

August 23, 2024

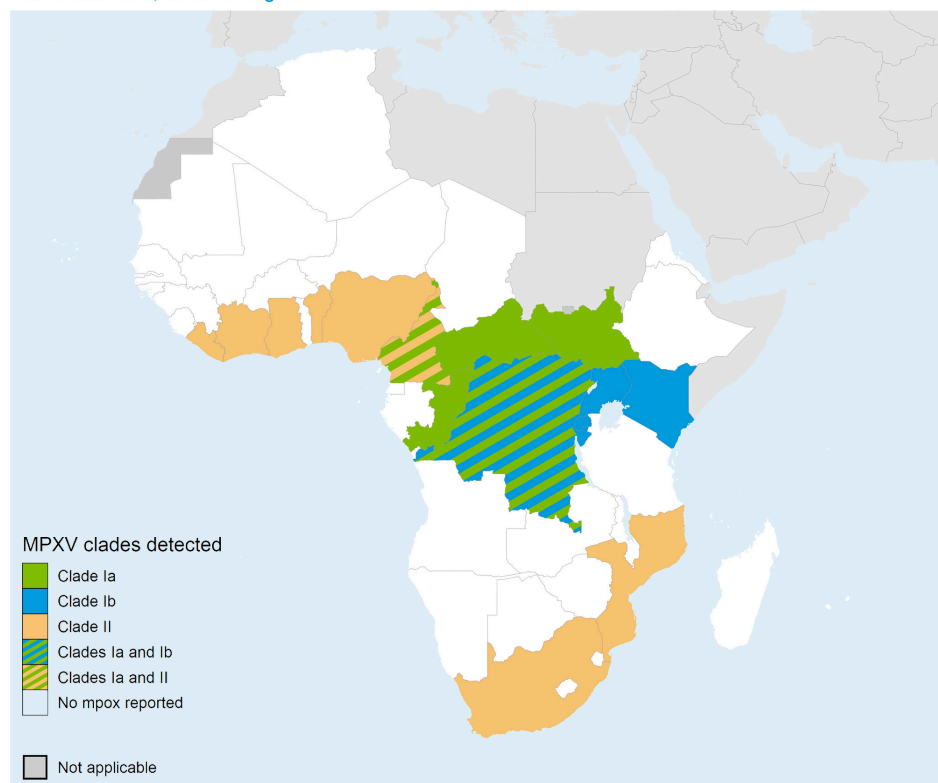
Key Takeaways

- Thailand reports case of clade Ib mpox. This is the second case detected outside of Africa.
- TPOXX (tecovirimat) is ineffective against clade Ib mpox.
- HPAI A(H5N1) has been detected in indoor cats in Colorado.
- COVID-19 growth may be slowing. ED diagnoses fell in Virginia for the first time since May. Yet, overall rates remain highly elevated.
- A multi-county measles outbreak in Oregon is ongoing.
- Labor disputes have shutdown Canada's freight rail, with significant effects on U.S. supply chains expected.
- The highest number of conflicts since World War II is contributing to antimicrobial resistance, disease outbreaks, and forced displacements.
- A total of 10,257 pertussis cases have been reported in the U.S. in 2024, compared to 2,815 for the same period in 2023.

Key Figure

MPXV clades detected, African Region

from 1 Jan 2022, as of 25 Aug 2024



Clade Ib mpox has spread from DR Congo to neighboring Burundi, Rwanda, and Uganda. Clade Ia mpox has also been detected in Cameroon, the Central African Republic, the Republic of Congo, and South Sudan. The clade Ib outbreak has been declared a Public Health Emergency of International Concern as cases were detected in Sweden and Thailand. Source: [WHO](#).

Mpox

17,541 / 517

The number of mpox cases / deaths reported in the 15 African Union Member States from Jan 1 to Aug 17, 2024.

2

The number of clade Ib mpox cases reported outside of Africa as of Aug 23, 2024.

COVID-19

54%

The likelihood that COVID-19 activity is growing in Virginia, according to CDC models as of Aug 16.

High

The current COVID-19 wastewater viral activity level in Virginia as of Aug 22.

HPAI A(H5N1)

191

HPAI A(H5N1) detections in dairy cattle herds in the United States as of Aug 23.

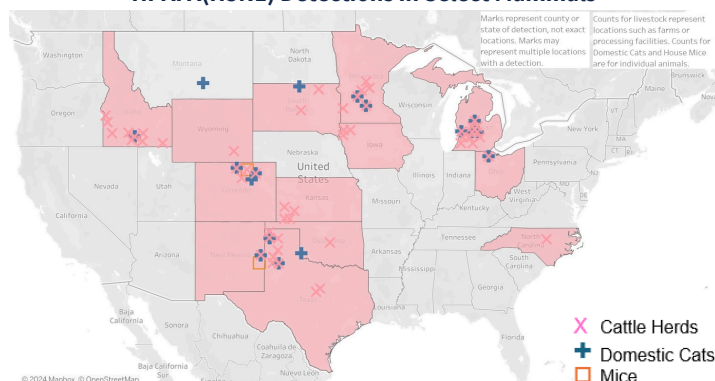
Spotlight:
Global Conflicts

Ongoing Monitored Situations

Avian Influenza A(H5N1)

- **H5N1 detected in indoor domestic cats.** Six cats were found with the virus in Northern Colorado, two of which were reported to be indoor-only cats with no exposure to wild birds or rodents.
- **CDC partners with industry to monitor pets.** The agency is working with Trupanion, a pet insurance provider, to monitor H5N1 infections in pets.

H5N1 Detections in Select Mammals

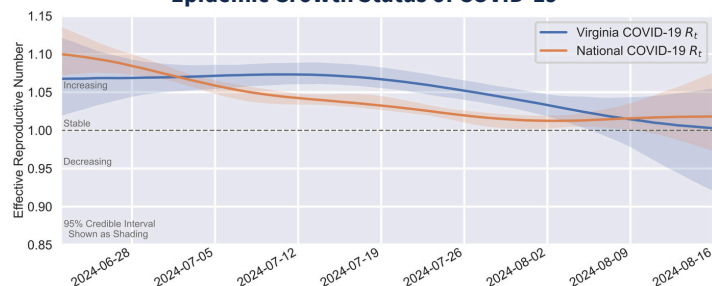


H5N1 was detected in indoor house cats in Colorado, but no new dairy herd outbreaks were reported this week. Data Source: USDA.

Seasonal Respiratory Illness

- **COVID-19 activity may be plateauing.** Emergency Department (ED) diagnoses of COVID-19 in Virginia are down 2.8% this week. This marks the first decrease since early May. In response, epidemic models now suggest that the epidemic status in Virginia is 'stable'. National cases are also down by 1.5%.
- **COVID-19 activity remains highly elevated.** Despite the lack of growth, wastewater surveillance suggests 'very high' viral loads nationally and 'high' viral loads in Virginia. National wastewater loads are the highest they've been in summer since July of 2022.

Epidemic Growth Status of COVID-19

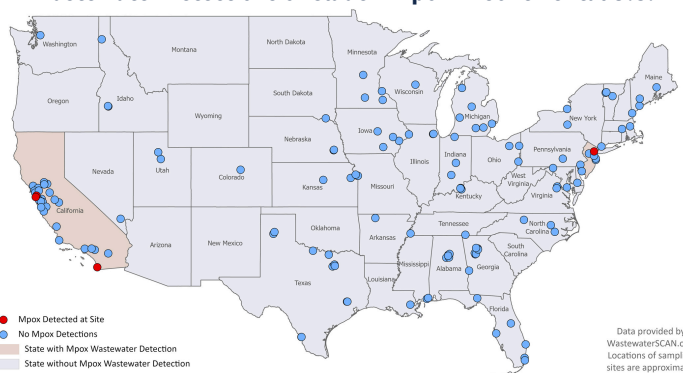


For the first time since the middle of May, models are suggesting that COVID-19 activity is 'stable' in Virginia and nationally. Data source: CDC.

Mpox

- **Mpox outbreak continues in Africa.** The Africa CDC now reports 17,541 cases and 517 deaths across 13 nations from the start of 2024. The European CDC is recommending enhanced preparedness measures as it expects more imported cases in the future.
- **Thailand reports clade Ib mpox case.** This is the second case of the virus found outside of Africa. As with the case detected in Sweden last week, this case is thought to be travel-related.
- **Tecovirimat (TPOXX) ineffective against clade Ib mpox.** An NIH sponsored study found the antiviral did not reduce the duration or severity of mpox lesions. The same study found a case fatality rate (CFR) of 1.7% among hospitalized patients.
- **USAID increases funding to combat mpox in Africa.** The agency announced an additional \$35 million grant in response to the outbreak of clade Ib mpox. This is in addition to \$424 MM announced in August.
- **Vaccines en route to DR Congo.** The nation's health ministry expects to receive the first shipment of vaccines from the U.S. and Japan next week. Bavarian Nordic has suggested the possibility of manufacturing its JYNNEOS vaccine in affected African nations.

Wastewater Detections of Clade II Mpox in Continental U.S.



Between Jul 25 and Aug 21, WastewaterSCAN detected clade II mpox in two states. The CDC also detected mpox in the San Francisco area. Clade Ib mpox has not been detected in the U.S. Data Source: WastewaterSCAN.

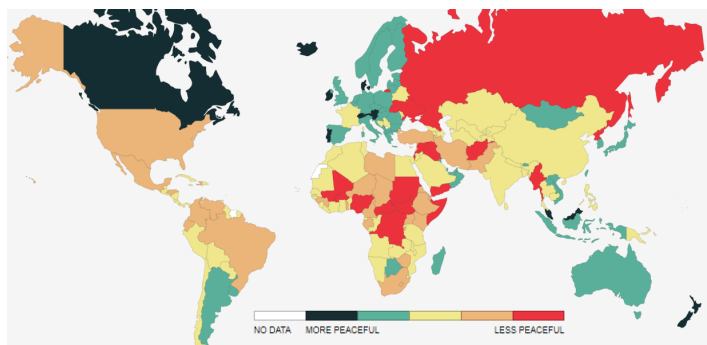
Measles

- **Measles outbreaks continue nationally.** The CDC reported nine new cases in the last week, including a new case in Atlanta. This brings the 2024 total to 227 cases. A multi-county outbreak in Oregon is ongoing.

Spotlight

- **Heavy metals in munitions, often combined with reduced infection prevention, increase anti-microbial resistance (AMR).** Resistant organisms develop both in contaminated environments and directly in contaminated wounds. Increased AMR has been noted in U.S. soldiers wounded overseas, the conflict in Ukraine and Russia, and other conflicts.
- **Conflicts are directly linked to disease outbreaks.** Outbreaks of hepatitis A, meningitis, gastrointestinal, respiratory, and other diseases have been reported in Gaza. The WHO called for a humanitarian pause after polio was identified in wastewater there. The UN warned that conflict in DR Congo contributed to the mpox threat, which was recently declared a PHEIC.
- **The UN Refugee Agency estimates over 117 million people were forcibly displaced at the end of 2023.** 8.8 million forcibly displaced people were added in 2023, the 12th consecutive year of increases. Over half of forcibly displaced people are internally displaced (they remain in their country.) The U.S. received the largest number of resettled refugees (75,100) and asylum applications, (1.2 million), but 75% of externally displaced persons are hosted by low- and middle-income countries, and usually in neighboring countries.

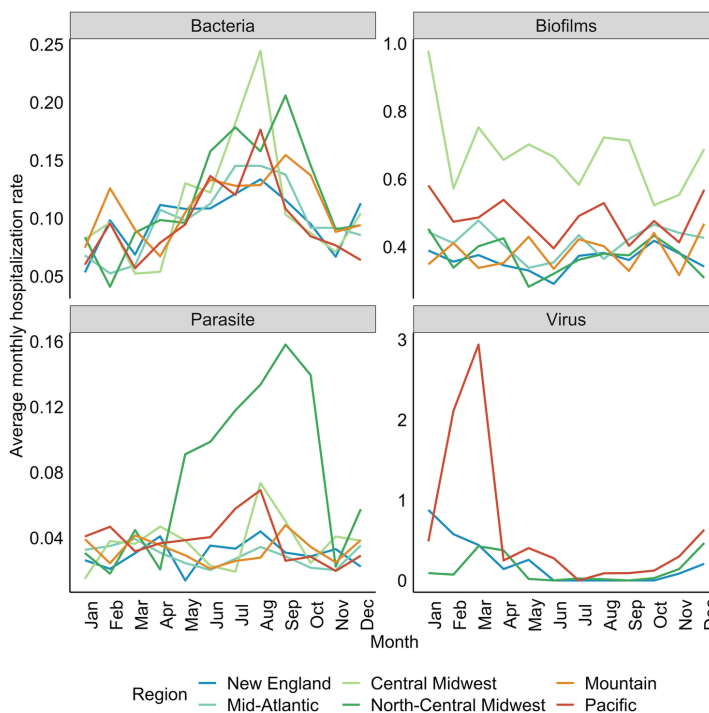
Global Conflicts



According to the Institute for Economics and Peace, there are currently 56 armed conflicts globally involving 92 countries, more than any time since World War II. The institute's Global Peace Index found that 97 of 163 countries studied declined in peacefulness, with the largest regional decrease in North America. Image Source: Visions of Humanity.

Other News

- **Labor disputes in Canada's rail industry continue to roil North American supply chains.** Canada's freight rail could partially shutdown again Monday, after a 16-hr lockout on Thursday. U.S. and Canadian rail is highly integrated, and any stoppage is expected to have substantial impacts on American supply lines.
- **Fairfax County has reported 44 cases of pertussis (whooping cough) in 2024**, the highest number in over a decade and about four times the average of the previous five years. Waning vaccine immunity and disrupted transmission patterns during the COVID-19 pandemic likely contributed to the increase.
- **Complaints of an unknown odor at the Wilderness WTP water system led to a 'Do Not Use' water advisory** for some Orange County residents and a local state of emergency. County schools closed, with some serving as water distribution centers. At this time, it is unknown when normal operations will resume.
- **A man pleaded guilty to producing toxic ricin in his home in Northern Virginia.** The man was arrested in April and had previously associated with militias.



Seasonal patterns of waterborne disease hospitalizations vary by pathogen type and region, with bacterial infections peaking in summer across the U.S., while norovirus peaks in winter. Biofilm-forming bacteria caused 81% of hospitalizations between 2000 to 2011. Image Source: Lynch and Shaman, 2024.