



Chicago Flu Update



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The Quick View heat graph represents the varying level of intensity among the five influenza surveillance indicators that are routinely monitored during the influenza season (Figures 1-5).

News & Updates As long as influenza viruses are 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. 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](#)¹ is available on the City website and by calling 311. To locate the closest City of Chicago clinic or retail pharmacy, go to 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 March 26-April 1, 2017, 22 influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 2, 2016, 249 influenza-associated ICU hospitalizations have been reported; 173 were positive for influenza A (100 H3N2, 2 H1N1pdm09 and 71 unknown subtype [subtyping not attempted or not all subtypes tested]) and 76 were positive for influenza B. The median age of reported cases is 62 years (range of 1 month - 100 years). Fourteen deaths have been reported among ICU cases including two pediatric patients and 18 cases were admitted from long-term care facilities; selected characteristics are summarized in Table 1.

Table 1.

Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents for current season (2016-2017), October-May.

Age Group	#	%	Sex	#	%
0-4	24	10	Male	117	47
5-17	28	11	Female	132	53
18-24	6	2			
25-49	30	12	Med. Cond./Complication†	79	32
50-64	54	22	Lung Disease	69	28
≥65	107	43	Cardiac Disease	59	24
			Diabetes	64	26
Race/Ethnicity			Ventilator Support	14	6
NH-White	76	31	Reported Deaths		
NH-Black	94	38	Treatment/Vaccination†		
Hispanic	65	26	Reported Antiviral Tx	173	70
Asian	14	6	Reported Flu Shot	101	41

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

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 (ILI) (i.e., fever of 100°F or greater, with cough or sore throat). For the week of March 26-April 1, 2017, with 9 hospitals reporting, 4.3% of emergency department visits were due to ILI (Figure 2). ESSENCE is an electronic syndromic surveillance system that utilizes emergency department chief complaint data submitted daily by Chicago hospitals; ILI activity is determined solely based on the patient's chief complaint and does not take into account the entire medical record, as the ILI activity reported in Figure 2 does.

Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2016-2017) by influenza type, October-May.

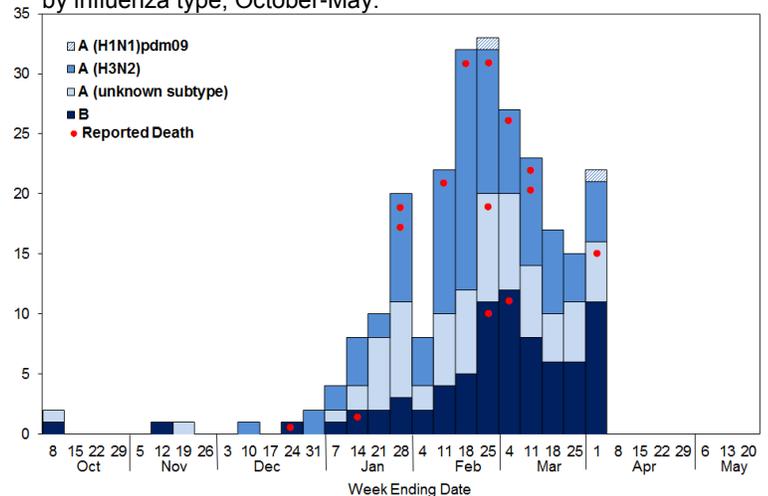
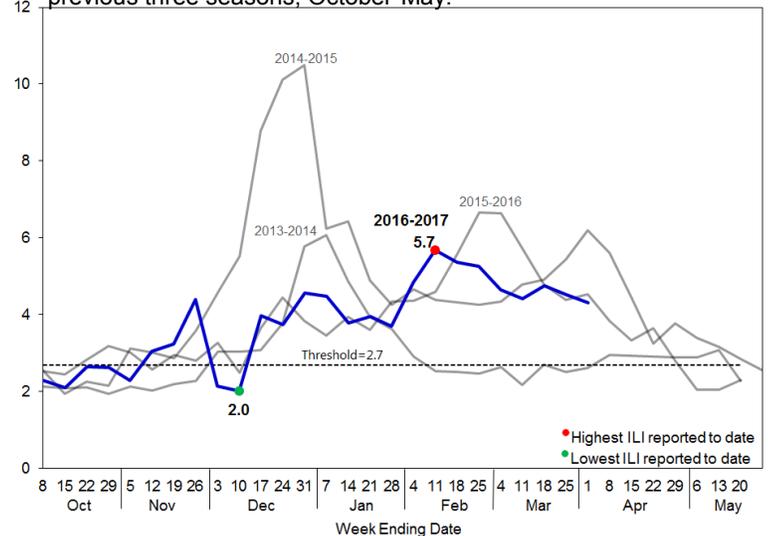


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reports by individual hospitals, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.



¹ https://www.cityofchicago.org/city/en/depts/cdp/supp_info/clinical_health/immunizations_walk-inclinics.html

Currently, all Chicago hospitals submit data to **ESSENCE**, covering every emergency department visit in the city. For the week of March 26-April 1, 2017, 2.6% of all emergency department visits were due to ILI; Southside hospitals had slightly higher ILI at 3.1%, Northside hospitals had at 2.6% and Westside hospitals at 2.0% (**Figure 3**).

Several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (**ILINet**) by reporting on the number of patients with ILI seen weekly. For the week of March 26-April 1, 2017, with 23 facilities reporting, 5.8% of outpatient visits were due to influenza-like illness (**Figure 4**).

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of March 26-April 1, 2017, with 5 laboratories reporting, 118 of the 587 (20.1%) specimens tested for influenza were positive (45 A (H3N2), 1 A (H1N1pdm09), 13 A [unknown subtype], and 59 influenza B).

Since October 2, 2016, 1,791 of 17,106 (10.5%) specimens tested for influenza have been positive; 1,156 typed as influenza A (981 H3N2, 21 H1N1pdm09, and 154 unknown subtype [subtyping not attempted or not all subtypes tested]) and 635 typed as influenza B (**Figure 5**). The cumulative percent of specimens testing positive for influenza is lower than previous seasons during the same time period where influenza A (H3N2) was the predominant strain (**Table 2**).

Table 2. Cumulative percent of specimens testing positive for influenza by RT-PCR by type for the current season (2016-2017) and the previous four seasons, Chicago, Weeks 40-13.

Influenza Season	% Pos.	% A H3N2	% A H1N1pdm09	% A Not Sub-typed	% B
2012-2013*	13.4	69.3	6.2	13.0	11.5
2013-2014	8.1	2.1	67.9	24.5	5.4
2014-2015*	14.6	61.2	0	13.8	24.7
2015-2016	8.4	2.6	75.6	16.4	5.4
2016-2017*	10.5	54.8	1.2	8.6	35.5

* Influenza seasons where A (H3N2) was the predominant circulating strain

Where can I get more information?

The Centers for Disease Control and Prevention's **FluView**² 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**³ and **Suburban Cook County**⁴ 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**⁵.

Reporting Information

The Illinois Department of Public Health (IDPH) has issued **influenza testing and reporting recommendations**⁶; healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (**INEDSS**)⁷.

Figure 3. Percent of emergency department visits attributed to influenza-like illness by hospital region based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

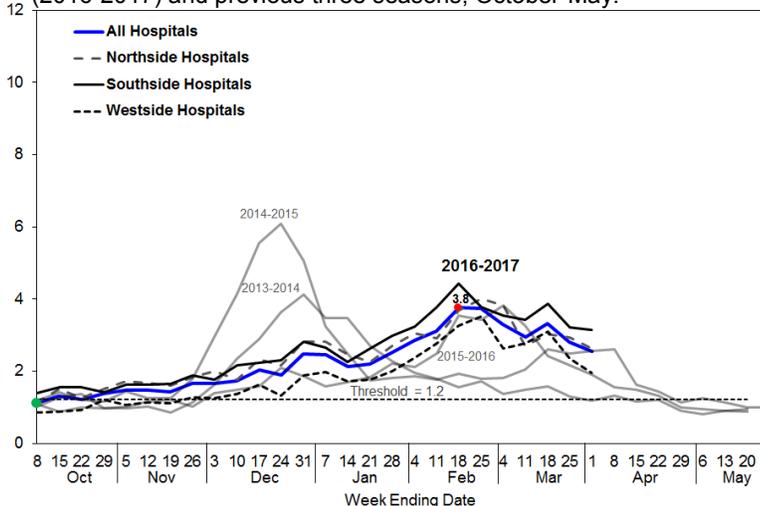


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

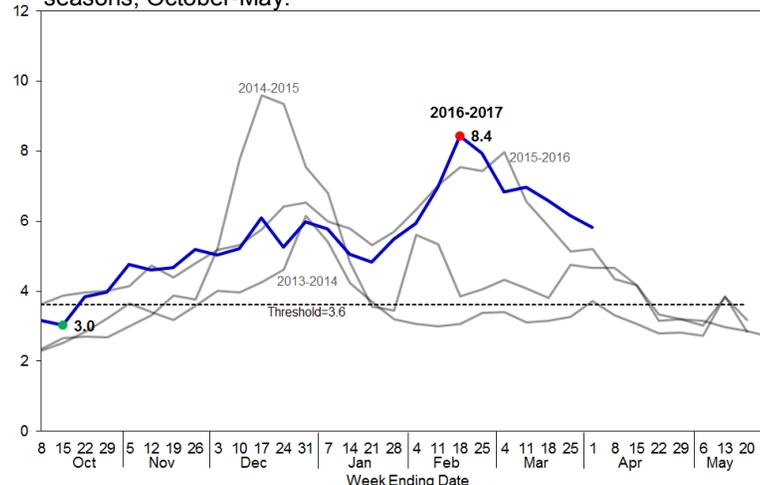
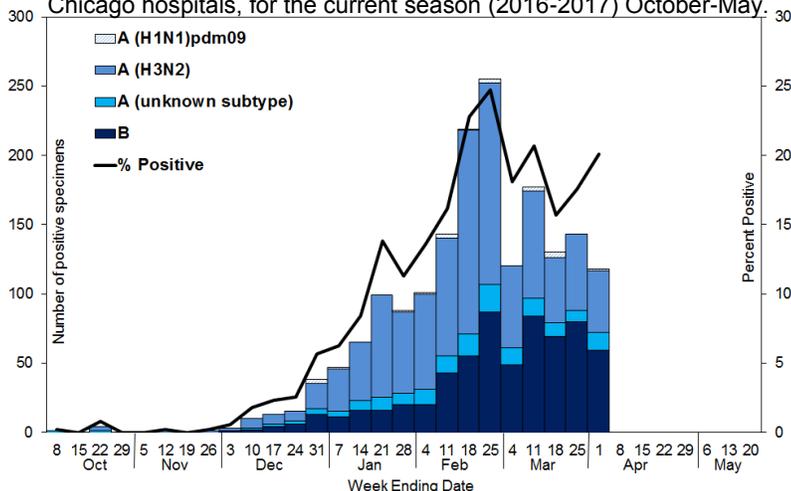


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2016-2017) October-May.



²<http://www.cdc.gov/flu/weekly/index.htm>; ³<http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance>; ⁴<http://cookcountypublichealth.org/data-reports/communicable-diseases>; ⁵http://www.cityofchicago.org/city/en/depts/cdph/supp_info/influenza/current_flu_situationinchicago2011.html; ⁶<http://www.dph.illinois.gov/sites/default/files/publications/ohp-labs-influenzaannual-testing-and-reportingmemo-09222016.pdf>; ⁷<https://dph.partner.illinois.gov/>