

# Infectious diseases ECHO Brief Update

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## PCV-21 Vaccine

- ❖ New pneumococcal conjugate vaccine that covers 8 new serotypes
- ❖ Indicated for persons  $\geq 65$  and persons  $< 65$  with medical conditions
- ❖ Does not cover serotype 4 pneumococcus which
  - ❖ Reemerged in Western USA (AK, Navajo Nation, CO, NM) with a number of cases of invasive disease
  - ❖ Affects persons  $< 65$  years old with cigarette use, COPD, alcohol & injection drug use disorders and persons who are experiencing homelessness
- ❖ Please continue to use PCV 20 at IHS sites as we await new data

# Expanded Recommendations for Use of Pneumococcal Conjugate Vaccines Among Adults Aged $\geq 50$ Years: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024

*Weekly* / January 9, 2025 / 74(1);1–8

## What is already known about this topic?

- Before October 2024, a single dose of 15-valent, 20-valent, or 21-valent pneumococcal conjugate vaccine (PCV), was recommended for adults aged 19–64 years with risk conditions for pneumococcal disease and for all adults aged  $\geq 65$  years.

## What is added by this report?

- **On October 23, 2024, the ACIP recommended a single dose of PCV for all adults aged  $\geq 50$  years who are PCV-naïve or who have unknown vaccination history.**
- The risk-based recommendation for adults aged 19–49 years is unchanged.

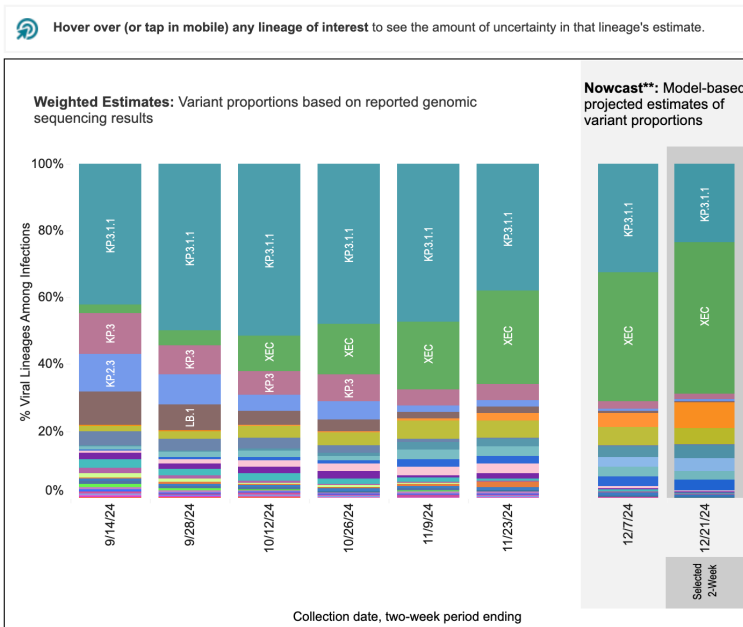
## What are the implications for public health practice?

- Improve pneumococcal disease prevention in adults aged 50–64 years, particularly among demographic groups experiencing higher disease rates.

# COVID-19 Update

<https://covid.cdc.gov/covid-data-tracker/#datatracker-home>

**Weighted and Nowcast Estimates in United States for 2-Week Periods in 9/1/2024 – 12/21/2024**



**Nowcast Estimates in United States for 12/8/2024 – 12/21/2024**

USA			
WHO label	Lineage #	%Total	95%PI
Omicron	XEC	45%	40–51%
	KP.3.1.1	24%	21–27%
	LP.8.1	8%	3–17%
	LF.7	4%	2–7%
	XEK	4%	2–6%
	MC.10.1	3%	1–7%
	LB.1.3.1	2%	1–5%
	KP.3	2%	1–4%
	MC.19	1%	0–1%
	KP.2.3	0%	0–1%
	LB.1	0%	NA
	JN.1.18.6	0%	0–1%
	JN.1	0%	0–1%
	KP.1.1.3	0%	NA
	KP.2	0%	NA
	JN.1.16	0%	0–1%
	KS.1	0%	NA
	LP.1	0%	NA
	JN.1.16.1	0%	NA
	KP.1.1	0%	NA
	KP.2.15	0%	NA
	JN.1.18	0%	NA
	LF.3.1	0%	NA

## COVID-19 Update for the United States

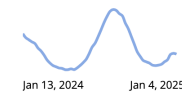
### Early Indicators

#### Test Positivity >

% Test Positivity

**6.9%**

Week ending January 4, 2025  
Previous week 7.1%

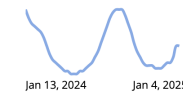


#### Emergency Department Visits >

% Diagnosed as COVID-19

**1.3%**

Week ending January 4, 2025  
Previous week 1.3%



### Severity Indicators

#### Hospitalizations >

Rate per 100,000 population

**2.5**

Week ending December 21, 2024  
Previous week 2.3



#### Deaths >

% of All Deaths in U.S. Due to COVID-19

**1.5%**

Week ending January 4, 2025  
Previous week 1%

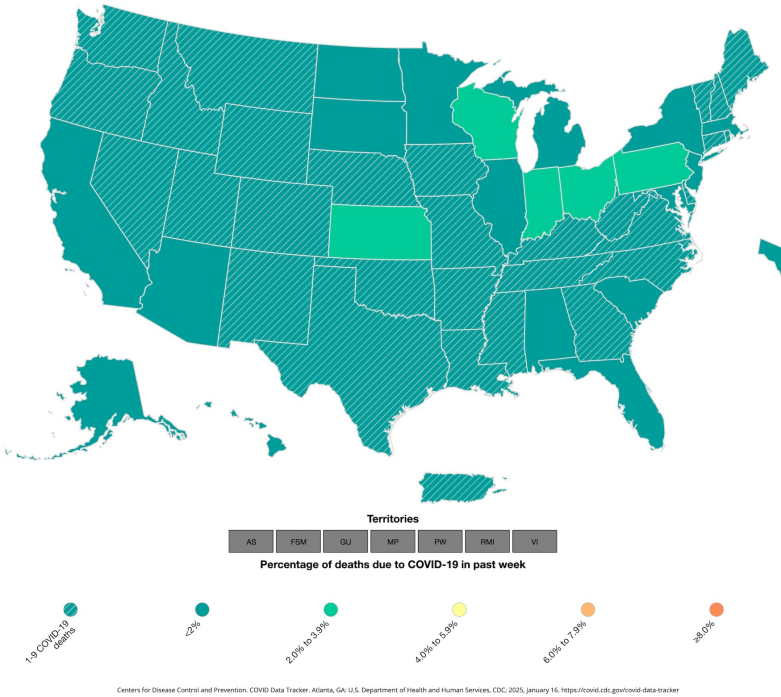


These early indicators represent a portion of national COVID-19 tests and emergency department visits. [Wastewater](#) information also provides early indicators of spread.

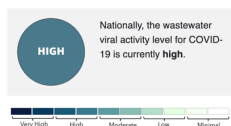
CDC | Test Positivity data through: January 4, 2025; Emergency Department Visit data through: January 4, 2025; Hospitalization data through: December 21, 2024; Death data through: January 4, 2025. Posted: January 13, 2025 2:46 PM ET

Predominant circulating variants derive from the JN.1 lineage

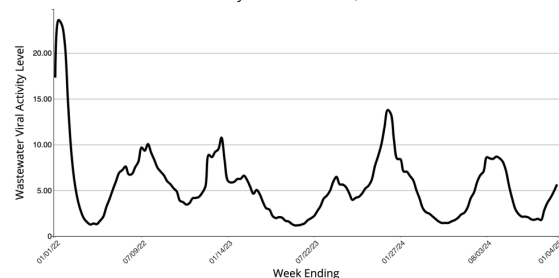
Percentage of Provisional Deaths Due to COVID-19 in the Past Week, by State/Territory - United States



<https://covid.cdc.gov/covid-data-tracker/#datatracker-home>



COVID-19 Wastewater Viral Activity Level Over Time, United States



<https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance>

# COVID-19 Update

- **Focus on the elderly and high-risk population**
  - **Vaccinate**
    - 2024-2025 vaccines target the KP.2 and JN.1 variant
    - 2023–24 COVID-19 vaccines reduce risk of hospitalization by about one-third among vaccinated adults with weakened immune systems.
  - **Mask**
    - Especially in crowded or poorly ventilated environments
  - **Use antiviral treatment early for acute infections**
    - Paxlovid > Remdesivir > molnupiravir

# Get ready to protect our community

1

Download Firstline on mobile or access on the web

2

Click 'Select Location' and choose Cherokee Nation Health Services

3

Instantly access local, tailored guidance to optimize patient outcomes





# Dengue Cases in the Americas Highest Recorded

## Dengue cases in the Americas have nearly tripled since 2023

- More than 12.6 million dengue cases were reported in 2024
- Of these cases, more than 21 000 were severe, resulting in nearly 8000 deaths.
- Argentina, Brazil, Colombia, and Mexico accounted for 90% of reported cases and 88% of deaths.

## Dengue's reach is expanding and extending

- Expanding in Argentina and Uruguay
- **Extending to new countries including the US**, (local transmission has been reported in Arizona, California, Florida, Hawaii, and Texas).

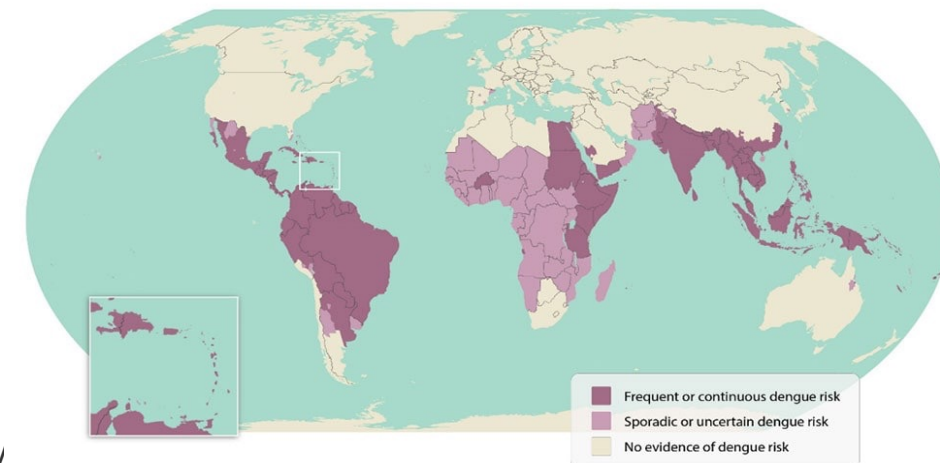
## Factors responsible for the rise

- Extreme climate events that foster increase breeding of mosquitos (floods, droughts, and higher temperatures)
- Poor living conditions and population growth

Orrall A. Dengue Cases in the Americas Highest Recorded. *JAMA*. Published online January



- Dengue viruses are spread to people through mosquito bites.
- A person can be infected with dengue multiple times in their life.
- Each year, up to 400 million people are infected by a dengue virus.



[https://www.cdc.gov/dengue/areas-with-risk/index.html#cdc\\_data\\_surveillance\\_section\\_4-americas](https://www.cdc.gov/dengue/areas-with-risk/index.html#cdc_data_surveillance_section_4-americas)

# Oropouche virus

## Rising Cases:

- Significant increase from 261 cases between 2015 and 2022 to 13,000 cases in 2024
- The spread to new regions is mainly due to Climate change and viral genomic changes

## Symptoms and Diagnosis:

- Flu like syndrome often confused with dengue, chikungunya, Zika, and malaria.
- Testing requires a negative dengue result, followed by a PCR (CDC)

## Transmission and Risks:

- Primarily spread by infected midges
- Vertical tx (pregnancy) linked to fetal abnormalities, miscarriages, and stillbirths.
- Also detected in semen raising concerns about potential sexual transmission.

## Public Health Concerns:

- With no treatment or vaccine available, public health experts emphasize the need for heightened surveillance and research to address this emerging viral threat.



A biting midge feeding on human blood.  
(Sinclair Stammers/sciencesource.com)



# Clinician Considerations for Oropouche Virus (OV)

## Perspective on Risks:

- OV is uncommon, prioritize diseases with higher mortality like malaria.

## Travel Alerts:

- Stay updated on CDC travel health notices and virus spread maps,
- Especially for regions like Espírito Santo, Brazil

## High-Risk Populations:

- Pregnant individuals exercise caution, use DEET-based repellents, and receive counseling.
- Limited data on pregnancy risks; advisories recommend fetal ultrasounds every 4 weeks.

## Diagnosis:

- Symptoms include a rebound febrile illness (occurs in 60% of cases).
- Respiratory symptoms exclude Oropouche virus.
- Diagnosis is RT-PCR during the 1<sup>st</sup> week and IgM and IgG antibodies after the 1<sup>st</sup> week

## Management:

- Be vigilant for Guillain-Barré syndrome.
- Pediatricians must be informed of maternal infections for neonatal follow-up.

# Key Points About Norovirus for Clinicians

## Epidemiology

- Highly contagious RNA virus, leading cause of acute gastroenteritis worldwide.
- Spread via fecal-oral route, contaminated food/water, or person-to-person contact.
- Peaks in winter months and it is common in crowded environments
- Viral shedding peaks during the acute illness but s can be detected in stools for weeks

## Symptoms:

- Incubation: 24–48 hours.
- Rapid onset of nausea/vomiting, non bloody diarrhea , abdominal pain, fever, and myalgia.
- Symptoms typically resolve within 1–3 days.

## Diagnosis:

- Clinical diagnosis during outbreaks.
- Confirm severe cases with RT-PCR of stool

# Key Points About Norovirus for Clinicians

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- **Treatment:**
  - No specific antiviral; supportive care focuses on rehydration.
  - Use antiemetics for severe vomiting.
- **Infection Control:**
  - The virus resists freezing, heating to 60°C, and not eradicated by alcohol-based hand sanitizers.
  - **Handwashing with soap and water is essential.**
  - Isolate symptomatic patients; clean surfaces with bleach-based disinfectants.
  - Follow contact precautions during outbreaks.
- **Prevention:**
  - No vaccine available; rely on hygiene and environmental cleaning.
  - Avoid exposure to infected individuals and contaminated surfaces.
  - Do not prepare, handle food, or care for others when you are sick.

