Surveillance Week 28 (July 9 –July 15, 2023)

Chicago Respiratory Virus Weekly Surveillance Report

Brandon Johnson, Mayor | July 21, 2023 | Allison Arwady, MD, MPH, Commissioner

This report summarizes key respiratory virus surveillance indicators. The indicators are compiled from laboratory-based data as well emergency department visit data. This report is meant to provide more context for the ongoing COVID-19 pandemic, particularly as co-circulation of respiratory viruses increases. More detailed information on influenza and COVID-19 activity can be found on their respective online dashboards. All data are preliminary and may change as additional reports are received.

Weekly Surveillance Key Points

COVID-19:

- Cook County's COVID-19 Hospital Admission Level is low.
- The number of new hospitalizations per 100,000 population for Cook County has increased from 1.4 to 1.6.
- The test positivity for SARS-CoV-2 has increased from 3.6% to 3.9%.

Influenza:

- The risk of influenza infection is low.
- Two of 2,464 (<1%) reported specimens tested for influenza were positive. Since October 2, 2022, 12,643 of 180,892 (7.0%) reported specimens tested for influenza were positive.
- The proportion of emergency department visits for influenza-like illness (ILI) and the proportion of outpatient visits for ILI are below local thresholds.

Other Respiratory Viruses:

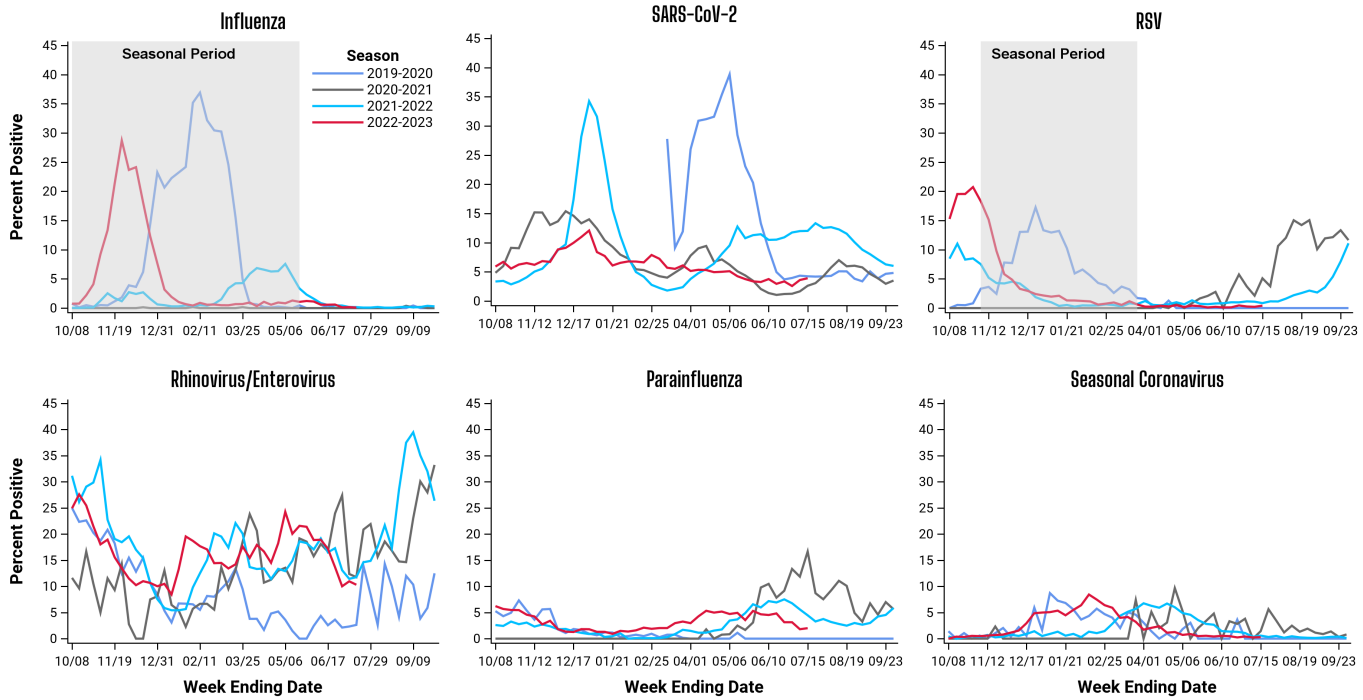
- The percent of emergency department visits in children <5 years old due to RSV remains at <1%.
- The test positivity for RSV remains at <1%.
- The test positivity for parainfluenza has increased from 1.8% to 2.0%.
- The test positivity for rhinovirus/enterovirus has decreased from 11.0% to 10.3%.
- The test positivity for adenovirus has decreased from 4.8% to 2.7%.
- The test positivity for human metapneumovirus remains at <1%.

Respiratory Virus Laboratory Surveillance - Current Week and Cumulative *The table below includes respiratory viral PCR tests performed by several hospital laboratories in Chicago as well as two commercial laboratories serving Chicago facilities. Reporting facilities represent nearly half of all acute care hospitals in the city. Data reported include Chicago and non-Chicago residents.*

	Week Ending July 15, 2023		Since October 2, 2022	
Respiratory Pathogen	# Tested	% Positive	# Tested	% Positive
Influenza*	2,464	0.1	180,892	7.0
RSV*	1,436	0.4	130,103	5.0
SARS-CoV-2*	1,380	3.9	200,724	6.8
Parainfluenza	1,396	2.0	65,245	3.2
Rhinovirus/Enterovirus	737	10.3	42,840	16.3
Adenovirus	739	2.7	42,754	3.9
Human Metapneumovirus	739	0.0	43,142	3.3
Seasonal Coronaviruses†	1,394	0.3	65,889	2.4

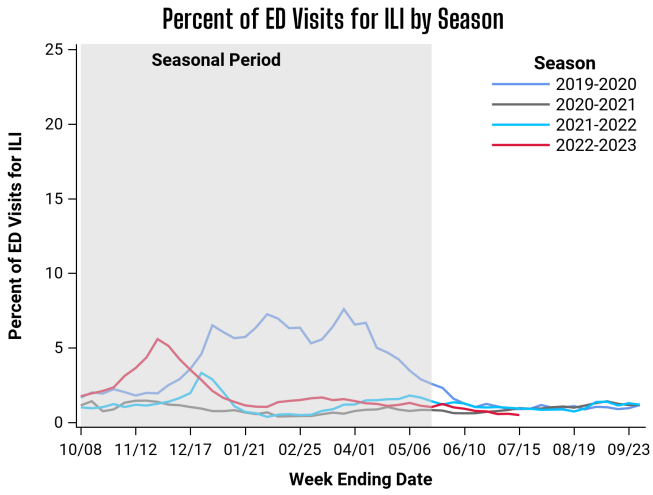
*Represents both dualplex and multiplex PCR data. All other data represents only multiplex panels that include the specified pathogens;† Four seasonal coronavirus strains include 229E, NL63, OC43, and HKU1.

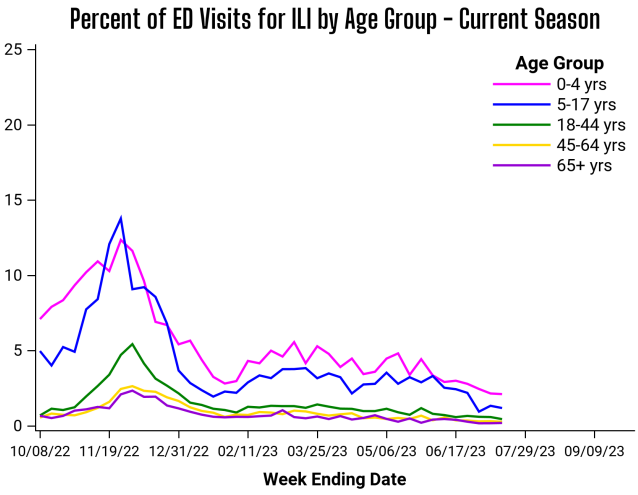
Respiratory Virus Laboratory Surveillance - Seasonal Trends *These graphs show seasonal trends of selected respiratory virus testing data presented in the previous table. Typical seasonal periods when activity tends to increase for influenza and RSV are indicated by shaded areas. Elevated test positivity outside of typical seasonal periods suggests atypical activity, and increased clinician awareness and testing may be warranted. Yearly data can also be used to compare the timing and intensity of viral activity, although changes in testing patterns also influence yearly trends, and data should be interpreted in the context of other surveillance indicators.*



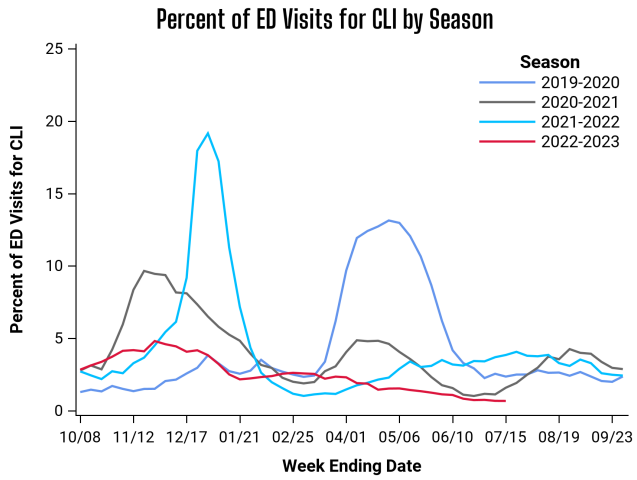
Emergency Department Illness Surveillance *In Illinois, all 185 acute-care hospitals report emergency department visit data in near-real time to the Illinois Department of Public Health (IDPH). By tracking symptoms (or chief complaints) of patients in emergency departments, public health can promptly detect unusual levels of illness to determine whether a response is warranted. A map of influenza-like illness (ILI) activity levels by patient zip code determined by the emergency department chief complaint data can be found on the influenza dashboard.*

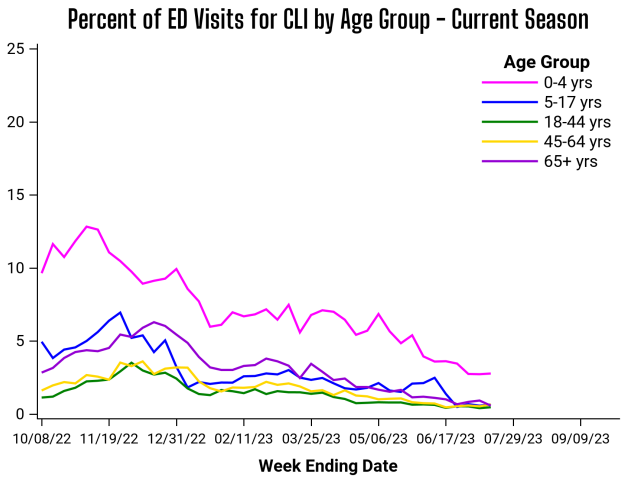
Percent of emergency department visits attributed to **influenza-like illness (ILI)** for residents of Chicago zip codes based on chief complaint data.



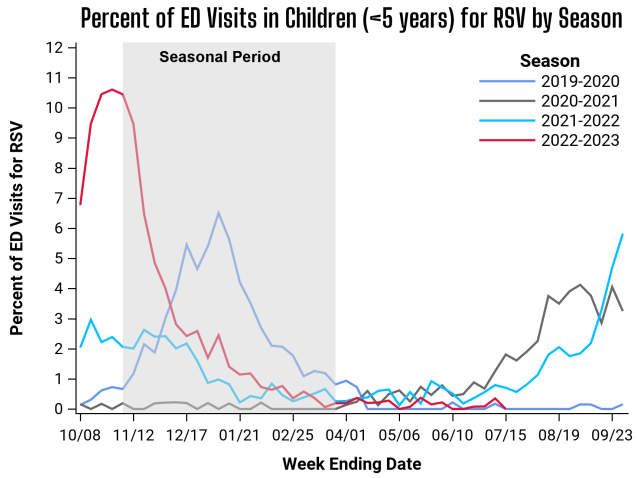


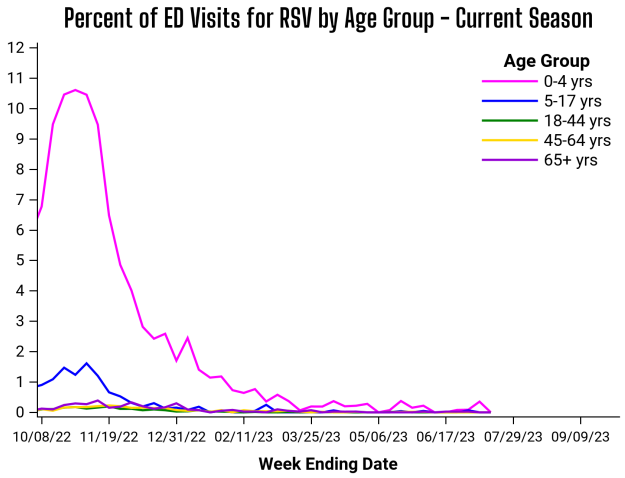
Percent of emergency department visits attributed to **COVID-like illness (CLI)** for residents of Chicago zip codes based on chief complaint data.



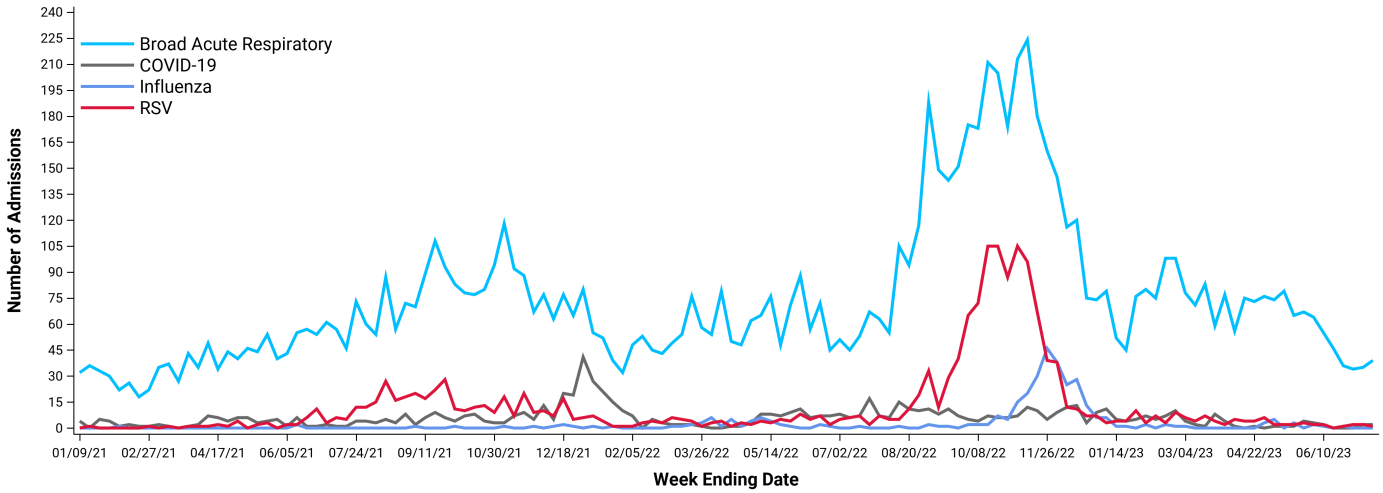


Percent of emergency department visits attributed to **respiratory syncytial virus (RSV)** diagnoses for residents of Chicago zip codes based on chief complaint data. Seasonal trends are displayed for children younger than 5 years old who are most impacted by RSV.





Weekly Pediatric Admissions *Emergency department visit data includes information on whether the visit resulted in a hospital admission at any time during the course of the clinical encounter. The syndromes or disease associated with the hospitalization are based on chief complaint and discharge diagnosis codes and no not necessarily represent lab-confirmed cases. The chart below represents hospital admissions among children <18 years-old at Chicago hospitals due to acute respiratory illnesses.*



National and State Respiratory Virus Surveillance

The Centers for Disease Control and Prevention's FluView report provides national updates and trends related to influenza activity across the United States, and the National Respiratory and Enteric Virus Surveillance System (NREVSS) is a voluntary laboratory-based system that monitors temporal and geographic circulation patterns of several respiratory viruses in the U.S. The Respiratory Syncytial Virus (RSV) Hospitalization Surveillance Network (RSV-NET) is a CDC population-based surveillance system that collects data on severe RSV hospitalizations, including those resulting in ICU admission or death, among children and adults. The Respiratory Virus Hospitalization Surveillance Network (RESP-NET) comprises three platforms that conduct population-based surveillance for laboratory-confirmed hospitalizations associated with COVID-19, Influenza, and Respiratory Syncytial Virus (RSV) among children and adults. CDC is tracking the COVID-19 pandemic in a weekly publication called COVID Data Tracker Weekly Review. The Illinois and Suburban Cook County influenza surveillance reports are also available online. Current and archived issues of the *Chicago Influenza and Respiratory Virus Surveillance Report* can be found on the CDPH website section Current Flu Situation in Chicago.