



Chicago Flu Update



Lori E. Lightfoot, Mayor

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Julie Morita, MD, Commissioner

News & Updates

This will be the last *Chicago Flu Update* issued for the 2018-2019 influenza surveillance season. The next update will be issued in October 2019. CDPH will continue to monitor surveillance indicators throughout the summer months. Influenza viruses are detected throughout the year at low levels and can cause disease. Vaccination is the best way to protect against influenza infection and all Chicagoans six months and older are encouraged to get vaccinated annually.



What is the risk?

Currently, the risk of influenza infection is low.

Are severe cases of influenza occurring?

For the week of May 12-18, 2019, two influenza-associated ICU hospitalizations were reported (Figure 1).

Since September 30, 2018, 353 influenza-associated ICU hospitalizations have been reported; 332 were positive for influenza A (134 H1N1pdm09, 25 H3N2, and 173 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 21 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.

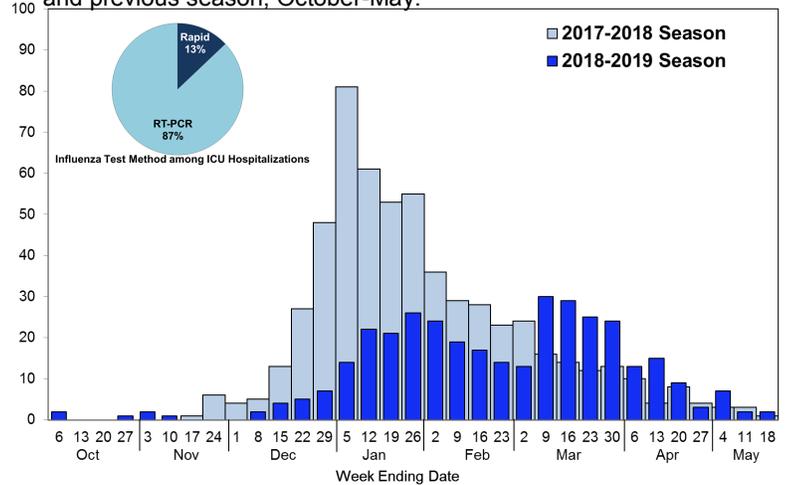
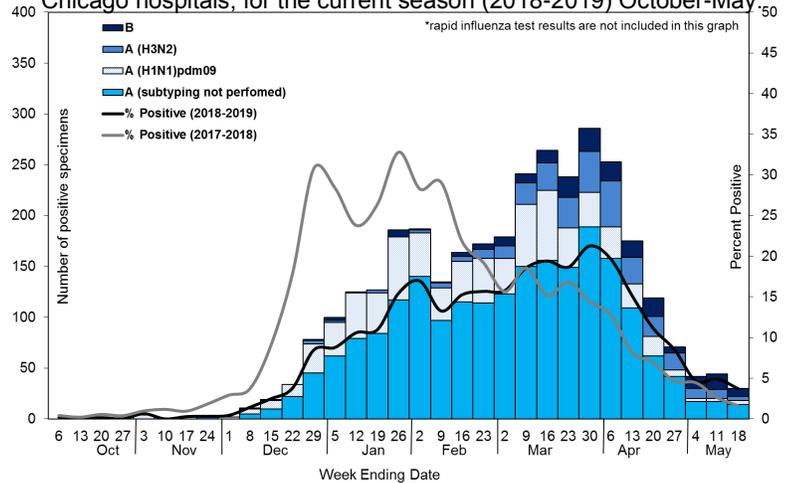


Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents during the 2018-2019 season, October-May.

Age Group	#	%	Sex	#	%
0-4	42	12	Male	175	50
5-17	19	5	Female	178	50
18-24	6	2			
25-49	57	16	Med. Cond./Complication[†]	140	40
50-64	97	27	Lung Disease	129	37
≥65	132	37	Cardiac Disease	91	26
			Diabetes	88	25
			Ventilator Support	17	5
Race/Ethnicity			Reported Deaths [‡]	17	5
NH-White	81	23	Treatment/Vaccination[†]	297	84
NH-Black	186	53	Reported Antiviral Tx	105	30
Hispanic	71	20	Reported Flu Shot		
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 12-18, 2019, 30 of the 810 (3.7%) specimens tested for influenza were positive; 22 typed as influenza A (4 H1N1pdm09, 4 H3N2, and 14 unknown subtype) and 8 typed as influenza B (Figure 2).

Since September 30, 2018, 3,292 of 31,105 (10.6%) specimens tested for influenza have been positive; 3,102 typed as influenza A (728 H1N1pdm09, 295 H3N2, and 2,079 unknown subtype [subtyping not performed or not all subtypes tested]) and 190 typed as influenza B.



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

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 12-18, 2019, 119 of the 5,516 (2.2%) reported outpatient clinic visits were due to influenza-like illness, which is higher than Illinois (<1%), Region 5 (1.1%) and 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 12-18, 2019, 396 of the 23,721 (1.7%) 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 12-18, 2019, 15 of 59 (25%) zip codes had ILI activity levels in the moderate to high categories; this is similar to last season where 20% 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.

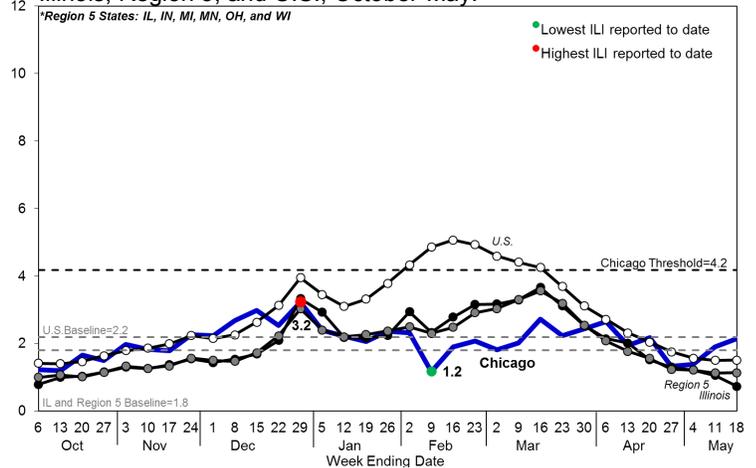


Figure 4. Percent of emergency department visits attributed to influenza-like illness for Chicago zip codes based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2018-2019) and previous two seasons, October-May.

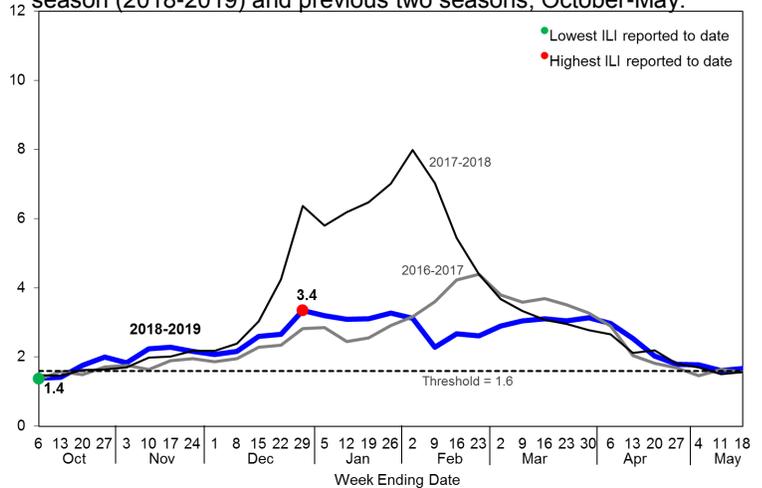


Figure 6. Percent of zip codes in the moderate to high ILI activity levels by week, Chicago, for current season (2018-2019) and previous season, October-May.

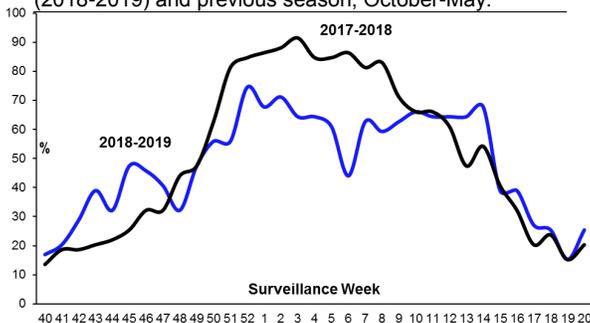
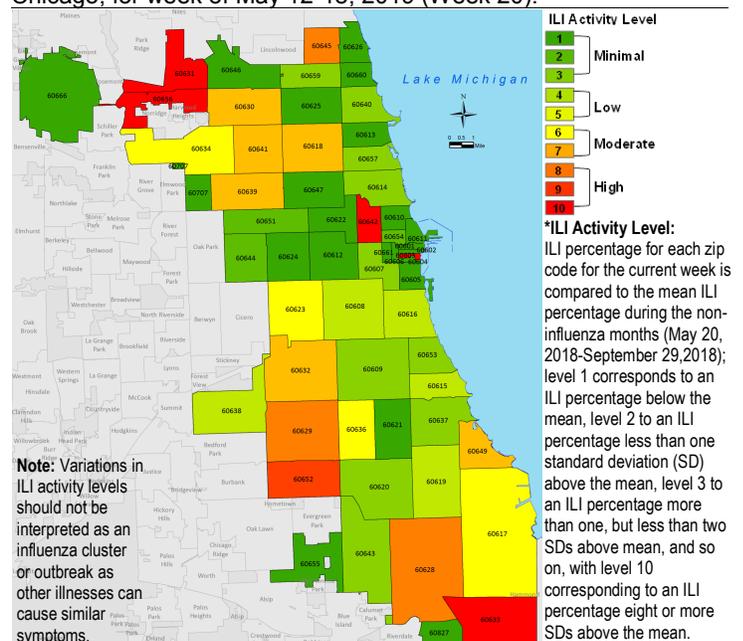


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to ESSENCE, Chicago, for week of May 12-18, 2019 (Week 20).



Where can I get more information?

The Centers for Disease Control and Prevention's FluView¹ 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 Illinois² and Suburban Cook County³ 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 Chicago⁴.

Reporting Information

The Illinois Department of Public Health (IDPH) has issued influenza testing and reporting recommendations⁵. In addition, The Chicago Department of Public Health recently issued guidance on reporting influenza-associated ICU hospitalizations⁶. Healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (INEDSS)⁷

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

¹ <http://www.cdc.gov/flu/weekly/index.htm>; ² <http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/influenza-surveillance#publications>;

³ <http://cookcountypublichealth.org/data-reports/communicable-diseases>; ⁴ https://www.cityofchicago.org/city/en/depts/cdp/supp_info/health-protection/current_flu_situationinchicago2011.html; ⁵ dph.illinois.gov/sites/default/files/publications/ohp-annual-flu-testing-guidance-09182018.pdf; ⁶ <https://www.chicagohan.org/documents/14171/39923/Reporting+Influenza-Associated+ICU+Hospitalizations/bc2f49b2-cf74-487c-9441-0b0a930e4b41>; ⁷ <https://dph.partner.illinois.gov/>