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ICHE Journal

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SHEA

Jan 2025

Infection Control

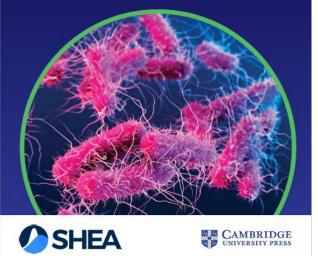
Hospital Epidemiology

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SHEA Webinar

Town Hall 2025

Housekeeping





- Technical difficulties? Visit: <u>https://support.zoom.us</u>
- Webinar recording, PowerPoint presentation, and references available on <u>learningce.shea-online.org</u>
- Streaming Live on SHEA's Facebook page
- Zoom Polling, Q&A & Chat



March Town Hall Panelists:



Dr. Marci Drees *ChristianaCare*



Dr. Trish Perl *UT Southwestern Medical Center*



Dr. Matthew Linam *Emory University*



Dr. Erica Shenoy Mass General Brigham



Invited Panelist:



Dr. David J. Weber, MD, MPH, FIDSA, FSHEA, FRSM (London)

Charles Addison & Elizabeth Ann Sanders Distinguished Professor of Medicine, Pediatrics & Epidemiology UNC School of Medicine and UNC Gillings School of Global Public Health Associate Chief Medical Officer, UNC Medical Center Associate Chief Quality Officer, UNC Medical Center Medical Director, Department of Infection Prevention, UNC Medical Center Chair, Institutional Review Board, UNC Chapel Hill President, Society for Healthcare Epidemiology of America (SHEA)

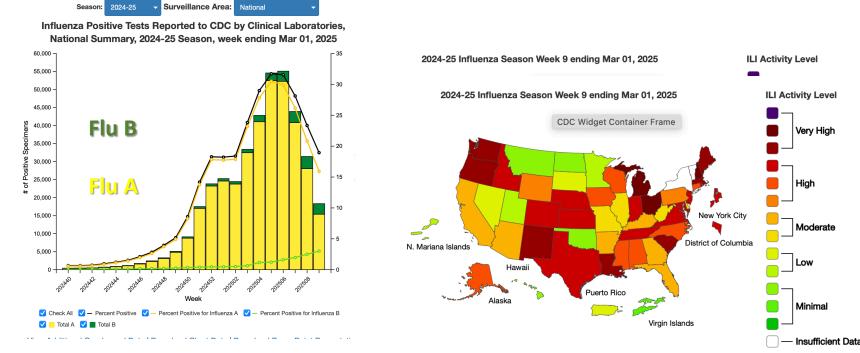


General Literature Review

- Arabi, YB et al. JAMA, Electronic Sepsis Screening Among Patients Admitted to Hospital WardsA Stepped-Wedge Cluster Randomized Trial
- SUNRRISE Trial Study Group. JAMA, Negative Pressure Dressings to Prevent Surgical Site Infection After Emergency LaparotomyThe SUNRRISE Randomized Clinical Trial
- BALANCE Investigators. *NEJM*, Antibiotic Treatment for 7 versus 14 Days in Patients with Bloodstream Infections
- Hanula et al. *Clin Infect Dis,* Evaluation of Influenza Antiviral Prophylaxis for Long-term Care Residents: A Systematic Review and Meta-analysis
- Redmond et al. *Clin Infect Dis,* Emergence and Spread of *Clostridioides difficile* Isolates With Reduced Fidaxomicin Susceptibility in an Acute Care Hospital
- Brick et al. *Clin Infect Dis,* Choosing Wisely: Effectiveness and Safety of Antibiotic Prophylaxis in Close Contacts of Invasive Group A Streptococci Infection
- Kraemer et al. *Nature*, Artificial intelligence for modelling infectious disease epidemics

Influenza/Respiratory Virus: Update

Outpatient ILI Visits







5% decrease in visits to PCP

Decrease in hospitalizations for resp viruses to NHSN

2.5% mortality (decreased)

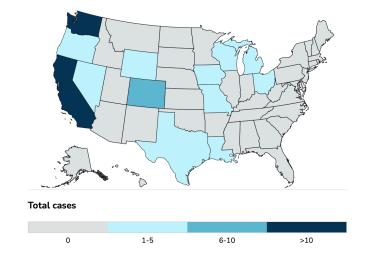
16 pediatric deaths last week

FluView | FluView | CDC

Frutos AM et al. Interim Estimates of 2024–2025 Seasonal Influenza Vaccine Effectiveness — Four Vaccine Effectiveness Networks, United States, October 2024–February 2025; MMWR

Avian Influenza: Updates

H5N1



70 total cases; 6 cases since Feb 25 51 jurisdictions with avian flu in wild birds 51 jurisdictions with outbreaks of poultry 983 dairy herds affected (17 states) FIGURE. Testing, signs, and symptoms in cats^{*,†} and household members^{§,¶} of domestic indoor cats infected with highly pathogenic avian influenza A(H5N1) virus, clade 2.3.4.4b genotype B3.13 (N = 2) — Michigan, 2024

Household/Resident persons and animals	Day after illness onset in cat 1A														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Household 1															
Cat 1A															
Cat 1B															
Cat 1C															
Adult dairy farmworker															
Adult															
Adolescent 1A															
Adolescent 1B															
Household 2															
Cat 2A															////
Cat 2B															////
Adult dairy farmworker															

Negative HPAI A(H5N1) test result

Signs or symptoms of illness present

Signs or symptoms of illness present and negative HPAI A(H5N1) test result

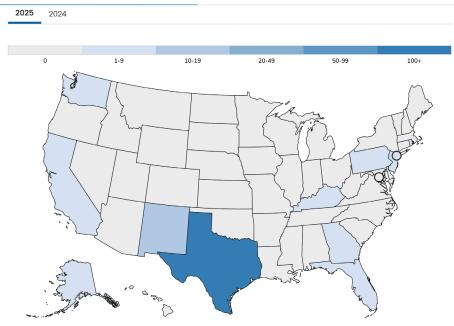
□ Signs or symptoms of illness present, positive HPAI A(H5N1) test result, and died ☑ Lost to follow-up

FluView | FluView | CDC

Narahaisetti et al. Highly Pathogenic Avian Influenza A(H5N1) Virus Infection of Indoor Domestic Cats Within Dairy Industry Worker Households — Michigan, May 2024 Cronin et al. Research Square (preprint) Air sampling accurately captures circulating zoonotic viral diversity emerging from poultry live-animal markets <u>https://doi.org/10.21203/rs.3.rs-5682962/v1</u>

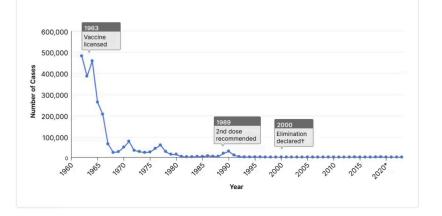
Measles-U.S.

- U.S. (as of 3/7/25): 222 cases in the US (AL, RI, CA, GA, FL, KY, NJ, PA, NYC most in unvaccinated children 3 outbreaks (93% outbreak associated) vs 16 outbreaks in 2024 69% outbreak associated [CDCHAN-00522]
- TX: 223 cases (3/11/25)
 - 29 hospitalized; 1 death (1 child unvaccinated);
 - Expanded to 9 counties;
 - 78% under age 18;
 - 36% unvaccinated; 62% vaccine status unknown; 3% at least one dose
- NM: 30 cases
 - 15 ≥ 18 years old
 - 87% not vaccinated;
 - 13% status unknown;
 - 1 death



https://www.cdc.gov/measles/data-research/index.html; https://www.dshs.texas.gov/news-alerts/measles-outbreak-2025

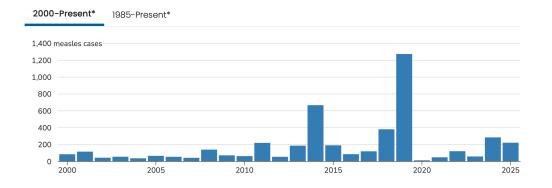
Measles



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

Yearly measles cases

as of March 6, 2025

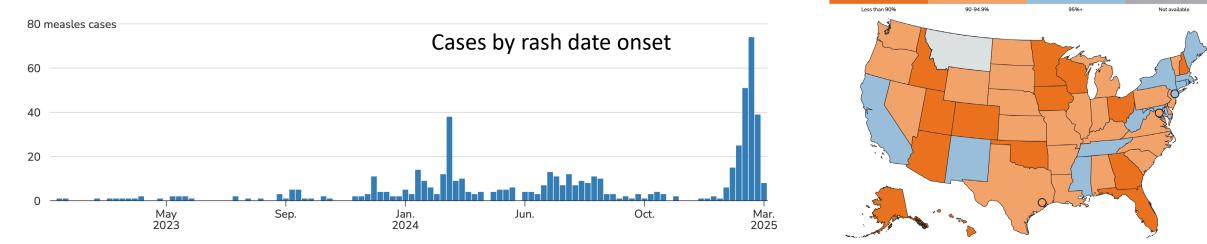


2023-24 💲

Percent Vaccinated

% Kindergartener's vaccinated

2023–2025* (as of March 6, 2025)



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

Measles Literature Review

- Pampaka D et al. *Eurosurveillance,* An interregional measles outbreak in Spain with nosocomial transmission, November 2017 to July 2018
- Gambrell et al. *Vaccine*, Estimating the number of US children susceptible to measles resulting from COVID-19-related vaccination coverage declines
- Munday JD, et al. *PLoS Med*, Estimating the risk and spatial spread of measles in populations with high MMR uptake: Using school-household networks to understand the 2013 to 2014 outbreak in the Netherlands
- Zhou, F et al. MMWR, Health and Economic Benefits of Routine Childhood Immunizations in the Era of the Vaccines for Children Program — United States, 1994–2023
- Pike J et al. *Clin Infect Dis,* A Review of Measles Outbreak Cost Estimates From the United States in the Post-elimination Era (2004–2017): Estimates by Perspective and Cost Type
- Remington etal. JAMA, Airborne Transmission of Measles in a Physician's Office

Resources for Outbreak/Global Health Updates

- CIDRAP newsletter (<u>www.cidrap.umn.edu</u>)
- European CDC <u>weekly communicable disease threats reports</u>
- Your Local Epidemiologist
- State/local health depts & Health Alert Networks (HANs)
- PAHO Pan American Health Organization
- National Biosurveillance Integration Center (part of Homeland Security) – via state/local DOH
- <u>WHO Disease Outbreak News</u>

- Arabi, YB et al. JAMA, Electronic Sepsis Screening Among Patients Admitted to Hospital WardsA Stepped-Wedge Cluster Randomized Trial
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