



# Chicago Respiratory Virus Weekly Surveillance Report



Brandon Johnson, Mayor

December 27, 2024

Olusimbo Ige, MD, MS, MPH, Commissioner

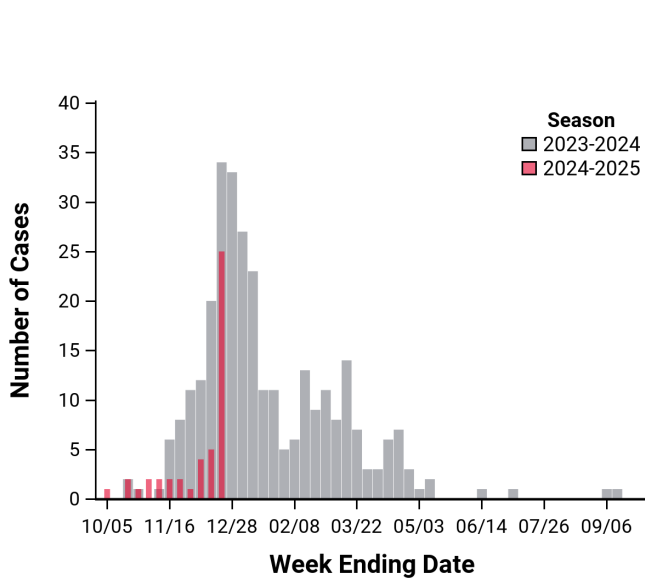
*This report summarizes key respiratory virus surveillance indicators. The indicators are compiled from laboratory-based data as well emergency department visit data. All data are preliminary and may change as additional reports are received. Historical and seasonal summary reports can be found here: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

- **Flu activity continues to rapidly increase across Chicago, and RSV activity is very high; COVID-19 activity is increasing but remains low at this time.**
- The percentage of emergency department (ED) visits and hospital admissions for flu are rapidly increasing across every age group. ED visits for RSV are very high and continue to increase especially among children <5 years of age. ED visits for COVID-19 remain low but are continuing to increase modestly.
- The percentage of specimens that tested positive for RSV increased from 12.7% to 14.9%. Test positivity for COVID-19 increased from 3.1% to 4.6%. Influenza test positivity increased from 6.5% to 11.2%. Among influenza A specimens subtyped so far this season, most have been influenza A(H1N1)pdm09 but it is too early in the season to know what the predominant subtype will be.
- Flu wastewater concentrations continue to increase and are at moderate levels, and RSV concentrations remain high. COVID-19 concentrations are low but increasing.
- The respiratory season is here. Vaccines are the best way to protect yourself and others from severe disease. Other ways to protect yourself can be found [here](#) and [here](#).
- For information on the national bird flu outbreak, see: [H5 Bird Flu: Current Situation](#).

**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.**



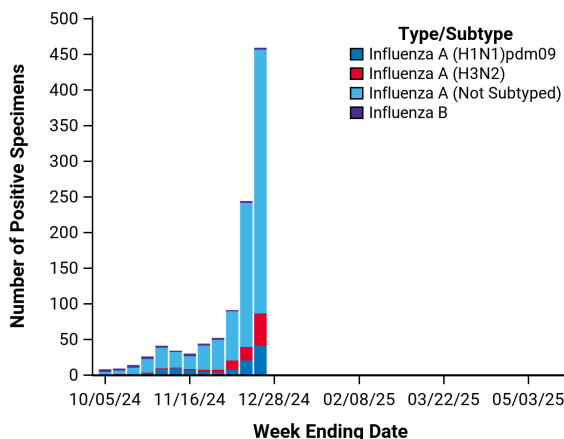
Group	Week Ending December 21, 2024		Since September 29, 2024	
	#	%	#	%
<b>Citywide</b>	25	100	47	100
<b>Age</b>				
0-4	2	8.0	3	6.4
5-17	4	16.0	6	12.8
18-24	0	0.0	0	0.0
25-49	5	20.0	10	21.3
50-64	5	20.0	7	14.9
65+	9	36.0	21	44.7
<b>Gender</b>				
Male	16	64.0	26	55.3
Female	9	36.0	21	44.7
<b>Race-Ethnicity</b>				
White Non-Latinx	8	32.0	11	23.4
Black Non-Latinx	8	32.0	18	38.3
Latinx	5	20.0	13	27.7
Asian Non-Latinx	3	12.0	4	8.5
Other Non-Latinx	1	4.0	1	2.1
Unknown-Race	0	0.0	0	0.0

**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.

Respiratory Pathogen	Week Ending December 21, 2024		Since September 29, 2024	
	# Tested	% Positive	# Tested	% Positive
Influenza*	4,083	11.2	37,928	2.8
RSV*	3,064	14.9	29,499	6.6
SARS-CoV-2*	3,097	4.6	30,645	2.9
Parainfluenza	1,784	1.4	22,472	1.9
Rhinovirus/Enterovirus	907	11.8	12,014	19.6
Adenovirus	907	1.4	12,014	2.1
Human Metapneumovirus	915	0.8	12,110	0.3
Seasonal Coronaviruses <sup>†</sup>	1,774	1.6	12,881	1.4

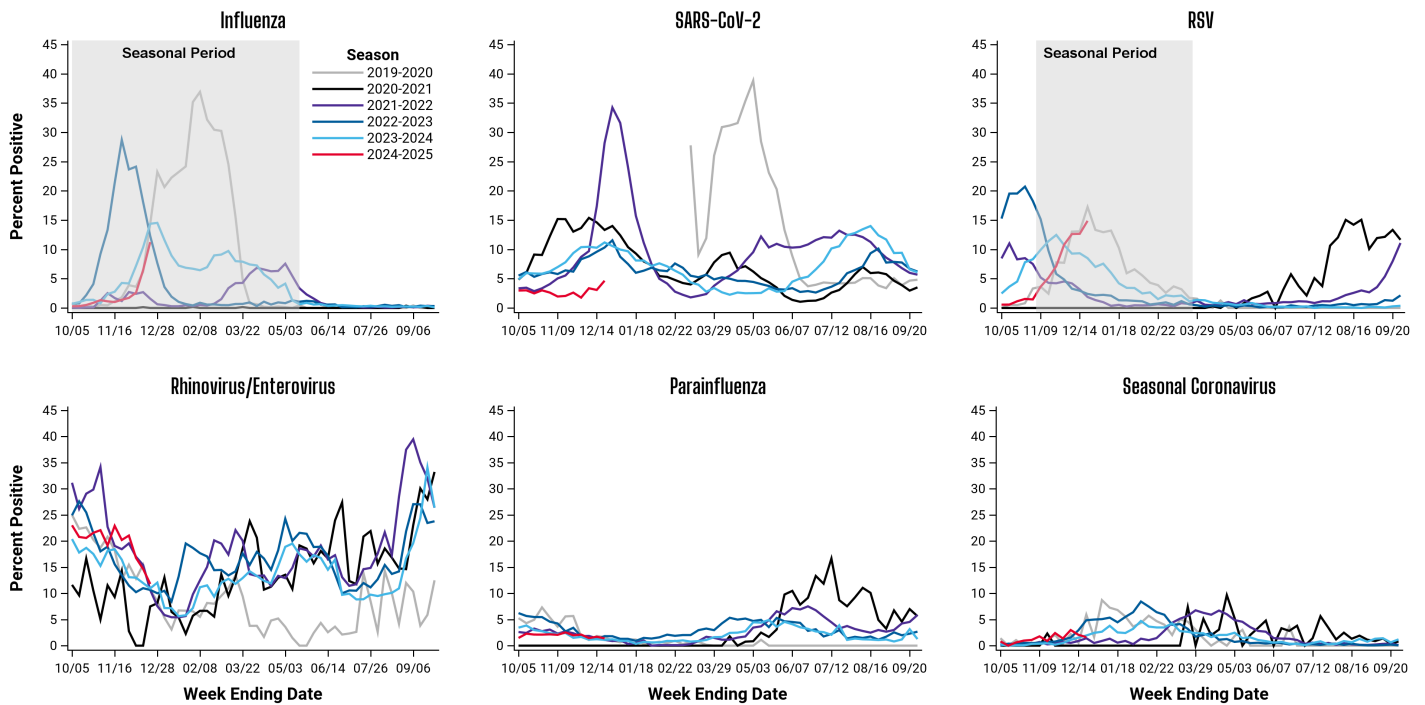
\*Represents both dualplex and multiplex PCR data. All other data represents only multiplex panels that include the specified pathogens;† Four seasonal coronavirus strains include 229E, NL63, OC43, and HKU1.

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).



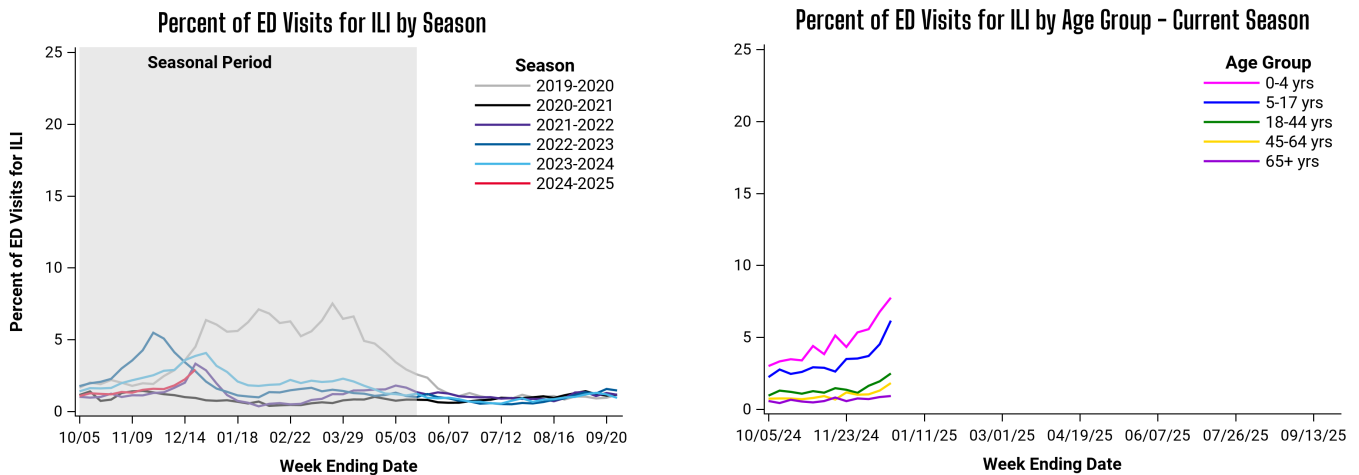
Type / Subtype	Week Ending December 21, 2024		Since September 29, 2024	
	# Positive	%	# Positive	%
<b>Influenza A</b>	457	99.6	1,026	97.5
(H1N1)pdm09	42	9.2	112	10.9
H3N2	45	9.8	91	8.9
Subtyping not performed	370	81.0	823	80.2
<b>Influenza B</b>	2	0.4	26	2.5
<b>Total Positive</b>	459	100	1,052	100

**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.

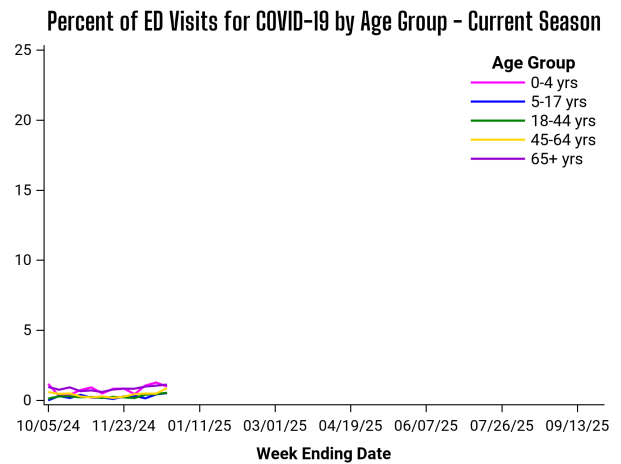
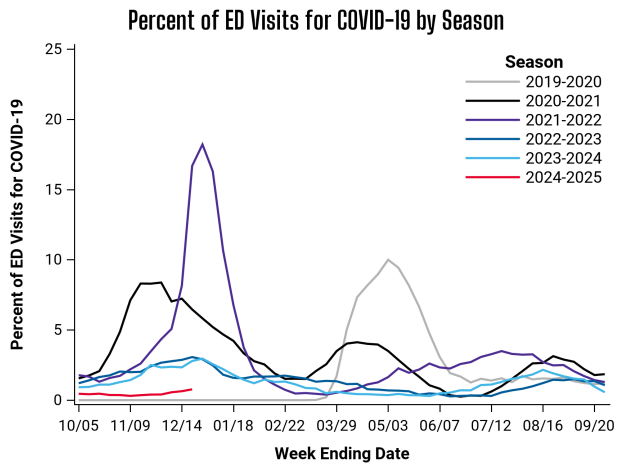


**Emergency Department Illness Surveillance In Illinois**, all 185 acute-care hospitals report emergency department visit data in near-real time to the Illinois Department of Public Health (IDPH). By tracking symptoms (or chief complaints) of patients in emergency departments, public health can promptly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

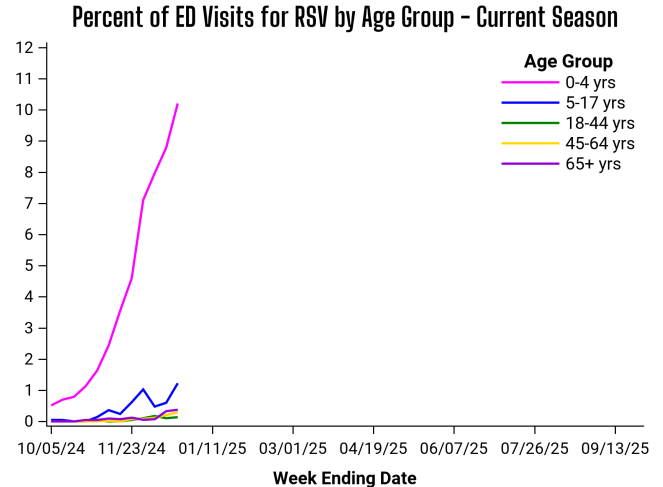
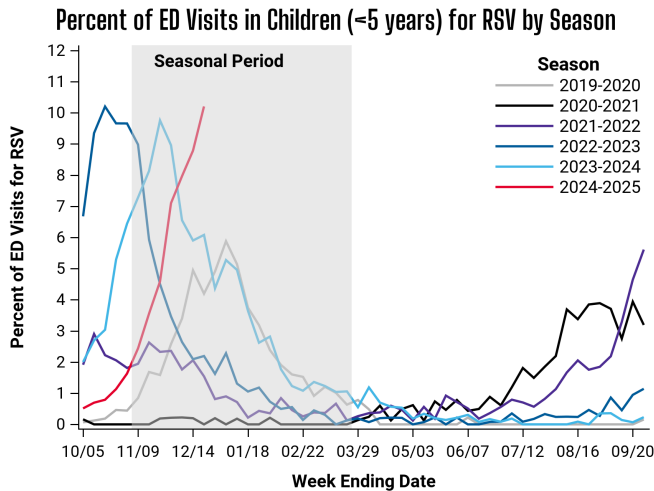
Percent of emergency department visits attributed to **influenza-like illness (ILI)** for residents of Chicago zip codes based on chief complaint data.



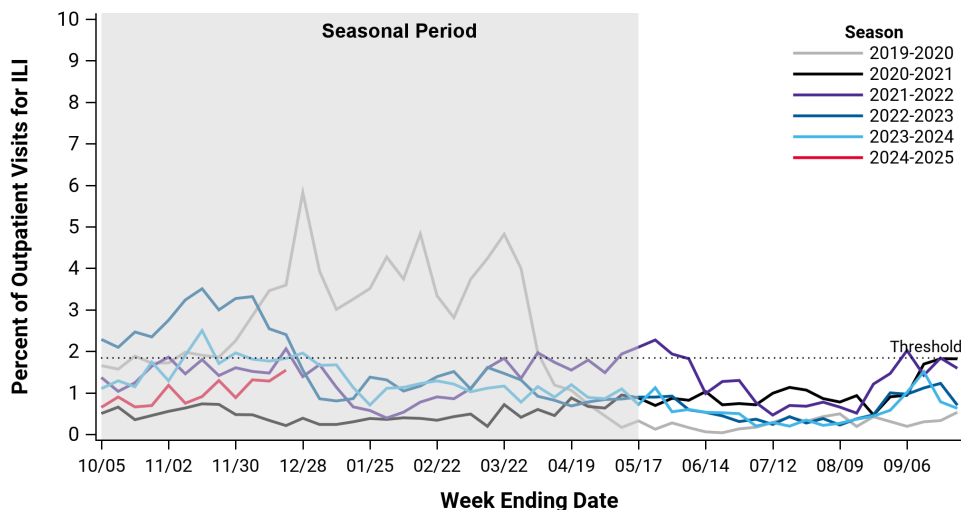
Percent of emergency department visits attributed to **COVID-19 diagnoses** for residents of Chicago zip codes based on chief complaint data.



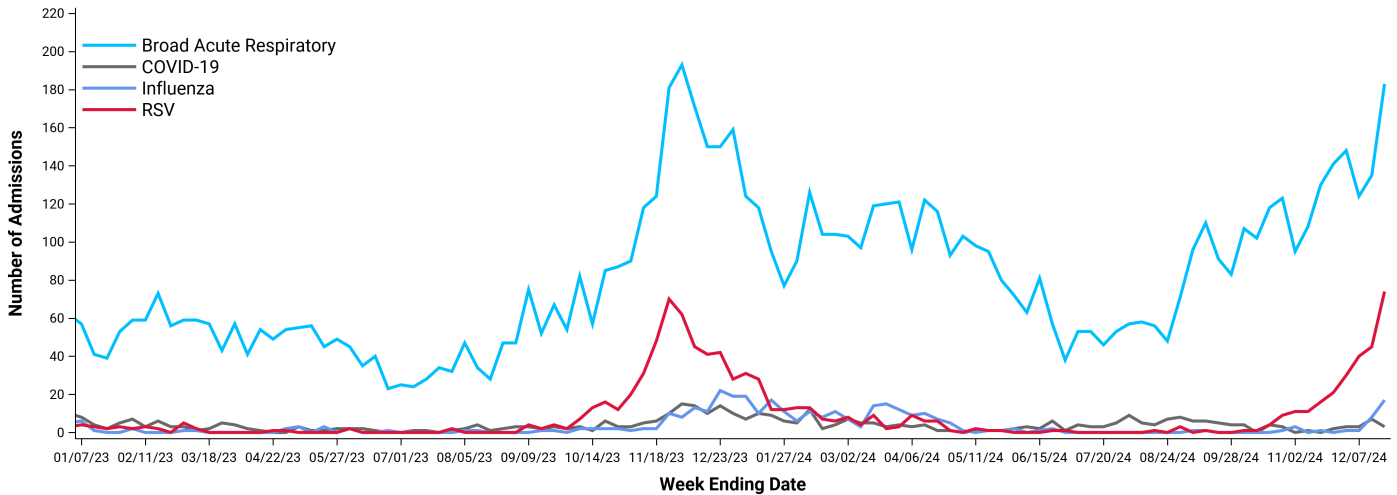
Percent of emergency department visits attributed to **respiratory syncytial virus (RSV)** diagnoses for residents of Chicago zip codes based on chief complaint data. Seasonal trends are displayed for children younger than 5 years old who are most impacted by RSV.



**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 do 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](#).