

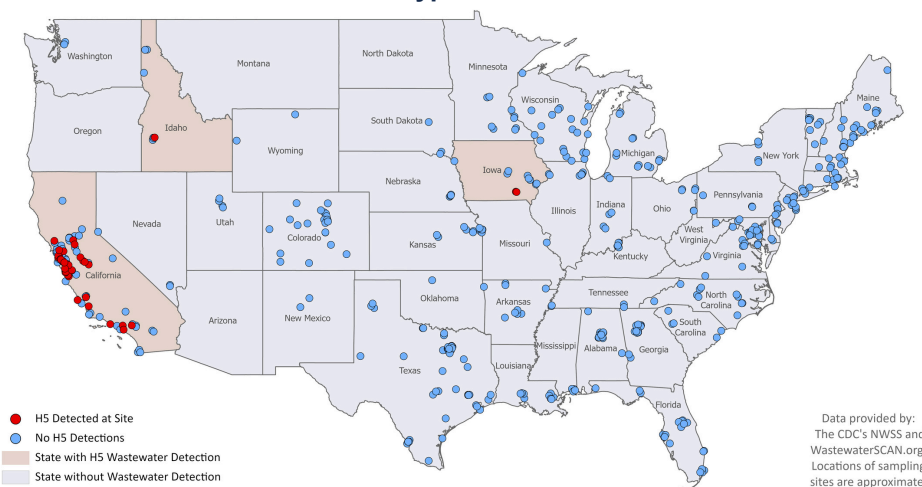
November 15, 2024

Key Takeaways

- A Canadian teenager has been infected with an H5N1 flu and is in critical condition. The virus is of a different genotype than the one affecting American cattle.
- CDC serology data suggest HPAI A(H5N1) is being underreported.
- The Congo Basin outbreak of clade Ib mpox is ongoing.
- The last Marburg virus disease patient has been discharged in Rwanda. The WHO will declare the outbreak over if no new cases are detected within 42 days.
- La Niña conditions may bring a warmer winter to Virginia.

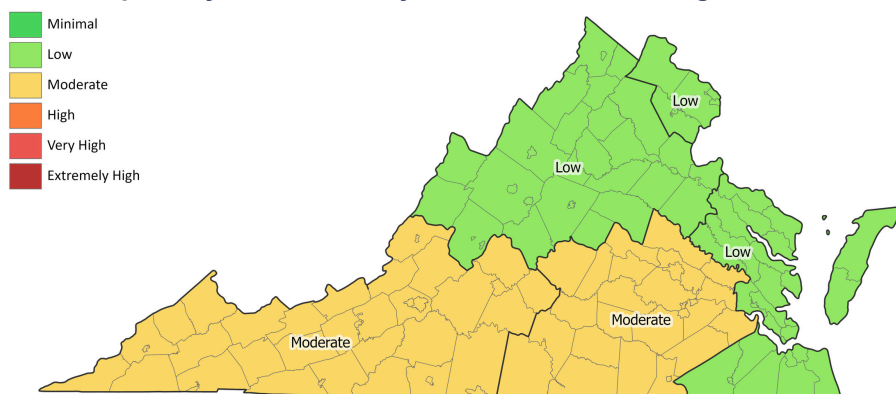
Key Figures

Wastewater Detections of H5-Type Viruses between Oct 13 and Nov 9



H5 has been detected in wastewater systems in California, Idaho, Iowa, and Hawaii (not shown). Sources: [CDC](#) and [WastewaterSCAN](#).

Respiratory Illness Activity Levels — Week ending 2024-11-09



Unchanged from last week -- activity remains 'moderate' in the Central and Southwest regions, and 'low' everywhere else. Source: [VDH](#).

Mpox

8

The number of clade Ib mpox cases reported outside of Africa as of Nov 15, 2024.

Seasonal Illness

2

Number of Virginia's five regions at Moderate or higher respiratory illness activity levels for the week ending Nov 9.

10% / 67%

The likelihood that COVID-19 / flu activity is growing in Virginia, according to CDC models as of Nov 5, 2024.

HPAI A(H5N1)

46

Human HPAI A(H5N1) cases in the United States as of Nov 15.

Ongoing Monitored Situations

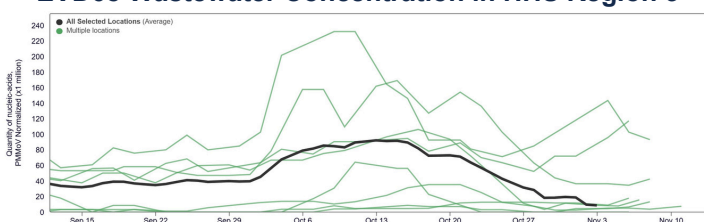
Avian Influenza A(H5N1)

- **Canadian teen in critical condition following H5N1 infection.** Though the virus infecting the patient is of the same clade as the virus circulating in U.S. cattle, it is of a different genotype. The patient had no reported contact with livestock, but H5N1 of this genotype has been identified in wild birds in Canada. The previously healthy teenager presented with mild symptoms, but progressed to acute respiratory distress syndrome.
- **Serology study suggests underreporting of HPAI A(H5N1).** A CDC serology study of 115 dairy workers found that eight of them (about 7%) had antibodies suggesting prior infection. Only four of the workers reported remembering feeling ill. This suggests significant national underreporting of HPAI A(H5N1). Yet, the study found no evidence of person-to-person transmission.
- **H5 detected in Hawaiian wastewater.** H5-type virus was detected in Oahu's wastewater on Nov 7. The specific clade is not yet known. Authorities note that Hawaii is the only state with no known H5N1 outbreaks in wild birds or livestock. Over the last month, H5-type virus was also detected in the wastewater systems of California, Idaho and Iowa.

Seasonal Illness

- **Respiratory illness activity low and trending up.** COVID-19, flu, and RSV in Virginia are stable per emergency department diagnosis data. CDC test positivity data shows a similar trend with slight growth of flu in HHS Region 3. 'Children aged 0-5' is the only age group in Virginia facing an increase in respiratory illness activity.
- **Enterovirus D68 activity in decline.** Despite some growth in Maryland, wastewater data show an overall decrease of EVD68 viral concentrations in HHS region 3 (which includes Virginia).

EVD68 Wastewater Concentration in HHS Region 3

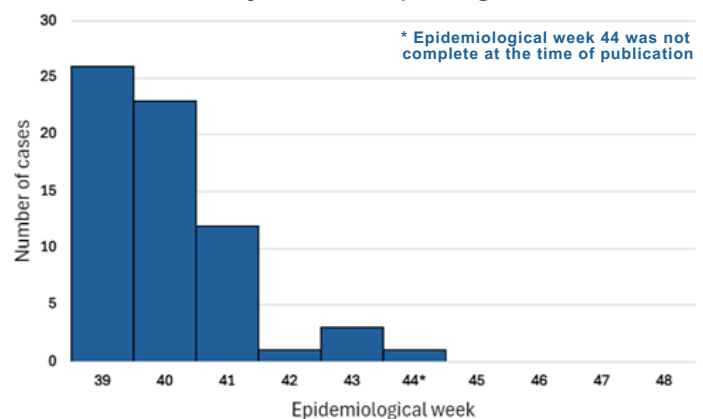


EVD68 activity is in decline. Source: [WastewaterSCAN](#).

Marburg Virus Disease

- **Rwanda starts countdown to declare outbreak over.** The last Marburg virus disease (MVD) patient in Rwanda was cleared of infection and discharged on Nov 8. The Rwandan government notes that no new cases have been detected since Oct 28. The total case count stands at 66 with 15 deaths. Healthcare workers represent about 80% of total cases. Per WHO guidelines, the outbreak will be declared resolved if no new cases present within 42 days of the last patient testing negative.

MVD cases by week of reporting in Rwanda



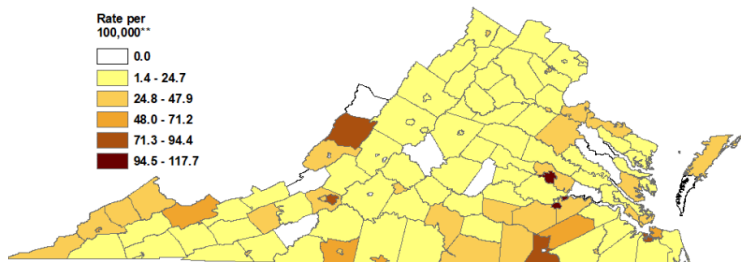
The epidemic curve of the MVD outbreak in Rwanda shows a consistent decline in Oct. Image Source: [WHO](#).

Mpox

- **Outbreak in Congo Basin ongoing.** The WHO reports that the mpox outbreak in Africa “shows a general rising trend”. This is largely driven by a surge of cases in DR Congo, Burundi and Uganda. Over the last six weeks, the three nations reported 12,552, 1,030 and 324 cases respectively. Clade 1b mpox has been detected in eight other nations, but there is no evidence of sustained community transmission outside of the Congo Basin.
- **WHO to convene emergency mpox meeting.** The Director-General has called for the meeting on Nov 22 to determine if clade 1b mpox is still a “public health emergency of international concern”. Though cases have plateaued in DR Congo’s South Kivu, the region continues to report the highest incidence in the world. Other regions are still showing growth. DR Congo, Rwanda, and Nigeria have received 280,000 mpox vaccines, but overall vaccine supply remains limited.

Other News

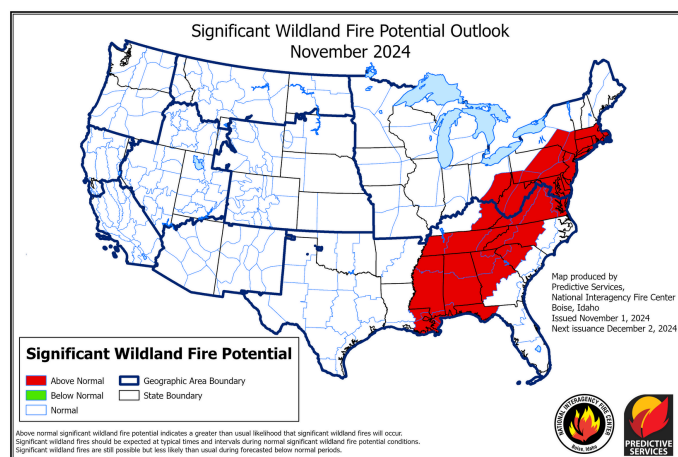
Rate of All Fatal Opioid Overdoses by Locality of Overdose, 2023*



Recent data project a 30% decrease in the number of opioid deaths statewide in 2024. The improvement is attributed to various efforts, including the Governor's "Right Help, Right Now" initiative and the "REVIVE!" training program. Source: VDH.

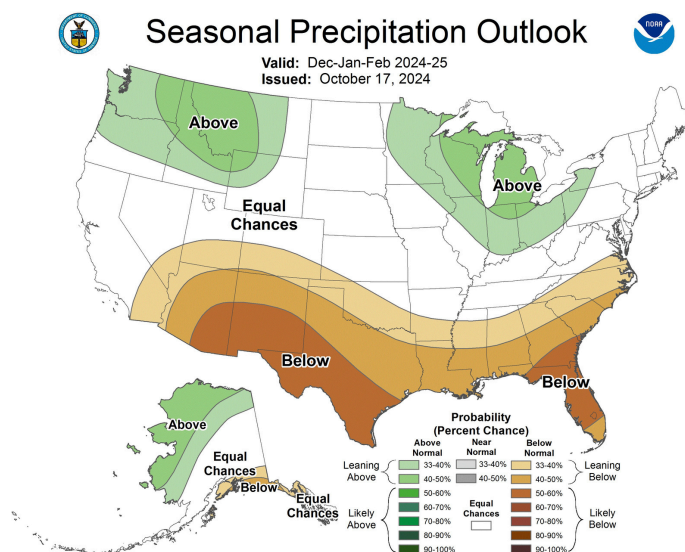
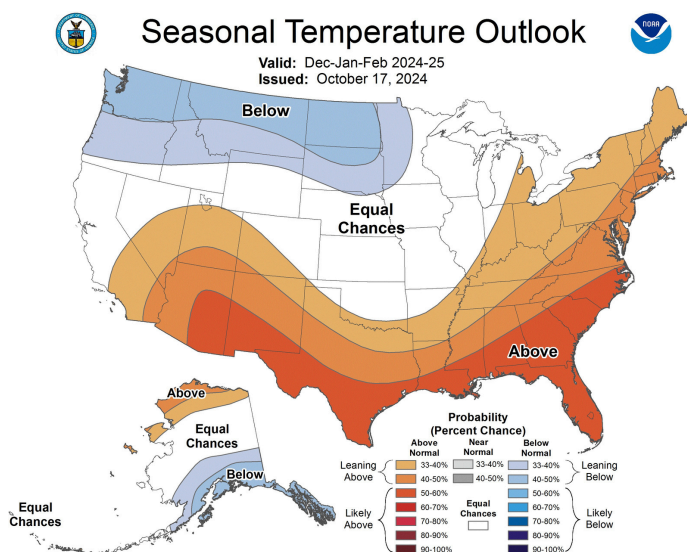
- **Baxter has resumed operations on a second intravenous (IV) solutions manufacturing line**, bringing the North Cove manufacturing site back to 50% of their total production, and 85% of the site's production of standard one-liter IV solutions.
- **Drought conditions have spawned multiple fires across the Northeast U.S.**, resulting in the death of one firefighter. Meanwhile, wildfires in Ventura County, California have been contained following evacuations last week.

- **Heat is becoming the main driver of drought, rather than precipitation deficits**, according to a recent study. As a result, droughts like the one affecting the Western U.S. from 2020 to 2022 will increase from 1-in-1,000 year events to 1-in-60 year events by 2050, and 1-in-6 year events by 2100.
- **Flooding from Hurricane Helene may have released significant amounts of hazardous chemicals from the Radford Army Ammunition Plant into the New River.** Although no environmental impacts or threats to public health have been reported, many local residents were concerned about transparency related to the event.



Virginia is at increased wildfire potential. Source: NIFC.

Winter Weather Outlook



NOAA projects a warm and dry winter for much of the Southeast. Virginia has a 40-50% chance for above average temperatures and normal precipitation through February, with a small chance of above average precipitation in Southeast Virginia. Droughts are expected to persist in some areas of the US Midwest and Southwest, but Virginia is not expected to experience drought this winter. Source of images: NOAA.