# WEEKLY EPIDEMIOLOGIST REPORT August 14, 2023



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# MOSQUITO-BORNE DISEASE SURVEILLANCE

The State of Connecticut's Agricultural and Experimentation Station (CAES) performs mosquito trapping and testing starting at the beginning of June and ending in late October. Arboviruses tested at CAES include:West Nile Virus (WNV), Eastern Equine Encephalitis virus (EEE) and Jamestown Canyon Virus (JC). CAES has trapped and tested 169,622 mosquitoes between June 1, 2023 – July 31, 2023. Testing sites are located in 89 towns. Newington and Wethersfield are the only towns in the health district with test sites (see table below)., Wethersfield was the first town this year to report a mosquito positive with WNV. WNV activity has also been reported in Branford, East Haddam, East Haven, Faifield, New Canaan, South Windsor, Wallingford and Stamford. Wetherfield has continued to report positive WNV mosquitoes. JC has been reported in West Haven and North Haven. There have been no human cases of EEE, JC, or WNV reported in Connecticut or our district yet this year.

Town	Site	Cumulative Mosquitoes Tested	Test Results	Virus	Mosquito Species (Positive Samples)	Date Collected
Newington	Churchill Park	1,016	Negative	-	-	-
Wethersfield	Goff Road	2,321	Positive	WNV (4)	Culex pipiens (1)	7/17
					Culex restuans (1) Culex salinarus (2)	7/27

To protect yourself against mosquitoes and mosquito-borne disease, remember the 4 D's:

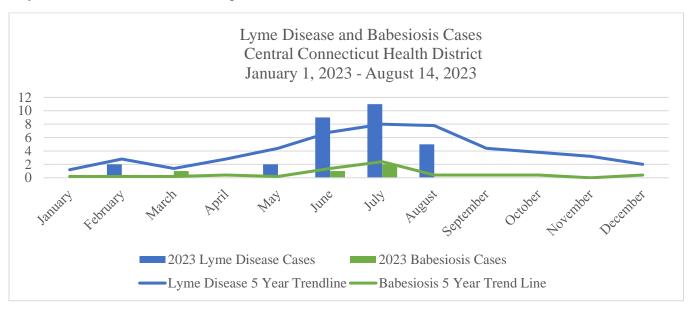
- 1. **Defend**: use an EPA registered mosquito repellent (DEET, picaridin, Oil of Lemon Eucalyptus, IR3535, or 2-undecanone)
- 2. **Dress**: wear light colored clothing with long sleeves, socks, and pants to minimize mosquito bites
- 3. **Dusk/Dawn**: avoid areas where mosquitoes are active from one hour before sunset to one hour after sunrise
- 4. **Drain/Dump:** check around the home for containers or areas which hold water. Dump out once per week. Consider using mosquito dunks in large outdoor standing water containers, such as rain barrels.

Data regarding mosquito-borne disease surveillance is collected from <a href="https://portal.ct.gov/CAES/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mosquito-Testing/Mos



# TICK-BORNE DISEASE SURVEILLANCE

The line graph below shows the five-year average trend lines for babesiosis and lyme disease cases (2018-2022) compared to this years cases. Data for this year may change due to delays in reporting. It appears that June and July case counts were above average.



To protect yourself against tick bites and tickborne disease, remember to B-L-A-S-T:

- B- Bathe or shower soon after coming indoors.
  - o Immediately put clothes in dryer on high heat for 20 minutes to kill any ticks that may be attached to them.
- L- Look for ticks and remove with fine point tweezers.
- A-Apply repellents
  - o Application of 30% DEET-based repellent is effective at repelling deer ticks.
  - Application of .5% permethrin-base insecticide to clothing is highly effective at repelling and even killing ticks.
- S- Spray tick habitat areas in your yard.
  - o www.spraysafeplaysafe.org
- T- Treat pets with veterinarian recommended products

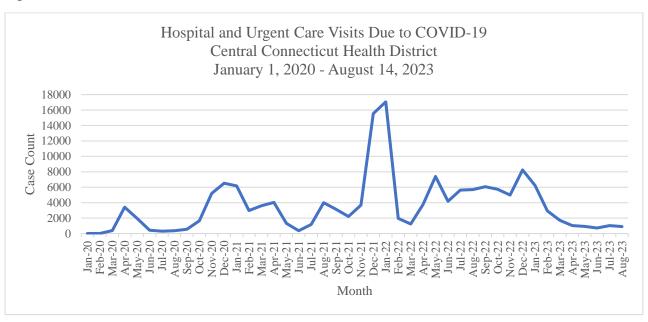
For more information on BLAST Lyme please visit www.lymeconnection.org



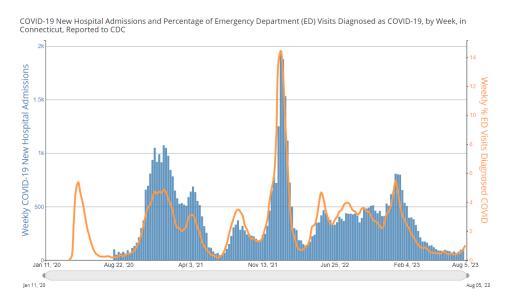
Figure 1. Life stages of *Ixodes scapularis*, the vector of Lyme disease. Top left: Larva. Bottom left: Nymph. Center: Adult male. Right: Adult female. Jamie Cantoni, CAES.

# **COVID-19 SURVEILLANCE**

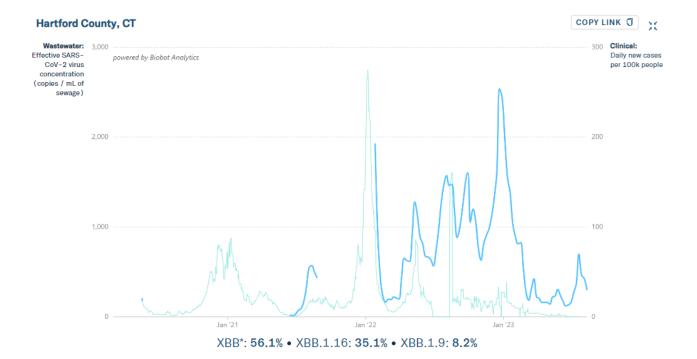
Data for COVID-19 was collected on August 14, 2023 from EpiCenter. The line graph below illustrates the syndromic surveillance of hospital and urgent care visits due to COVID-19 (those with a COVID-19 diagnosis and symptoms).



The view below is of Emergency Department (ED) visits with diagnosed COVID-19 provided by the CDC. It appears the statewide 7-day moving average for all ages (red line) is increasing. Resource: Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: U.S. Department of Health and Human Services, CDC; [August 14, 2023]. https://covid.cdc.gov/covid-data-tracker



According to Biobot wastewater surveillance, genomic sequencing for Hartford County results showed that 56.1% of SAR-COV-2 viral fragments found in the wastewater were XBB, 35.1% were XBB.1.16 and 8.2% were XBB.1.9. <a href="https://biobot.io/data/">https://biobot.io/data/</a> The graph below illustrates the copies of virus isolated from wastewater in Hartford County (blue) compared to the number of clinical cases reported per 100,000 population (teal).



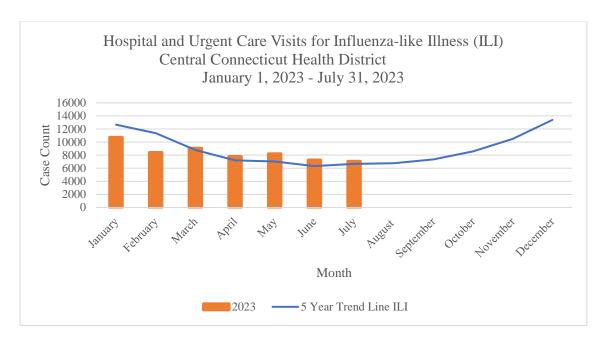
The World Health Organization has listed the Omicron EG.5 a variant of interest (VOI) at this time. EG.5 is a descendent of XBB1.9.2. According to WHO, EG.5 has shown increased prevalence, growth advantage, and immune escape properties, however, there have been no reported changes in disease severity to date. The Global Initiative on Sharing All Influenza Data (GISAID), established in 2008 to share influenza genomic sequencing data globally, started sequencing SARS-COV-2 in 2020. As of August 7, 2023, 7354 sequences of Omicron EG.5 have been submitted to GISAID from 51 countries. The largest portion of EG.5 sequences are from China (30.6%, 2247 sequences). The other countries with at least 100 sequences are the United States of America (18.4%, 1356 sequences), the Republic of Korea (14.1%, 1040 sequences), Japan (11.1%, 814 sequences), Canada (5.3%, 392 sequences), Australia (2.1%, 158 sequences), Singapore (2.1%, 154 sequences), the United Kingdom (2.0%, 150 sequences), France (1.6%,119 sequences), Portugal (1.6%, 115 sequences), and Spain (1.5%, 107 sequences) (WHO, 2023).

We can most likely see an increase or surge in cases this fall. The good news is, there has been no evidence of disease severity and we know how to prevent COVID-19 through social distancing, staying home when sick, testing before traveling, testing after travel, eating a healthy balanced diet and staying up to date on vaccinations.

Central Connecticut Health District still has at-home test kits available at 2080 Silas Deane Highway, Rocky Hill, CT and offers COVID-19 rapid PCR testing at our Clinical Health Services at 506 Cromwell Avenue in Rocky Hill, CT.

#### INFLUENZA SURVEILLANCE

Data for Influenza-like Illness Syndromic Surveillance was collected on August 14, 2023 from EpiCenter. The graph on the follow page illustrates the syndromic surveillance of hospital and urgent care visits due to influenza-like illness (ILI) five- year average trend line (2018-2022) compared to this years cases.. Other circulating respiratory viruses can present as influenza-like illness. The district has not received any reports of influenza types A or B since April 24, 2023. The levels of ILI can be attributed to other respiratory diseases with similar symptoms to influenza (see the National Respiratory and Enteric Virus Sureillance System Update).



On August 2, 2023 the Centers for Disease Control and Prevention confirmed a case of novel influenza A (H1N2)v (also known as swine flu) in the state of Michigan. Influenza A (H1N2)v usually circulates among swine. The human case reported was less than 18 years of age and was exposed to swine at an agricultural fair July 23 – July 29. This is the first case of influenza A (H1N2)v this year in the United States. There have only been 37 human cases reported since 2005 in the U.S..

The symptoms of the case included fever, sore throat, shortness of breath, headache, muscle aches, cough, diarrhea, nausea, dizziness and lethargy. The case received influenza antiviral treatment and was not hospitalized.

With Highly Pathogenic Avian Influenza (HPAI) circulating the globe at this time, the recent case of swine flu in Michigan, and agriculatural fair season fast approaching in Connecticut, the Central Connecticut Health District encourages residents to protect their health by:

- 1. Avoiding contact with sick or dead animals with unknown causes of death.
- 2. Reporting dead wild birds and or mammals and request removal by contacting Connecticut's State Veterinarian at (860) 713-2505 or email ctstate.vet@ct.gov.
- 3. Avoid contact with surfaces at agricultural fairs that appear contaminated with animal excreta.
- 4. Wash hands immediately after exiting animal exhibits.
- 5. Practice good food safety and hygeine.



Photo: CCHD Epidemiologist, Chrisine Gacek, with pig at Berlin Fair (2011).

#### NATIONAL RESPIRATORY AND ENTERIC VIRUS SURVEILLANCE SYSTEM (NREVSS) UPDATE:

Data for the following CDC disease surveillance programs were updated on August 9, 2023.

All data is preliminary and subject to change.

#### Adenovirus

Nationally adenovirus antigen test positivity has increased from 0% to 10.8%. Adenvirus is the most common cause of respiratory illness. Adenovirus can also cause gastroenteritis, conjunctivitis, cystitis, and less commonly, nuerological disease. For more information please visit:

https://www.cdc.gov/adenovirus/hcp/clinical-overview.html

# **Human Metapnuemovirus (hMPV)**

One hundred percent of the samples tested from the Northeastern U.S. Census Region, detected the hMPV antigen. HMPV can cause upper and lower respiratory disease in people of all ages. Common symptoms of hMPV include cough, fever, nasal congestion, and shortness of breath. For more information visit: https://www.cdc.gov/ncird/human-metapneumovirus.html.

# **Human Parainfluenza Virus Types 1-3**

Nationally, parainfluenza virus type 1 (HPIV) antigen test positivity has increased from 4.3% to 8.05%. HPIV 2 has increased from 1.1% to 2.01% and HPIV 3 antigen test positivity has decreased from 1.6% to 0 %. HPIV is associated with croup and can cause upper and lower respiratory illness and cold-like symptoms. For more information on HPIV please visit: <a href="https://www.cdc.gov/parainfluenza/hcp/clinical.html">https://www.cdc.gov/parainfluenza/hcp/clinical.html</a>

# **Norovirus**

The Northeastern Region levels of PCR test posivity decreased from 8.9% to 6.6%. Norovirus can remain on surfaces for weeks at a time and is extremly contagious. Symptoms of norovirus include diarrhea, vomiting, nausea and stomach pain. <a href="https://www.cdc.gov/norovirus/about/index.html">https://www.cdc.gov/norovirus/about/index.html</a>.

# **Respiratory Synctial Virus (RSV)**

In the State of Connecticut, RSV (antigen and PCR) test positivity remain **undetected**. RSV can cause different types of respiratory illness, however it most commonly causes cold-like symptoms. It can cause serious illness, such as bronchitis and pnuemonia in infants and young children and people who are immunocompromised or who have chronic lung disease. For more information please visit:

https://www.cdc.gov/rsv/clinical/index.html

#### **Rotavirus**

In the Northeast region, rotavirus antigen test positivity remains **undetected**. Symptoms of rotavirus include vomiting and watery diarrhea for three to eight days. Fever and abdominal pain is also common. Rotavirus is primarily transmitted through the fecal-oral route. For more information please visit: <a href="https://www.cdc.gov/rotavirus/clinical.html">https://www.cdc.gov/rotavirus/clinical.html</a>

#### **Coronavirus**

NREVSS conducts surveillance on four types of human coronaviruses other than SARS-CoV-2, which include CoV229E, CoVNL63, CoVOC43 and CoVHKU1. People around the world commonly get infected with these four common human coronaviruses. In the Northeastern region, test positivity for all four types remain below 1%.

# **FOOD RECALLS**

Click the link to know what foods have been recalled because they are contaminated. Please check your cupboards and throw out any of these items: <a href="https://www.cdc.gov/foodsafety/">https://www.cdc.gov/foodsafety/</a>

# BACK TO SCHOOL



Helpful Resources for families with school-aged children:

- 1. https://www.211ct.org/
- 2. Hartford Healthcare's "Connections That Matter," https://connectionsthatmatter.org/
- 3. Visit Snap4CT to get healthy recipes you and your family can enjoy <a href="https://www.snap4ct.org/">https://www.snap4ct.org/</a>
- 4. Concussion ABC's: Assess the situation, **B**e alert for signs and symptoms, and **C**ontact a healthcare professional. For more information visit https://www.cdc.gov/headsup/basics/concussion\_respondingto.html
- 5. CDC's Bullying Fact Sheet: https://www.cdc.gov/violenceprevention/pdf/bullying-factsheet508.pdf