



Chicago Flu Update



Rahm Emanuel, Mayor

February 2, 2018

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News & Updates

At the midpoint of the influenza season, the number of reported influenza-associated ICU hospitalizations has surpassed the total number of reported ICU hospitalizations for any season since 2010-2011 (Figure 1). Also, specimens testing positive for influenza B have continued to increase for the past several weeks. It's not too late to get a flu shot; 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; see the [January 23rd press release](#)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 and more information about how to stay healthy is available on [CDPH's website](#)³.

What is the risk?

Currently, the risk of influenza infection is high.

Are severe cases of influenza occurring?

For the week of January 21-27, 2018, 49 influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 1, 2017, 323 influenza-associated ICU hospitalizations have been reported; 297 were positive for influenza A (92 H3N2, 13 H1N1, and 192 unknown subtype [subtyping not attempted or not all subtypes tested]) and 26 were positive for influenza B. The median age of reported cases is 62 years (range of 5 days-102 years); two pediatric deaths were 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	24	7	Male	137	42
5-17	18	6	Female	186	58
18-24	11	3	Med. Cond./Complication [†]		
25-49	41	13	Lung Disease	103	32
50-64	85	26	Cardiac Disease	82	25
≥65	144	45	Diabetes	83	26
Race/Ethnicity			Ventilator Support	91	28
NH-White	79	24	Reported Deaths [‡]	21	7
NH-Black	177	55	Treatment/Vaccination [†]		
Hispanic	60	19	Reported Antiviral Tx	234	72
Asian	7	2	Reported Flu Shot	88	27

* 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 January 21-27, 2018, with 6 laboratories reporting, 525 of the 1,601 (32.8%) specimens tested for influenza were positive [169 A (H3N2), 16 A (H1N1)_{pdm09}, 272 A unknown subtype and 68 influenza B] (Figure 2). Since October 1, 2017, 2,487 of 14,977 (16.6%) specimens tested for influenza have been positive; 2,289 typed as influenza A (808 H3N2, 116 (H1N1)_{pdm09}, 1,365 unknown subtype [subtyping not performed or not all subtypes tested]) and 198 typed as influenza B.

How much influenza-like illness is occurring?

CDPH receives data from several hospitals in Chicago that provide emergent care, which report on a weekly basis the total number of emergency department visits, and of those visits, the number with influenza-like illness (fever of 100°F or greater and cough and/or sore throat). For the week of January 21-27, 2018, with seven hospitals reporting, 5.1% of emergency department visits were due to ILI (Figure 3).

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

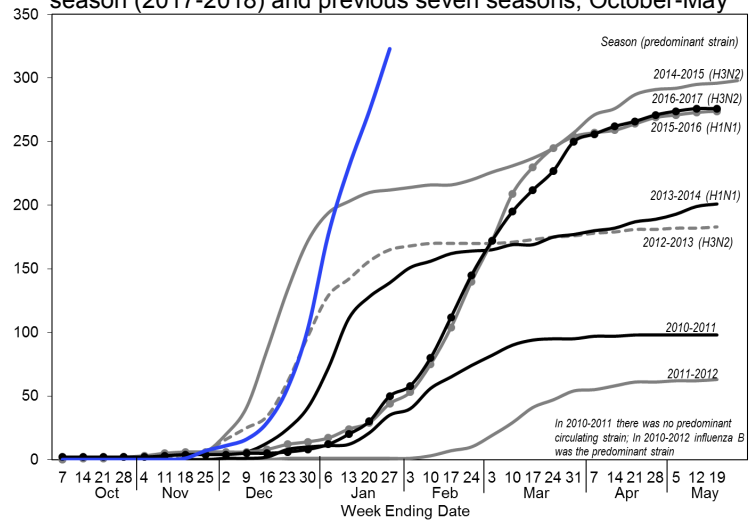
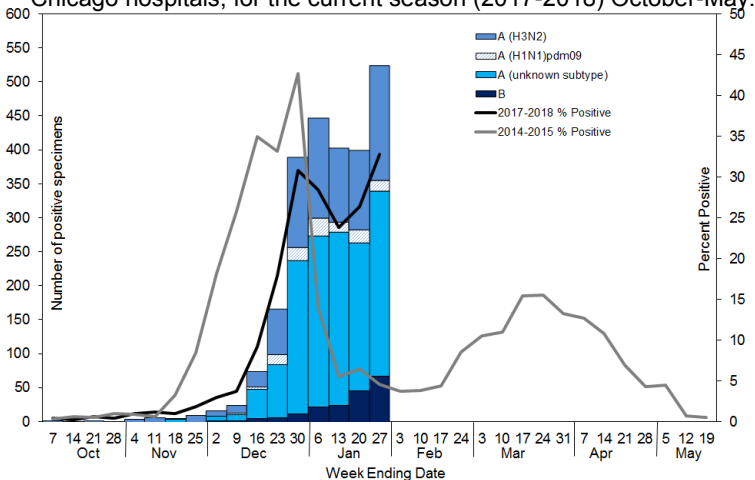


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2017-2018) October-May.



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 January 21-27, 2018, with 22 facilities reporting, 3.2% of outpatient clinic visits were due to influenza-like illness (Figure 4).

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 January 21-27, 2018, 1,988 of the 28,269 (7.0%) total emergency department visits were due to influenza-like illness (ILI); children less than five years of age had the highest percentage of visits due to ILI at 17.4%

Figure 5 represents the percentage of emergency department visits due to influenza-like illness aggregated by patient zip code. For the week of January 21-27, 2018, 50 of 59 (84.8%) zip codes had ILI activity levels in the moderate to high categories and 9 (15.2%) had ILI activity levels in the minimal to low categories; the median percent ILI was 5.8% with a range from <1% to 18.2% (Figure 6).

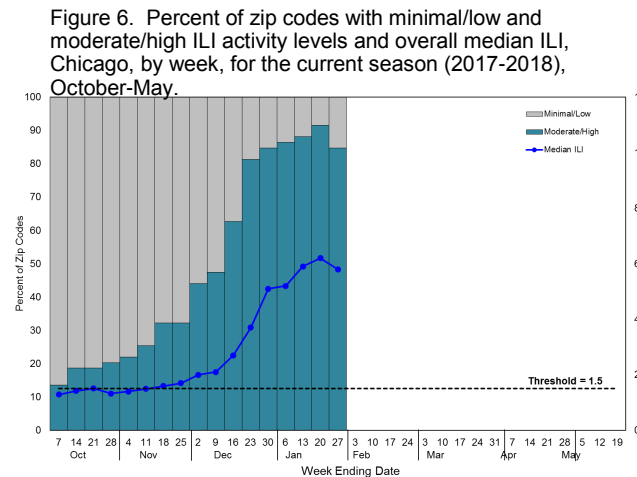


Figure 6. Percent of zip codes with minimal/low and moderate/high ILI activity levels and overall median ILI, Chicago, by week, for the current season (2017-2018), October-May.

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.

Figure 3. Percent of **emergency department** visits attributed to influenza-like illness based on manual reports by individual hospitals, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

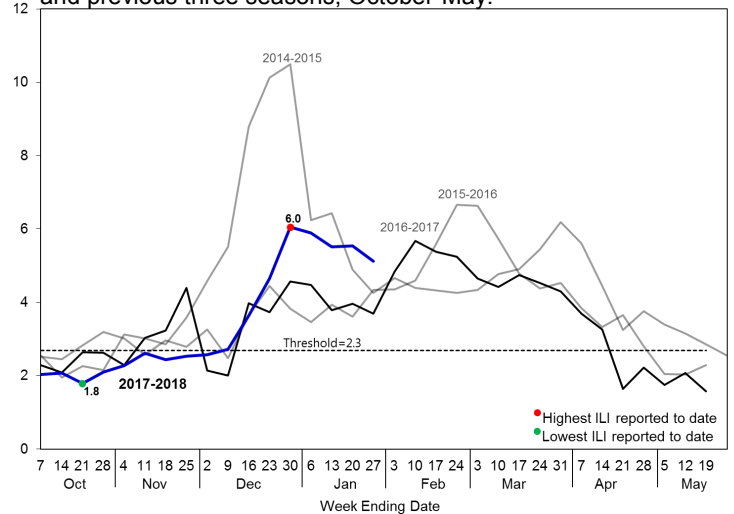


Figure 4. Percent of medically-attended **outpatient** visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

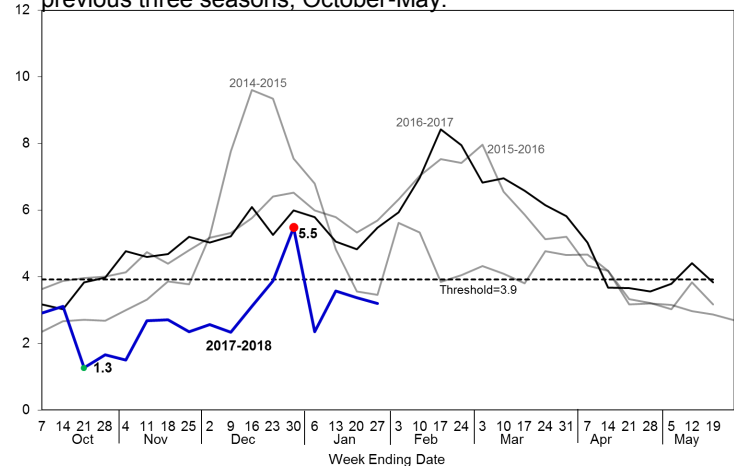
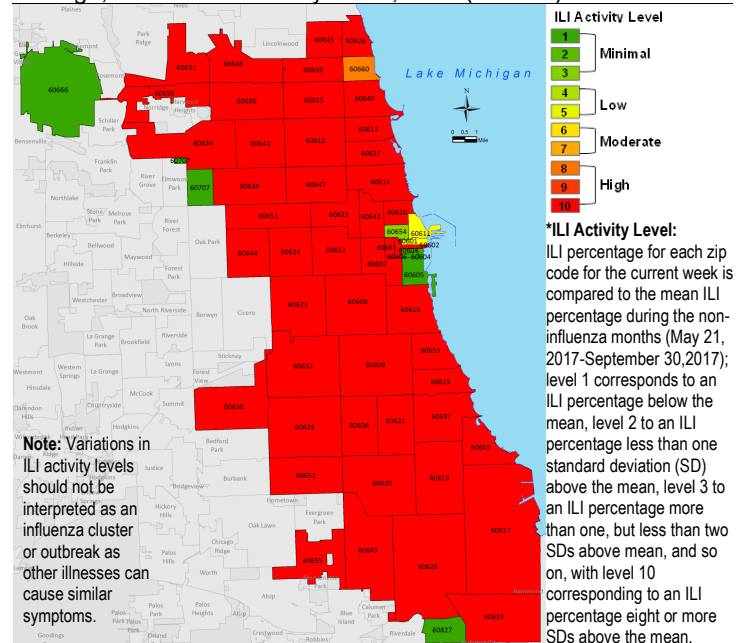


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to **ESSENCE**, Chicago, for week of January 21-27, 2018 (Week 4).



***ILI Activity Level:**
ILI percentage for each zip code for the current week is compared to the mean ILI percentage during the non-influenza months (May 21, 2017-September 30, 2017); level 1 corresponds to an ILI percentage below the mean, level 2 to an ILI percentage less than one standard deviation (SD) above the mean, level 3 to an ILI percentage more than one, but less than two SDs above mean, and so on, with level 10 corresponding to an ILI percentage eight or more SDs above the mean.

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/>