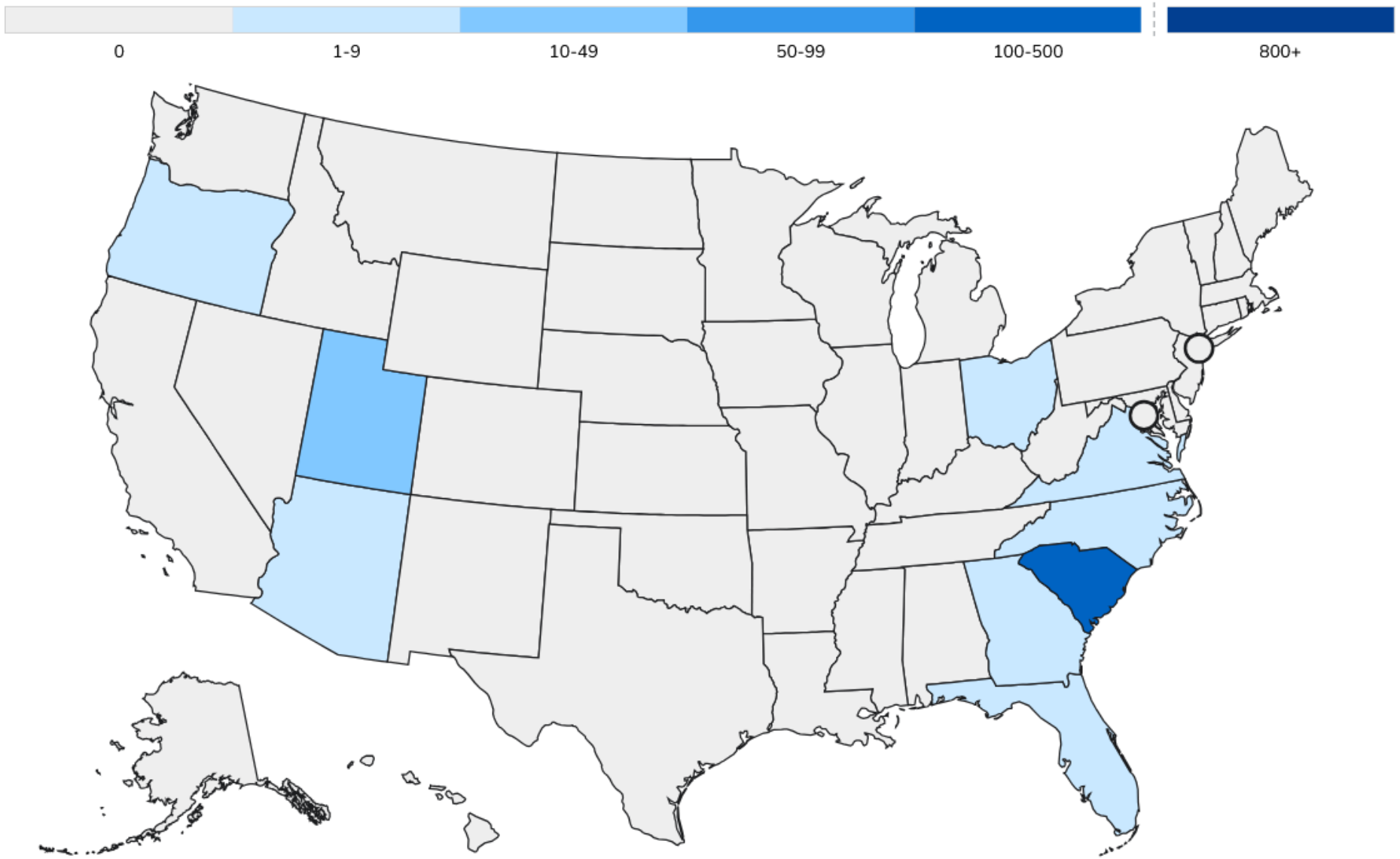
Weekly measles cases by rash onset date

2023–2025* (as of December 30, 2025)



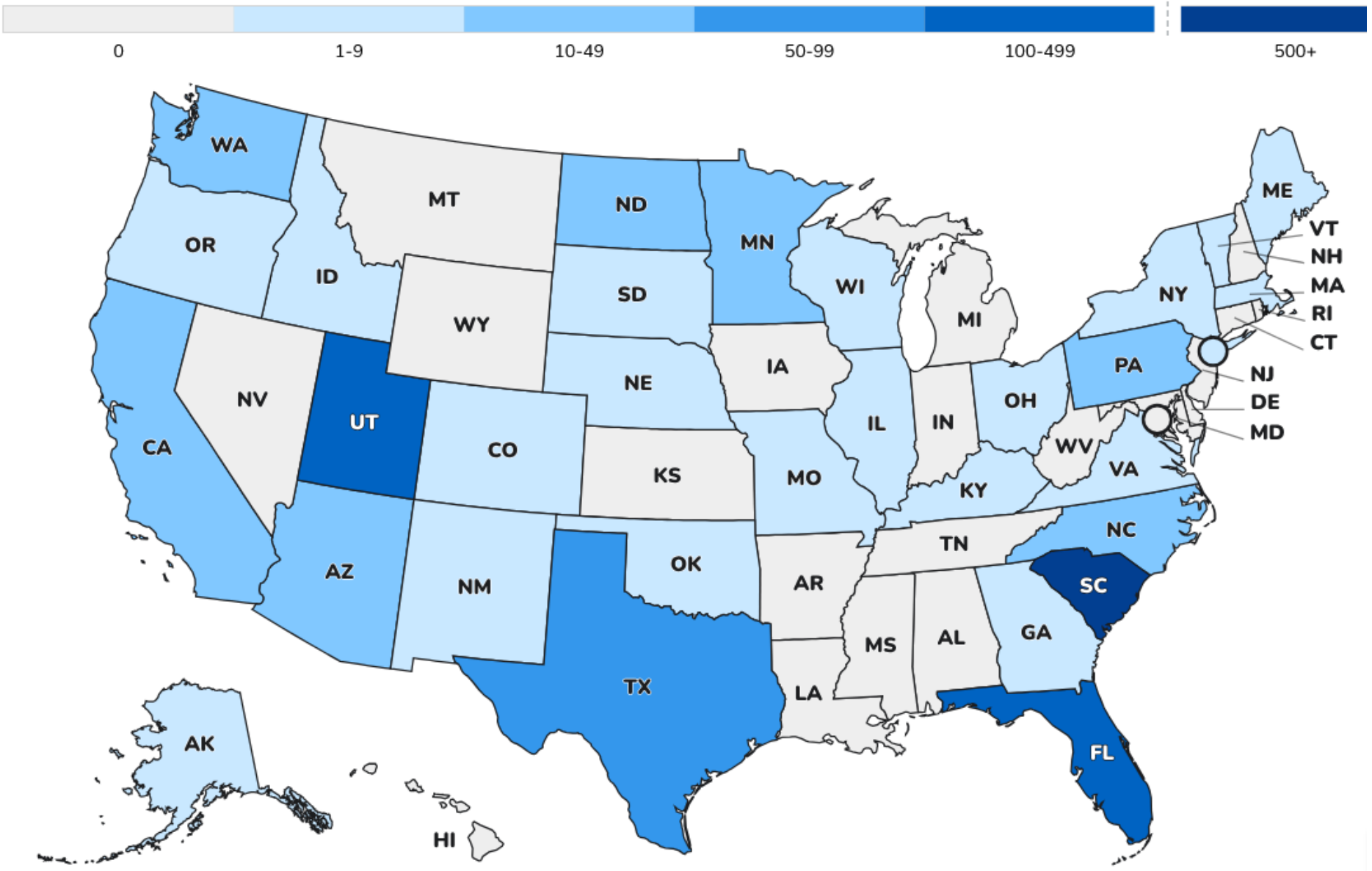
Jan 2026

2026 2025 2024



2026 2025 2024

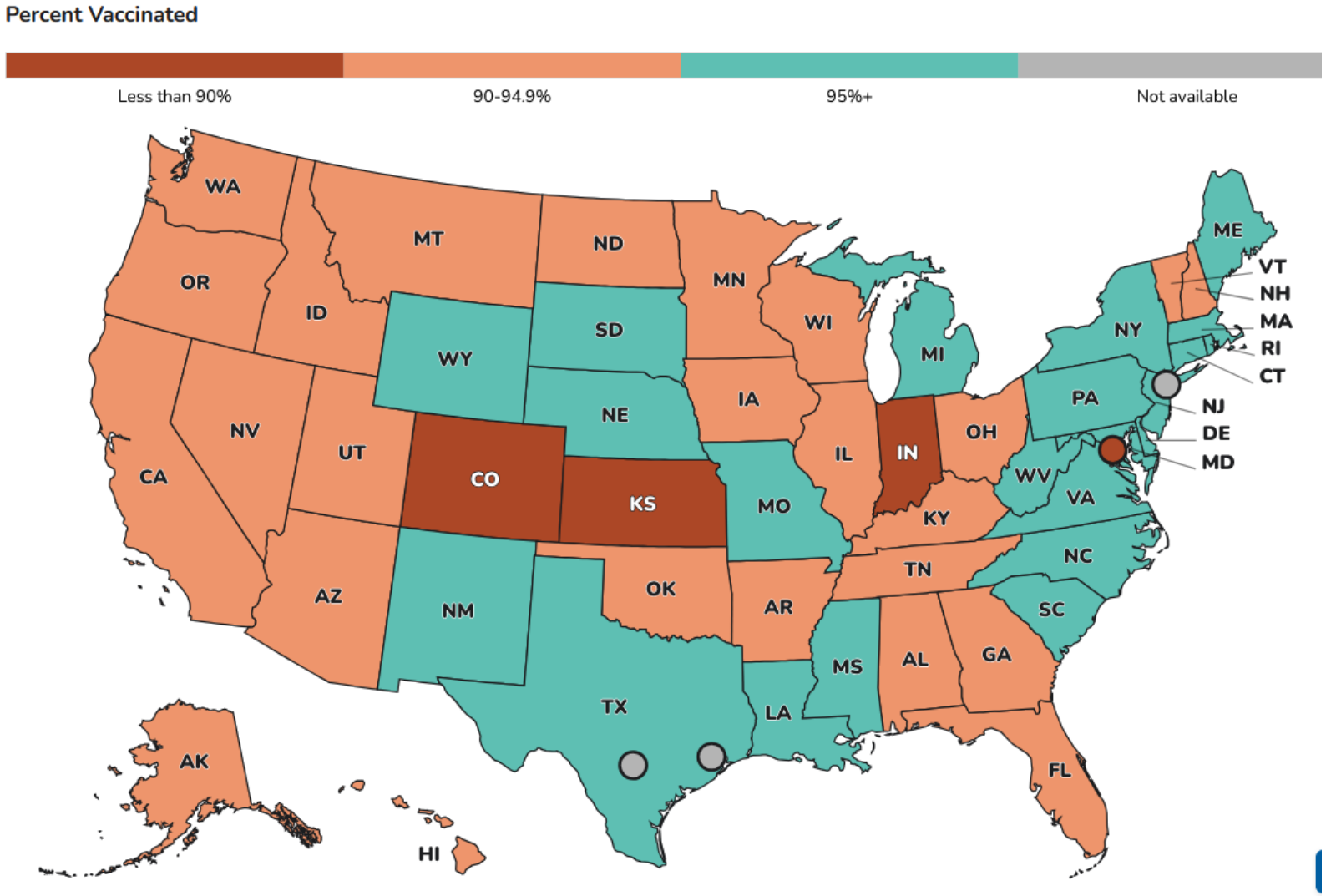
March 6 2026
1281 cases, 12 new outbreaks, 31 states,
4 international visitor associated



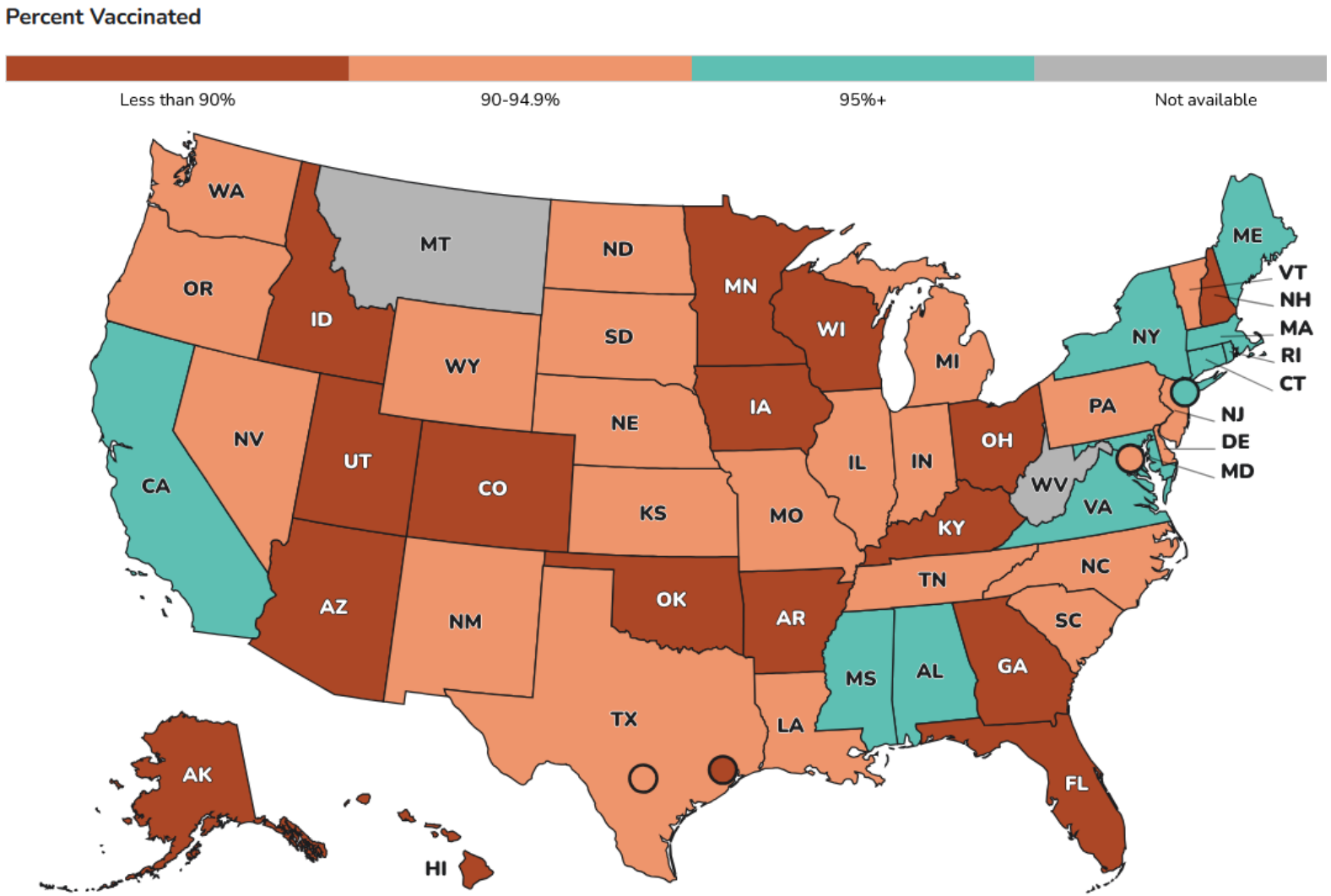
This is directly associated with lack of vaccine coverage

- Immigrants – often from countries with war-related disrupted healthcare systems
- “Religious” and cultural concerns
- “Political”

MMR vaccine coverage in 2015

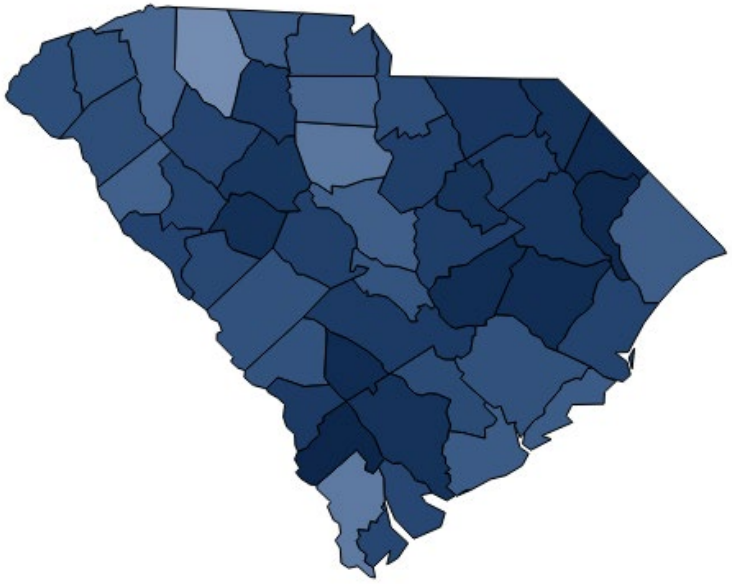


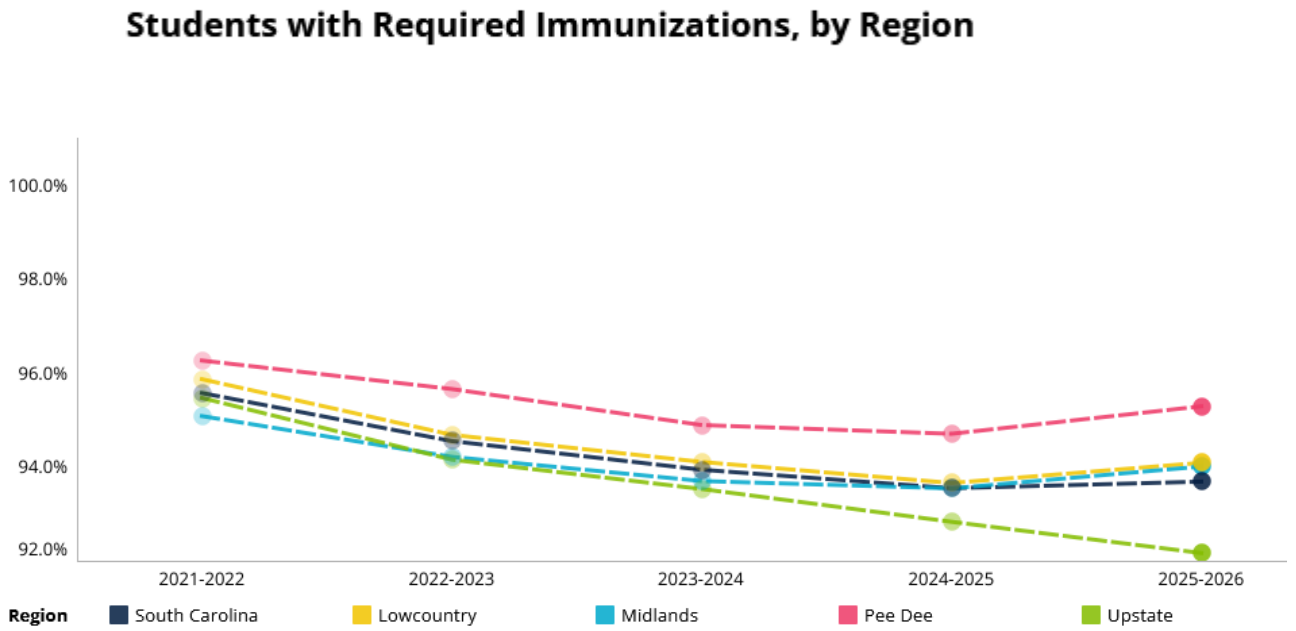
MMR vaccine coverage in 2025



Student Immunization Rates in SC

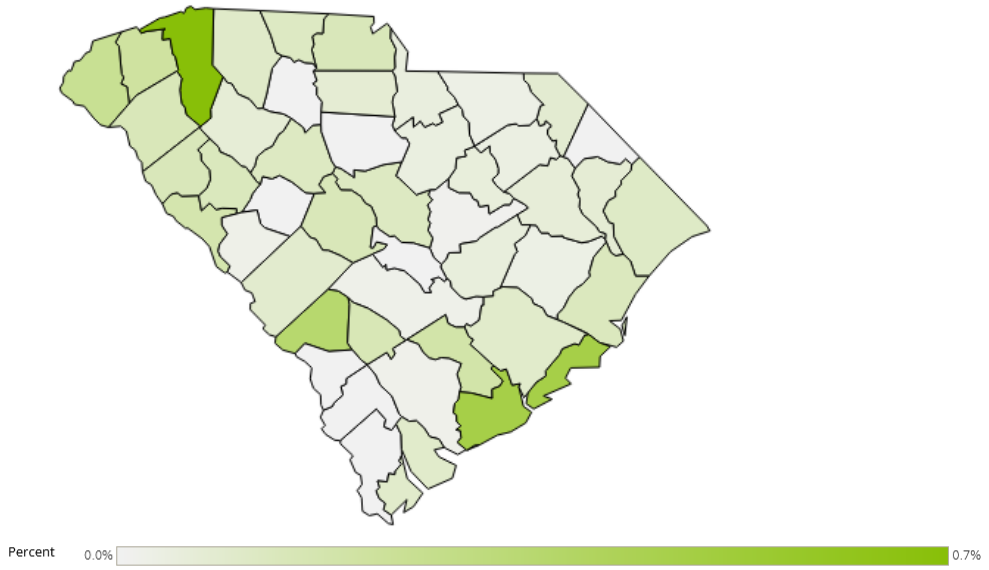
Students with required vaccination 2025-2026

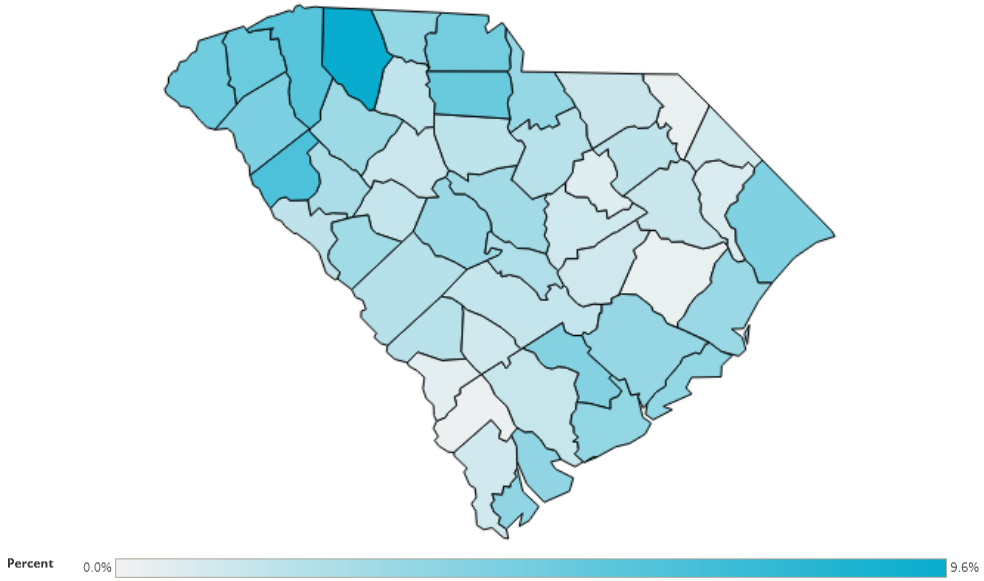


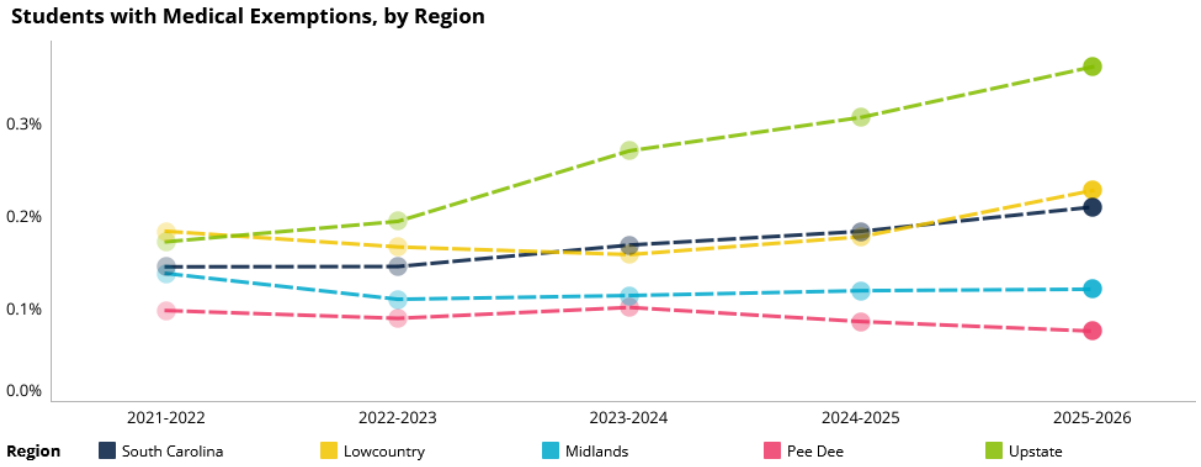


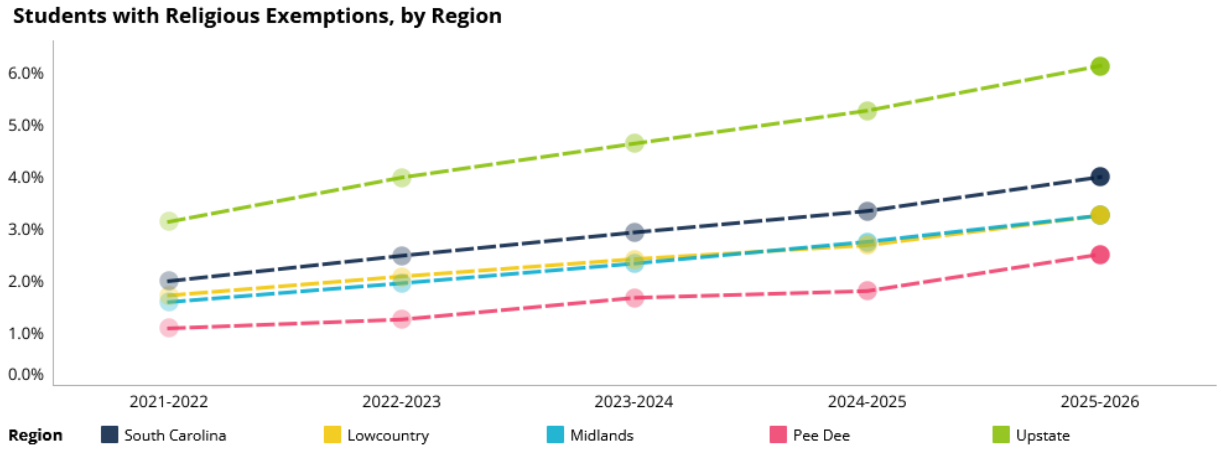
Percent 82.5% 99.0%

Medical and “Religious” Exemptions in 2025-2026 in SC



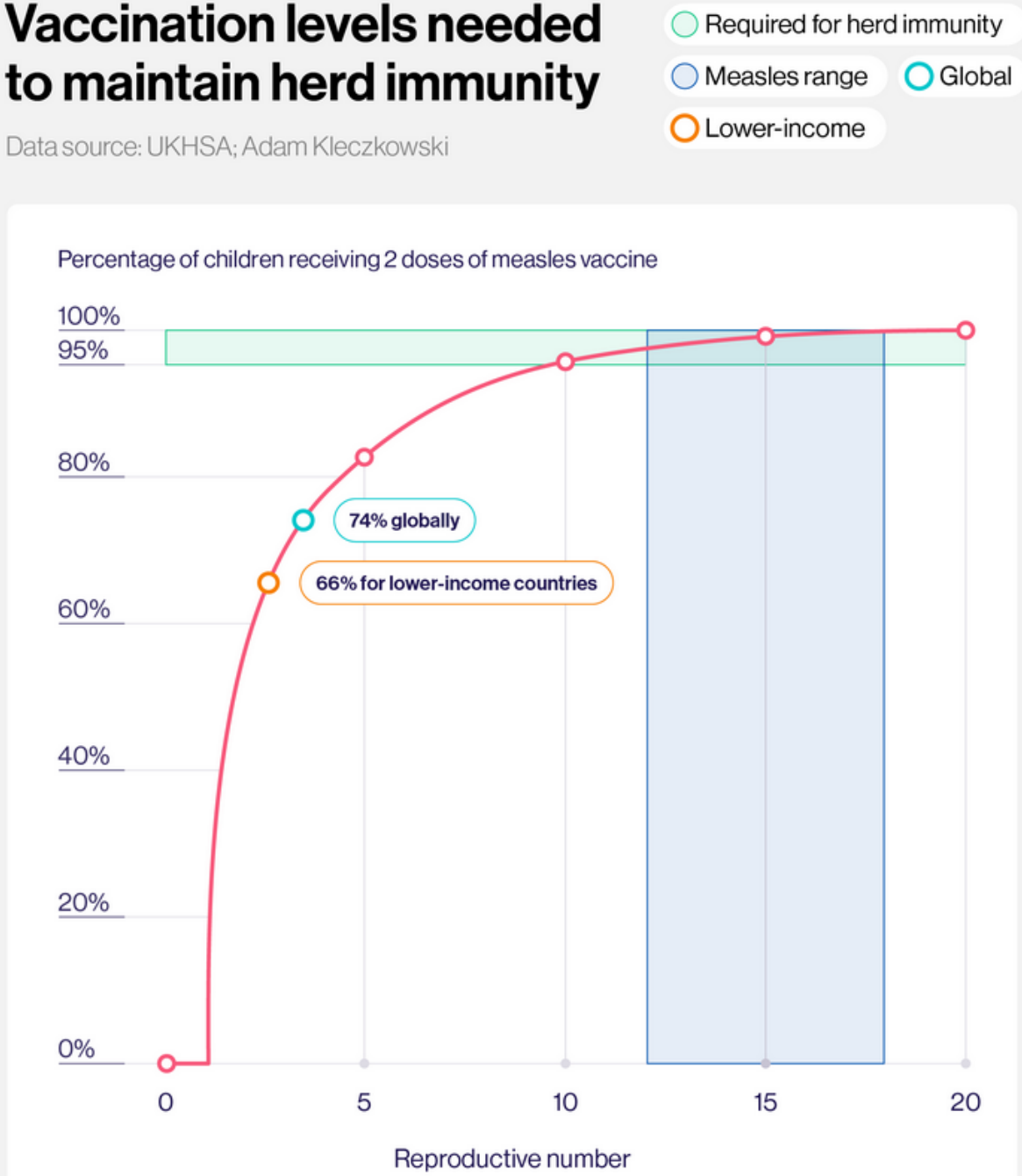






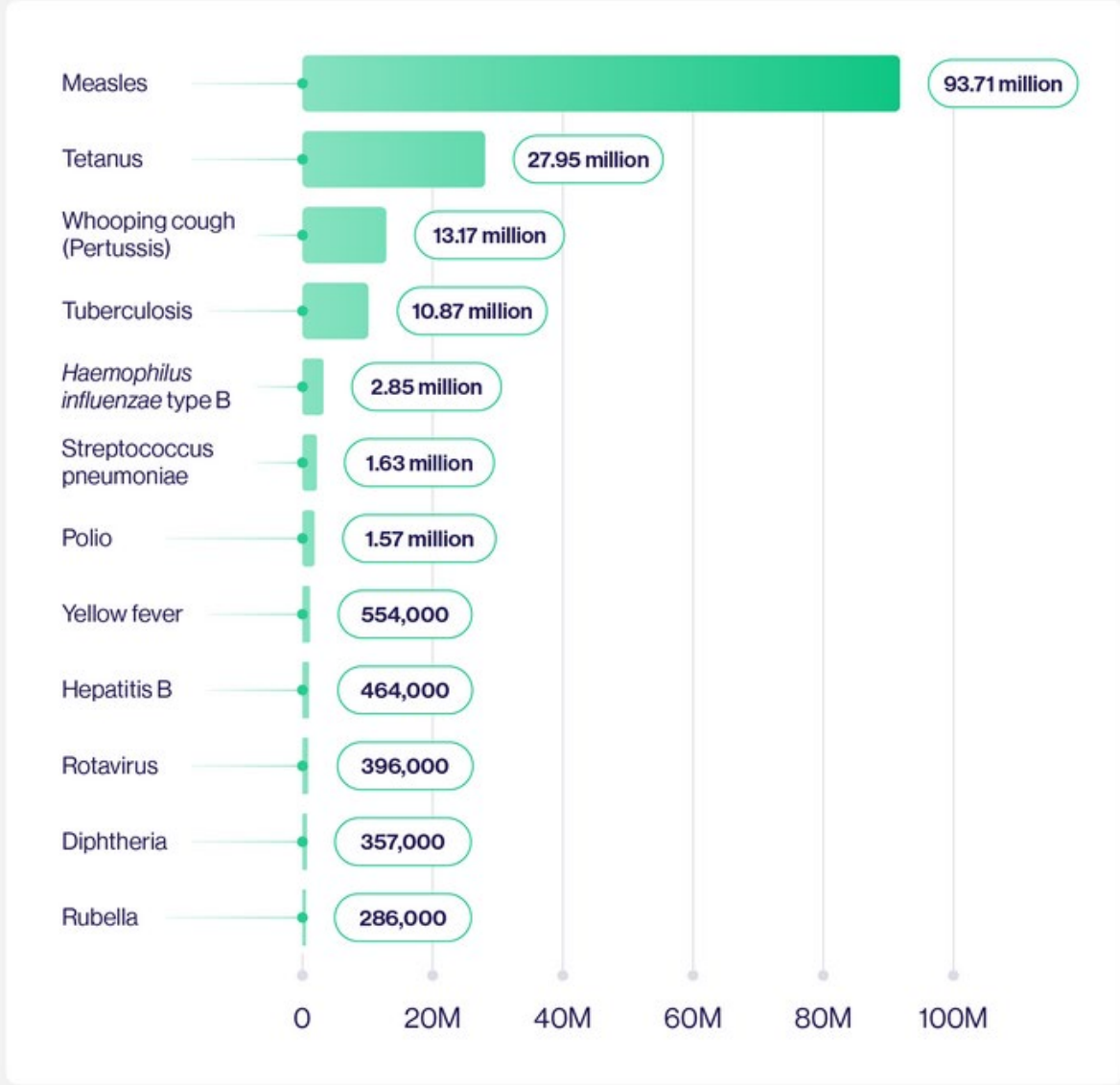
Vaccination levels needed to maintain herd immunity

Data source: UKHSA; Adam Kleczkowski

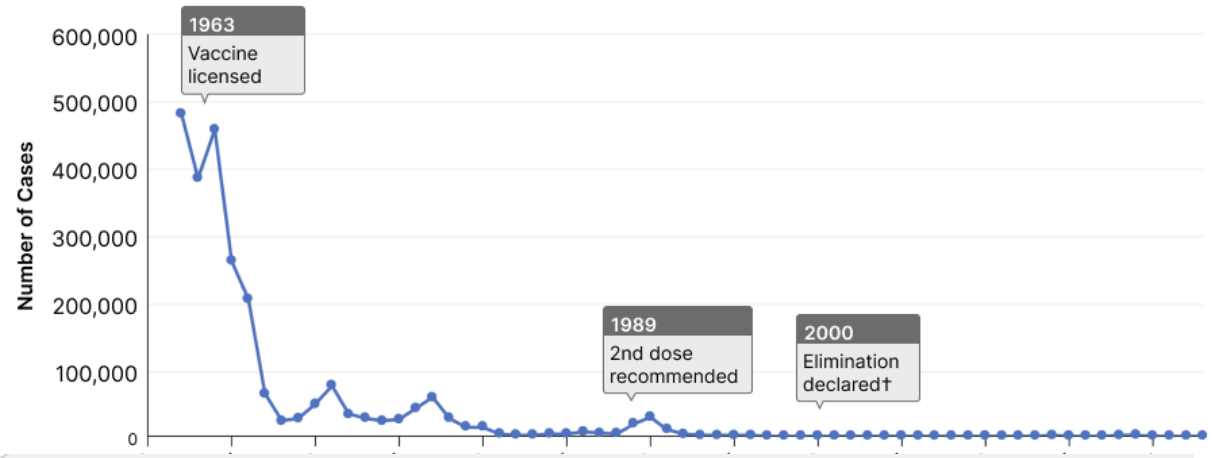


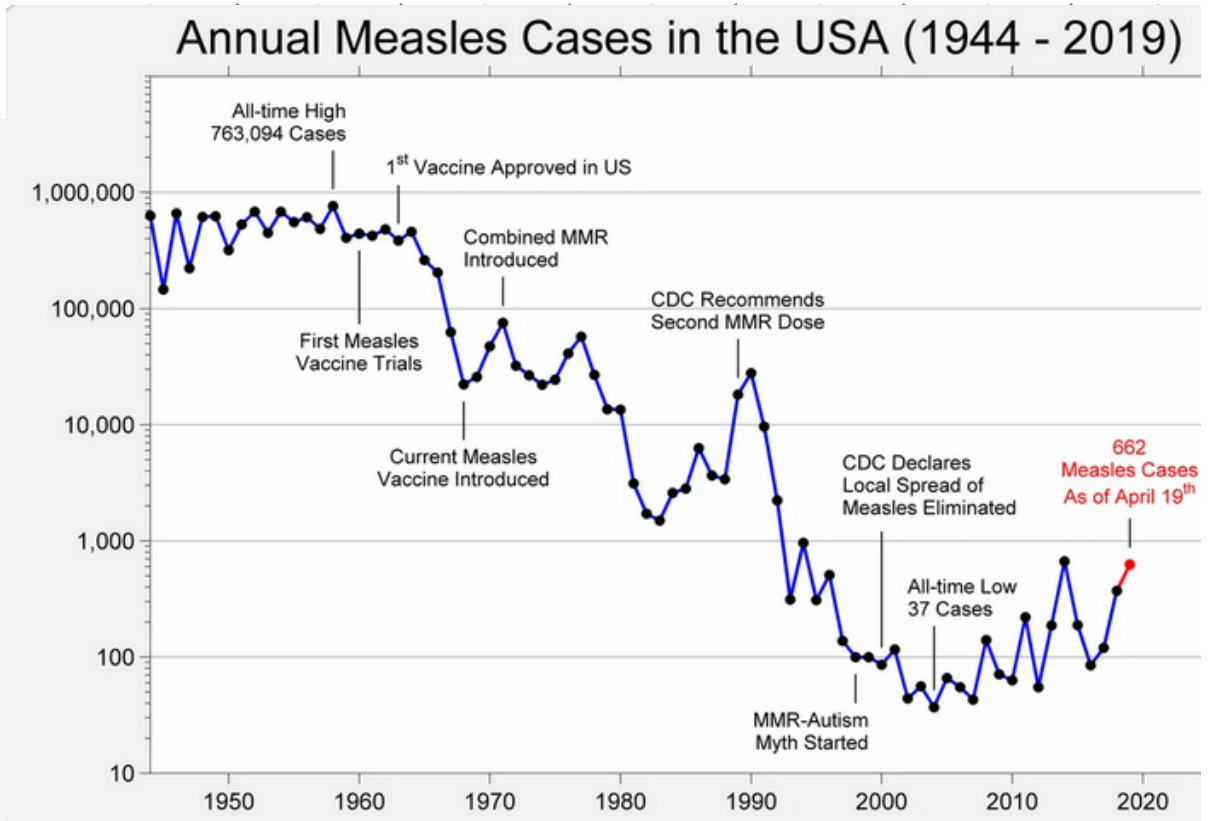
Number of lives saved by vaccination from 1974 to 2004

Data source: Shattock et al. (2024). Contribution of vaccination to improved child survival: modelling 50 years of the Expanded Programme on Immunization.



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





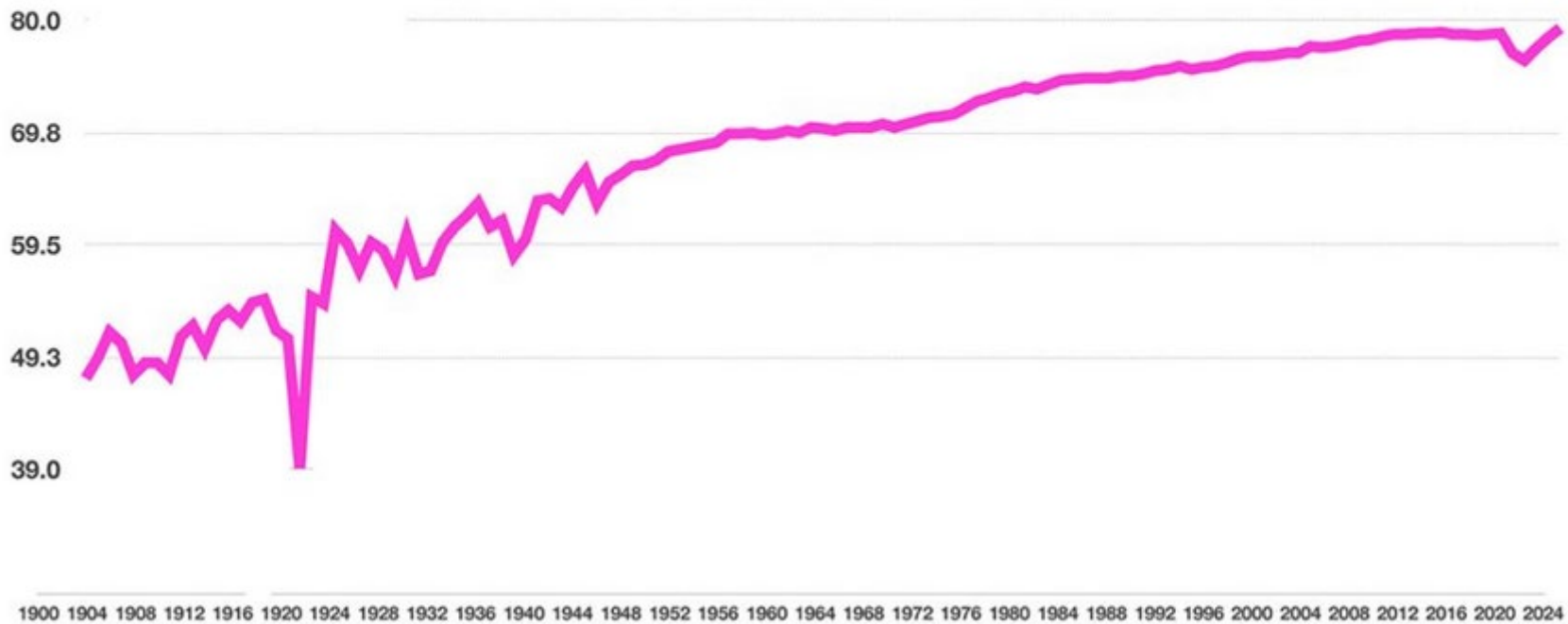
A Population-Based Study of Measles, Mumps, and Rubella Vaccination and Autism

Kreesten Meldgaard Madsen, M.D., Anders Hviid, M.Sc., Mogens Vestergaard, M.D., Diana Schendel, Ph.D., Jan Wohlfahrt, M.Sc., Poul Thorsen, M.D., Jorn Olsen, M.D. and Mads Melbye, M.D.

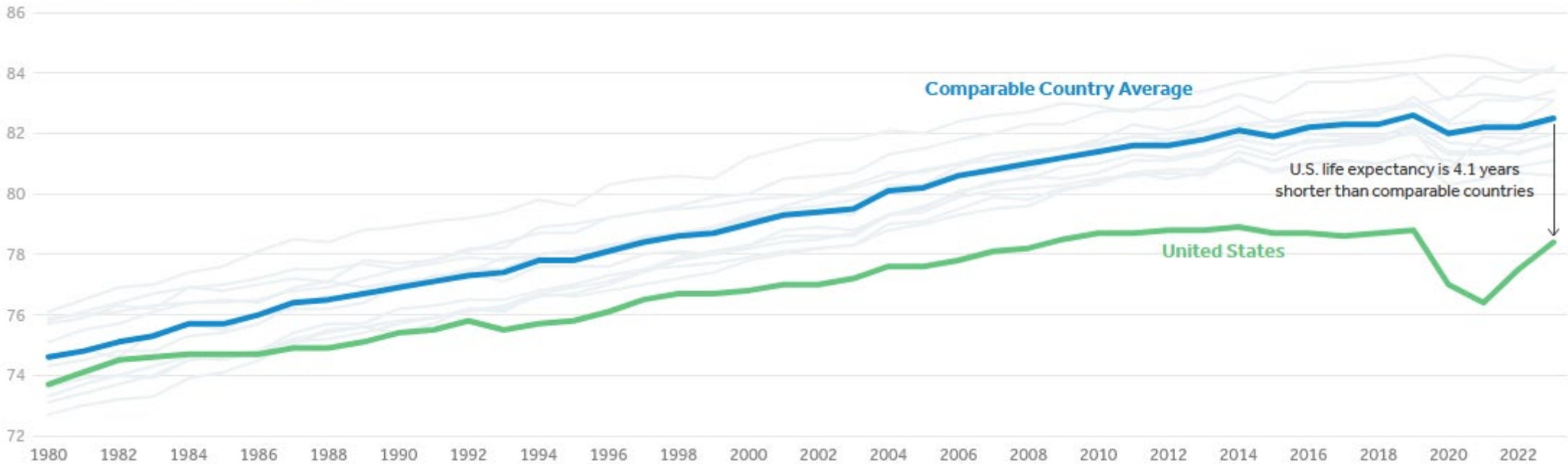
N Engl J Med
Volume 347;19:1477-1482
November 7, 2002

- The measles, mumps, and rubella (MMR) vaccine contains a live, attenuated measles virus, and there have been claims that the vaccine is a cause of autism in young children
- This study included all children born in Denmark from 1991 to 1998
- Using national-registry data on autistic disorders, the investigators found no association between MMR vaccination and a subsequent diagnosis of autism (relative risk, 0.92; 95 percent confidence interval, 0.68 to 1.24) or a related disorder (relative risk, 0.83; 95 percent confidence interval, 0.65 to 1.07)
- This national cohort study, which included 537,303 children, obviated the problems of selection bias and misclassification bias
- The results provide strong evidence that MMR vaccination is not a cause of autism

U.S Life Expectancy (1900-2024)



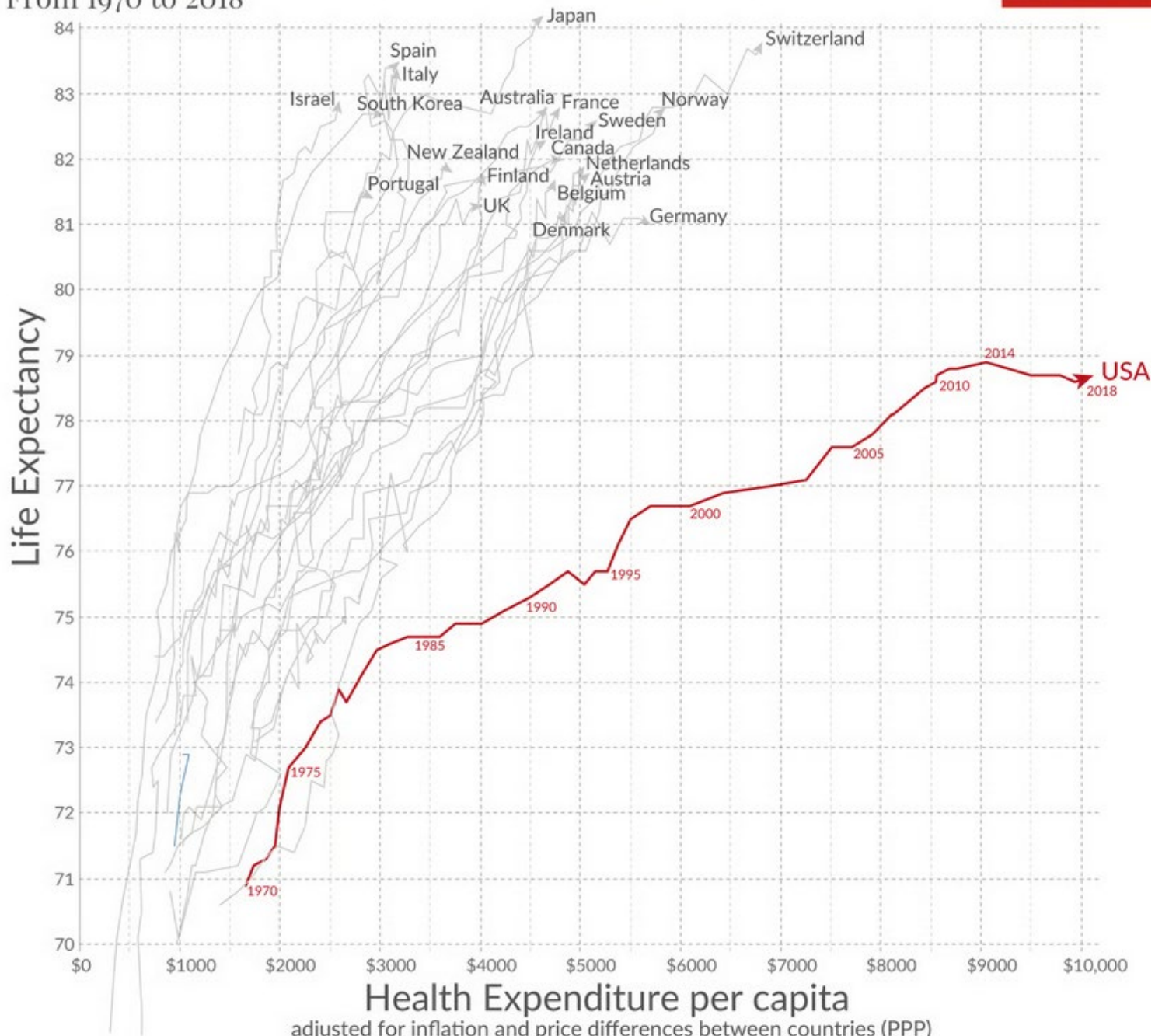
Life expectancy at birth, in years, 1980-2023



Life expectancy vs. health expenditure

From 1970 to 2018

Our World in Data



Adult Vaccination

- Routine Vaccination
  - Catch-up Vaccination
  - Risk-based Vaccination
- Specialty Vaccination
  - Armed Forces
  - Pre/Post Exposure
  - Employment
  - Travel Vaccines

Vaccines in the Adult Immunization Schedule*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty®/Pfizer- BioNTech COVID-19 Vaccine
		Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
***Haemophilus influenzae* type b vaccine**	Hib	ActHIB® Hiberix® PedvaxHIB®
Hepatitis A vaccine	HepA	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	HepA-HepB	Twinrix®
Hepatitis B vaccine	HepB	Engerix-B® Heplisav-B® PreHevbrio® Recombivax HB®
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM	Menveo®
	MenACWY-TT	MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C	Bexsero®
	MenB-FHbp	Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/MenB-FHbp	Penbraya™
Mpox vaccine	Mpox	Jynneos®
Pneumococcal conjugate vaccine	PCV15	Vaxneuvance™
	PCV20	Prevnar 20™
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Varicella vaccine	VAR	Varivax®
Zoster vaccine, recombinant	RZV	Shingrix

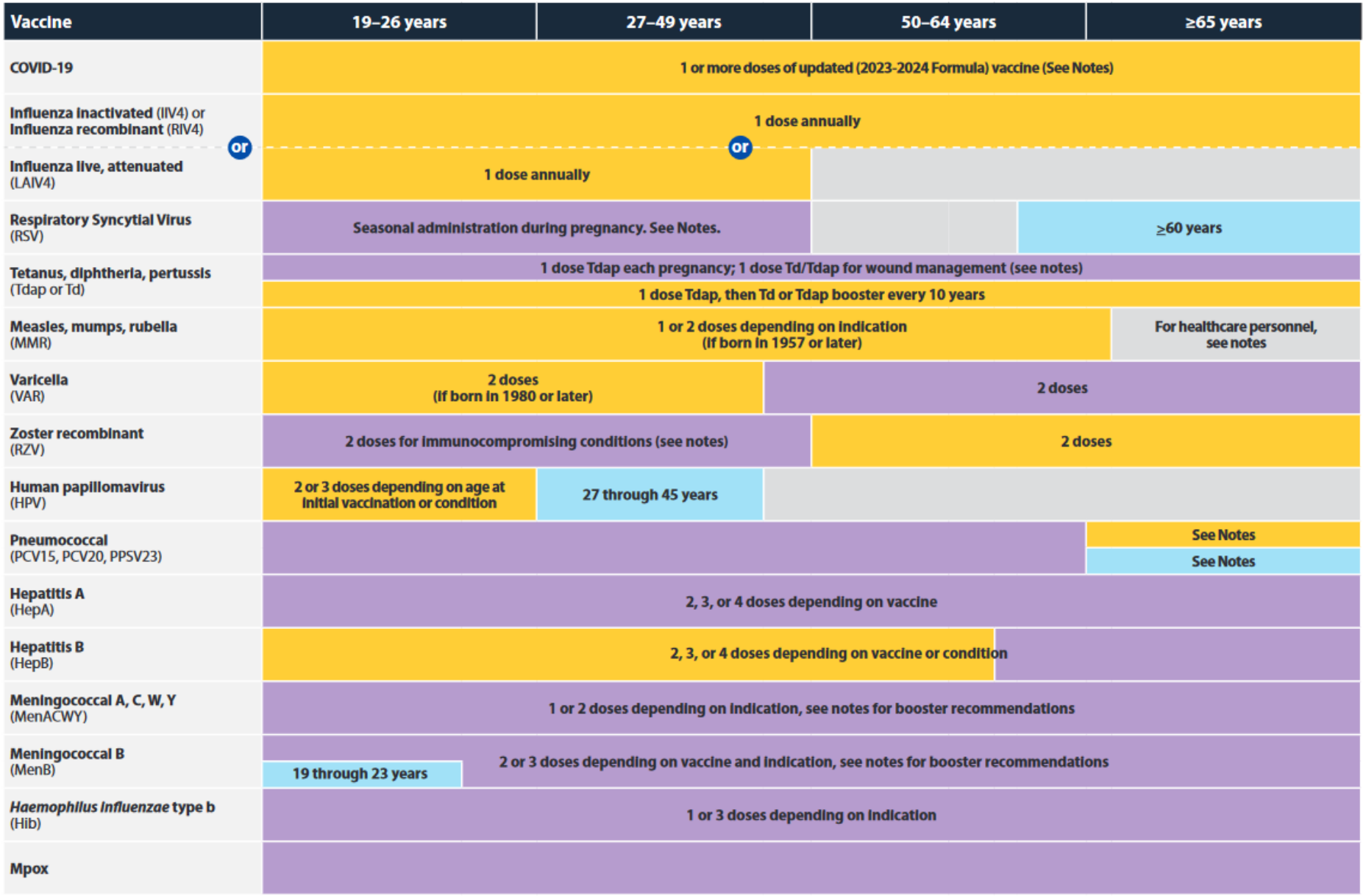
Adult Immunization Schedule 2026 -spoiler alert: not update from 2025

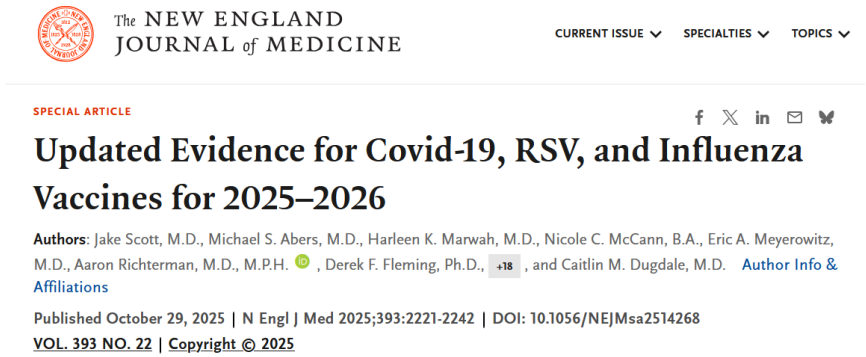
- https://www.cdc.gov/vaccines/hcp/imz-schedules/adult-age.html?CDC_AAref_Val=https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

- By Age
  - https://www.cdc.gov/vaccines/hcp/imz-schedules/adult-age.html?CDC_AAref_Val=https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html#table-age
  - Online, printable (PDF), mobile download

- By Indication
  - https://www.cdc.gov/vaccines/hcp/imz-schedules/adult-medical-condition.html
  - Online, printable (PDF), mobile download

Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2024





The NEW ENGLAND JOURNAL of MEDICINE

CURRENT ISSUE SPECIALTIES TOPICS

SPECIAL ARTICLE

Updated Evidence for Covid-19, RSV, and Influenza Vaccines for 2025–2026

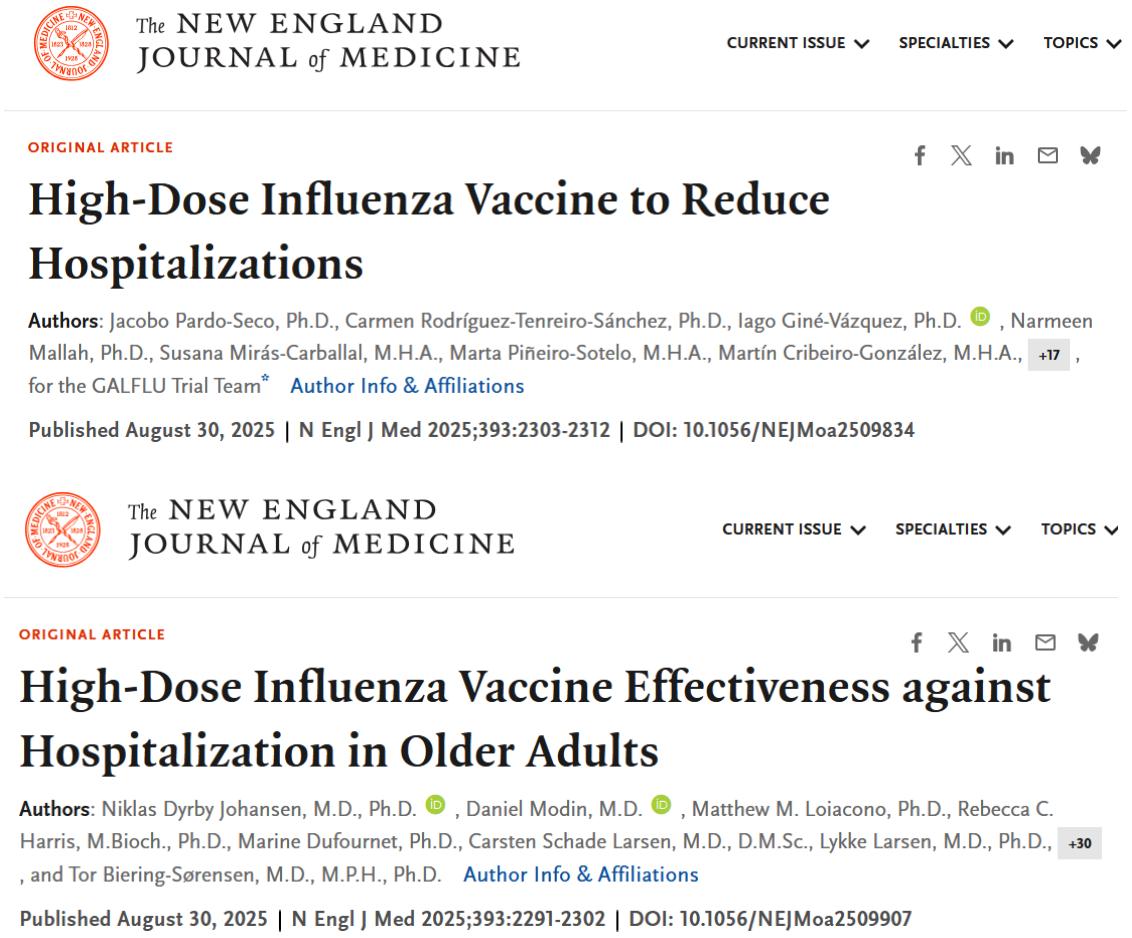
Authors: Jake Scott, M.D., Michael S. Abers, M.D., Harleen K. Marwah, M.D., Nicole C. McCann, B.A., Eric A. Meyerowitz, M.D., Aaron Richterman, M.D., M.P.H., Derek F. Fleming, Ph.D., +18, and Caitlin M. Dugdale, M.D. Author Info & Affiliations

Published October 29, 2025 | N Engl J Med 2025;393:2221-2242 | DOI: 10.1056/NEJMsa2514268
VOL. 393 NO. 22 | Copyright © 2025

- A systematic review of over 500 trials and observational studies estimated pooled vaccine effectiveness against infection-associated hospitalization in various populations from 2023 to mid-2025
- Influenza: 67% in children and 48% in adults 18 to 64 years old
- RSV: 79% in adults 60 years and older
- COVID-19: 46 to 50 percent for COVID-19 vaccination in adults

How about high dose flu vaccine

- In 100,000 adults ≥65 years in Spain, HD vaccine reduced hospitalization for influenza or pneumonia compared with SD vaccine (relative vaccine effectiveness 24%)
- In a similar trial among more than 330,000 adults ≥65 years in Denmark, hospitalization rates were similar between the groups (relative vaccine effectiveness 6%)



The NEW ENGLAND JOURNAL of MEDICINE

CURRENT ISSUE SPECIALTIES TOPICS

ORIGINAL ARTICLE

High-Dose Influenza Vaccine to Reduce Hospitalizations

Authors: Jacobo Pardo-Seco, Ph.D., Carmen Rodríguez-Tenreiro-Sánchez, Ph.D., Iago Giné-Vázquez, Ph.D., Narmeen Mallah, Ph.D., Susana Mirás-Carballal, M.H.A., Marta Piñeiro-Sotelo, M.H.A., Martín Cribeiro-González, M.H.A., +17, for the GALFLU Trial Team* Author Info & Affiliations

Published August 30, 2025 | N Engl J Med 2025;393:2303-2312 | DOI: 10.1056/NEJMoa2509834

The NEW ENGLAND JOURNAL of MEDICINE

CURRENT ISSUE SPECIALTIES TOPICS

ORIGINAL ARTICLE

High-Dose Influenza Vaccine Effectiveness against Hospitalization in Older Adults

Authors: Niklas Dyrby Johansen, M.D., Ph.D., Daniel Modin, M.D., Matthew M. Loiacono, Ph.D., Rebecca C. Harris, M.Bioch., Ph.D., Marine Dufournet, Ph.D., Carsten Schade Larsen, M.D., D.M.Sc., Lykke Larsen, M.D., Ph.D., +30, and Tor Biering-Sørensen, M.D., M.P.H., Ph.D. Author Info & Affiliations

Published August 30, 2025 | N Engl J Med 2025;393:2291-2302 | DOI: 10.1056/NEJMoa2509907

ARTICLES · Volume 406, Issue 10507, P1020-1031, September 06, 2025 Download Full Issue

Influenza vaccination to improve outcomes for patients with acute heart failure (PANDA II): a multiregional, seasonal, hospital-based, cluster-randomised, controlled trial in China

Prof Craig S Anderson, MD PhD [a,b,c,d,*] · Chang Hua, MD [e,*] · Zhiyan Wang, MD [e,*] · Chi Wang, MPH [f,*] · Chao Jiang, MD [e,*] · Rong Liu, PhD [g,h] · et al. Show more

- Batch randomization of 164 hospital
- 7771 participants admitted with acute heart failure were enrolled
- Primary outcome was a composite of all-cause mortality or any hospital readmission over 12 months
- The primary outcome occurred in 1378 (41·2%) of 3342 patients in the vaccination group and in 1843 (47·0%) of 3919 patients in the usual care group (odds ratio 0·83 [95% CI 0·72–0·97]; p=0·019)
- Influenza vaccination during a hospital admission in patients with acute heart failure can improve their survival and reduce likelihood of readmission to hospital over the subsequent 12 months.

Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2024

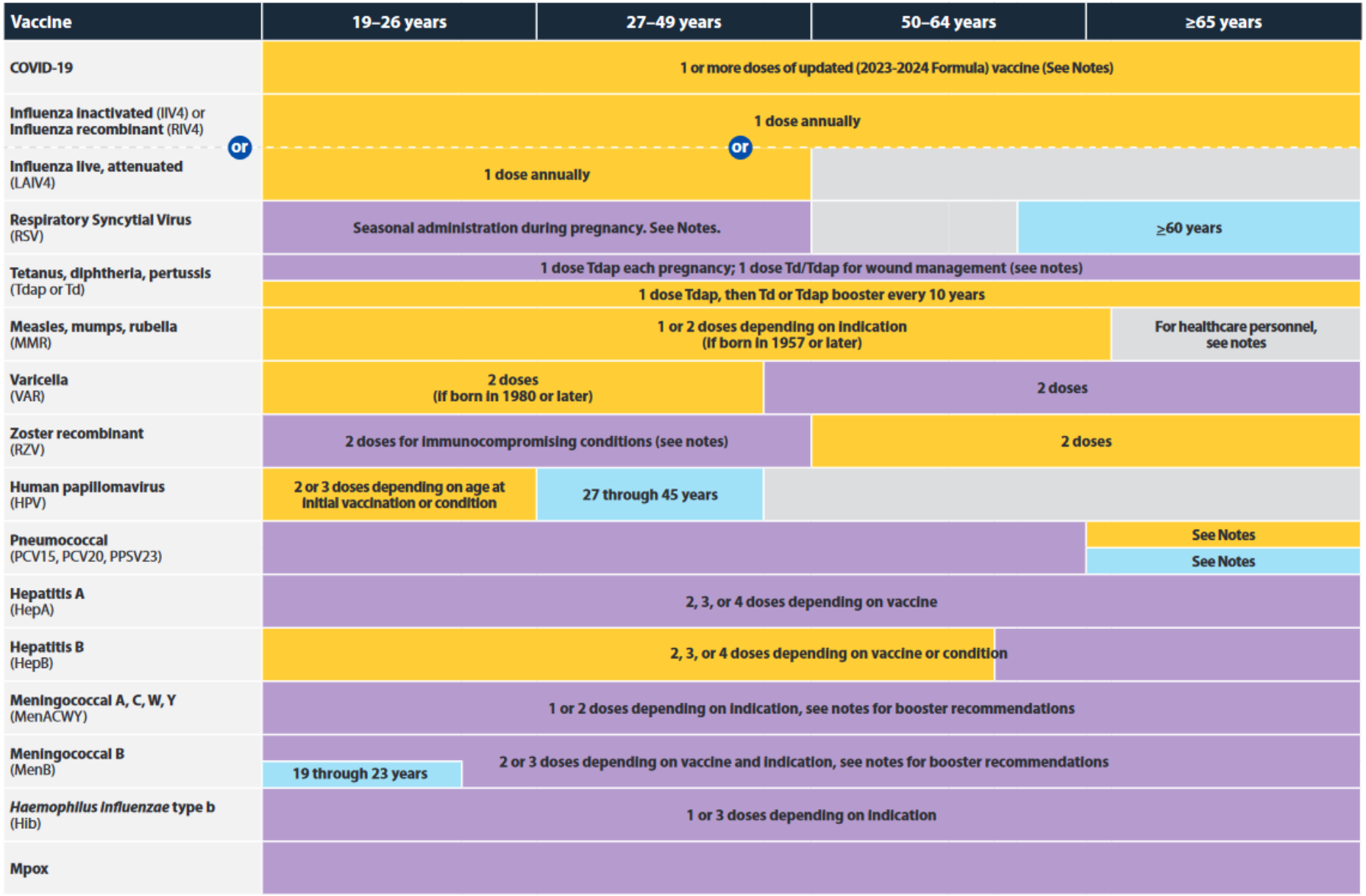


Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2025

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
COVID–19	1 or more doses of 2024–2025 vaccine (See Notes)			2 or more doses of 2024-2025 vaccine (See Notes)
Influenza inactivated (IIV3, ccIIV3) **Influenza recombinant** (RIV3)	1 dose annually			1 dose annually (HD–IIV3, RIV3, or aIIV3 preferred)
Influenza inactivated (aIIV3; HD–IIV3) **Influenza recombinant** (RIV3)	Solid organ transplant (See Notes)			
Influenza live, attenuated (LAIV3)	1 dose annually			
Respiratory syncytial virus (RSV)	Seasonal administration during pregnancy (See Notes)		60 through 74 years (See Notes)	≥75 years
Tetanus, diphtheria, pertussis (Tdap or Td)	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (See Notes)			
	1 dose Tdap, then Td or Tdap booster every 10 years			
Measles, mumps, rubella (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			For health care personnel (See Notes)
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses	
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (See Notes)		2 doses	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal (PCV15, PCV20, PCV21, PPSV23)			See Notes	
				See Notes
Hepatitis A (HepA)	2, 3, or 4 doses depending on vaccine			
Hepatitis B (HepB)	2, 3, or 4 doses depending on vaccine or condition			
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication (See Notes for booster recommendations)			
Meningococcal B (MenB)	2 or 3 doses depending on vaccine and indication (See Notes for booster recommendations)			
	19 through 23 years			
***Haemophilus influenzae* type b** (Hib)	1 or 3 doses depending on indication			
Mpox	2 doses			
Inactivated poliovirus (IPV)	Complete 3-dose series if incompletely vaccinated. Self–report of previous doses acceptable (See Notes)			

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of immunity

Recommended vaccination for adults with an additional risk factor or another indication

Recommended vaccination based on shared clinical decision–making

No Guidance/ Not Applicable

Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2025

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
COVID-19	1 or more doses of 2024–2025 vaccine (See Notes)			2 or more doses of 2024-2025 vaccine (See Notes)
Influenza inactivated (IIV3, ccIIV3) **Influenza recombinant** (RIV3)	1 dose annually			1 dose annually (HD–IIV3, RIV3, or aIIV3 preferred)
Influenza inactivated (aIIV3; HD–IIV3) **Influenza recombinant** (RIV3)	Solid organ transplant (See Notes)			
Influenza live, attenuated (LAIV3)	1 dose annually			
Respiratory syncytial virus (RSV)	Seasonal administration during pregnancy (See Notes)		60 through 74 years (See Notes)	≥75 years
Tetanus, diphtheria, pertussis (Tdap or Td)	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (See Notes)			
	1 dose Tdap, then Td or Tdap booster every 10 years			
Measles, mumps, rubella (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			For health care personnel (See Notes)
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses	
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (See Notes)		2 doses	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal (PCV15, PCV20, PCV21, PPSV23)			See Notes	See Notes
Hepatitis A (HepA)	2, 3, or 4 doses depending on vaccine			
Hepatitis B (HepB)	2, 3, or 4 doses depending on vaccine or condition			
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication (See Notes for booster recommendations)			
Meningococcal B (MenB)	19 through 23 years	2 or 3 doses depending on vaccine and indication (See Notes for booster recommendations)		
***Haemophilus influenzae* type b** (Hib)	1 or 3 doses depending on indication			
Mpox	2 doses			
Inactivated poliovirus (IPV)	Complete 3-dose series if incompletely vaccinated. Self–report of previous doses acceptable (See Notes)			

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of immunity

Recommended vaccination for adults with an additional risk factor or another indication

Recommended vaccination based on shared clinical decision–making

No Guidance/ Not Applicable

Changes – not updated

- Heplisav-B added to pregnancy vaccinations
- COVID updated booster
- The information for use of MenB during pregnancy was revised to clarify that the recommendation to delay vaccination until after pregnancy is due to lack of safety data
- 5 valent vaccine not discussed
- FDA expansion of RSV not discussed

Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2024

Always use this table in conjunction with Table 1 and the Notes that follow. Medical conditions or indications are often not mutually exclusive. If multiple medical conditions or indications are present, refer to guidance in all relevant columns. See Notes for medical conditions or indications not listed.

VACCINE	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count		Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver disease; alcoholism[a]	Diabetes	Healthcare Personnel[b]
			<15% or <200mm	≥15% and ≥200mm							
COVID-19		See Notes									
IIV4 or RIV4	1 dose annually										
LAIV4					1 dose annually if age 19 - 49 years		1 dose annually if age 19 - 49 years				
RSV	Seasonal administration. See Notes	See Notes				See Notes					
Tdap or Td	Tdap: 1 dose each pregnancy	1 dose Tdap, then Td or Tdap booster every 10 years									
MMR	*										
VAR	*		See Notes								
RZV		See Notes									
HPV	*	3 dose series if indicated									
Pneumococcal											
HepA											
Hep B	See Notes									Age ≥ 60 years	
MenACWY											
MenB											
Hib		HSCT: 3 doses[c]				Asplenia: 1 dose					
Mpox	See Notes				See Notes						See Notes

- Recommended for all adults who lack documentation of vaccination, **OR** lack evidence of immunity
- Not recommended for all adults, but recommended for some adults based on either age **OR** increased risk for or severe outcomes from disease
- Recommended based on shared clinical decision-making
- Recommended for all adults, and additional doses may be necessary based on medical condition or other indications. See Notes.
- Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction
- Contraindicated or not recommended *Vaccinate after pregnancy, if indicated
- No Guidance/ Not Applicable

a. Precaution for LAIV4 does not apply to alcoholism.

b. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations.

c. Hematopoietic stem cell transplant.

Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2025

Always use this table in conjunction with Table 1 and the Notes that follow. Medical conditions or indications are often not mutually exclusive. If multiple medical conditions or indications are present, refer to guidance in all relevant columns. See Notes for medical conditions or indications not listed.

VACCINE	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count		Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End–stage renal disease or on dialysis	Chronic liver disease; alcoholism[a]	Diabetes	Health care Personnel[b]
			<15% or <200/mm³	≥15% and ≥200/mm³							
COVID–19		See Notes									
Influenza inactivated influenza recombinant		Solid organ transplant (See Notes)					1 dose annually				
LAIV3					1 dose annually if age 19–49 years				1 dose annually if age 19–49 years		
RSV	Seasonal administration (See Notes)	See Notes				See Notes			Liver disease (See Notes)	See Notes	
Tdap or Td	Tdap: 1 dose each pregnancy	1 dose Tdap, then Td or Tdap booster every 10 years									
MMR	*										
VAR	*		See Notes								
RZV		See Notes									
HPV	*	3-dose series if indicated									
Pneumococcal											
HepA										Age ≥ 60 years	
Hep B	See Notes										
MenACWY											
MenB											
Hib		HSCT: 3 doses[c]				Asplenia: 1 dose					
Mpox	See Notes				See Notes						See Notes
IPV		Complete 3-dose series if incompletely vaccinated. Self–report of previous doses acceptable (See Notes)									

Recommended for all adults who lack documentation of vaccination, **OR** lack evidence of immunity

Not recommended for all adults, but recommended for some adults based on either age **OR** increased risk for or severe outcomes from disease

Recommended based on shared clinical decision–making

Recommended for all adults, and additional doses may be necessary based on medical condition or other indications. See Notes.

Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction

Contraindicated or not recommended
*Vaccinate after pregnancy, if indicated

No Guidance/ Not Applicable

a. Precaution for LAIV3 does not apply to alcoholism.

b. See Notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations.

c. Hematopoietic stem cell transplant.

ARTICLES · Volume 7, Issue 10, E675-E686, October 2025 Download Full Issue

Effect of a 1-month methotrexate delay on pneumococcal vaccine immunogenicity and disease control in patients with early rheumatoid arthritis (VACIMRA): an open-label randomised trial

Prof Jacques Morel, MD [a,c] · Prof Emmanuelle Dernis, MD [d] · Prof Christian Roux, MD [e] · Prof Christophe Richez, MD [f,g] · Olivier Brocq, MD [h] · Prof Bruno Fautrel, MD [i] · et al. Show more

- 249 patients got PCV 13 and 0 or 1m delay of methotrexate
- Responder rates were higher in the delay group compared with the immediate group for IgG concentrations and for opsonophagocytic assay activity.
- At 12 months, antibody functional activity was significantly higher for eight of 13 serotypes in the delay group.
- The rheumatoid arthritis disease activity score remained comparable during follow-up.

These findings suggest that, when feasible, clinicians should consider delaying initiation of immunosuppressive drugs for rheumatoid arthritis until after routine vaccinations have been administered

Pediatric updates 2025 - AAP vs ACIP

- ACIP has recently recommended shared decision-making for COVID-19 vaccination in all children and does not support availability of the MMRV vaccine for children <4 years.
- Changes in the updated AAP 2025 immunization schedule include lowering the age for initiation of the HPV vaccine series to 9 years, adding a new pentavalent meningococcal vaccine, adding the new anti-RSV monoclonal antibody clesrovimab, and endorsing the option to self-administer the nasal influenza vaccine at home.
- Based on evidence that vaccination reduces hospitalization and other serious morbidity, the schedule recommends COVID-19 vaccination in selected children >6 months (those <2 years and older children in risk groups), and for all other children, the AAP supports vaccination if the caregiver desires protection.
- For eligible children <4 years, the AAP supports access to the measles, mumps, rubella, and varicella (MMRV) vaccine as an option.

Original Investigation

Nirsevimab vs RSVpreF Vaccine for Respiratory Syncytial Virus–Related Hospitalization in Newborns

Marie-Joelle Jabagi, PharmD, PhD[1]; Marion Bertrand, MSc[1]; Amélie Gabet, PhD[1] ; et al

Cite Permissions Metrics

JAMA
Published Online: December 22, 2025
doi: 10.1001/jama.2025.24082

- Population based cohort study of 42,560 matched infants from France
- 481 hospitalizations for RSV LRTI
- 212 (44.1%) occurred in the nirsevimab group vs 269 (55.9%) in the RSVpreF vaccine group
- Passive infant immunization with nirsevimab was associated with a lower risk of hospitalization for RSV-associated LRTI
- Compared with the RSVpreF vaccine, passive infant immunization with nirsevimab was associated with a lower risk of severe outcomes, including PICU admission (adjusted HR, 0.58 [95% CI, 0.42 to 0.80]), requiring ventilator support (adjusted HR, 0.57 [95% CI, 0.40 to 0.81]), or requiring oxygen therapy (adjusted HR, 0.56 [95% CI, 0.38 to 0.81]).
- Results were consistent across subgroups and in the sensitivity analyses.

Pediatric updates 2026

- In January 2026, the U.S. Department of Health and Human Services (HHS) and the CDC updated the childhood immunization schedule, reducing the number of vaccines routinely recommended for all children from 17 to 11. Six vaccines—including those for flu, COVID-19, rotavirus, and hepatitis A & B—were moved to a "shared clinical decision-making" (SCDM) category
- The HPV recommendation was reduced to a single dose

ORIGINAL ARTICLE

Noninferiority of One HPV Vaccine Dose to Two Doses

The NEW ENGLAND JOURNAL of MEDICINE

Authors: Aimée R. Kreimer, Ph.D., Carolina Porras, M.S., Danping Liu, Ph.D., Allan Hildesheim, Ph.D., Loretto J. Carvajal, M.D., Rebeca Ocampo, M.D., Byron Romero, M.D., +21 , and Rolando Herrero, M.D. Author Info & Affiliations

Published December 3, 2025 | N Engl J Med 2025;393:2421-2433 | DOI: 10.1056/NEJMoa2506765

VOL. 393 NO. 24 | Copyright © 2025

- 20 years after it was shown that HPV vaccines can eradicate cervical cancer 27% of girls are vaccinated
- 90% of cervical cancers occur in countries not providing HPV vaccines
- 20,330 girls 12-16 years of age from Costa Rica (no gov vaccine) were randomly assigned, in a 1:1:1:1 ratio, to receive 1 or 2 doses of a bivalent HPV vaccine or 1 or 2 doses of a nonavalent HPV vaccine
- The primary end point was new HPV type 16 or 18 infection occurring from month 12 to month 60 and persisting for at least 6 months
- Vaccine effectiveness was > 97% in each of the 4 trial groups with no safety concerns identified
- WHO now recommends a 2 dose series (over 1 or 3 doses)
- ACIP recommends 2 doses 9 to < 15 yo and 3 doses 15 to 26 yo
- Current US studies are comparing 2 vs 3 dose courses on 9vHPV vaccine

Case No. 1:25-cv-11916 (aka AAP vs Kennedy)

AMERICAN ACADEMY OF PEDIATRICS, AMERICAN COLLEGE OF PHYSICIANS, INC., AMERICAN PUBLIC HEALTH ASSOCIATION, INFECTIOUS DISEASES SOCIETY OF AMERICA, MASSACHUSETTS PUBLIC HEALTH ASSOCIATION D/B/A MASSACHUSETTS PUBLIC HEALTH ALLIANCE, SOCIETY FOR MATERNAL-FETAL MEDICINE, and JANE DOE,

Plaintiffs,

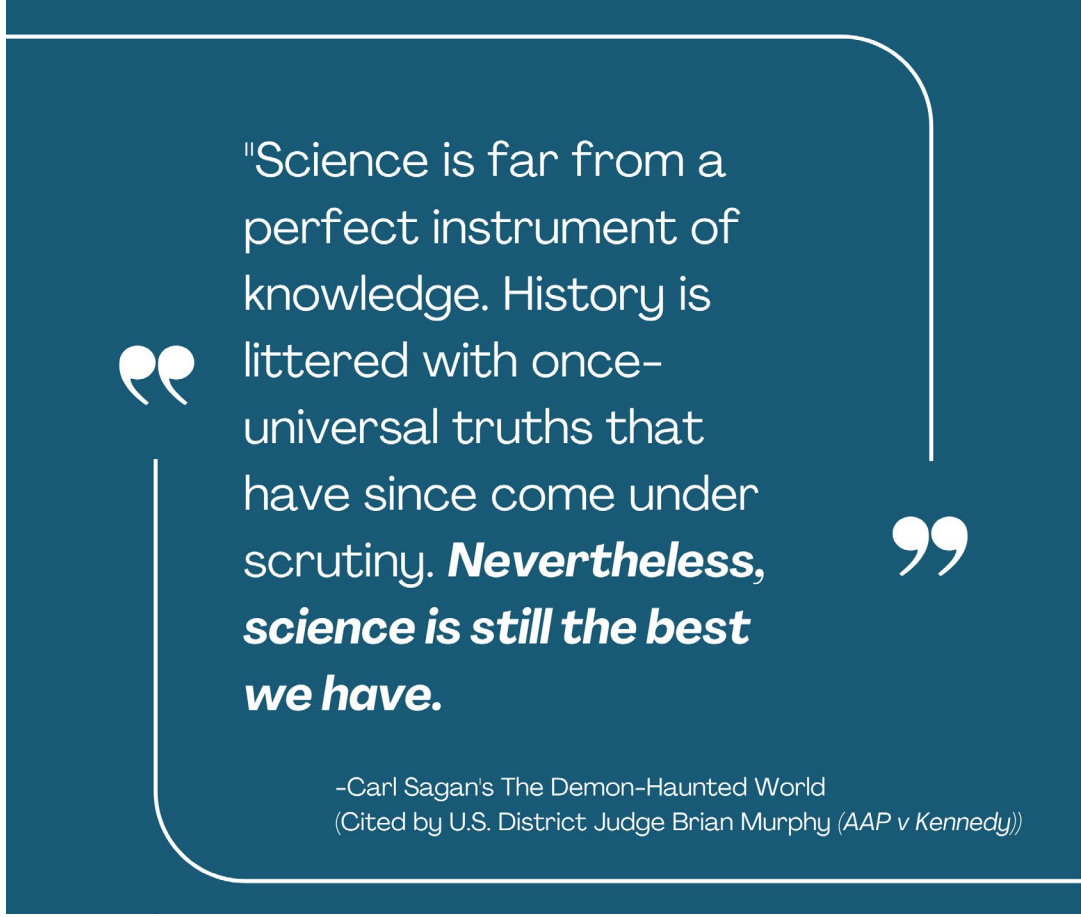
vs.

ROBERT F. KENNEDY, JR., in his official capacity as Secretary of the Department of Health and Human Services; UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES; MARTY MAKARY, in his official capacity as Commissioner of the Food and Drug Administration; FOOD AND DRUG ADMINISTRATION; JAY BHATTACHARYA, in his official capacity as Director of the National Institutes of Health; NATIONAL INSTITUTES OF HEALTH; MATTHEW BUZZELLI, in his official capacity as Acting Director of Centers for Disease Control and Prevention; CENTERS FOR DISEASE CONTROL AND PREVENTION; and DOES 1–50, inclusive,

Defendants.

January 2026
AAP vs Kennedy

- Plaintiffs incl ACP & IDSA but not AMA
- Brian Murphy presiding
- Stay not injunction issued
  - Everything ACAP since June 2025 halted
  - Hep B baby dose, thimerosal, COVID
  - 13 of 15 ACIP members questioned
  - 2 added in Feb 2026 not even discussed
- Appeal filed March 25
- April 1 update – new rules for ACIP



Other news

- ACIP cannot convene
- Florida is relaunching vaccine exemption push
- Colorado is latest of 29 states (plus Washington, DC) to codify evidence based vaccine recommendations endorsing AAFP, ACOG and AAP and explicitly rejecting federal vaccine guidance
- SC is moving in the other direction

SC – Legislature

House has 124 members

Key Legislative Proposals and Debates

- **H. 4262 (Gene Therapies):** This bill seeks to ban healthcare professionals from administering synthetic mRNA-based gene therapies for contagious diseases (like COVID-19). It proposes a one-year license suspension for doctors who violate this ban. The bill includes exceptions for traditional vaccines, cancer treatments, and non-synthetic mRNA therapies.
- **S. 0343 / H. 4767 (Informed Consent/Warnings):** This legislation would require providers to deliver a script to patients before administering COVID-19 mRNA vaccines, stating the shot is "new," the long-term safety is unknown, and that it may contain "contaminants". Patients would be required to sign a document confirming they received this information.
- **H. 4348 (Food Products):** A proposal that would make it a misdemeanor to use the "Certified SC Grown" designation on any food products containing mRNA.
- **H. 975 (Vaccine Mandate Ban):** This bill aims to prohibit businesses, schools, and employers from mandating "novel" vaccines or gene therapies, seeking to prevent coercion.

H4262 20 sponsors: Reps. Magnuson, Rankin, Edgerton, Duncan, Kilmartin, Cromer, Pace, Harris, Burns, Chumley, Gilreath, Willis, Morgan, Beach, Frank, Gilliam, Terribile, White, Long and Huff

SECTION 1. The General Assembly finds that:

(1) synthetic messenger ribonucleic acid (mRNA)-based gene therapies, such as the COVID-19 vaccine, have caused substantial numbers of deaths, disabilities, and a wide range of serious adverse events;

(2) synthetic mRNA-based gene therapies are known to be contaminated with DNA fragments, metallic particles, and other undisclosed and/or otherwise poorly characterized adulterants;

(3) no long-term studies have been completed on synthetic mRNA-based gene therapies regarding shedding, fertility, teratogenicity, mutagenicity, or oncogenicity;

(4) the risk of integration of synthetic mRNA-based gene therapies and/or associated DNA fragment adulterants into the human genome of either somatic or germ cells are uncharacterized, and any germ cell integration creates risk of random human genomic modifications being passed on to the next generation of Americans;

(5) recipients of a synthetic mRNA-based gene therapy are not provided adequate information both as to the nature of the harm posed to them as well as of the current federal law barring them from compensation for recovery for injury, and therefore do not have the ability to give valid consent to have medical products employing this material or the delivery procedure administered;

(6) evidence suggests that spike proteins in synthetic mRNA-based gene therapy medical products may be communicable to others (by a process known as "shedding") and may cause side effects or harm even in individuals who are not the intended recipient;

(7) the safety of synthetic mRNA-based gene therapy on the unborn child has not been adequately studied and reports of severe fetal injury and death after administration during pregnancy have been documented; and

(8) synthetic mRNA-based gene therapy drug products pose an inadequately characterized potential public health threat due to their unknown long-term safety profile, adulteration and potential for shedding.

The main side effect of pediatric vaccines is - Adults