



Chicago Flu Update



Rahm Emanuel, Mayor

May 24, 2017

Julie Morita, MD, Commissioner



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 This will be the last *Chicago Flu Update* issued for the 2016-2017 influenza surveillance season. The next update will be issued in October 2017. CDPH will continue to monitor surveillance indicators throughout the summer months. **The 22nd Annual Chicago Infection Control Conference will be held on June 9th, 2017 at the Chicago Cultural Center;** visit the [Chicago HAN](http://chicagohan.org)¹ website for more information and to register.

What is the risk?

Currently, the risk of influenza infection is low.

Are severe cases of influenza occurring?

For the week of May 14-20, 2017, no influenza-associated ICU hospitalizations were reported (**Figure 1**).

Since October 2, 2016, 275 influenza-associated ICU hospitalizations have been reported; 185 were positive for influenza A (108 H3N2, 2 H1N1pdm09 and 75 unknown subtype [subtyping not attempted or not all subtypes tested]) and 90 were positive for influenza B. The median age of reported cases is 62 years (range of 1 month - 100 years). Seventeen deaths have been reported among ICU cases including two pediatric patients and 19 (7.0%) cases were admitted from long-term care facilities; selected characteristics are summarized in **Table 1**.

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

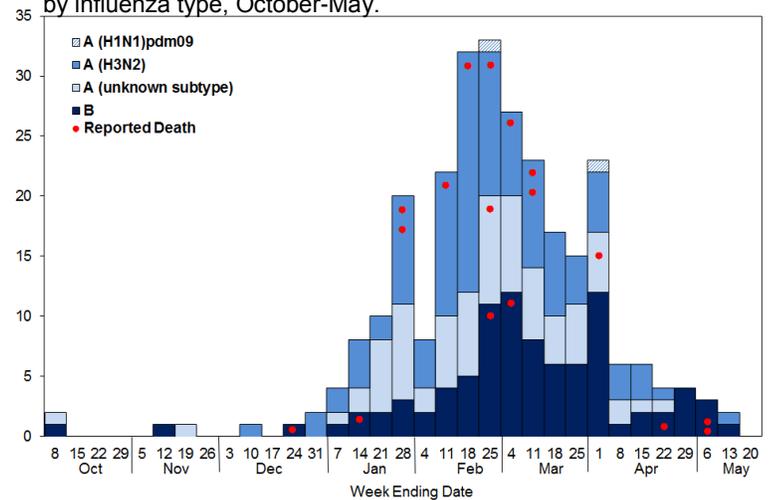


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reports by individual hospitals, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

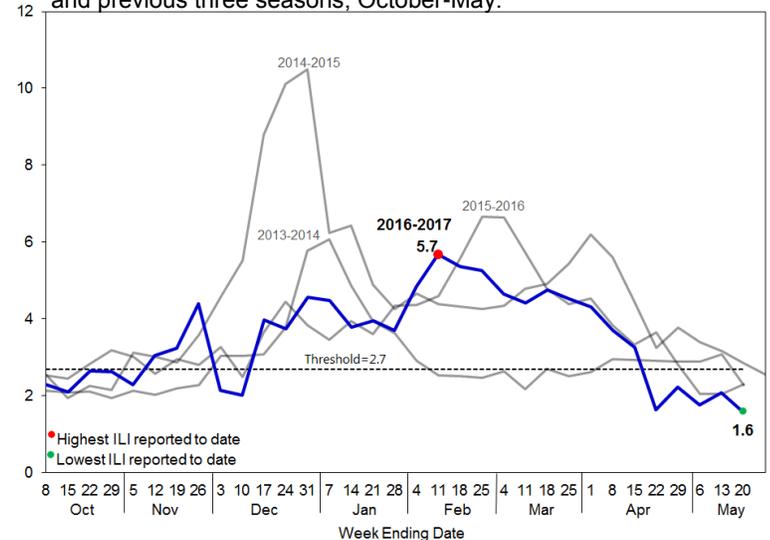


Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents for current season (2016-2017), October-May.

Age Group	#	%*	Sex	#	%
0-4	28	10	Male	130	47
5-17	30	11	Female	145	53
18-24	6	2	Med. Cond./Complication [†]		
25-49	32	12	Lung Disease	90	33
50-64	59	21	Cardiac Disease	79	29
≥65	120	44	Diabetes	64	23
Race/Ethnicity			Ventilator Support	71	26
NH-White	83	30	Reported Deaths	17	6
NH-Black	104	38	Treatment/Vaccination [†]		
Hispanic	73	27	Reported Antiviral Tx	190	69
Asian	15	5	Reported Flu Shot	110	40

* 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 May 14-20, 2017, with 7 hospitals reporting, 1.6% 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.

¹<https://chicagohan.org/web/han>

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

Currently, all Chicago hospitals submit data to **ESSENCE**, covering every emergency department visit in the city. For the week of May 14-20, 2017, 1.3% of all emergency department visits were due to ILI; Southside hospitals had slightly higher ILI at 1.6%, Northside hospitals at 1.3% and Westside hospitals had slightly lower ILI at 1.1% (**Figure 3**).

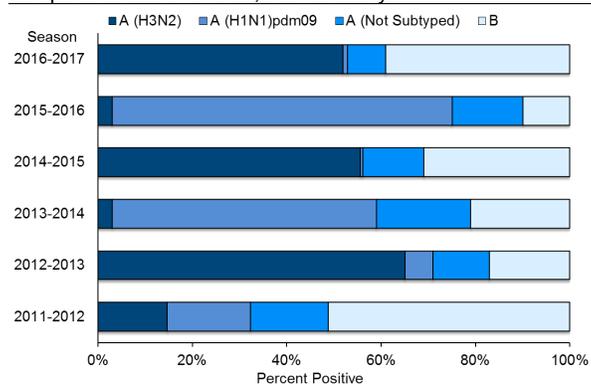
Several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (**ILINet**) by reporting on the number of patients with ILI seen weekly. For the week of May 14-20, 2017, with 21 facilities reporting, 3.8% of outpatient visits were due to influenza-like 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 May 14-20, 2017, with 5 laboratories reporting, 6 of the 363 (1.6%) specimens tested for influenza were positive (1 A (H3N2), 1 A (H1N1pdm09), 0 A [unknown subtype], and 4 influenza B).

Since October 2, 2016, 2,086 of 21,434 (9.7%) specimens tested for influenza have been positive; 1,262 typed as influenza A (1,079 H3N2, 22 H1N1pdm09, and 161 unknown subtype [subtyping not attempted or not all subtypes tested]) and 824 typed as influenza B (**Figure 5**). This season, influenza B accounted for 39% of all specimens testing positive for influenza; this is the highest percentage since the 2011-2012 season where over half (51%) were positive for influenza B (**Figure 6**).

Figure 6. 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) and previous five seasons, October-May.



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.

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.

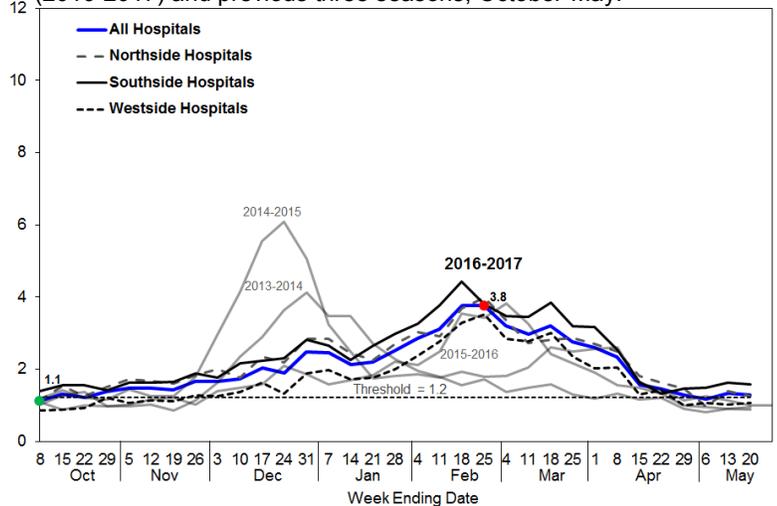


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

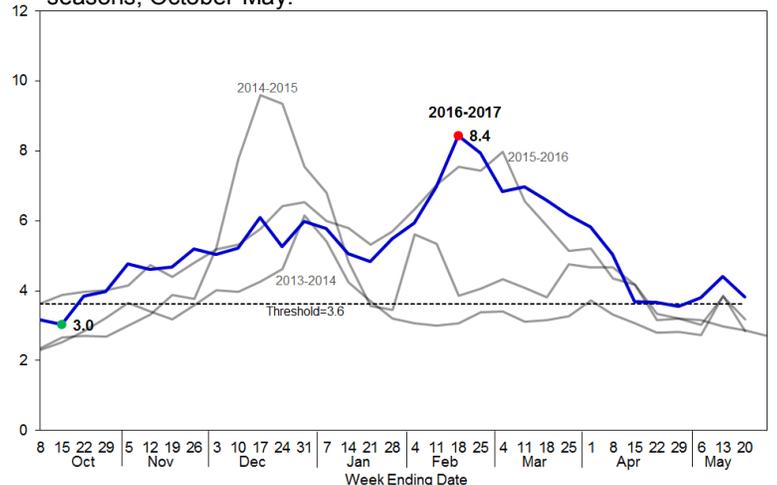
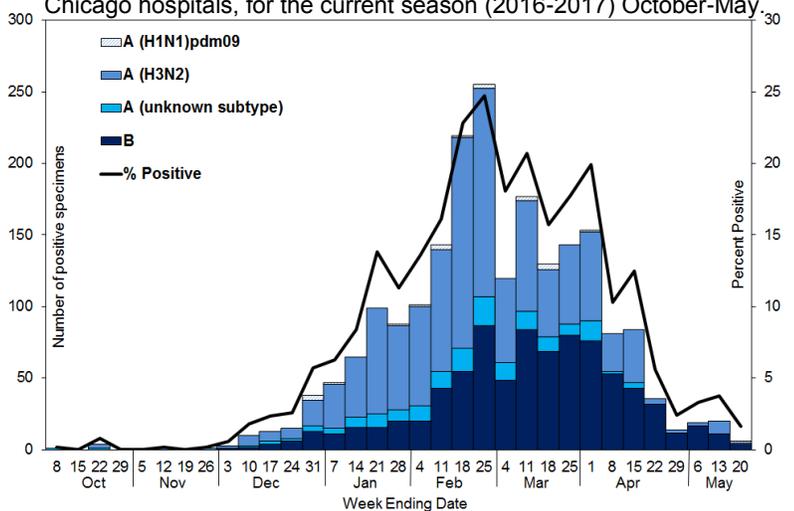


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2016-2017) October-May.



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

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/cdp/supp_info/influenza/current_flu_situationinchicago2011.html