



Emerging and Re-Emerging Viruses

Sept 11, 2025 Ellie Sukerman, MD

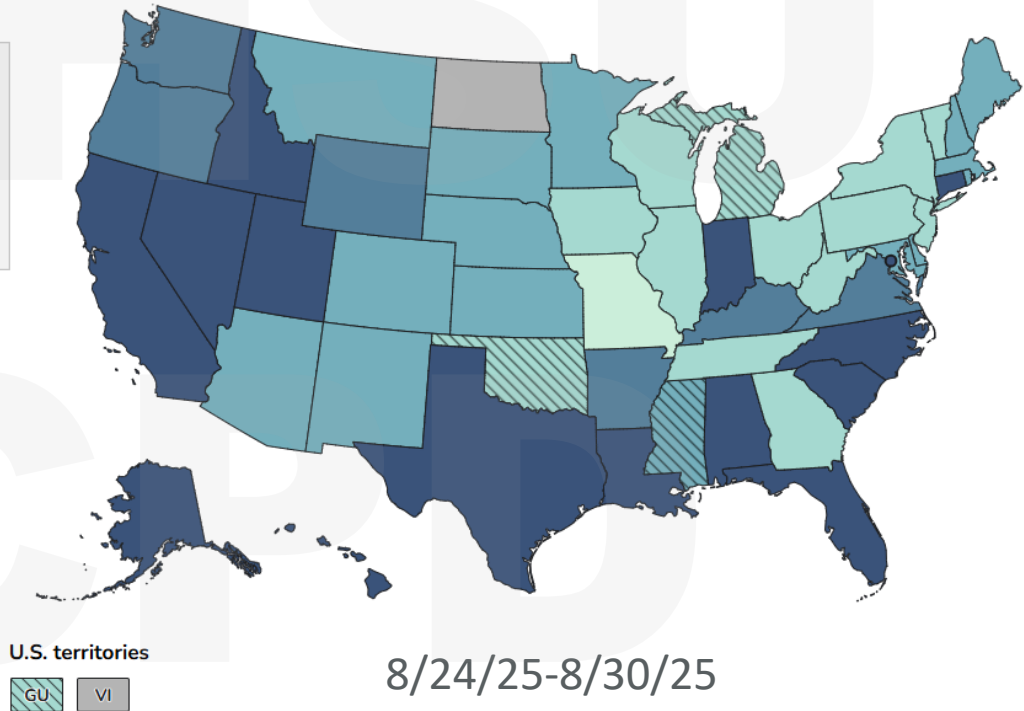
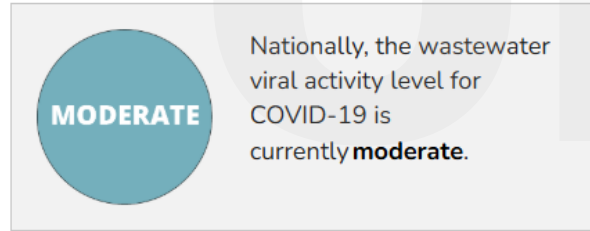
Disclosures

- None

Objectives

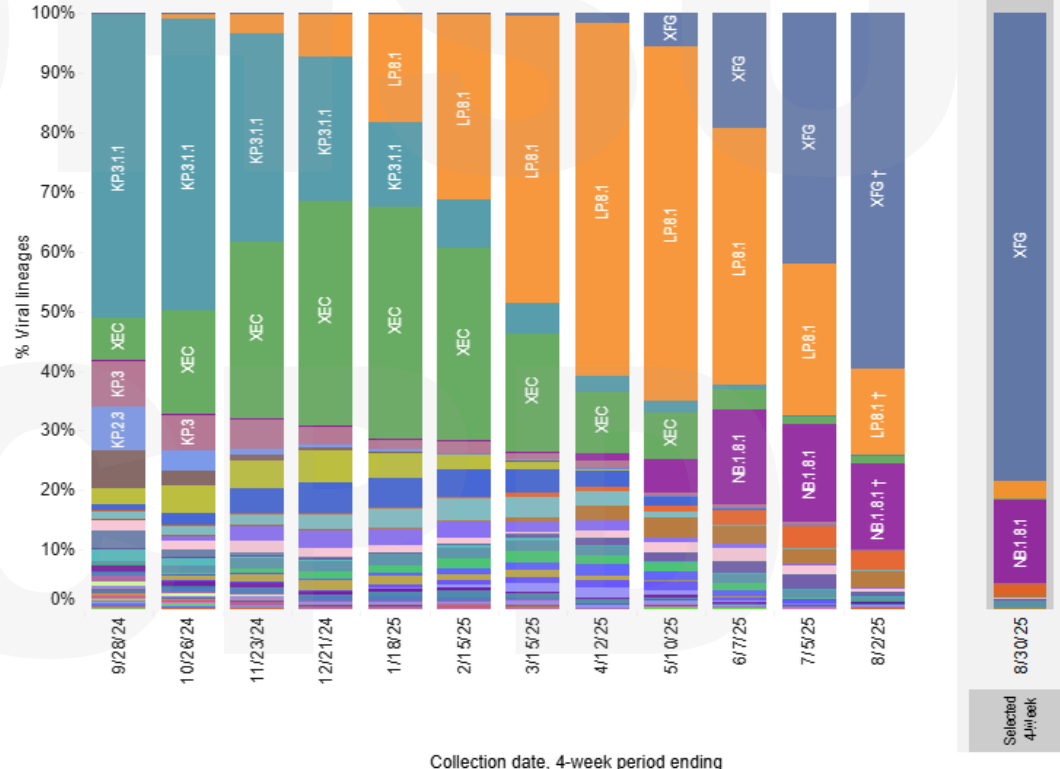
- COVID updates
- Discuss current epidemiology, clinical presentation, testing and treatment of H5 avian influenza and measles

COVID Wastewater Surveillance



COVID Variants

- XFG aka “Stratus” variant increasing
- 2025-26 vaccine is monovalent targeting LP.8.1



Updated COVID Vaccine FDA Approvals

- **Pfizer:** 65yo+ and individuals 5-64yo with 1+ risk factor for severe disease
- **Moderna**
 - mNEXSPIKE: 65yo+ or 12-64yo with 1+ risk factor
 - Spikevax: 65yo+ or 6mos-64yo with 1+ risk factors
- **Novavax:** 65yo+ or 12-64yo with 1+ risk factors

Oregon doctors hesitate to dispense latest COVID-19 vaccines in vacuum of medical guidance

Updated: Sep. 09, 2025, 3:51 p.m. | Published: Sep. 09, 2025, 10:13 a.m.



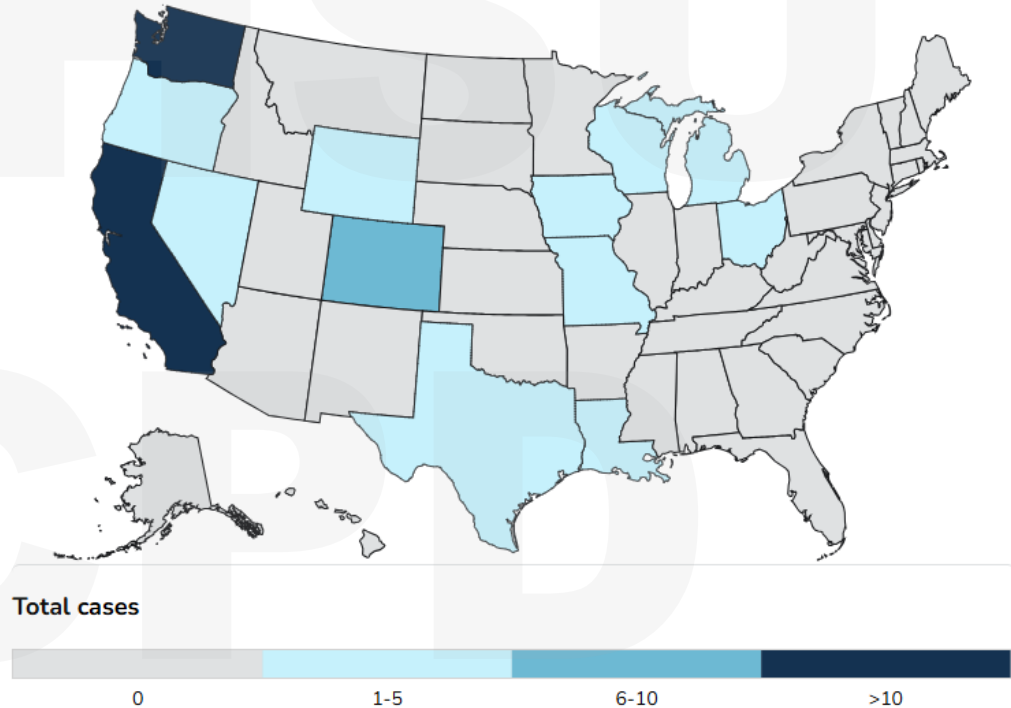
- What constitutes “high-risk?” Previously, per CDC, this included pregnancy
- Pharmacist ability to provide vaccine hampered
- Insurance coverage?

H5N1 Avian Influenza (Highly Pathogenic Avian Influenza (HPAI))

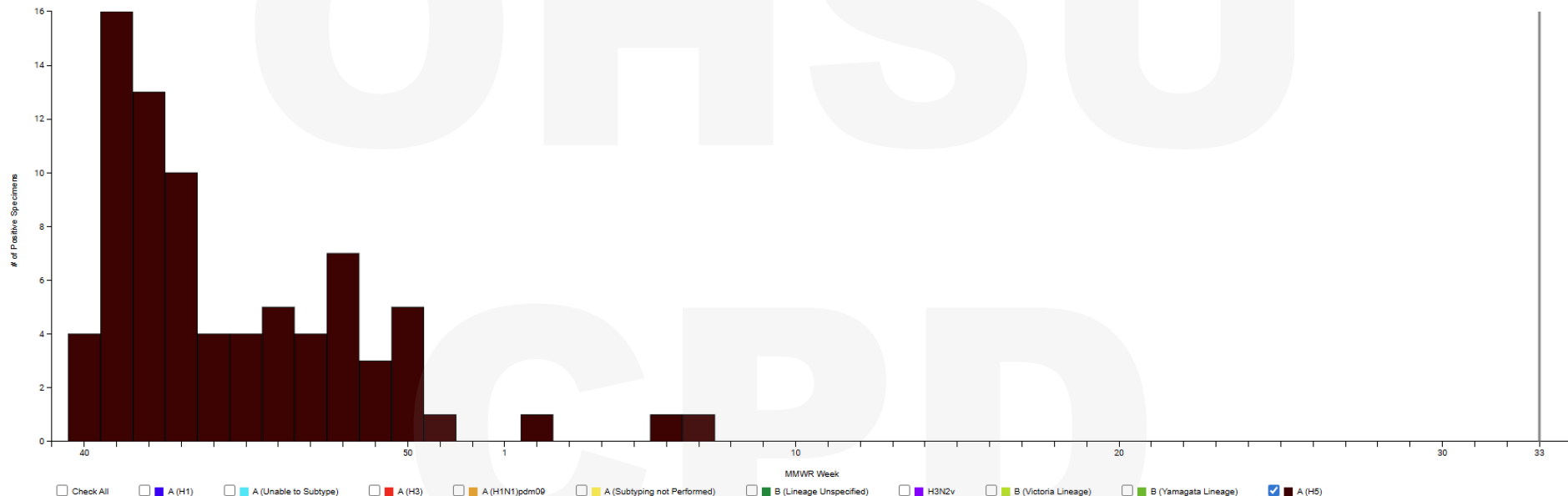


Confirmed Human Cases – 2024-present

- 70 confirmed cases in U.S.
- 65/70 had exposure to dairy cattle or poultry farms/culling
- No known person-to-person spread at this time



Influenza Positive Tests Reported by Public Health Labs, 2024-25: H5 Positive Tests



Clinical Presentation



- Incubation period typically 3-5 days (up to 7-10 days)
- Most human cases in US to date have been mild
 - **Conjunctivitis**
 - +/-Fever
 - Cough, sore throat, rhinorrhea, congestion, dyspnea
 - Myalgias, headache, fatigue
 - GI sx's less common

What to do if you suspect avian influenza?

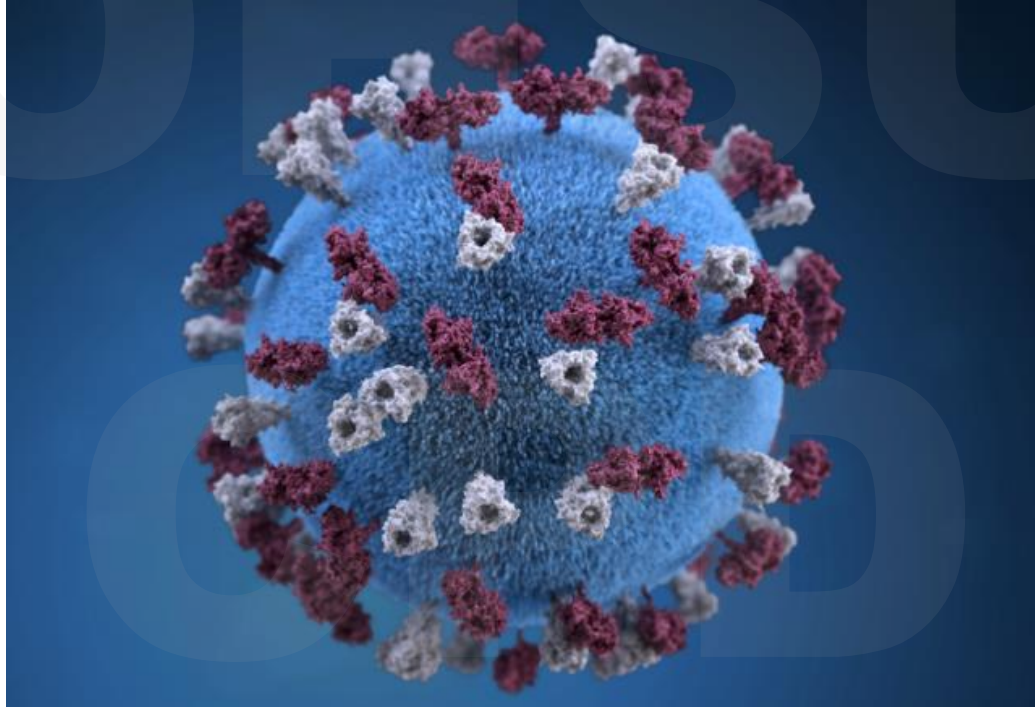
- Contact + airborne isolation including eye protection
- Notify public health dept.
- Testing
 - NP swab *and* nasal swab combined with OP swab
 - If conjunctivitis -> NP swab and conjunctival swab
 - If severely ill -> upper and lower respiratory tract samples
- Initiate empiric antiviral therapy



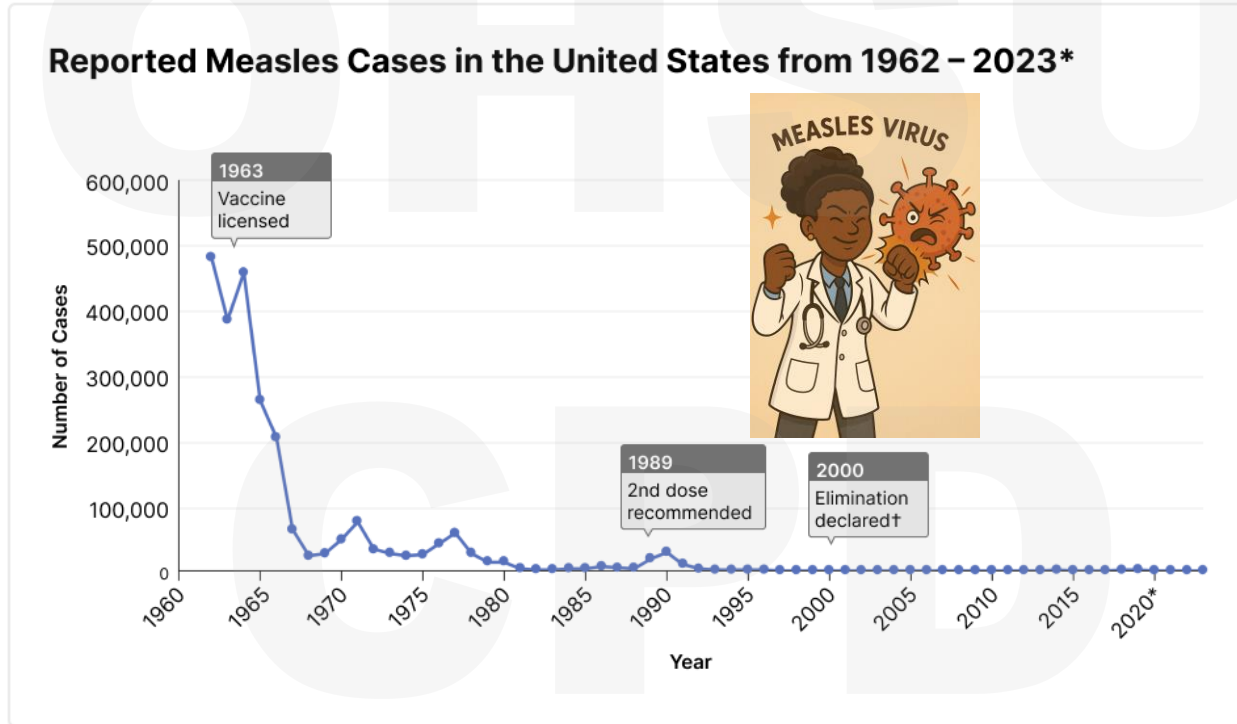
Treatment

- Oseltamivir BID x 5 days
- Start ASAP for confirmed/probable/suspected novel influenza A even if >48h from sx onset
- Post-Exposure Prophylaxis: BID dosing
 - Exposure to infection or potentially-infected animals, animal products (e.g., raw milk), contaminated environment or infected person without recommended PPE or had a breach in PPE

Measles (Rubeola)



Measles History

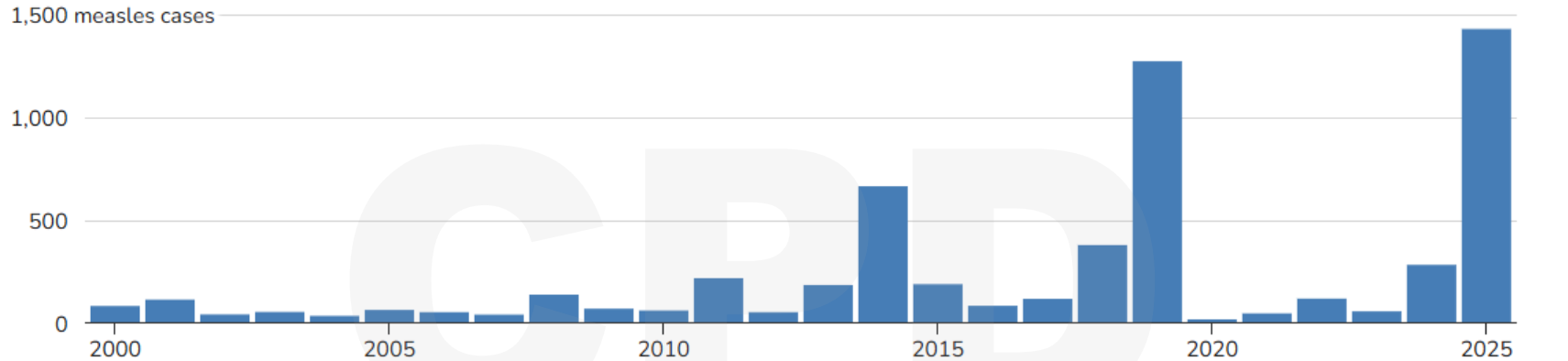


Annual Measles Cases – U.S.

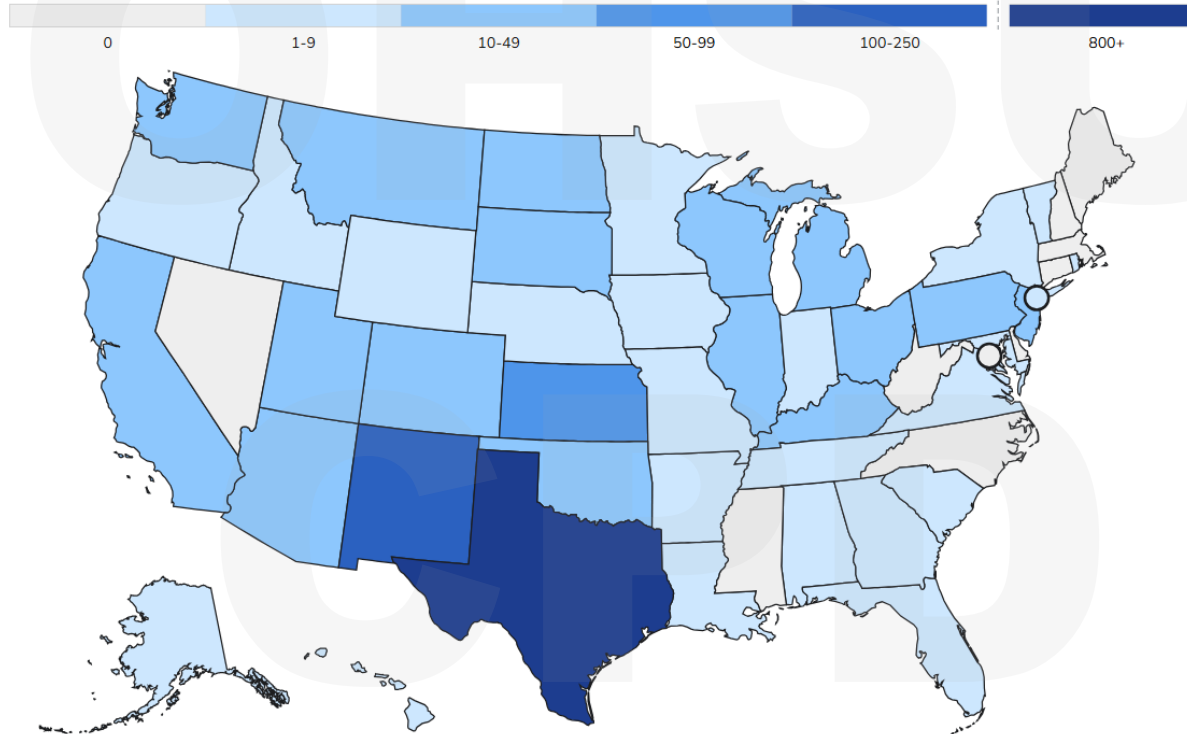


2000–Present*

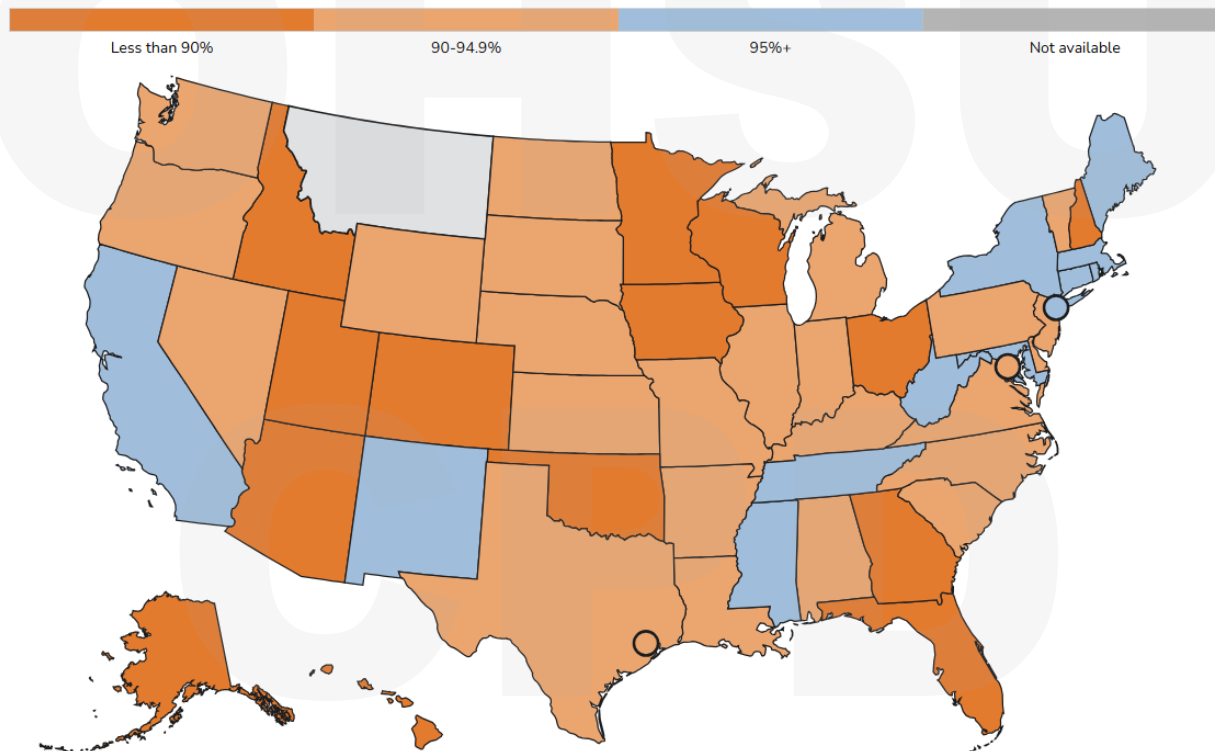
1985–Present*



Distribution of Measles Cases – U.S. 2025



Measles Vaccination Coverage in Kindergarteners – 2023-24

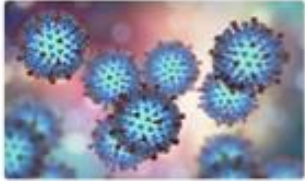


Clinical Presentation

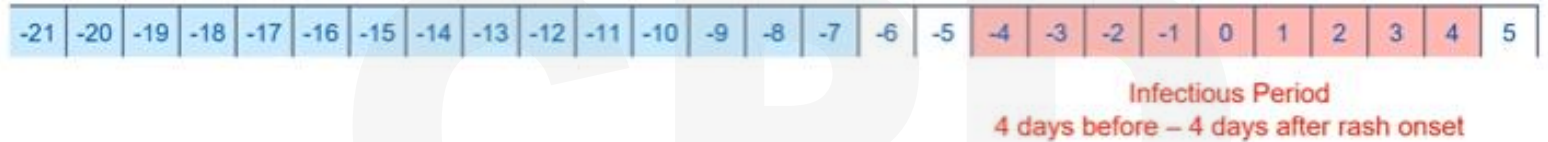
- Prodrome: fever, 3 C's
- Enanthema (Koplick spots)
- Maculopapular rash spreading from face to trunk to lower extremities



Measles Timeline



Incubation period 7–21 days between exposure and rash onset (average 10-14)



Complications of Measles

Complication	Incidence
Hospitalization	~20%
Otitis media	7-9%
Diarrhea	8%
Pneumonia	1-6%
Encephalitis	1 per 1000 cases
Death	1-3 per 1000 cases
Subacute sclerosing panencephalitis (SSPE)	7 to 11 per 100k cases



What to do if my patient may have measles?

- Airborne isolation
- Contact public health
- RT-PCR from NP/OP swab *AND* IgM + IgG

Measles Treatment

- Best treatment? Don't get measles!
- No specific antiviral therapy available
- Vit A for hospitalized children

Measles Prevention

- Vaccination



- Post-Exposure Prophylaxis for susceptible persons
 - MMR vaccination – give within 72h of exposure
 - Immunoglobulin - give within 6d of exposure

Take-Home Points

- An ounce of prevention is worth a pound of cure
- Be alert to the possibility of H5 influenza or measles cases and work with public health partners on suspected cases



Thank You!