



Chicago Flu Update



City of Chicago
Rahm Emanuel, Mayor

February 14, 2014

Chicago Department of Public Health
Bechara Choucair, MD, Commissioner

What is the risk?

CDPH's influenza surveillance systems indicate that influenza activity continues to decrease. However, influenza viruses continue to circulate and cause disease. The majority of infections are due to influenza A (H1N1) pdm09 strain, which is included in all 2013-2014 influenza vaccines. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. Some [children 6 months through 8 years](#)¹ of age require two doses of influenza vaccine. 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, call 311 or go to www.chicagoflushots.org to locate the closest City of Chicago clinic or retail pharmacy. [CDC recommends](#)² antiviral treatment as early as possible for any patient with confirmed or suspected influenza who is hospitalized, has severe illness or is at higher risk for serious complications.

Are severe cases of influenza occurring?

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting guidance](#)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 [I-NEDSS](#)⁴. For the week of February 2-8, 2014 (week 6), five influenza-associated ICU hospitalizations were reported; 4 were positive for influenza A (2 [H1N1]pdm09, 1 H3N2, and 1 unknown subtype [subtyping not attempted or not all subtypes tested]) and 1 was positive for influenza B. This is an 89% decrease from the peak reported in mid-January.

Since September 29, 2013, 154 influenza-associated ICU hospitalizations have been reported (**Figure 1**). Among the total ICU hospitalizations reported 148 were positive for influenza A (72 [H1N1]pdm09, 1 H3N2, and 75 unknown subtype) and 6 were positive for influenza B. Seventy-seven (50%) were female, 88 (57%) were 50 years of age or older, and 13 (8%) were 4 years of age or younger (median age of 53 years with a range of 2 months-86 years). Sixty-seven (44%) were NH-Black, 56 (36%) had lung disease (including asthma) and 54 (35%) required ventilator support. Thirteen deaths have been reported among the total ICU hospitalizations.

How much influenza-like illness is occurring?

CDPH receives data from over 50 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 the total number of emergency department visits, and of those visits, the number with ILI. For the week of February 2-8, 2014, with 16 hospitals reporting, 2.4% of emergency department visits were due to ILI. (**Figure 2**).

Figure 1. Number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2013-2014) and previous season (2012-2013), October-May.

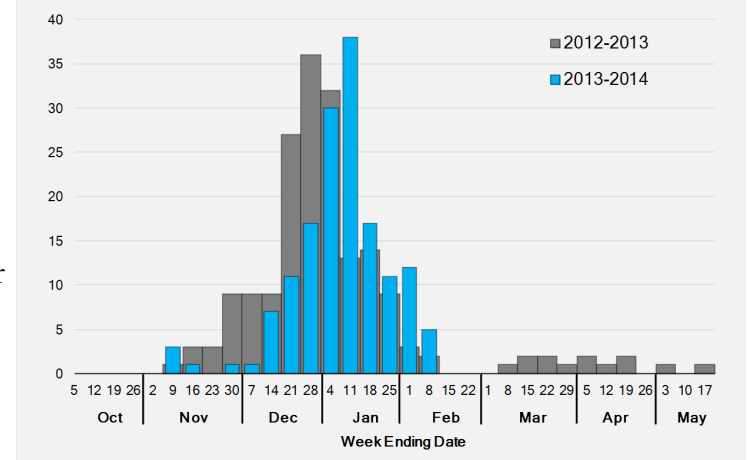
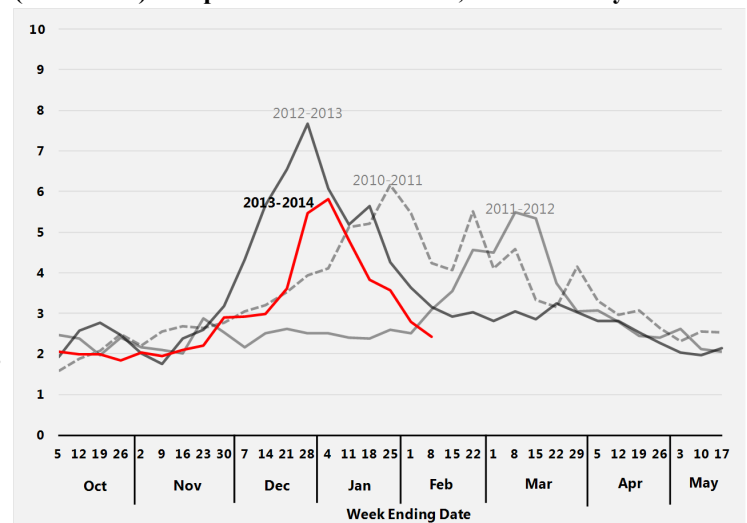


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reporting as determined by individual hospitals, Chicago, by week, for current season (2013-2014) and previous three seasons, October-May.



¹www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm#vaccine-dose-children; ²https://www.chicagohan.org/c/document_library/get_file?p_l_id=64868&folderId=39923&name=DLFE-466.pdf; ³http://www.idph.state.il.us/flu/Influenza_Annual_Testing_and_Reporting_Memo_09252013.pdf; ⁴<https://dph.partner.illinois.gov/>

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. Figure 3 shows the percent of the total emergency department visits due to ILI for pediatric patients (2.6%) and adult patients (1.4%) for the week of February 2-8, 2014 plus the ILI activity by age group for the previous season.

Several outpatient clinics and hospital emergency departments throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on the number of patients with ILI seen weekly. From February 2-8, 2014, with 53 facilities reporting, 2.5% of outpatient visits were due to influenza-like illness. This is lower than levels seen during the same week for the past three influenza seasons (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 February 2-8, 2014, with 6 laboratories reporting, 36 of the 540 (6.6%) specimens tested for influenza were positive. This week last season, 4.7% of specimens tested were positive for influenza. Among this week's positive specimens, all 36 were typed as influenza A (26 [H1N1]pdm09, 2 H3N2 and 8 unknown subtype) (Figure 5). Since September 29, 2013, 841 of 9,204 (9.1%) specimens tested for influenza have been positive; 820 typed as influenza A (582 [H1N1]pdm09, 16 H3N2, and 223 unknown subtype) and 21 typed as influenza B.

Where can I get more information?

The Centers for Disease Control and Prevention's FluView⁵ 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 Illinois⁶ and Suburban Cook County⁷ 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 Chicago⁸. In January, IDPH released a memo⁹ recommending that during periods of widespread influenza activity hospitals should implement all of the comprehensive influenza prevention and control recommendations from the CDC.

Figure 3. Percent of emergency department visits attributed to influenza-like illness based on chief complaint data submitted to ESSENCE, Chicago, by week, for current season (2013-2014) and previous season (2012-2013), October-May.

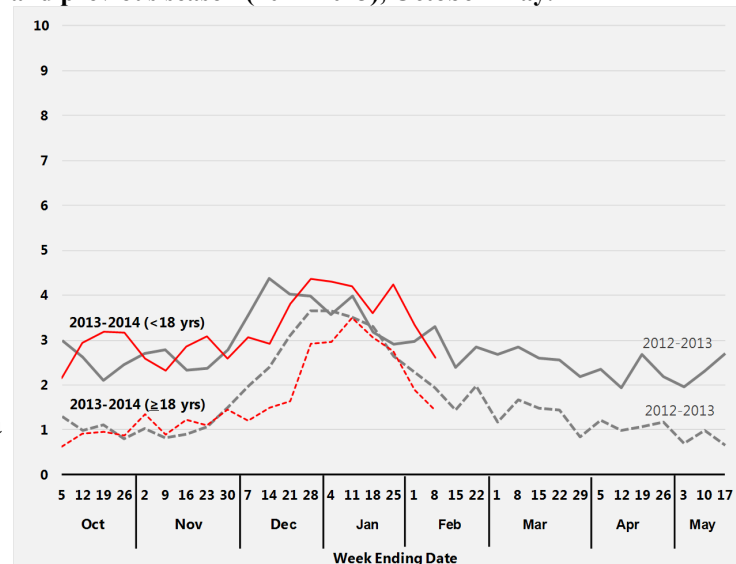


Figure 4. Percent of medically attended visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for current season (2013-2014) and previous three influenza seasons, October-May.

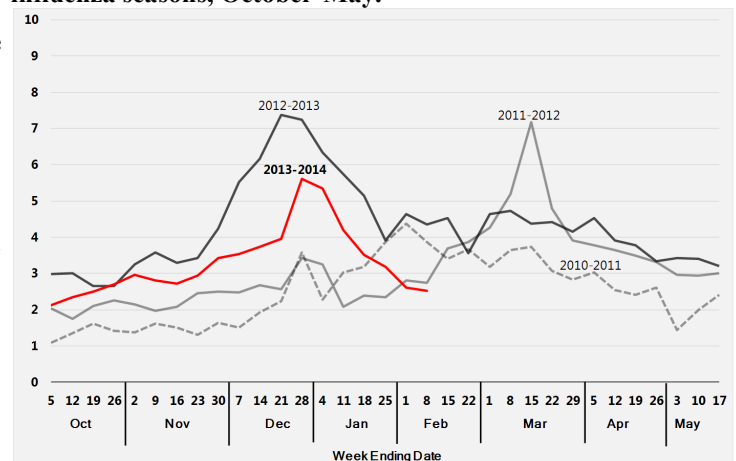
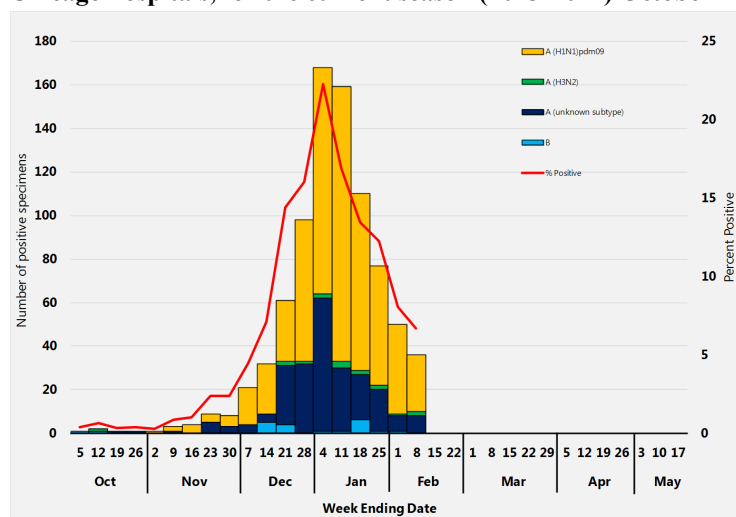


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2013-2014) October-



⁵<http://www.cdc.gov/flu/weekly/index.htm>; ⁶<http://www.idph.state.il.us/flu/surveillance.htm>; ⁷<http://www.cookcountypublichealth.org/data-reports#Influenza>; ⁸http://www.cityofchicago.org/city/en/depts/cdph/supp_info/influenza/current_flu_situationinchicago2011.html; ⁹https://www.chicago.gov/c/document_library/get_file?p_l_id=64868&folderId=39923&name=DLFE-477.pdf