



Chicago Flu Update



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News & Updates

This week, the percentage of specimens testing positive for influenza B reached nearly 50%; during past influenza seasons, when the percentage of positive influenza B specimens reach 50% or more, it remains at this level for the duration of the influenza season, accounting for the predominant circulating strain during this time. CDC [interim 2017-2018 vaccine effectiveness estimates](#)¹ report that the influenza vaccine is 42% effective against influenza B viruses. 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](#)² for specific pharmacy locations. Also available is the City's easy-to-use [interactive map](#)³ to find a location near you to get a flu shot.

What is the risk?

Currently, the risk of influenza infection continues to decrease, but remains elevated.

Are severe cases of influenza occurring?

For the week of February 18-24, 2018, 20 influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 1, 2017, 447 influenza-associated ICU hospitalizations have been reported; 392 were positive for influenza A (125 H3N2, 17 H1N1, and 250 unknown subtype [subtyping not attempted or not all subtypes tested]) and 55 were positive for influenza B. The median age of reported cases is 62 years (range of 5 days-102 years); 44 (9.8%) cases were admitted from long-term care facilities (LTCF) and 19 outbreaks have been reported including one ICU hospitalization; selected attributes are summarized in Table 1.

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	37	8	Male	206	46
5-17	31	7	Female	241	54
18-24	14	3			
25-49	55	12	Med. Cond./Complication†		
50-64	117	26	Lung Disease	128	29
≥65	193	43	Cardiac Disease	120	27
			Diabetes	108	24
Race/Ethnicity			Ventilator Support	110	25
NH-White	116	26	Reported Deaths‡	32	7
NH-Black	232	52	Treatment/Vaccination†		
Hispanic	88	20	Reported Antiviral Tx	323	72
Asian/Other	11	3	Reported Flu Shot	131	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.

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of February 18-24, 2018, with 6 laboratories reporting, 227 of the 1,182 (19.2%) specimens tested for influenza were positive [41 A (H3N2), 2 A (H1N1)pdm09, 77 A unknown subtype and 107 influenza B] (Figure 2). Since October 1, 2017, 3,936 of 20,788 (18.9%) specimens tested for influenza have been positive; 3,388 typed as influenza A (1,170 H3N2, 159 (H1N1)pdm09, 2,059 unknown subtype [subtyping not performed or not all subtypes tested]) and 548 typed as influenza B.

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

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

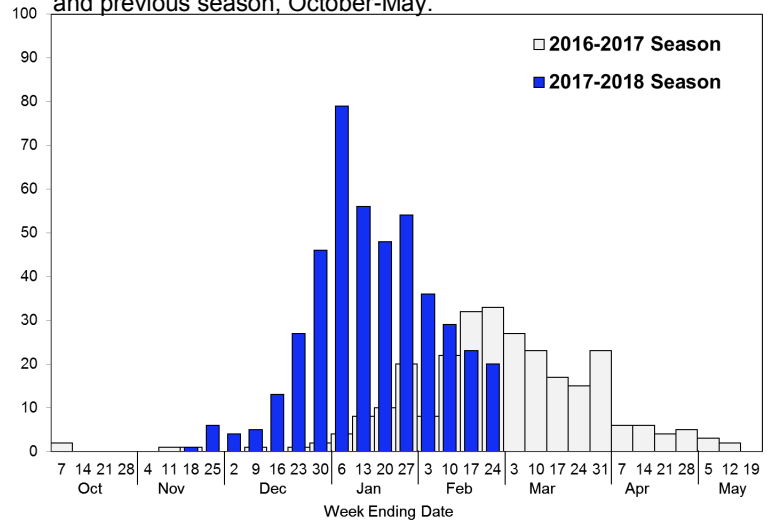
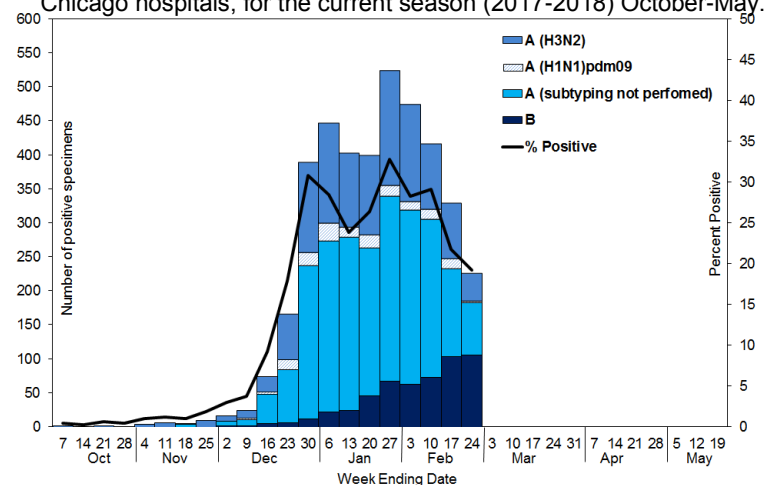


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2017-2018) October-May.



daily basis, covering every emergency department visit in the city. For the week of February 18-24, 2018, 1,060 of the 24,526 (4.3%) 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 14.7%.

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 February 18-24, 2018, with 22 facilities reporting, 3.2% 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 February 18-24, 2018, 49 of 59 (83%) zip codes had ILI activity levels in the moderate to high categories and 10 (17%) had ILI activity levels in the minimal to low categories; the median percent ILI was 4.1% with a range from <1% to 33.3% (**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.

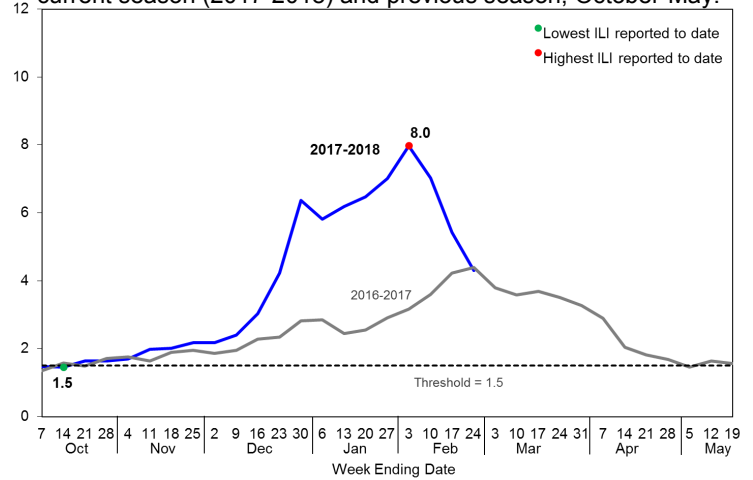


Figure 4. Percent of medically-attended **outpatient** visits attributed to influenza-like illness as reported by **ILINet** facilities, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

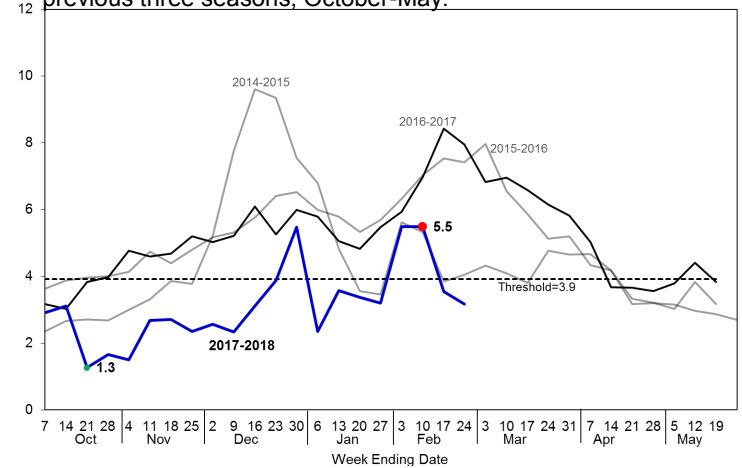
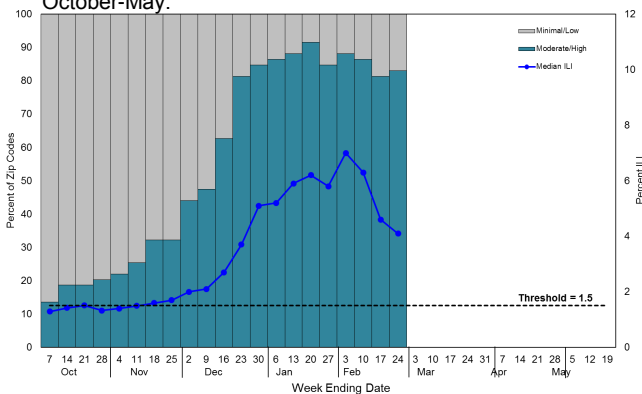


Figure 6. Percent of zip codes with minimal/low and moderate/high ILI activity levels and overall median ILI, Chicago, by week, for the current season (2017-2018), October-May.



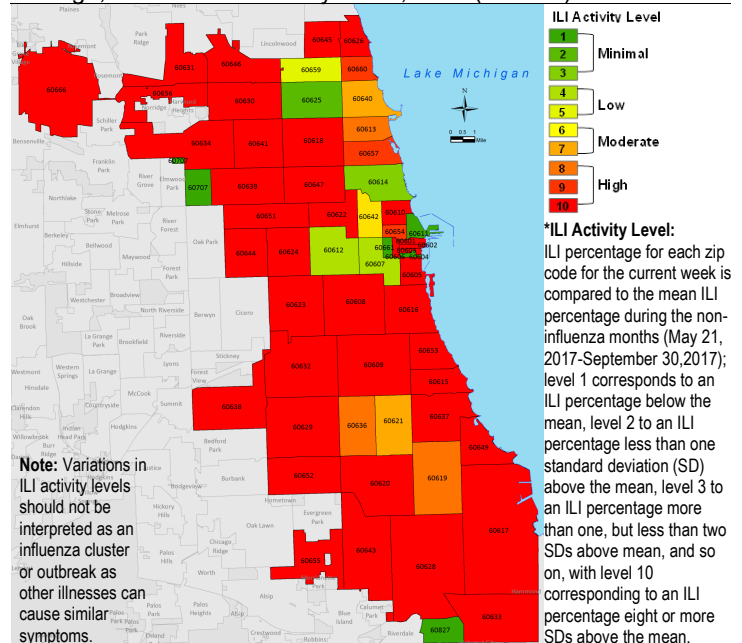
Where can I get more information?

The Centers for Disease Control and Prevention's **FluView**⁴ 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**⁵ and **Suburban Cook County**⁶ 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**⁷.

Reporting Information

The Illinois Department of Public Health (IDPH) has issued **influenza testing and reporting recommendations**⁸ healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (**INEDSS**)⁹

Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to **ESSENCE**, Chicago, for week of February 18-24, 2018 (Week 8).



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

⁴ <http://www.cdc.gov/flu/weekly/index.htm>; ⁵ <http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance>; ⁶ <http://cookcountypublichealth.org/data-reports/communicable-diseases>; ⁷ https://www.cityofchicago.org/city/en/depts/cdph/supp_info/health-protection/current_flu_situationinchicago2011.html;

⁸ <http://dph.illinois.gov/sites/default/files/publications/publications-ohp-annual-flu-testing-guidance-10132017.pdf>; ⁹ <https://dph.partner.illinois.gov/>