



Chicago Flu Update



City of Chicago
Rahm Emanuel, Mayor

Immunization Program
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Chicago Department of Public Health
Julie Morita, MD, Commissioner

What is the risk?

Currently, the risk of influenza infection is low. Influenza viruses are detected throughout the year at low levels and can cause disease. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated, annually. This will be the last *Chicago Flu Update* issued for the 2015-2016 influenza surveillance season. The next update will be issued in October 2016. CDPH will continue to monitor surveillance indicators throughout the summer months.

Are severe cases of influenza occurring?

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting recommendations](#)². 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](#)³. For the week of May 15-21, 2016 (week 20), 1 influenza-associated ICU hospitalizations were reported. For the past four weeks the majority of influenza associated ICU hospitalizations reported were positive for influenza B (Figure 1).

Since October 4, 2015, 274 influenza-associated ICU hospitalizations have been reported; 252 were positive for influenza A (9 H3N2, 139 (H1N1)pdm09 and 104 unknown subtype [subtyping not attempted or not all subtypes tested]) and 22 were positive for influenza B. One hundred twenty-eight (47%) were non-Hispanic Black, 155 (57%) were male, and 161 (59%) were 50 years of age or older (median age of 55 years with a range of 3 months-99 years). Eighty-one (30%) had reported lung disease (e.g. asthma, COPD), 70 (26%) had active cardiac disease and 79 (29%) required ventilator support. Seventeen deaths were reported among ICU admissions. Five outbreaks consisting of two or more confirmed cases of influenza were reported in long-term care facilities.

How much influenza-like illness is occurring?

CDPH receives data from influenza 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 May 15-21, 2016 with 8 hospitals reporting, 2.3% 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 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 May 15-21, 2016, 1.0% of emergency department visits were due to ILI (Figure 3).

Figure 1. Number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2015-2016) by influenza type, October-May.

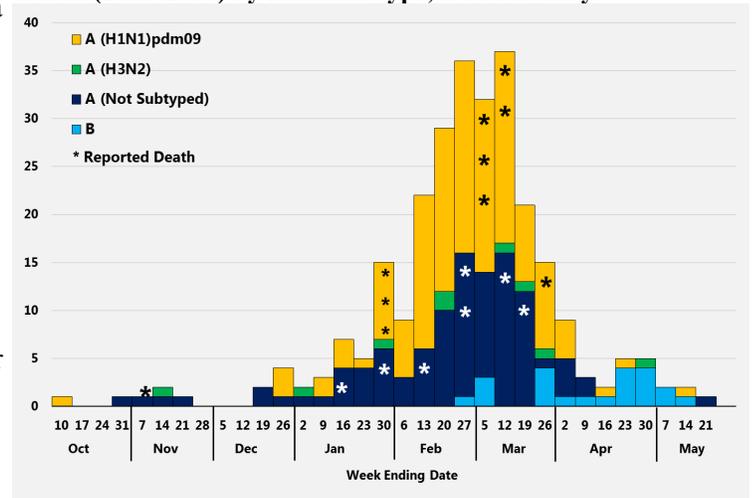
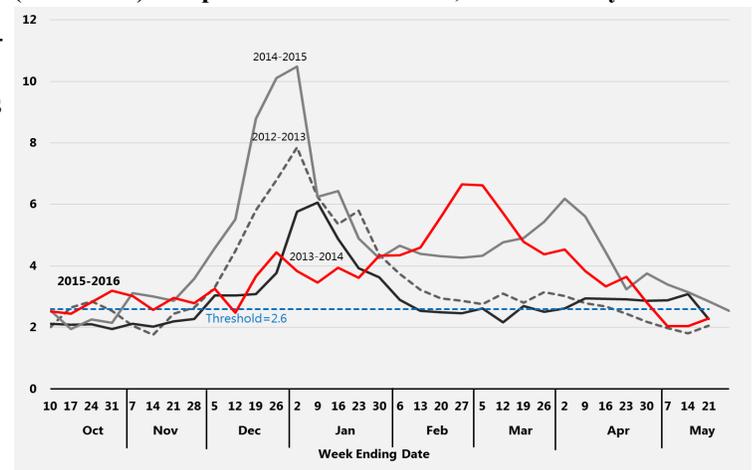


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reporting as determined by individual hospitals, Chicago, by week, for the current season (2015-2016) and previous three seasons, October-May.



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

¹ http://www.cityofchicago.org/city/en/depts/cdph/supp_info/clinical_health/immunizations_walk-inclinics.html; ² <http://www.dph.illinois.gov/sites/default/files/publications/publicationsohpinfluenza-testing-and-reporting-memo-09.2015.pdf>; ³ <https://dph.partner.illinois.gov/>

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. From May 15-21, 2016, with 24 facilities reporting, 3.2% 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 May 15-21, 2016, with 5 laboratories reporting, 8 of the 329 (2%) specimens tested for influenza were positive (4 A (H1N1)pdm09, 0 A (H3N2), 0 A [unknown subtype] and 4 influenza B). Since October 4, 2015, 1,564 of 20,204 (8%) specimens tested for influenza have been positive; 1,412 typed as influenza A (46 H3N2, 1,126 (H1N1)pdm09, 240 unknown subtype [subtyping not attempted or not all subtypes tested]) and 152 were typed as influenza B (Figure 5). The cumulative percent of specimens testing positive for influenza is lower than last season during the same time period (Table 1).

Table 1. Cumulative percent of specimens testing positive for influenza by subtype for the current season (2015-2016) and the previous five seasons, Chicago, Weeks 40-20.

Influenza Season	Total Positive	A H3N2	A H1N1pdm09	A Not Subtyped	B
2010-2011	10%	26%	24%	27%	24%
2011-2012	8%	15%	17%	16%	51%
2012-2013	12%	65%	6%	12%	17%
2013-2014	8%	3%	56%	20%	21%
2014-2015	13%	58%	0%	12%	29%
2015-2016	8%	3%	72%	15%	10%

Where can I get more information?

The Centers for Disease Control and Prevention's [FluView](#)⁴ 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](#)⁵ and [Suburban Cook County](#)⁶ 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](#)⁷. In 2013, the Metropolitan Chicago Healthcare Council (MCHC) and CDPH released "[Stop the Spread: A Health Care Guide to Influenza Preparedness](#)"⁸. 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 (2015-2016) and the previous three seasons, October-May.

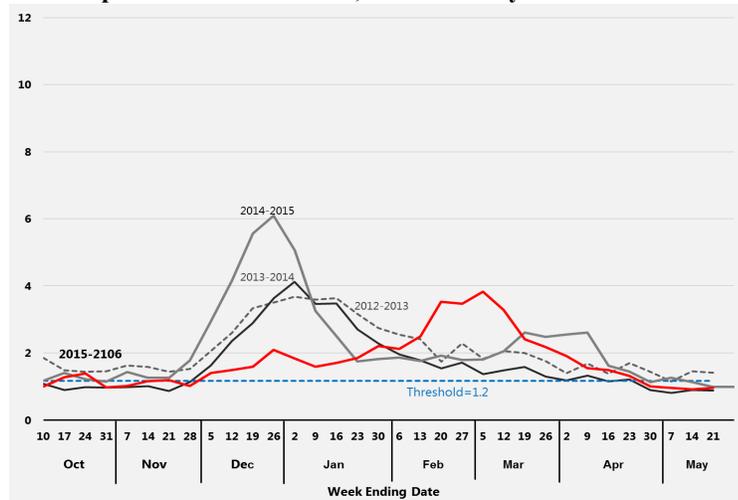


Figure 4. Percent of medically attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2015-2016) and the previous three seasons, October-May.

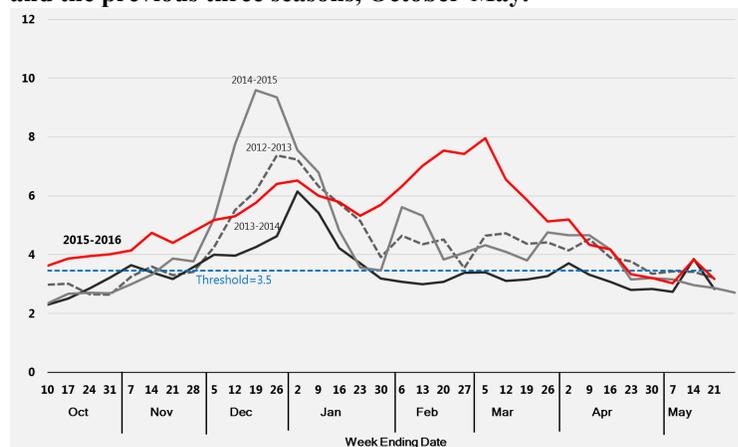
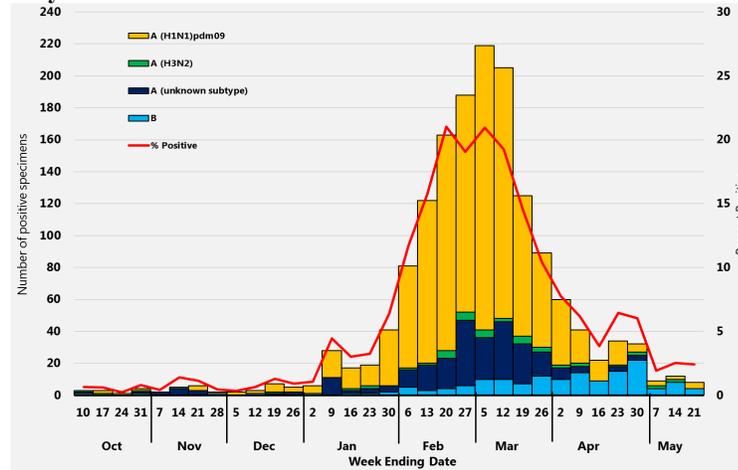


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2015-2016) October-May.



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

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/cdph/supp_info/influenza/current_flu_situationinchicago2011.html; ⁸https://www.mchc.com/wp-content/uploads/2014/11/MCHC_Influenza_2013.pdf