



Chicago Flu Update



City of Chicago
Rahm Emanuel, Mayor

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Chicago Department of Public Health
Bechara Choucair, MD, Commissioner

What is the risk?

Currently, the risk of influenza infection continues to increase. 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. It is not too late to give or get an influenza vaccine. For those without a healthcare provider or whose healthcare providers do not have the influenza vaccine, a schedule of [City of Chicago influenza vaccine 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.

Are severe cases of influenza occurring?

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting guidelines](#)³. Suspected novel and variant influenza, pediatric influenza-associated deaths, influenza-associated ICU hospitalizations and outbreaks of influenza-like illness in a congregate setting should all be reported to CDPH via [IN-EDSS](#)⁴.

For the week of November 30-December 06, 2014, 18 influenza-associated ICU hospitalizations were reported; all were positive for influenza A (11 H3N2 and 7 unknown subtype [subtyping not attempted or not all subtypes tested]).

Since September 28, 2014, 35 influenza-associated ICU hospitalizations have been reported. Among the total ICU hospitalizations reported 34 were positive for influenza A (23 H3N2 and 11 unknown subtype) and 1 was positive for influenza B. Eighteen (51%) were non-Hispanic Black, 18 (51%) were male, and 19 (54%) were 50 years of age or older (median age of 53 years with a range of 1-101 years). Eleven (31%) had reported lung disease (including asthma) and ten (29%) required ventilator support. Two deaths have been reported.

Although the total number of influenza-associated ICU hospitalizations reported so far this season is higher than the number reported during the same time period last season (6 cases), it is similar to the number reported during 2012-2013 season (25 cases) which was also a H3N2 predominant season. Compared to the 2013-2014 season (H1N1 predominant), the 2012-2013 season (H3N2 predominant) saw ICU hospitalizations being reported earlier and at a higher weekly number for most of the season (**Figure 1**). This trend changed toward the end of the 2013-2014 season when ICU cases continued to rise resulting in a higher number of cases in 2013-2014 than in 2012-2013 (197 vs. 183 respectively).

How much influenza-like illness is occurring?

CDPH receives data from over 60 surveillance sites across Chicago, which report the total number of patient visits seen weekly, and of those visits, the number with influenza-like illness (ILI) (i.e., fever of 100°F or greater, with cough or sore throat). All hospitals in Chicago that provide emergent care are required to report on a weekly basis

Figure 1. Cumulative number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2014-2015) and previous season two seasons, October-May.

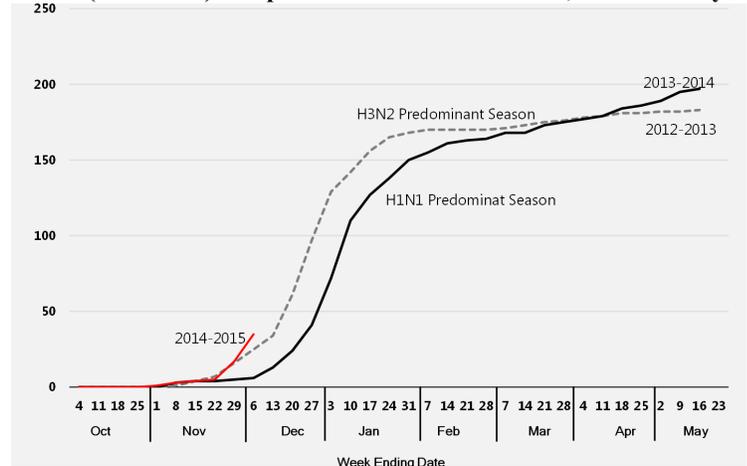
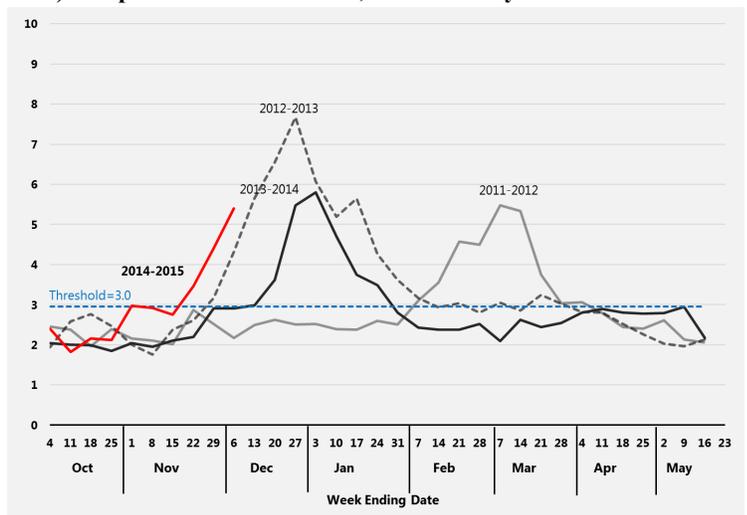


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reporting as determined by individual hospitals, Chicago, by week, for the current season (2014-2015) and previous three seasons, October-May.



¹http://www.cityofchicago.org/city/en/depts/cdph/provdrs/flu/svcs/cdph_flu_shot_sitesacrosschicago.html; ²[http://www.idph.state.il.us/flu/OHPLabs-Influenza annual Testing and Reporting Memo 01 10-2-2014.pdf](http://www.idph.state.il.us/flu/OHPLabs-Influenza%20annual%20Testing%20and%20Reporting%20Memo%2001%2010-2-2014.pdf); ³<https://dph.partner.illinois.gov/>

the total number of emergency department visits, and of those visits, the number with ILI. For the week of November 30-December 06, 2014 (week 49), with 14 hospitals reporting, 5.4% 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 participating 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. Currently, 10 Chicago hospitals submit data to ESSENCE. For the week of November 30-December 06, 2014, 4.2% of emergency department visits were due to ILI (Figure 3).

Several outpatient clinics and two large outpatient clinic networks located in Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on the number of patients with ILI seen weekly. From November 30-December 06, 2014, with 38 facilities reporting, 7.8% of 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 subtyping. For the week of November 30-December 06, 2014, with 6 laboratories reporting, 168 of the 651 (26%) specimens tested for influenza were positive, which is similar to the same week in 2012-2013 (21%) which was a H3N2 predominant season. Among this week's positive specimens, 164 were typed as influenza A (131 H3N2, 1 H1N1 and 32 unknown subtype) and 4 were typed as influenza B.

Since September 28, 2014, 295 of 3,818 (8%) specimens tested for influenza have been positive; 279 typed as influenza A (1 H1N1, 228 H3N2 and 50 unknown subtype) and 16 were typed as influenza B. Although the overall percent positive is higher than the previous season of 1.5% which was a H1N1 predominant season, it is similar to the 2012-2013 season of 7.5% (Figure 5).

Where can I get more information?

The Centers for Disease Control and Prevention's [FluView](#)⁵ 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](#)⁶ and [Suburban Cook County](#)⁷ 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](#)⁸. In 2013, the Metropolitan Chicago Healthcare Council (MCHC) and CDPH released "[Stop the Spread: A Health Care Guide to Influenza Preparedness](#)"⁹. This report provides an overview of influenza, its impact on public health and how hospitals can prepare for, mitigate the impact of and respond to influenza infections and outbreaks.

Figure 3. Percent of emergency department visits attributed to influenza-like illness based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2014-2015) and the previous three seasons, October-May.

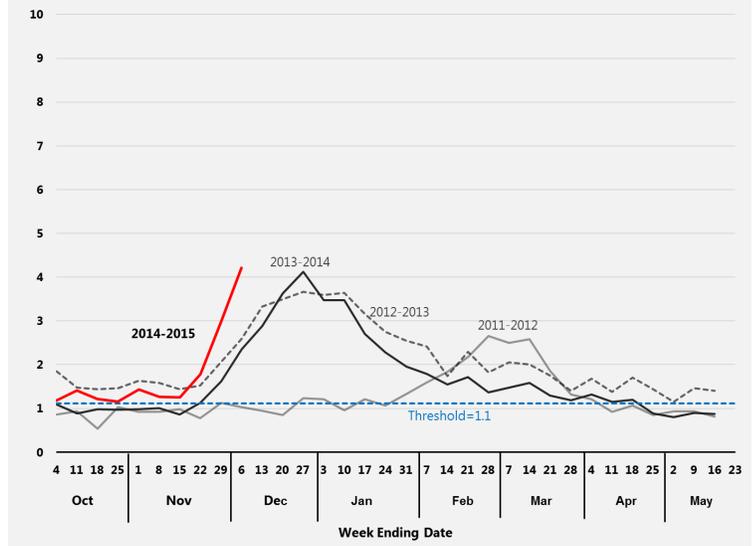


Figure 4. Percent of medically attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2014-2015) and the previous three seasons, October-May.

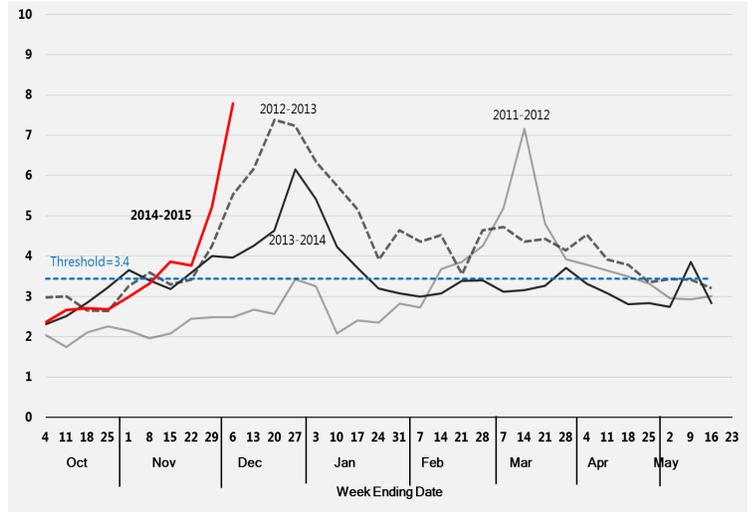
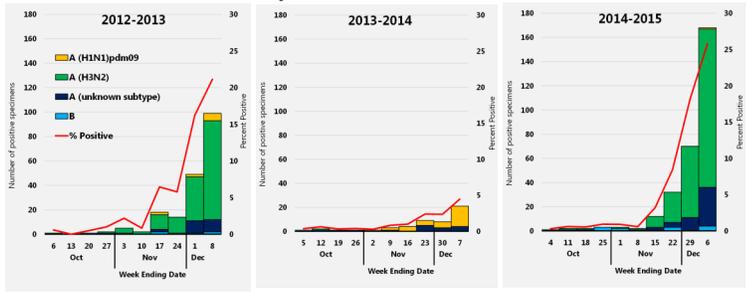


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2014-2015) and previous two seasons, October-May.



⁴<http://www.cdc.gov/flu/weekly/index.htm>; ⁵<http://www.idph.state.il.us/flu/surveillance.htm>; ⁶<http://www.cookcountypublichealth.org/data-reports#Influenza>; ⁷http://www.cityofchicago.org/city/en/depts/cdp/supp_info/influenza/current_flu_situationinchicago2011.html; ⁸http://www.mchc.com/EWEB/upload/MCHC_Influenza_2013.pdf All data are preliminary and may change as more reports are received.