



Chicago Flu Update



Rahm Emanuel, Mayor

April 20, 2018

Julie Morita, MD, Commissioner

News & Updates

All surveillance indicators are at their lowest levels since early in the influenza season. However, as long as influenza viruses are still circulating and unexpired vaccine is available, influenza vaccinations should continue to be offered. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. In partnership with Walgreens pharmacy, CDPH has made additional influenza vaccine available for no out-of-pocket cost to individuals who are uninsured or unable to pay; visit the [CDPH website](#)¹ for specific pharmacy locations. Also available is the City's easy-to-use [interactive map](#)² to find a location near you to get a flu shot.

What is the risk?

Currently, the risk of influenza infection continues to decrease.

Are severe cases of influenza occurring?

For the week of April 8-14, 2018, 4 influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 1, 2017, 563 influenza-associated ICU hospitalizations have been reported; 435 were positive for influenza A (135 H3N2, 20 H1N1, and 280 unknown subtype [subtyping not attempted or not all subtypes tested]) and 128 were positive for influenza B. The median age of reported cases is 62 years (range of 5 days-102 years); 58 (10%) cases were admitted from long-term care facilities (LTCF) and 19 outbreaks have been reported in LTCFs; three pediatric deaths were reported including one ICU hospitalization; selected attributes are summarized in Table 1.

There were 36 reported deaths[‡] among influenza-associated ICU hospitalizations; twenty-six (72%) were positive for influenza A, 21 (58%) were 65 years of age and older, and six (17%) 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	255	45
5-17	41	7	Female	307	55
18-24	16	3			
25-49	67	12	Med. Cond./Complication [†]	163	29
50-64	141	25	Cardiac Disease	159	28
≥65	255	45	Diabetes	137	24
			Ventilator Support	140	25
			Reported Deaths [‡]	36	6
			Treatment/Vaccination [†]		
			Reported Antiviral Tx	417	74
			Reported Flu Shot	167	30

* 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.

(H3N2), 3 A (H1N1)pdm09, 8 A unknown subtype and 61 influenza B] (Figure 2). Since October 1, 2017, 4,947 of 27,669 (17.9%) specimens tested for influenza have been positive; 3,663 typed as influenza A (1,259 H3N2, 171 (H1N1) pdm09, 2,233 unknown subtype [subtyping not performed or not all subtypes tested]) and 1,284 typed as influenza B. For the past seven weeks, influenza B has been the predominant circulating strain in Chicago accounting for 83% of the total positive influenza specimens for the current surveillance week.

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.

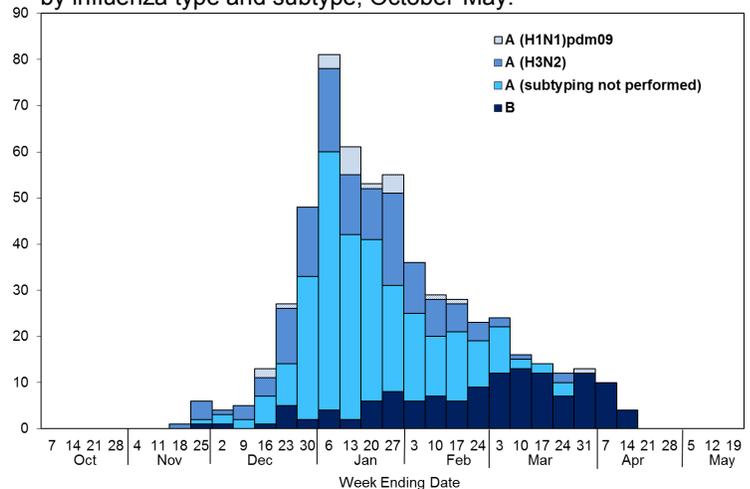
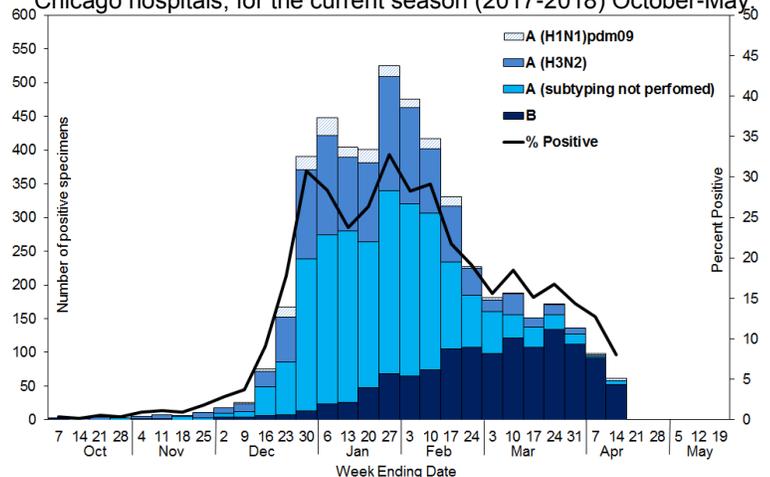


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2017-2018) October-May.



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 8-14, 2018, with 6 laboratories reporting, 72 of the 878 (8.4%) specimens tested for influenza were positive [0 A (H3N2), 3 A (H1N1)pdm09, 8 A unknown subtype and 61 influenza B] (Figure 2). Since October 1, 2017, 4,947 of 27,669 (17.9%) specimens tested for influenza have been positive; 3,663 typed as influenza A (1,259 H3N2, 171 (H1N1) pdm09, 2,233 unknown subtype [subtyping not performed or not all subtypes tested]) and 1,284 typed as influenza B. For the past seven weeks, influenza B has been the predominant circulating strain in Chicago accounting for 83% of the total positive influenza specimens for the current surveillance week.

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 8-14, 2018, 533 of the 25,027 (2.1%) total emergency department visits were due to influenza-like illness (ILI) (Figure 3). Children less than five years of age had the highest percentage of visits due to ILI at 7.6%, down from a peak of 19.4%.

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 8-14, 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 8-14, 2018, 24 of 59 (41%) zip codes had ILI activity levels in the moderate to high categories and 35 (59%) had ILI activity levels in the minimal to low categories; the median percent ILI was 1.9% (range of <1%-4.6%) (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.

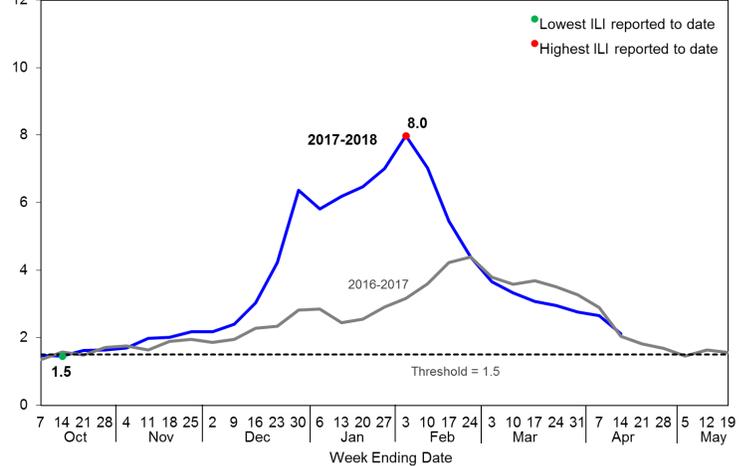


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

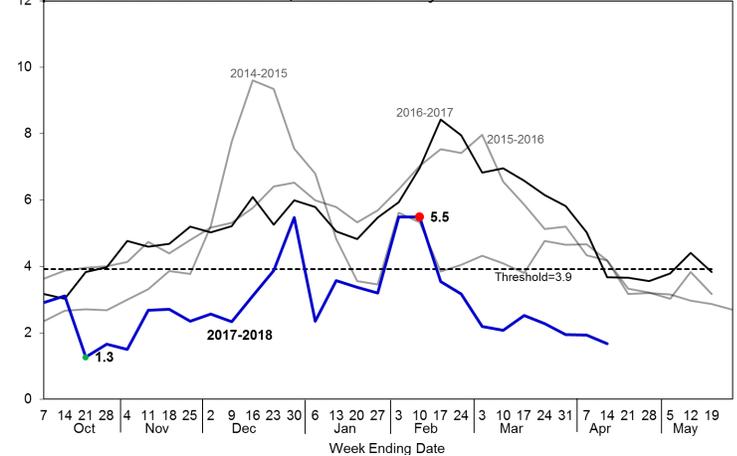


Figure 6. Percent of zip codes with minimal/low and moderate/high ILI activity levels and overall median ILI, Chicago, by week, for the current season (2017-2018), October-May.

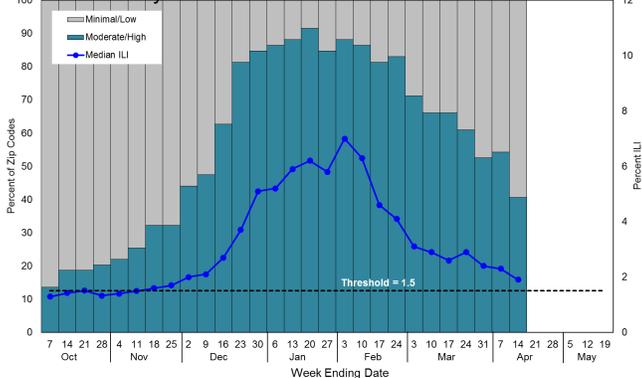
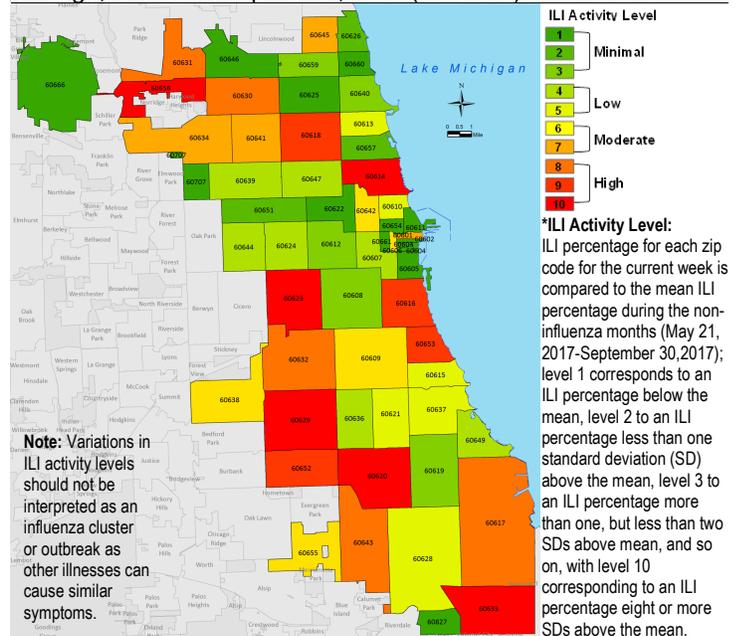


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to ESSENCE, Chicago, for week of April 8-14, 2018 (Week 15).



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/>