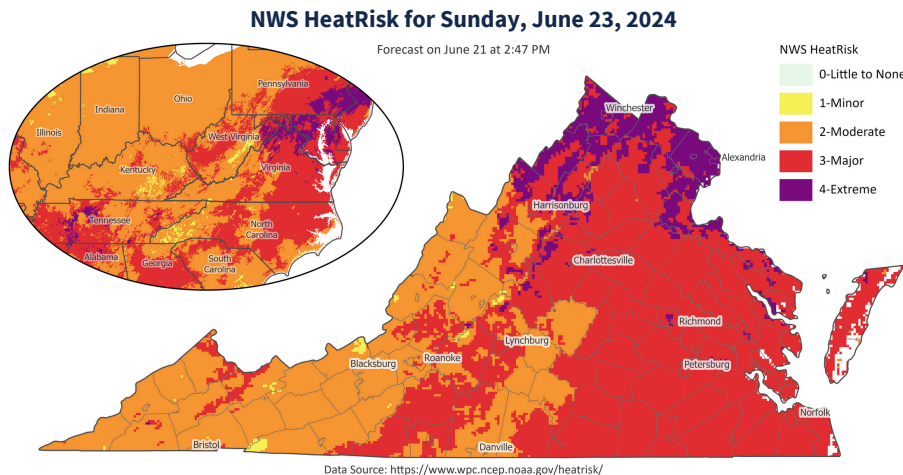


June 21, 2024

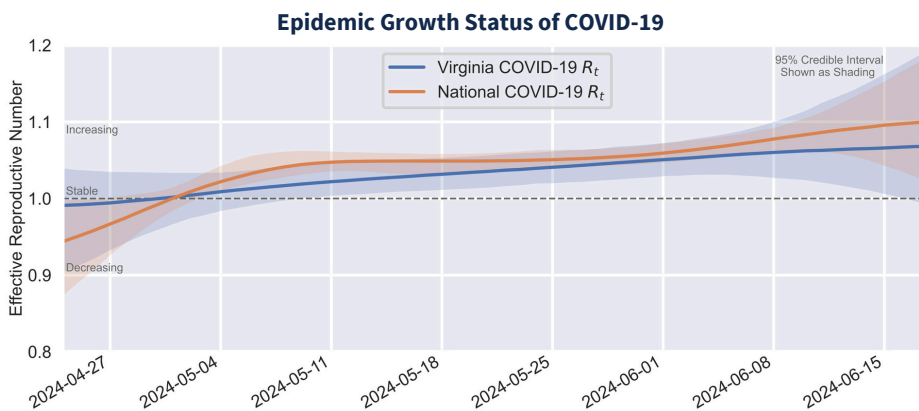
Key Takeaways

- A heat wave will bring dangerous temperatures to Virginia this weekend.
- Avian influenza (A)H5N1 outbreaks continue among dairy cattle herds. Fragments of the virus have also been found in wastewater.
- A CDC study found limited population immunity to avian influenza (A)H5N1 among Americans. This finding is not unexpected.
- COVID-19 activity continues to increase slowly. Nevertheless, COVID-19 diagnosis rates remain comparable to those of last summer.
- Reused full-face respirators may be compromised by sterilization.
- A study found hospital COVID-19 mortality is associated with staffing ratios. The study took place before widespread vaccination efforts.
- VDH continues to investigate a Memorial Day weekend outbreak of Shiga toxin-producing *Escherichia coli* at Lake Anna.

Key Figures



A dangerous weekend heat wave, extending into Monday, will bring prolonged high temperatures to Virginia. Some regions will experience 'Extreme' HeatRisk which will affect those without 'effective cooling' and 'adequate hydration'. Data Source: NWS.



Models find a 96% likelihood that COVID-19 is growing in Virginia. Data Source: CDC.

Mpox

23

The number of mpox cases reported in Virginia in 2024 as of Jun 17.

Measles

151

The number of new measles cases in the US detected since the start of 2024, as of Jun 14.

A(H5N1)

115

A(H5N1) detected in dairy cattle herds in the United States as of Jun 20.

HeatRisk

31.4%

Percentage of Virginians living in regions that will experience an 'Extreme' NWS HeatRisk at some time in the next five days, based on the forecast from Jun 21 at 2:47 PM.

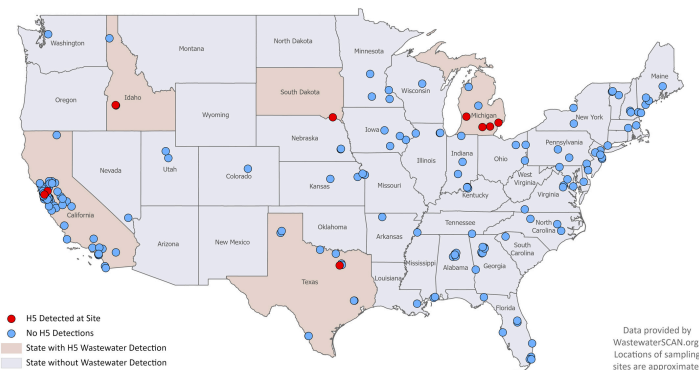
Spotlight:
Extreme Heat

Ongoing Monitored Situations

Avian Influenza (A)H5N1

- **Dairy herd outbreaks continue nationally.** USDA officials have confirmed 20 new outbreaks this week, bringing the total to 115 herds. No new human cases of the virus have been detected in the U.S. since May 30. However, wastewater sampling (see map below) has found fragments of the virus in multiple states.
- **CDC finds that Americans have limited immunity to A(H5N1).** Examining blood samples from across the nation collected between 2021 and 2023, researchers found “extremely low to no population immunity” to the virus. The authors note that “this finding is not unexpected because A(H5N1) viruses have not spread widely in people.”
- **Michigan offers farmers financial assistance.** The state will offer funds to the farms affected by (A)H5N1 if they participate in testing and research programs.

Wastewater Detections of H5 in Last Two Weeks



Data provided by WastewaterSCAN.org. Locations of sampling sites are approximate.

Between June 4 and 17, H5 subtype viruses were detected at nine of 194 wastewater sampling sites in the U.S. Data Source: [WastewaterSCAN](#).

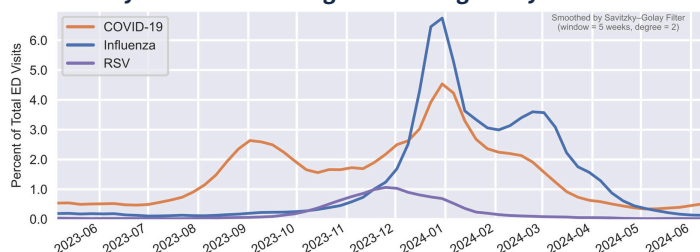
Mpox

- **Variant clade I mpox continues to spread in Africa.** The Democratic Republic of the Congo (DRC) has been facing an outbreak of variant clade I mpox since September of 2023. More virulent than the more common clade II mpox, this variant is also well adapted to human transmission. Though not yet detected outside of the African nation, authorities note that it has now spread to a second province. The DRC reports 7,851 cases and 384 fatalities since the start of the year. The CDC considers the risk posed by this outbreak to the American public to be ‘very low’.

Seasonal Respiratory Illness

- **Despite signs of growth, COVID-19 activity remains low.** Epidemic models continue to suggest that COVID-19 activity is increasing both nationally and locally. Nevertheless, emergency department (ED) diagnoses for COVID-19 in Virginia remained stable this week. Overall, levels are consistent with those seen in the summer of 2023. Similarly, COVID-19 levels in wastewater have grown since May, but viral activity is considered ‘low’ for the Commonwealth and U.S.

Weekly Percent of ED Diagnoses in Virginia by Viral Illness



Though ED diagnoses of COVID-19 have increased in the last few weeks, overall rates are comparable to those of last summer. Data source: [CDC](#).

- **Sterilized respirators may be compromised.** The study tested full-face respirators that were repeatedly worn in healthcare settings for 15 to 30 days. Though 62% of these still met the minimum filtering criteria after weeks of wear, none did so after being sterilized.
- **COVID-19 deaths tied to hospital staffing ratios.** A study found that the risk-adjusted odds of in-hospital patient mortality increased by about 20% for each additional patient in a nurse’s routine workload. Note that the study collected data from before widespread COVID-19 vaccination efforts.
- **FDA calls for fall COVID-19 vaccines to target KP.2.** The agency’s advisory committee suggests that vaccine manufacturers focus on the KP.2 strain of the JN.1 lineage. The strain currently accounts for 22.5% of new cases in the U.S. and is quickly growing.

Measles

- **Outbreaks continue as low vaccination rates worry authorities.** The CDC reports a total of 17 national cases since May 1, not including an ongoing outbreak in Oregon. Officials note that some communities are now below the herd-immunity threshold.

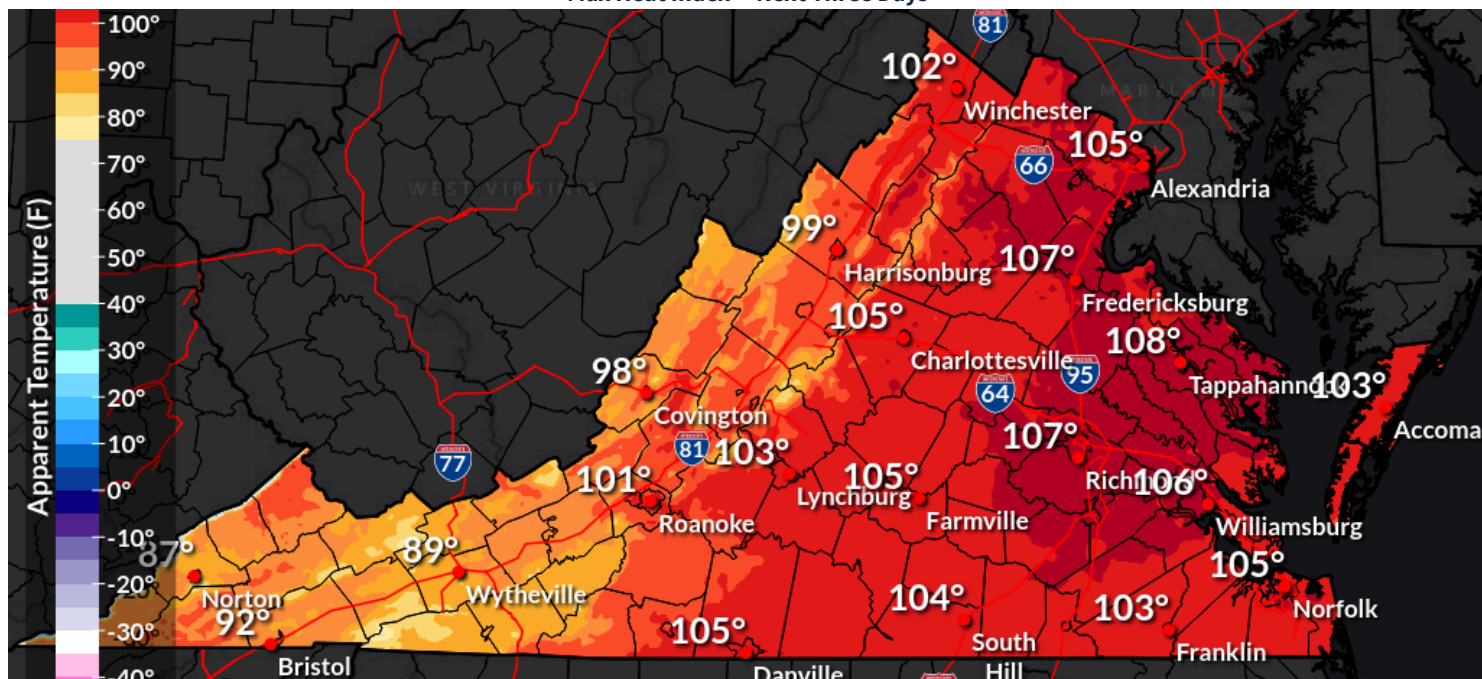
Spotlight

- A **dangerous and long-duration heat wave** is **expected** to impact most of the Central and Eastern U.S. over the weekend into early next week. Highs are expected to be in the mid to upper 90s, with some areas possibly seeing temperatures in the 100s F.

Extreme Heat

- **Since May 1, there have been over 600 heat-related illness visits** to emergency departments and urgent care centers statewide. Daily visit counts have been particularly high this week. Please take precautions to avoid heat related illness this summer.

Max Heat Index -- Next Three Days

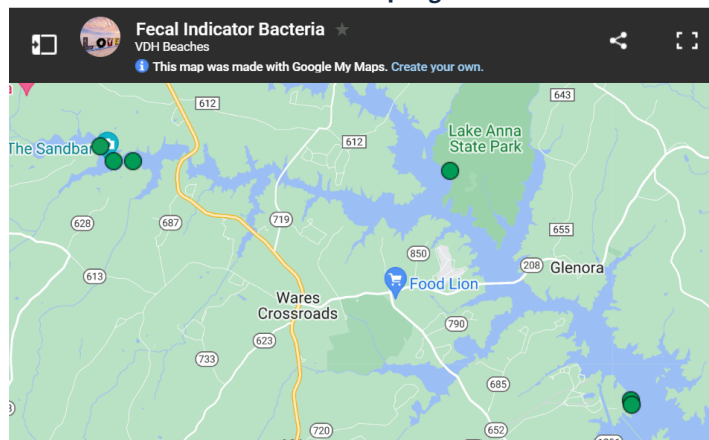


Forecast valid from Friday 8:00 AM through Monday 8:00 AM EDT. Image Source: [NWS Wakefield](#). Issued: Jun 21, 2024, 8:51 AM EDT.

Other News

- A **statewide outage of the 911 system** in Massachusetts made it impossible for residents to contact emergency services for about two hours this week. The outage was attributed to a firewall intended to prevent cyberattacks.
- **U.S. Poison Centers have received over two dozen calls regarding illness potentially associated with the consumption of Diamond Shroomz products**, which contain mushroom extracts and are marketed for “microdosing.” According to an alert issued by the CDC, 12 patients sought medical attention for their symptoms of which ten were hospitalized.
- **According to VDH, 25 probable and confirmed cases of Shiga toxin-producing Escherichia coli (STEC) have been reported** among individuals who were in the Lake Anna area around Memorial Day weekend. Seven of these cases have become severe and developed hemolytic uremic syndrome, requiring hospitalization. The investigation is ongoing and the cause of the outbreak has not been identified.

Lake Anna Sampling Sites



Testing of collected samples continue to indicate that fecal bacteria concentrations in Lake Anna are below a level of public health concern. Image Source: [VDH](#).