



Chicago Flu Update



City of Chicago
Rahm Emanuel, Mayor

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Chicago Department of Public Health
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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. Vaccinate Illinois Week is a localized observance of National Influenza Vaccination Week which is scheduled for December 7th through the 13th. CDPH and partners throughout the state will be reminding providers and the public that 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.

Influenza A (H3N2) Antigenic Drift and Antiviral Use
CDC has issued a [Health Advisory](#)² concerning the circulation of drifted influenza A (H3N2) viruses. Of the H3N2 viruses that have been collected and analyzed in the U.S. from October 1-November 22, 2014, approximately half (52%) are different from the H3N2 vaccine virus. Due to the detection of drifted H3N2 viruses, CDC is urging influenza vaccination of unvaccinated individuals and reminding clinicians about the importance of the [use of neuraminidase inhibitor antiviral medications](#)³ when indicated for the treatment of influenza illness. CDC recommends prompt treatment of high risk or severely ill patients with suspected influenza with antiviral medications without waiting for confirmatory testing. Vaccination continues to offer the best protection against influenza infection even when there are some antigenically drifted viruses circulating in the community.

Are severe cases of influenza occurring?

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting guidelines](#)⁴. 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 [INEDSS](#)⁵. For the week of November 23-29, 2014, 10 influenza-associated ICU hospitalizations were reported; all were positive for influenza A (8 H3N2 and 2 unknown subtype [subtyping not attempted or not all subtypes tested]).

Since September 28, 2014, 15 influenza-associated ICU hospitalizations have been reported (**Figure 1**). Among the total ICU hospitalizations reported 14 were positive for influenza A (11 H3N2 and 3 unknown subtype) and 1 was positive for influenza B. Eight (53%) were female, eight (53%) were 50 years of age or older, and three (20%) were pediatric patients (median age of 51 years with a range of 1-95 years). Five (33%) had reported lung disease (including asthma) and six (40%) required ventilator support. One death has been reported.

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

Figure 1. Number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2014-2015) and previous season (2013-2014), October-May.

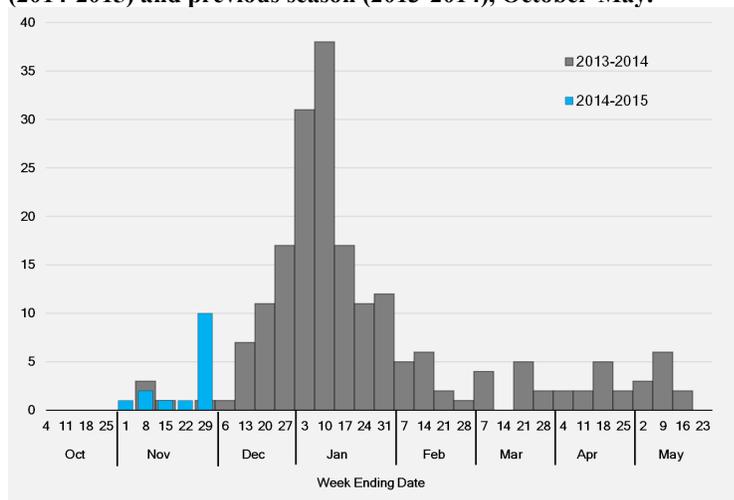
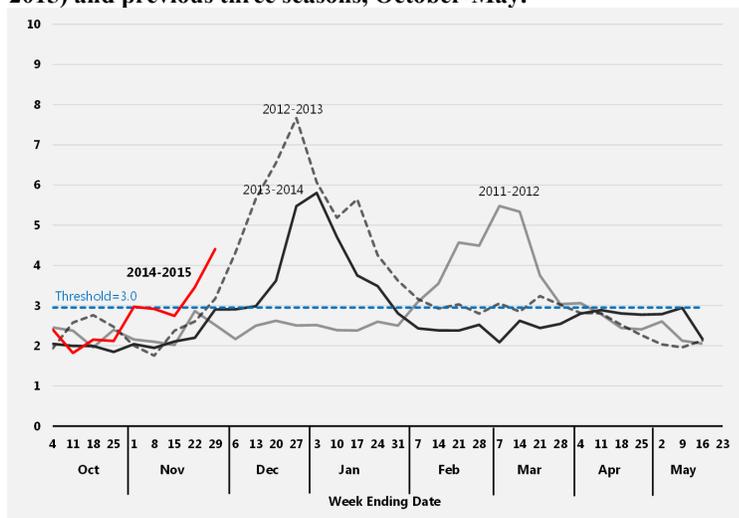


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reporting as determined by individual hospitals, Chicago, by week, for the current season (2014-2015) and previous three seasons, October-May.



¹http://www.cityofchicago.org/city/en/depts/cdph/provdrs/flu/svcs/cdph_flu_shot_sitesacrosschicago.html; ²<http://emergency.cdc.gov/HAN/han00374.asp>; ³<http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm#summary>; ⁴http://www.idph.state.il.us/flu/OHPLabs-Influenza_annual_Testing_and_Reporting_Memo_01_10-2-2014.pdf; ⁵<https://dph.partner.illinois.gov/>

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 the total number of emergency department visits, and of those visits, the number with ILI. For the week of November 23-29, 2014 (week 48), with 14 hospitals reporting, 4.4% 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 23-29, 2014, 3.0% 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 23-29, 2014, with 38 facilities reporting, 5.2% 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 23-29, 2014, with 6 laboratories reporting, 70 of the 386 (18%) specimens tested for influenza were positive. During the 2012-2013 season when H3N2 was the predominant circulating strain, 16% of specimens tested positive during the same week. Among this week's positive specimens, all were typed as influenza A (59 H3N2 and 11 unknown subtype). Since September 28, 2014, 127 of 3,167 (4%) specimens tested for influenza have been positive; 115 typed as influenza A (97 H3N2 and 18 unknown subtype) and 12 were typed as influenza B. (**Figure 5**).

Where can I get more information?

The Centers for Disease Control and Prevention's [FluView](#)⁶ 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](#)⁷ and [Suburban Cook County](#)⁸ 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](#)⁹. In 2013, the Metropolitan Chicago Healthcare Council (MCHC) and CDPH released "[Stop the Spread: A Health Care Guide to Influenza Preparedness](#)"¹⁰. 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.

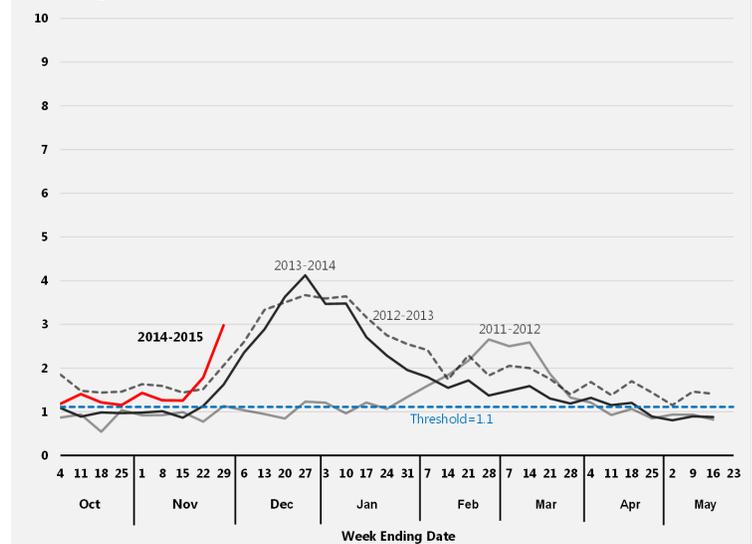


Figure 4. Percent of medically attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2014-2015) and the previous three seasons, October-May.

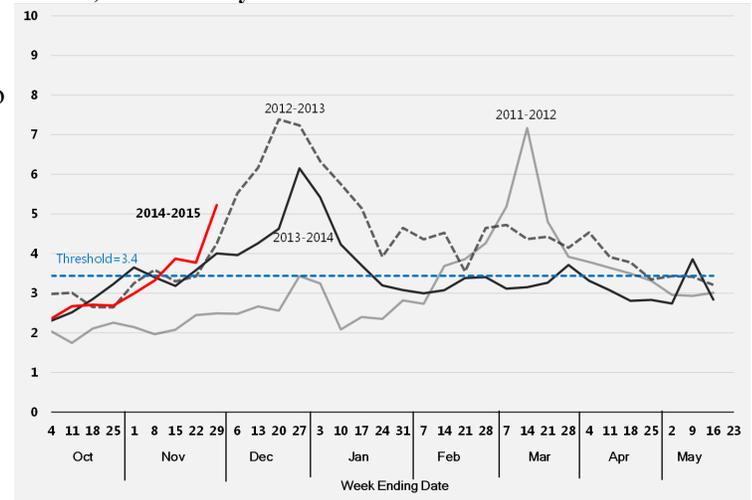
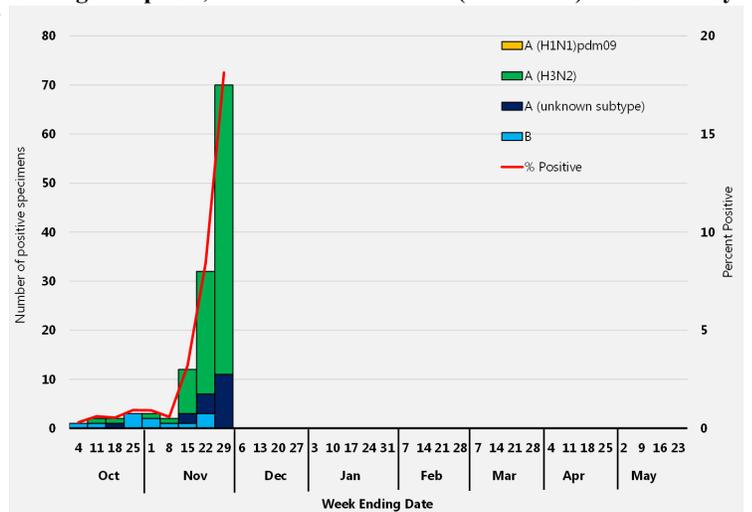


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2014-2015) October-May.



⁶<http://www.cdc.gov/flu/weekly/index.htm>; ⁷<http://www.idph.state.il.us/flu/surveillance.htm>; ⁸<http://www.cookcountypublichealth.org/data-reports#Influenza>; ⁹http://www.cityofchicago.org/city/en/depts/cdph/supp_info/influenza/current_flu_situationinchicago2011.html; ¹⁰http://www.mchc.com/EWEB/upload/MCHC_Influenza_2013.pdf