Chicago Respiratory Virus Weekly Surveillance Report

Brandon Johnson, Mayor | **March 21, 2025** | Olusimbo Ige, MD, MS, MPH, Commissioner

Chicago Department of Public Health

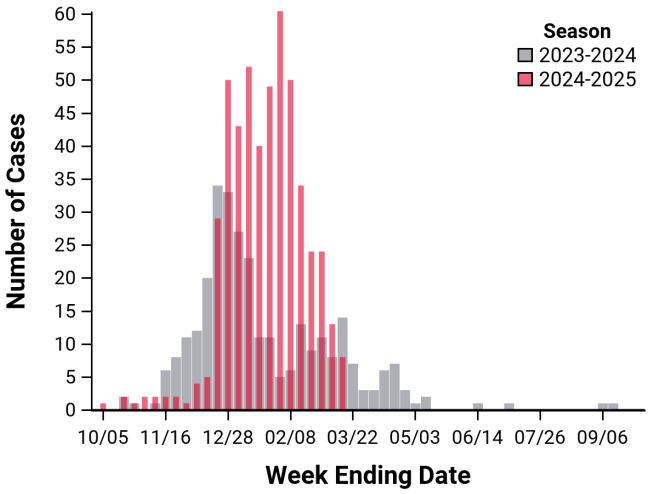
This report summarizes key respiratory virus surveillance indicators. The indicators are compiled from laboratory-based data as well emergency department visit data. All data are preliminary and may change as additional reports are received. Historical and seasonal summary reports can be found here: Chicago Influenza and Respiratory Virus Surveillance Report.

A new Respiratory Illness Dashboard is now available on the CDPH website. This dashboard summarizes information about respiratory virus disease activity in Chicago, with a focus on COVID-19 (caused by the SARS-CoV-2 virus), influenza, and respiratory syncytial virus (RSV). The dashboard will be updated every Friday at 1pm.

Weekly Surveillance Key Points

- Overall acute respiratory illness activity level in Chicago remains Low. Flu activity remains Moderate and COVID-19 and RSV activity remain Low.
- ED visits, hospitalizations, and ICU admissions for flu, RSV, and COVID-19 continue to decrease across nearly all age groups.
- The percentage of specimens that tested positive for flu continues to decrease from a peak of 23% in January. Detections of flu B have continued to increase and represented 55% of all reported flu detections last week. Among flu A specimens that were subtyped for the week 63% were H1N1. Test positivity for RSV has been decreasing since mid-December and continues to decrease. Test positivity for COVID-19 decreased from the previous week.
- Compared to baseline concentrations, the overall wastewater concentration for flu A and RSV decreased from high to moderate, flu B increased from low to moderate, and COVID-19 remains low. It is possible that even as clinical surveillance indicators (e.g., ED visits and hospitalizations) decrease, wastewater data may fluctuate for longer and decrease over an extended period of time because of the persistence of viral shedding from infected persons and/or in wastewater systems.
- The CDC has issued interim estimates of 2024-25 Seasonal Influenza Vaccine Effectiveness (VE) and 2024-25 COVID-19 VE, which suggest that this season's influenza and COVID-19 vaccines were effective in preventing medically-attended illness, including hospitalization, in the US. It's not too late to get vaccinated!
- **Flu and COVID-19 vaccine coverage across the city remain low.** See CDPH's Mid-Season Seasonal Respiratory Vaccine Coverage Report for more details.
- For information on the national bird flu outbreak and local guidance see: the CDPH H5N1 Bird Flu webpage and CDPH HAN: Flu Page for clinicians.

Influenza-Associated ICU Hospitalizations - *In Illinois, influenza-associated ICU hospitalizations are reportable as soon as possible but within three days. The graph below shows the weekly number of reported ICU hospitalizations for Chicago residents for previous two seasons. The table summarizes selected characteristics of reported cases for the current week and cumulative for the season.*



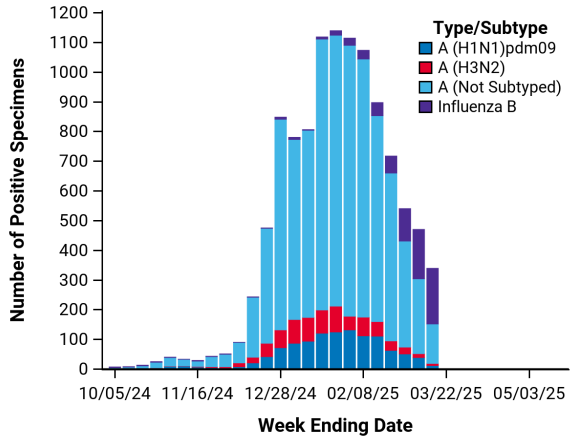
	Week Ending March 15, 2025		Since September 29, 2024	
Group	#	%	#	%
Citywide	8	100	499	100
Age				
0-4	1	12.5	33	6.6
5-17	1	12.5	34	6.8
18-24	0	0.0	16	3.2
25-49	3	37.5	87	17.4
50-64	1	12.5	101	20.2
65+	2	25.0	228	45.7
Gender				
Male	3	37.5	240	48.1
Female	5	62.5	259	51.9
Race-Ethnicity				
White Non-Latinx	1	12.5	118	23.6
Black Non-Latinx	2	25.0	231	46.3
Latinx	5	62.5	111	22.2
Asian Non-Latinx	0	0.0	21	4.2
Other Non-Latinx	0	0.0	12	2.4
Unknown-Race	0	0.0	6	1.2

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 March 15, 2025		Since September 29, 2024	
Respiratory Pathogen	# Tested	% Positive	# Tested	% Positive
Influenza*	3,436	9.9	92,701	11.8
RSV*	2,763	2.9	75,805	6.3
SARS-CoV-2*	2,851	4.5	76,973	4.2
Parainfluenza	1,853	0.8	50,485	1.5
Rhinovirus/Enterovirus	870	7.9	27,527	12.7
Adenovirus	870	1.4	27,499	1.7
Human Metapneumovirus	872	1.8	27,882	0.7
Seasonal Coronaviruses†	1,851	2.8	40,784	2.8

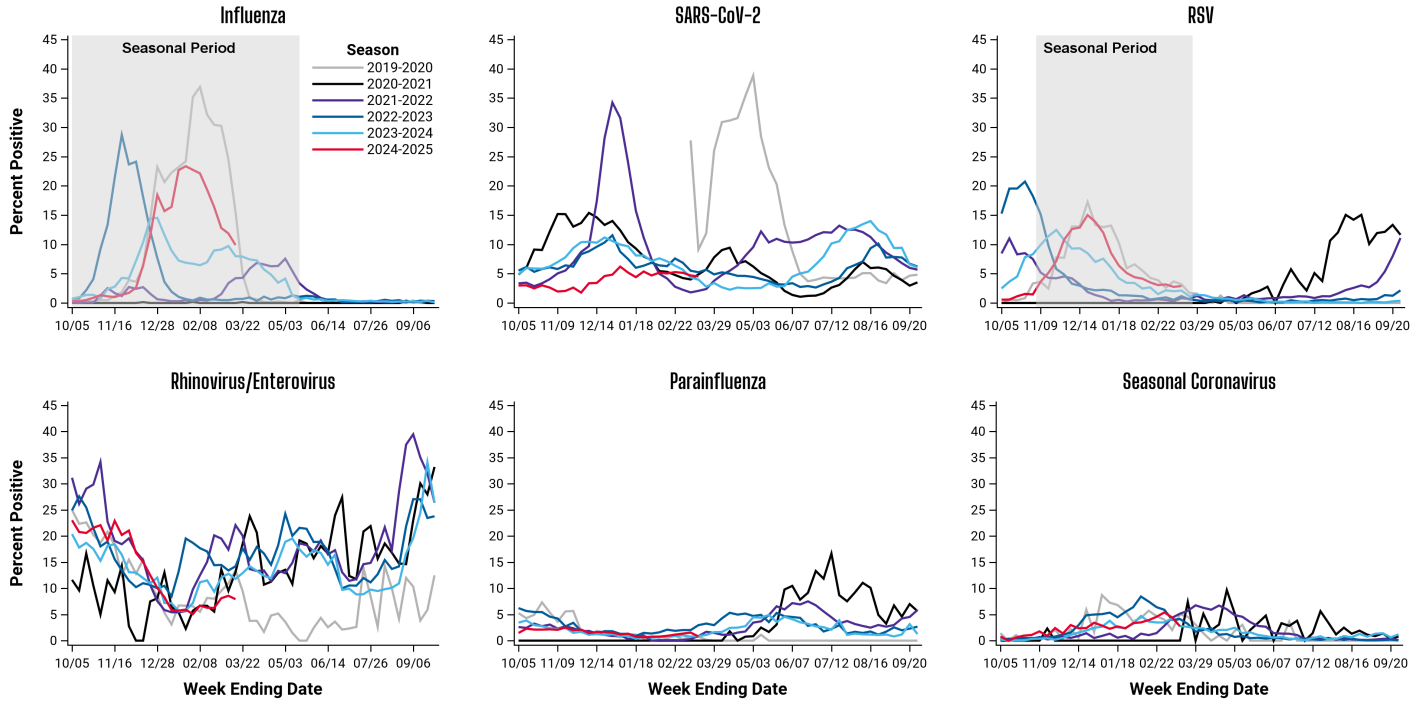
*Represents both dualplex and multiplex PCR data. All other data represents only multiplex panels that include the specified pathogens;† Four seasonal coronavirus strains include 229E, NL63, OC43, and HKU1.

Weekly number of specimens testing positive for influenza by type and subtype (graph) and the number of positive specimens by type and subtype for the current week and cumulative for the season (table).



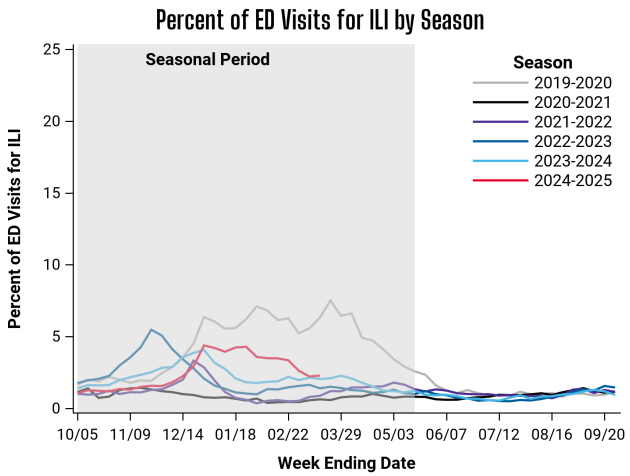
	Week Ending March 15, 2025		Since September 29, 2024	
Type / Subtype	# Positive	%	# Positive	%
Influenza A	152	44.7	10,230	93.7
(H1N1)pdm09	12	7.9	1,131	11.1
H3N2	7	4.6	709	6.9
Subtyping not performed	133	87.5	8,390	82.0
Influenza B	188	55.3	692	6.3
Total Positive	340	100	10,922	100

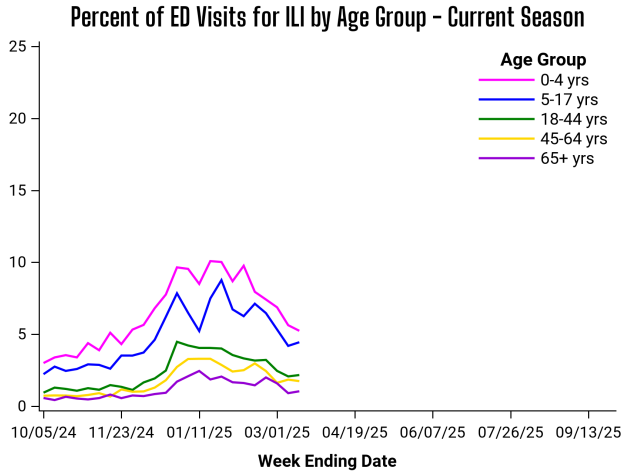
Respiratory Virus Laboratory Surveillance - Seasonal Trends *These graphs show seasonal trends of selected respiratory virus testing data presented in the previous table. Typical seasonal periods when activity tends to increase for influenza and RSV are indicated by shaded areas. Elevated test positivity 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.*



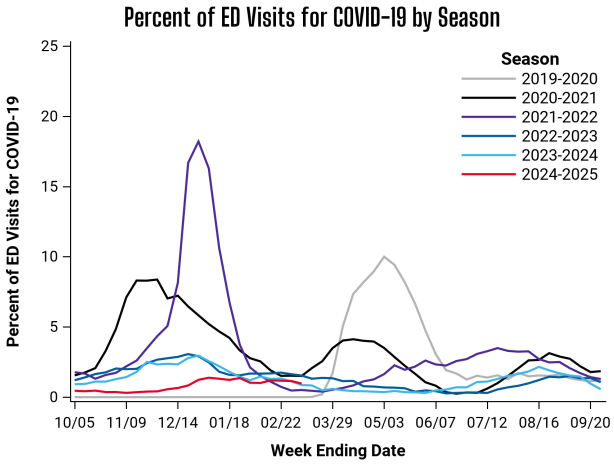
Emergency Department Illness Surveillance In *Illinois, all 185 acute-care hospitals report emergency department visit data in near-real time to the Illinois Department of Public Health (IDPH). By tracking symptoms (or chief complaints) of patients in emergency departments, public health can promptly detect unusual levels of illness to determine whether a response is warranted.*

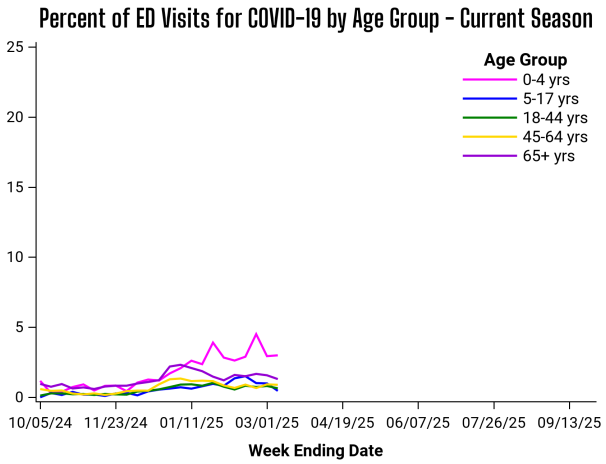
Percent of emergency department visits attributed to **influenza-like illness (ILI)** for residents of Chicago zip codes based on chief complaint data.



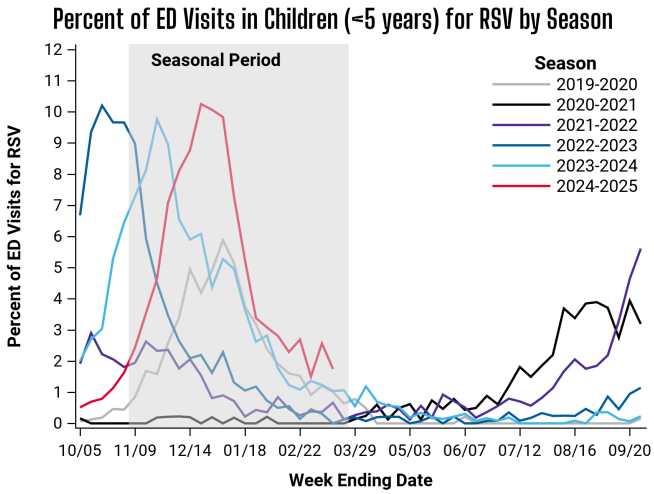


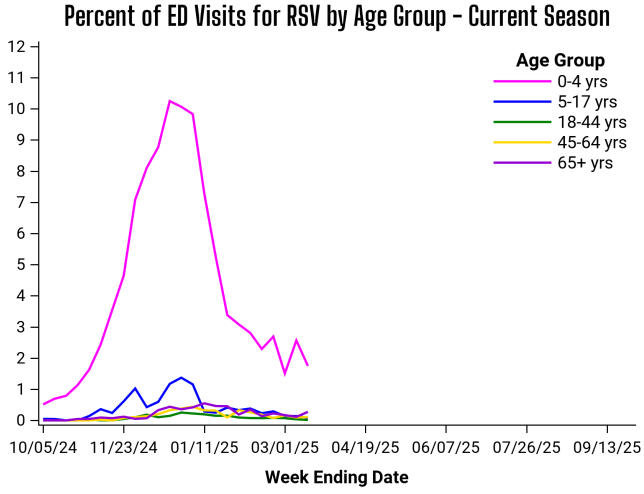
Percent of emergency department visits attributed to **COVID-19 diagnoses** for residents of Chicago zip codes based on chief complaint data.



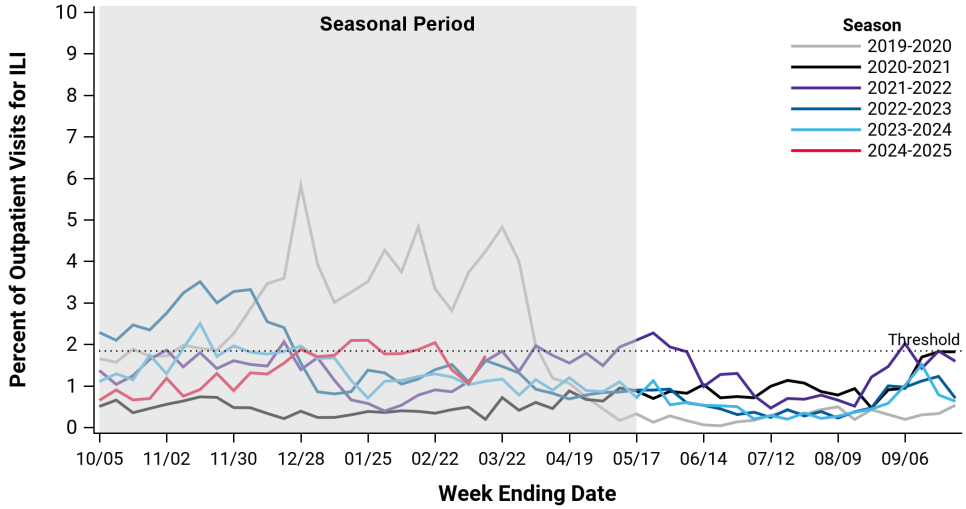


Percent of emergency department visits attributed to **respiratory syncytial virus (RSV)** diagnoses for residents of Chicago zip codes based on chief complaint data. Seasonal trends are displayed for children younger than 5 years old who are most impacted by RSV.

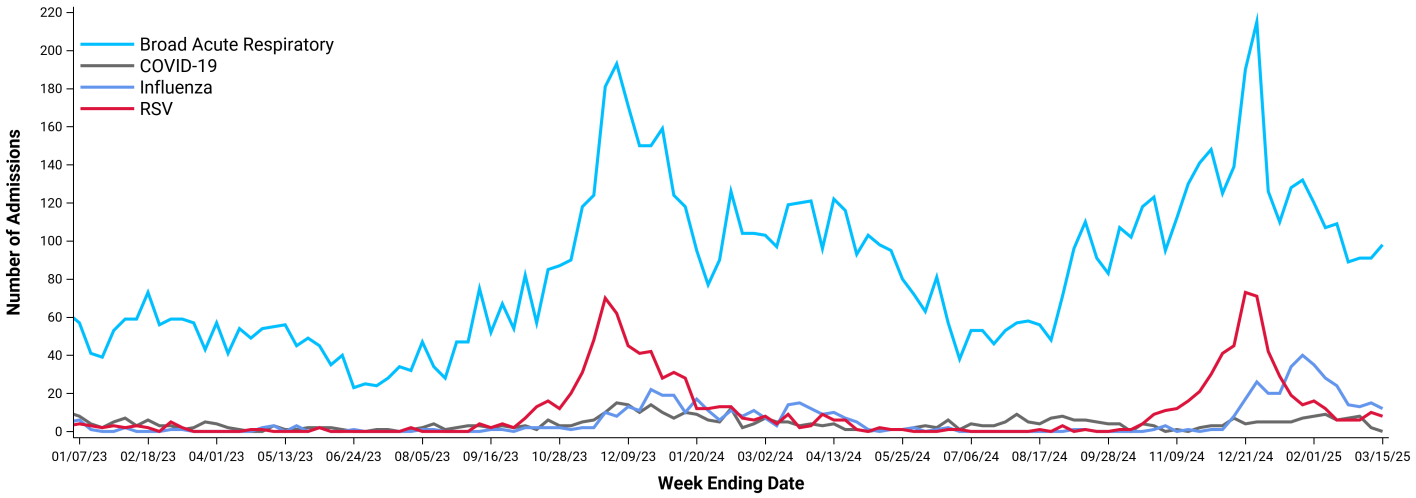




Outpatient Visit Illness Surveillance* *Several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on a weekly basis the total number of outpatient clinic visits, and of those visits, the number with influenza-like illness (ILI). This graph shows the percent of medically-attended outpatient visits attributed to ILI as reported by ILINet facilities in Chicago.*



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) monitors laboratory-confirmed hospitalizations associated with influenza, COVID-19, and respiratory syncytial virus (RSV) among children and adults. 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 Historical and Seasonal Summary Reports.