



Chicago Flu Update



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News & Updates

On Thursday, February 15, 2018, the CDC released [interim estimates](#)¹ of 2017-2018 seasonal influenza vaccine effectiveness (VE). This season, influenza vaccines were 36% effective overall against all influenza A and B viruses; 25% effective against H3N2 viruses, 67% effective against H1N1 viruses and 42% effective against influenza B viruses. Children 6 months to 8 years of age had higher VE against the H3N2 virus at 51%. 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 decreased slightly, but remains elevated.

Are severe cases of influenza occurring?

For the week of February 11-17, 2018, 20 influenza-associated ICU hospitalizations were reported (**Figure 1**).

Since October 1, 2017, 420 influenza-associated ICU hospitalizations have been reported; 376 were positive for influenza A (119 H3N2, 17 H1N1, and 240 unknown subtype [subtyping not attempted or not all subtypes tested]) and 44 were positive for influenza B. The median age of reported cases is 62 years (range of 5 days-102 years); 40 (9.5%) 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	35	8	Male	193	46
5-17	30	7	Female	227	54
18-24	13	3			
25-49	54	13	Med. Cond./Complication [†]		
50-64	108	26	Lung Disease	123	29
≥65	180	43	Cardiac Disease	110	26
			Diabetes	98	23
			Ventilator Support	106	25
Race/Ethnicity			Reported Deaths [‡]	24	6
NH-White	109	26	Treatment/Vaccination [†]		
NH-Black	222	53	Reported Antiviral Tx	304	72
Hispanic	78	19	Reported Flu Shot	122	29
Asian/Other	11	3			

* 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 11-17, 2018, with 6 laboratories reporting, 330 of the 1,516 (21.8%) specimens tested for influenza were positive [82 A (H3N2), 14 A (H1N1)pdm09, 129 A unknown subtype and 105 influenza B] (**Figure 2**). Since October 1, 2017, 3,709 of 19,606 (18.9%) specimens tested for influenza have been positive; 3,268 typed as influenza A (1,129 H3N2, 157 (H1N1)pdm09, 1,982 unknown subtype [subtyping not performed or not all subtypes tested]) and 441 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.

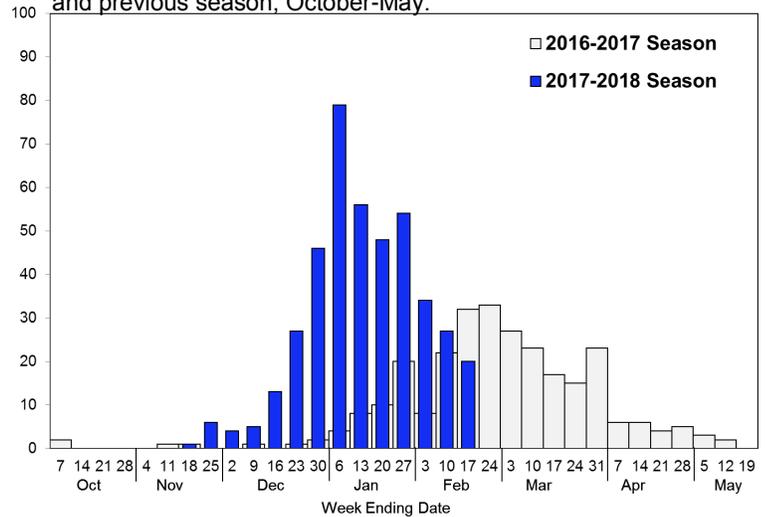
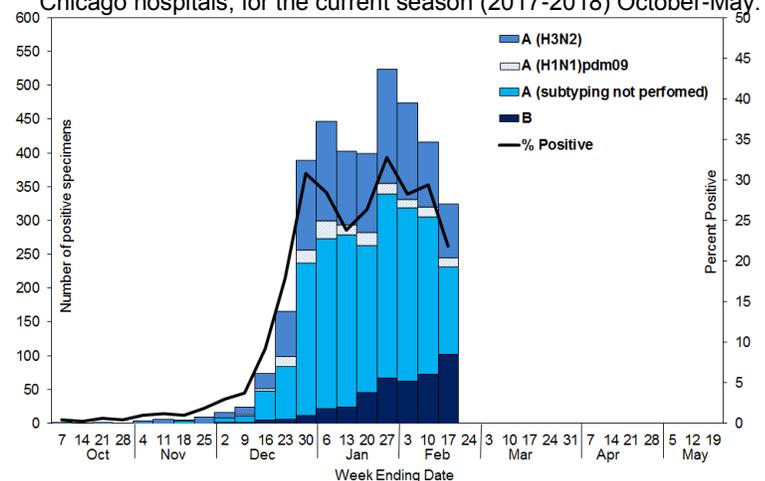


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2017-2018) October-May.



daily basis, covering every emergency department visit in the city. For the week of February 11-17, 2018, 1,394 of the 25,662 (5.4%) 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 11-17, 2018, with 22 facilities reporting, 3.6% 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 11-17, 2018, 48 of 59 (81.2%) zip codes had ILI activity levels in the moderate to high categories and 11 (18.6%) had ILI activity levels in the minimal to low categories; the median percent ILI was 4.6% with a range from <1% to 13.2% (**Figure 6**).

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.

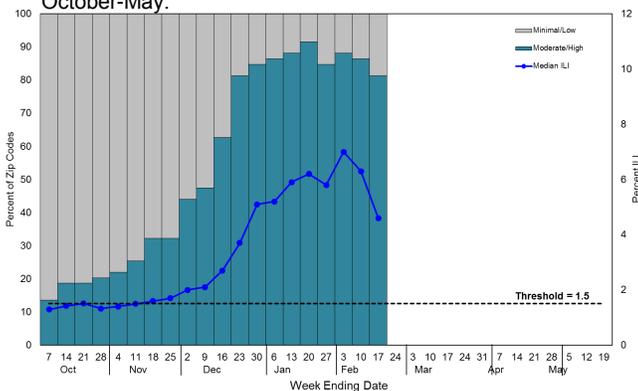


Figure 3. Percent of **emergency department** visits attributed to influenza-like illness for Chicago zip codes based on chief complaint data submitted to **ESSENCE**, Chicago, by week, for the current season (2017-2018) and previous season, October-May.

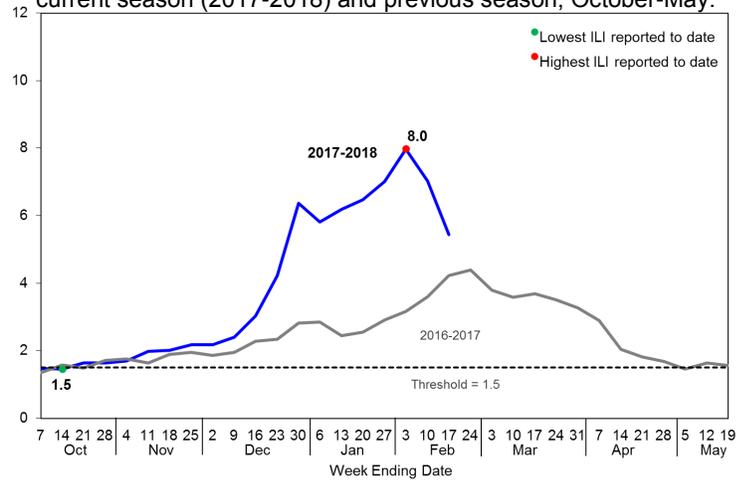


Figure 4. Percent of medically-attended **outpatient** visits attributed to influenza-like illness as reported by **ILINet** facilities, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

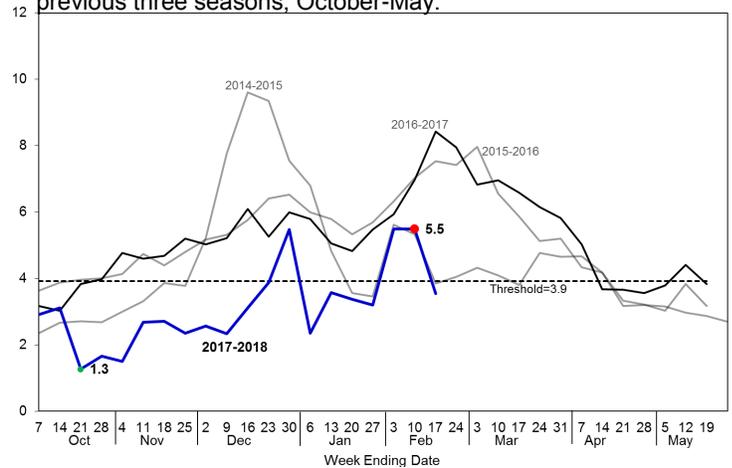
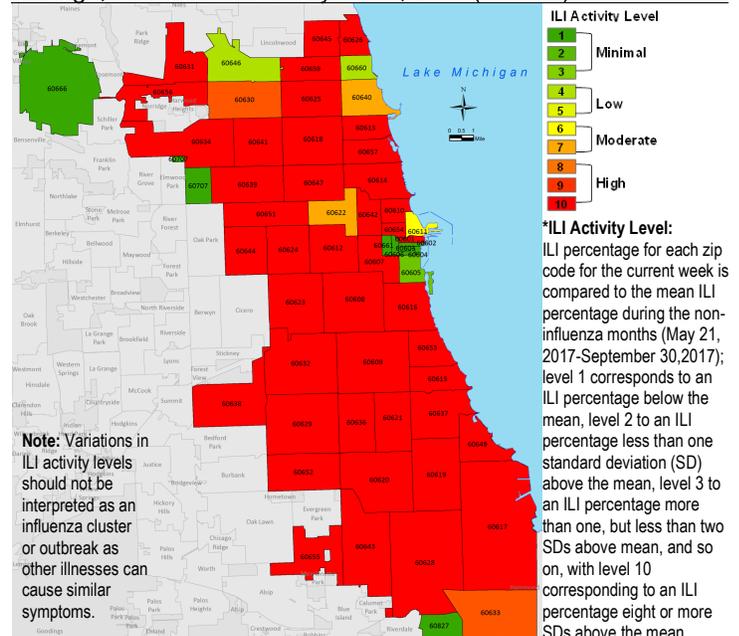


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to **ESSENCE**, Chicago, for week of February 11-17, 2018 (Week 7).



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

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/>