



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. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. For those Chicagoans without a healthcare provider or whose healthcare providers do not have the influenza vaccine, a list of [City of Chicago Immunization Clinics](#)¹ is available on the city website and by calling 311; visit the City's [interactive map](#)² to locate the closest City of Chicago clinic or retail pharmacy to get a flu shot.

What is the risk?

Currently, the risk of influenza infection has decreased.

Are severe cases of influenza occurring?

For the week of April 29-May 5, 2018, three influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 1, 2017, 578 influenza-associated ICU hospitalizations have been reported; 437 (76%) were positive for influenza A (135 H3N2, 20 H1N1, and 282 unknown subtype [subtyping not attempted or not all subtypes tested]) and 141 (24%) were positive for influenza B. The median age of reported cases is 63 years (range of 5 days-102 years); 62 (11%) cases were admitted from long-term care facilities (LTCF) and 21 outbreaks have been reported in LTCFs; three pediatric deaths were reported including one ICU hospitalization; selected attributes are summarized in Table 1.

There were 37 reported deaths[‡] among influenza-associated ICU hospitalizations; twenty-six (70%) were positive for influenza A, 21 (58%) were 65 years of age and older, and seven (19%) had a reported influenza vaccination. The median number of days from influenza test performed to death was three days (range of 1-6 days).

Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents during the 2017-2018 season, October-May.

Age Group	#	%	Sex	#	%
0-4	43	8	Male	265	46
5-17	42	7	Female	312	54
18-24	17	3	Med. Cond./Complication[†]		
25-49	68	12	Lung Disease	166	29
50-64	144	25	Cardiac Disease	162	28
≥65	264	46	Diabetes	141	24
Race/Ethnicity			Ventilator Support	145	25
NH-White	142	25	Reported Deaths [‡]	37	6
NH-Black	303	52	Treatment/Vaccination[†]		
Hispanic	115	20	Reported Antiviral Tx	427	74
Asian/Other	18	3	Reported Flu Shot	170	29

* 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.

influenza B] (Figure 2). Since October 1, 2017, 5,060 of 29,747 (17.0%) specimens tested for influenza have been positive; 3,677 typed as influenza A (1,265 H3N2, 173 (H1N1)pdm09, 2,239 unknown subtype [subtyping not performed or not all subtypes tested]) and 1,383 typed as influenza B. The 2017-2018 season has seen the highest number of positive influenza B specimens recorded since laboratory surveillance first began in 2009. This is a 68% increase from last season, which was the second highest recorded at 824 positive influenza B specimens for the entire season.

Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2017-2018) by influenza type and subtype, October-May.

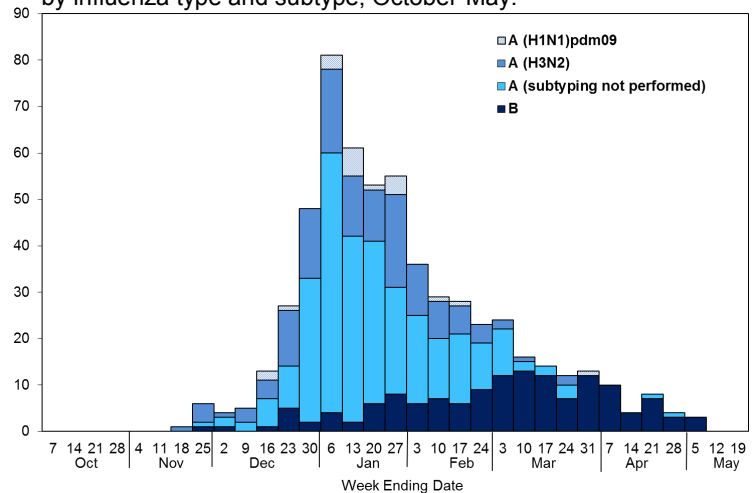
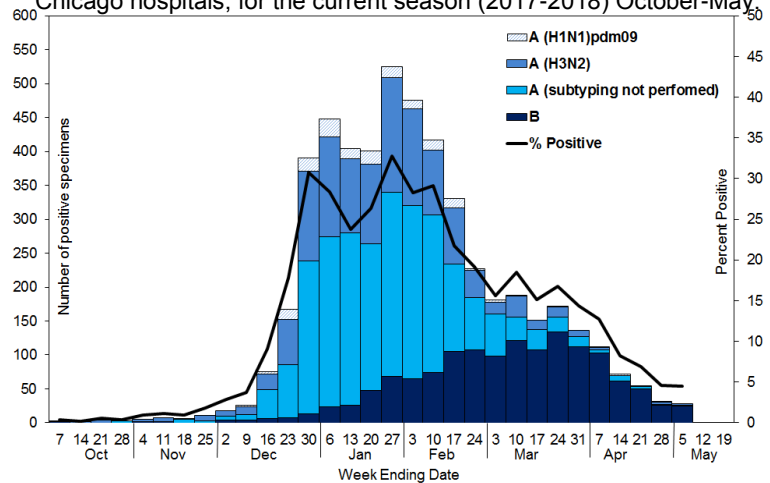


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2017-2018) October-May.



Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of April 29-May 5, 2018, with 6 laboratories reporting, 28 of the 628 (4.5%) specimens tested for influenza were positive [3 A (H3N2), 0 A (H1N1)pdm09, 1 A unknown subtype and 24

How much influenza-like illness is occurring?

ESSENCE is an electronic syndromic surveillance system used to monitor influenza-like illness by utilizing the chief complaints of patients visiting emergency departments. Currently, all Chicago hospitals submit data to ESSENCE on a daily basis, covering every emergency department visit in the city. For the week of April 29-May 5, 2018, 428 of the 25,204 (1.7%) total emergency department visits were due to influenza-like illness (ILI) (Figure 3).

In addition to emergency departments, several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by also 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 April 29-May 5, 2018, with 21 facilities reporting, 1.7% of outpatient clinic 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 April 29-May 5, 2018, 14 of 59 (24%) zip codes had ILI activity levels in the moderate to high categories and 45 (76%) had ILI activity levels in the minimal to low categories; the median percent ILI was 1.4% (range of <1%-3.5%) (Figure 6).

Figure 3. 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 (2017-2018) and previous season, October-May.

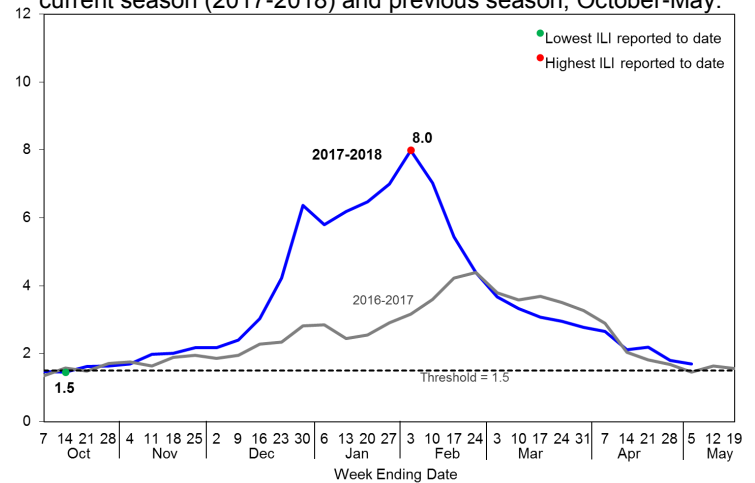


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

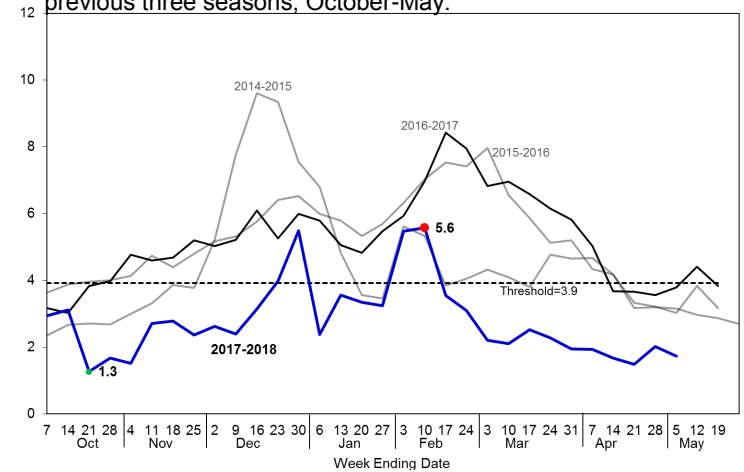


Figure 6. Percent of zip codes with minimal/low and moderate/high ILI activity levels and overall median ILI, Chicago, by week, for the current season (2017-2018), October-May.

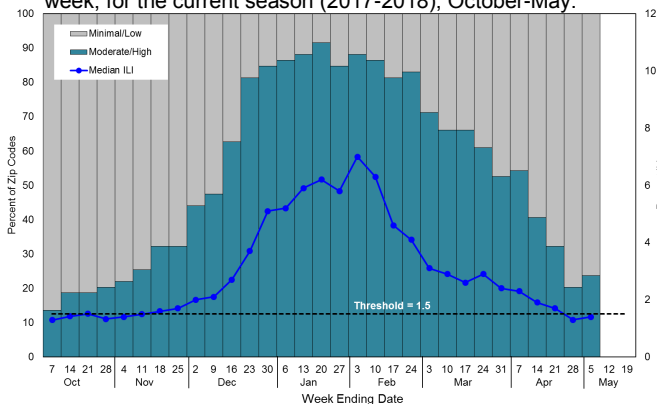
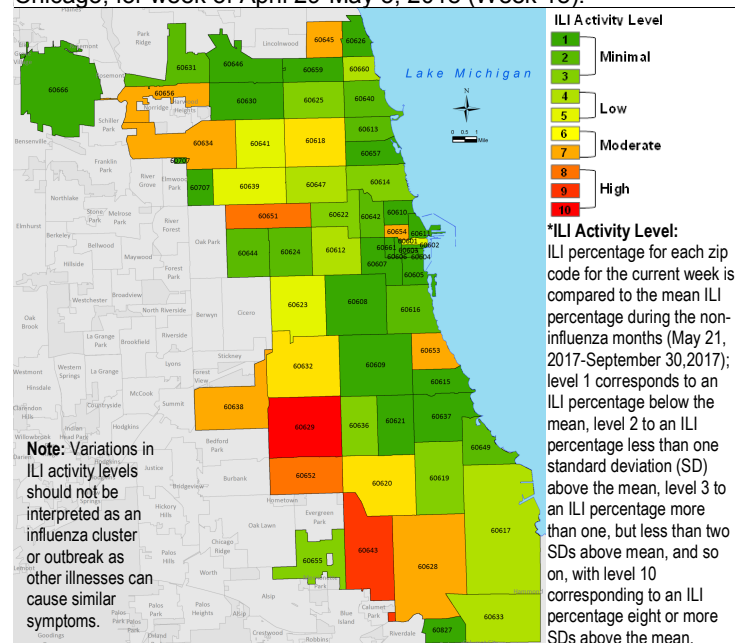


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to ESSENCE, Chicago, for week of April 29-May 5, 2018 (Week 18).



Where can I get more information?

The Centers for Disease Control and Prevention's FluView³ 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 Illinois⁴ and Suburban Cook County⁵ 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 Chicago⁶.

Reporting Information

The Illinois Department of Public Health (IDPH) has issued influenza testing and reporting recommendations⁷ healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (INEDSS)⁸

³ <http://www.cdc.gov/flu/weekly/index.htm>; ⁴ <http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance>; ⁵ <http://cookcountypublichealth.org/data-reports/communicable-diseases>; ⁶ https://www.cityofchicago.org/city/en/depts/cdp/supp_info/health-protection/current_flu_situationinchicago2011.html;

⁷ <http://dph.illinois.gov/sites/default/files/publications/publications-ohp-annual-flu-testing-guidance-10132017.pdf>; ⁸ <https://dph.partner.illinois.gov/>