



# Chicago Flu Update



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## News & Updates

Influenza activity continues to decrease in Chicago; however influenza viruses are detected throughout the year at low levels and can cause disease. Based on CDC

FluView<sup>1</sup> data, influenza-like illness at the national level was at or above baseline for 21 weeks this season, making it the longest influenza season in a decade and CDC estimates<sup>2</sup> that more than 500,000 people have been hospitalized from influenza and over 36,000 people have died due to influenza. Vaccination is the best way to protect against influenza infection and all Chicagoans six months and older are encouraged to get vaccinated.



### What is the risk?

Currently, the risk of influenza infection is low.

### Are severe cases of influenza occurring?

For the week of May 5-11, 2019, two influenza-associated ICU hospitalizations were reported (Figure 1).

Since September 30, 2018, 348 influenza-associated ICU hospitalizations have been reported; 327 were positive for influenza A (132 H1N1pdm09, 25 H3N2, and 170 unknown subtype [subtyping not attempted or not all subtypes tested]) and 21 were positive for influenza B. The median age of reported cases is 59 years (range 1 month-92 years); one pediatric death was reported and 20 cases were admitted from long-term care facilities; selected attributes are summarized in Table 1.

Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2018-2019) and previous season, October-May.

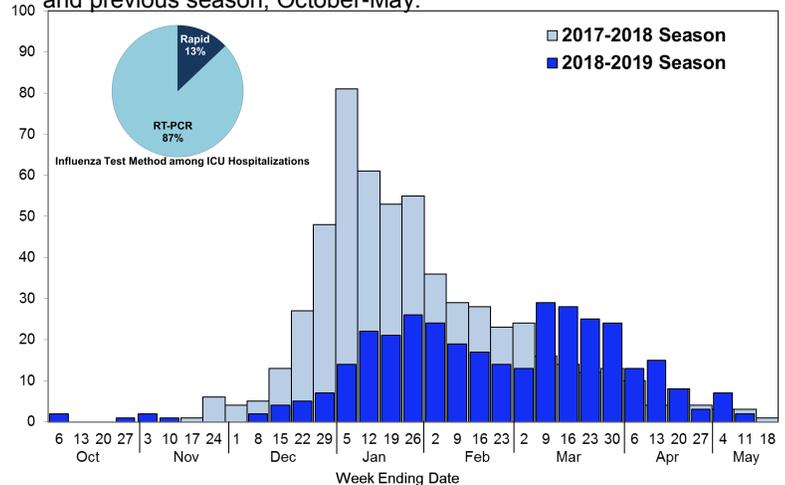
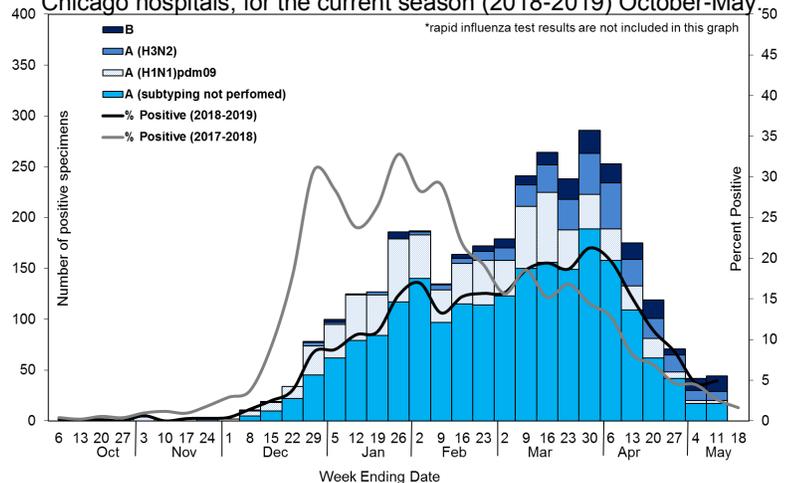


Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents during the 2018-2019 season, October-May.

Age Group	#	%	Sex	#	%
0-4	42	12	Male	175	50
5-17	19	5	Female	173	50
18-24	6	2	<b>Med. Cond./Complication<sup>†</sup></b>		
25-49	57	16	Lung Disease	138	40
50-64	95	27	Cardiac Disease	128	37
≥65	129	37	Diabetes	89	26
			Ventilator Support	86	25
<b>Race/Ethnicity</b>			Reported Deaths <sup>‡</sup>	17	5
NH-White	77	22	<b>Treatment/Vaccination<sup>†</sup></b>		
NH-Black	185	53	Reported Antiviral Tx	293	84
Hispanic	71	20	Reported Flu Shot	101	29
Asian/Other	15	4			

\* Percentages may not add up to 100 due to rounding; † As reported in INEDSS (Illinois National Electronic Disease Surveillance System); ‡ Date of death occurring within one week of positive influenza test among reported influenza-associated ICU hospitalizations.

Figure 2. Percent of specimens testing positive (by RT-PCR\*) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2018-2019) October-May.



### Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of May 5-11, 2019, 44 of the 892 (4.9%) specimens tested for influenza were positive; 29 typed as influenza A (3 H1N1pdm09, 9 H3N2, and 17 unknown subtype) and 15 typed as influenza B (Figure 2).

Since September 30, 2018, 3,262 of 30,295 (10.8%) specimens tested for influenza have been positive; 3,080 typed as influenza A (724 H1N1pdm09, 291 H3N2, and 2,065 unknown subtype [subtyping not performed or not all subtypes tested]) and 182 typed as influenza B.



All data are preliminary and may change as more reports are received.

<sup>1</sup> <http://www.cdc.gov/flu/weekly/index.htm>; <sup>2</sup> <https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm>

## How much influenza-like illness is occurring?

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). For the week of May 5-11, 2019, 108 of the 5,677 (1.9%) reported outpatient clinic visits were due to influenza-like illness, which is slightly higher than Illinois (1.1%) and Region 5 (1.1%) but similar to the U.S. (1.5%) (Figure 3).

In addition to ILINet, ESSENCE is an electronic syndromic surveillance system that utilizes the chief complaints of patients visiting emergency departments to monitor for influenza-like illness. Currently, ESSENCE captures nearly every emergency department visit in the city on a daily basis. For the week of May 5-11, 2019, 388 of the 24,038 (1.6%) total emergency department visits were due to influenza-like illness (Figure 4).

Figure 5 represents the percentage of emergency department visits due to influenza-like illness aggregated by patient zip code. For the week of May 5-11, 2019, 9 of 59 (15%) zip codes had ILI activity levels in the moderate to high categories; this is similar to last season where 15% of zip codes were also at moderate to high levels for the same time period (Figure 6).

Figure 3. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week for the current season (2018-2019) and for Illinois, Region 5, and U.S., October-May.

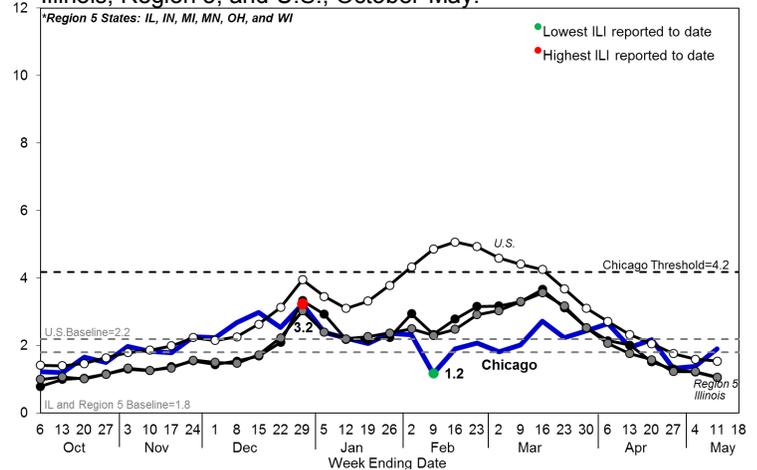


Figure 4. Percent of emergency department visits attributed to influenza-like illness for Chicago zip codes based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2018-2019) and previous two seasons, October-May.

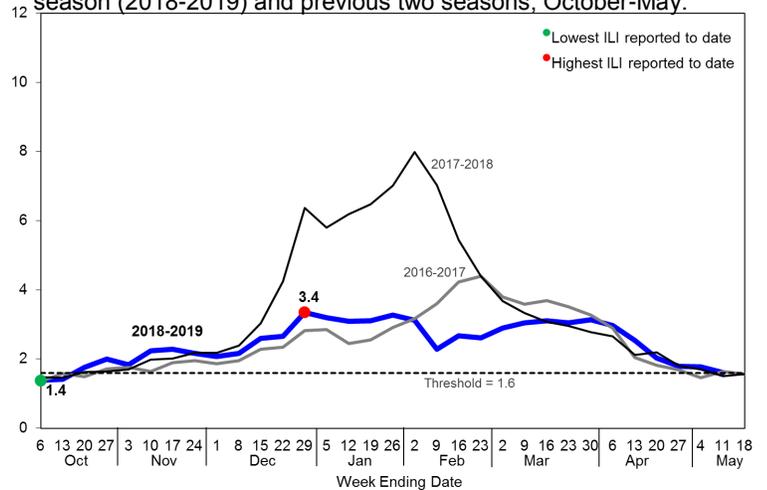


Figure 6. Percent of zip codes in the moderate to high ILI activity levels by week, Chicago, for current season (2018-2019) and previous season, October-May.

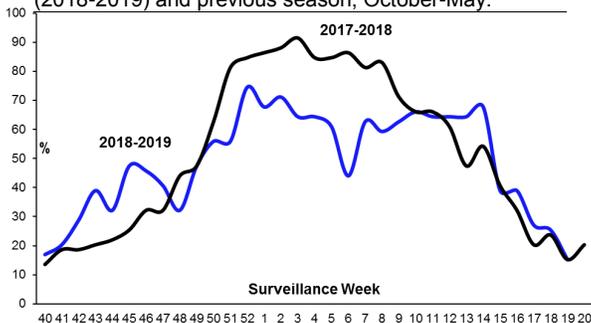
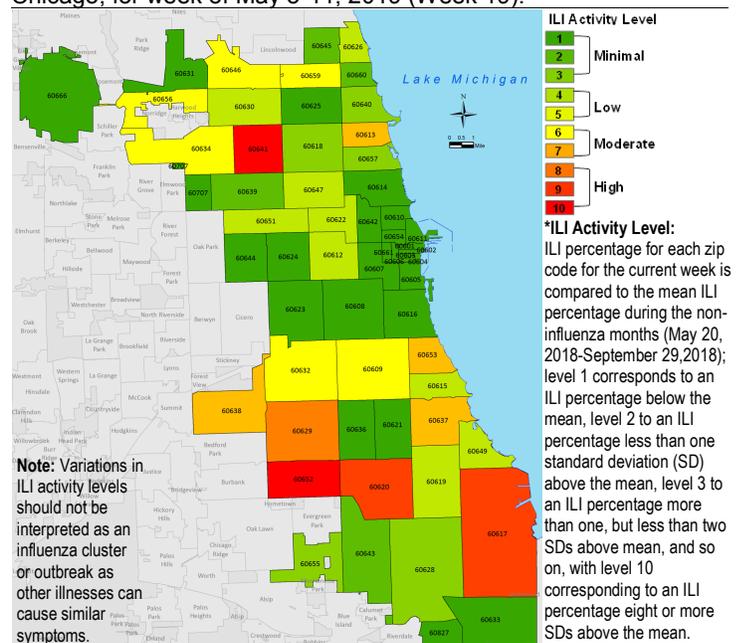


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to ESSENCE, Chicago, for week of May 5-11, 2019 (Week 19).



## Where can I get more information?

The Centers for Disease Control and Prevention's FluView<sup>1</sup> report provides national updates and trends related to the intensity of influenza activity across the United States, as well as detailed information on antiviral resistance, severity of illness, and other topics. Updates specific to Illinois<sup>3</sup> and Suburban Cook County<sup>4</sup> are also available online. Current and archived issues of the Chicago Flu Update can be found on the CDPH website section Current Flu Situation in Chicago<sup>5</sup>.

## Reporting Information

The Illinois Department of Public Health (IDPH) has issued influenza testing and reporting recommendations<sup>6</sup>. In addition, The Chicago Department of Public Health recently issued guidance on reporting influenza-associated ICU hospitalizations<sup>7</sup>. Healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (INEDSS)<sup>8</sup>

All data are preliminary and may change as more reports are received.

<sup>3</sup> <http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/influenza-surveillance#publications>;

<sup>4</sup> <http://cookcountypublichealth.org/data-reports/communicable-diseases>; <sup>5</sup> [https://www.cityofchicago.org/city/en/depts/cdp/supp\\_info/health-protection/current\\_flu\\_situationinchicago2011.html](https://www.cityofchicago.org/city/en/depts/cdp/supp_info/health-protection/current_flu_situationinchicago2011.html); <sup>6</sup> [dph.illinois.gov/sites/default/files/publications/ohp-annual-flu-testing-guidance-09182018.pdf](http://dph.illinois.gov/sites/default/files/publications/ohp-annual-flu-testing-guidance-09182018.pdf); <sup>7</sup> <https://www.chicagohan.org/documents/1417139923/Reporting+Influenza-Associated+ICU+Hospitalizations>; <sup>8</sup> <https://dph.partner.illinois.gov/>