



Chicago Flu Update



Rahm Emanuel, Mayor

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News & Updates

The CDC's [Influenza Forecasting Initiative](#) is a collaboration with members of the scientific community to develop innovative methods to predict flu activity. An average of flu activity forecasts suggests that flu activity will continue to increase in the short term and may peak by the end of December (30% chance) or by the end of January (60% chance). Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. Chicagoans should ask their healthcare provider or pharmacist about vaccine availability. For those without a healthcare provider or whose healthcare providers do not have the influenza vaccine, a list of City of Chicago [Fast-Track Immunization Clinics](#)² is available on the City website and by calling 311. To locate the closest City of Chicago clinic or retail pharmacy, visit www.chicagoflushots.org.

What is the risk?

Currently, the risk of influenza infection is high.

Are severe cases of influenza occurring?

For the week of December 24-30, 2017, 25 influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 1, 2017, 65 influenza-associated ICU hospitalizations have been reported; 56 were positive for influenza A (23 H3N2, 3 H1N1, and 30 unknown subtype [subtyping not attempted or not all subtypes tested]) and nine were positive for influenza B. The median age of reported cases is 62 years (range of 1 month-102 years); 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	3	5	Male	25	38
5-17	5	8	Female	40	62
18-24	3	5	Med. Cond./Complication [†]		
25-49	6	9	Lung Disease	12	18
50-64	20	31	Cardiac Disease	19	29
≥65	28	43	Diabetes	16	25
Race/Ethnicity			Ventilator Support	17	26
NH-White	21	32	Reported Deaths	6	9
NH-Black	27	42	Treatment/Vaccination [†]		
Hispanic	15	23	Reported Antiviral Tx	46	71
Asian	2	3	Reported Flu Shot	22	34

* Percentages may not add up to 100 due to rounding; † As reported in INEDSS (Illinois National Electronic Disease Surveillance System).

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of December 24-30, 2017, with 6 laboratories reporting, 390 of the 1,268 (30.8%) specimens tested for influenza were positive [134 A (H3N2), 19 A (H1N1)_{pdm09}, 225 A unknown subtype and 13 influenza B] (Figure 2). Since October 1, 2017, 710 of 8,584 (8.3%) specimens tested for influenza have been positive; 672 typed as influenza A (267 H3N2, 39 (H1N1)_{pdm09}, 370 unknown subtype [subtyping not performed or not all subtypes tested]) and 35 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 December 24-30, 2017, with seven hospitals reporting, 6.0% of emergency department visits were due to ILI (Figure 3).

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

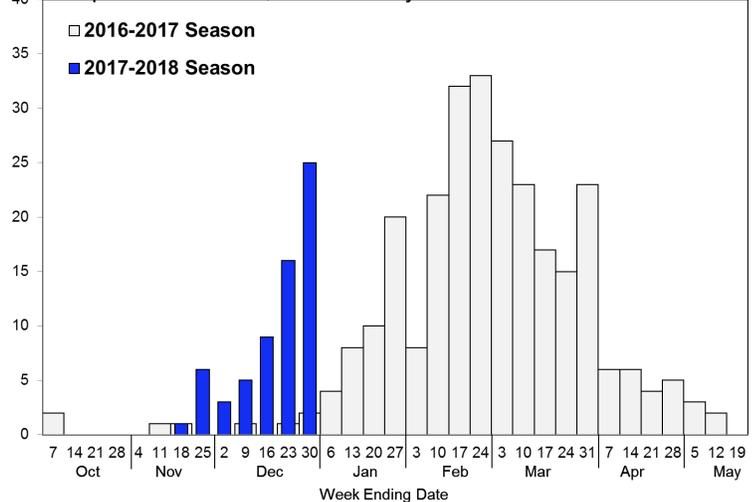
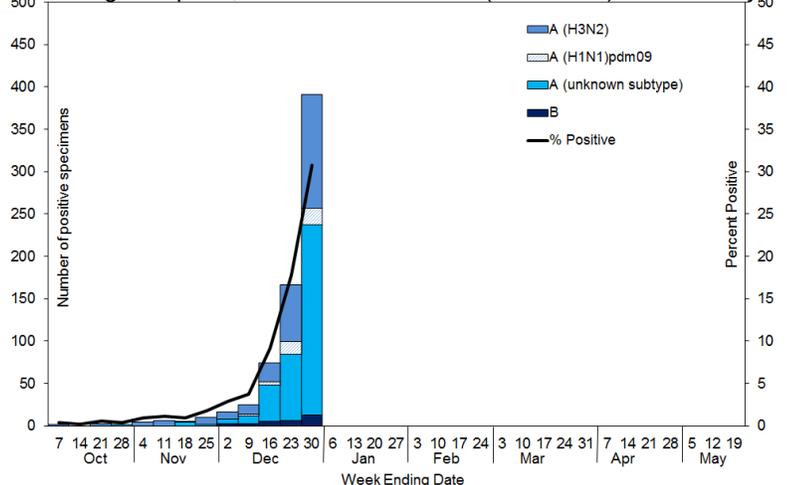


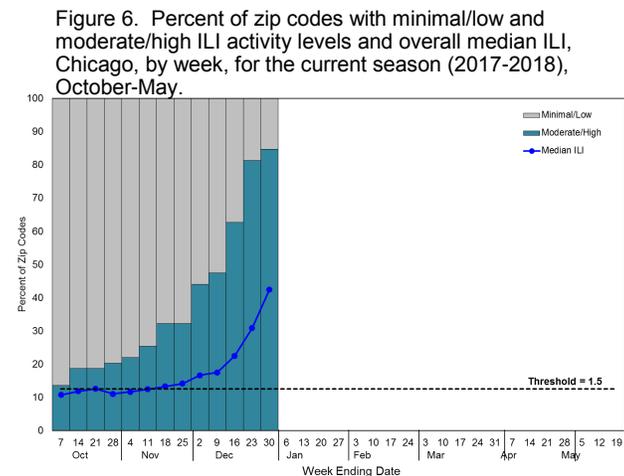
Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2017-2018) October-May.



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 December 24-30, 2017, with 22 facilities reporting, 5.5% 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 December 24-30, 2017, 1,576 of the 24,627 (6.4%) 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 18.0%

Figure 5 represents the percentage of emergency department visits due to influenza-like illness aggregated by patient zip code. For the week of December 24-30, 2017, 50 of 59 (85%) zip codes had ILI activity levels in the moderate to high categories and 9 (15%) had ILI activity levels in the minimal to low categories; the median percent ILI was 5.1% with a range from <1% to 13.2% (Figure 6).



Where can I get more information?

The Centers for Disease Control and Prevention's [FluView](http://www.cdc.gov/flu/weekly/index.htm)³ 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](https://www.cityofchicago.org/city/en/depts/cdph/supp_info/health-protection/current_flu_situationinchicago2011.html)⁴ and [Suburban Cook County](http://cookcountypublichealth.org/data-reports/communicable-diseases)⁵ 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](https://www.cityofchicago.org/city/en/depts/cdph/supp_info/health-protection/current_flu_situationinchicago2011.html)⁶.

Reporting Information

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting recommendations](http://dph.illinois.gov/sites/default/files/publications/publications-ohp-annual-flu-testing-guidance-10132017.pdf)⁷ healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (INEDSS)⁸.

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.

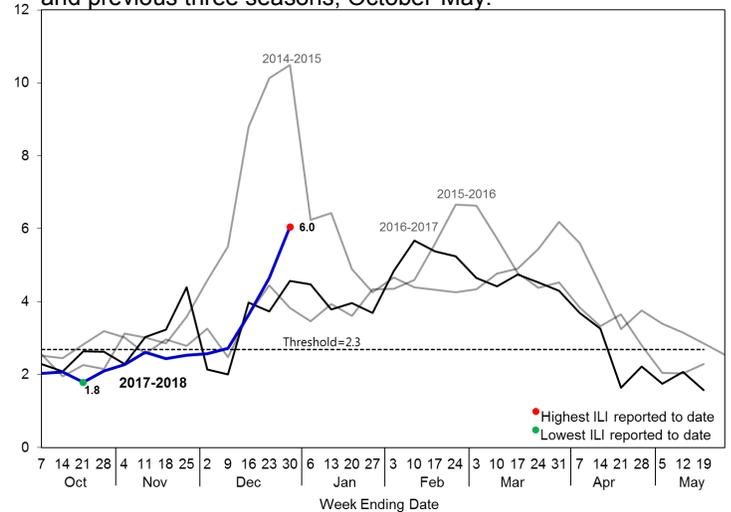


Figure 4. Percent of medically-attended **outpatient** visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2017-2018) and previous three seasons, October-May.

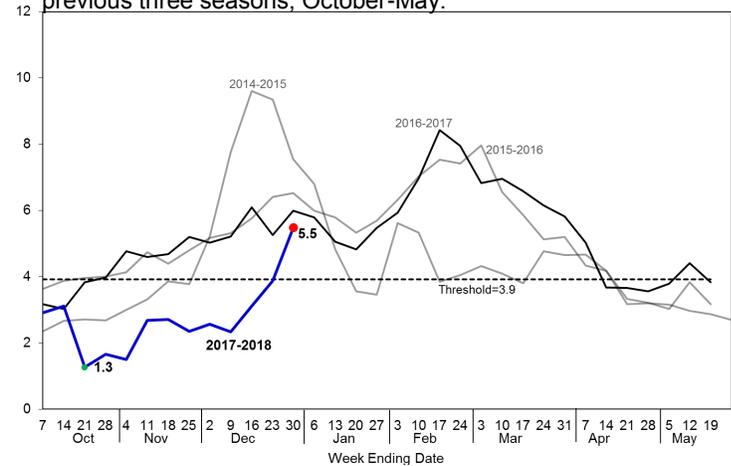
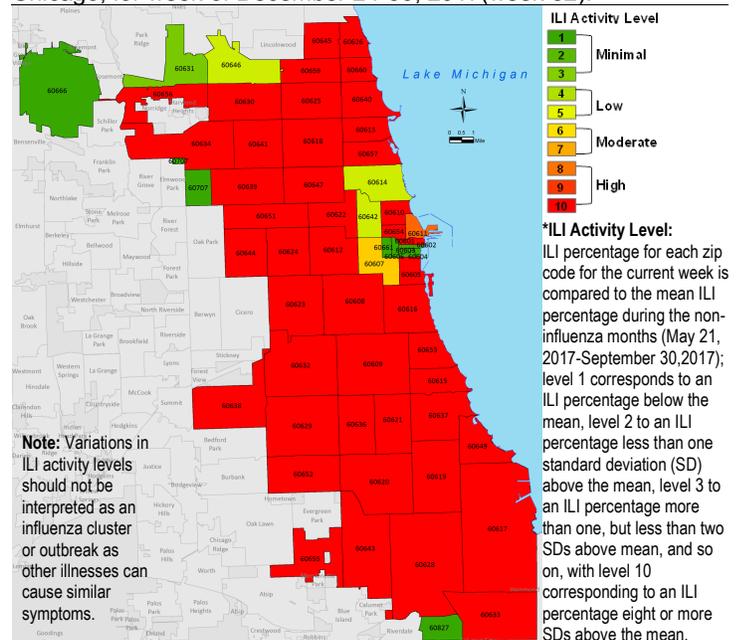


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to **ESSENCE**, Chicago, for week of December 24-30, 2017(week 52).



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

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