



Chicago Flu Update



City of Chicago
Rahm Emanuel, Mayor

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Chicago Department of Public Health
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Influenza Activity

Chicagoans remain at risk for influenza infections. Data from all surveillance systems presented in this report suggest ongoing transmission of influenza virus in Chicago. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. People who have not already gotten a flu vaccine this season should do so now. Healthcare providers and retail pharmacies continue to have vaccine available. For those without healthcare providers or insurance, a complete [list of CDPH Immunization clinics](#)¹ is available on the City website and by calling 311.

Are severe cases of influenza occurring?

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](#)². For the week of January 13-19, 2013 (week 3), **13 influenza-associated ICU hospitalizations** were reported; 12 were positive for influenza A (6 H3N2 and 6 were not subtyped) and 1 was positive for influenza B. This is a 63% decrease from the highest number reported this season which was in late December.

Since September 30, 2012, **149 influenza-associated ICU hospitalizations** have been reported, over two times the total number of cases reported for all of last season (**Figure 1**). Among the total ICU hospitalizations reported, 145 were positive for influenza A (69 H3N2, 6 H1N1, and 70 not subtyped) and 4 were positive for influenza B. Eighty-seven (58%) were female, 60 (40%) were African-American, and 112 (75%) were 50 years of age or older (median age of 64 years with a range between 8 months-96 years). Fifty-eight (39%) had lung disease, 55 (37%) had cardiac disease and 34 (23%) required ventilator support. Eleven adult deaths were reported. All were positive for influenza A (55% subtyped as H3N2), all were 50 years of age or older, 64% were female, 64% were NH-White, and 55% had cardiac disease.

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 per week, 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 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 January 13-19, 2013, with 16 hospitals reporting, **5.6%** of emergency department visits were due to ILI. This is two percentage points lower than the highest level reported so far this season, however levels remain over twice where they were during the same week last season (**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 by an algorithm 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 1** does. Currently, 9 Chicago hospitals submit data to ESSENCE. **Figure 3** shows the percent of the total emergency department visits due to ILI for pediatric patients (**3.2%**) and adult patients (**3.3%**) for the week of January 13-19, 2013 plus the ILI activity by age group for the previous season. This is the fifth consecutive week where there has been less than a percentage point difference between pediatric and adult ILI levels. Last season, the average difference was nearly two percentage points.

Figure 1. Number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2012-2013) and previous season (2011-2012), October-May.

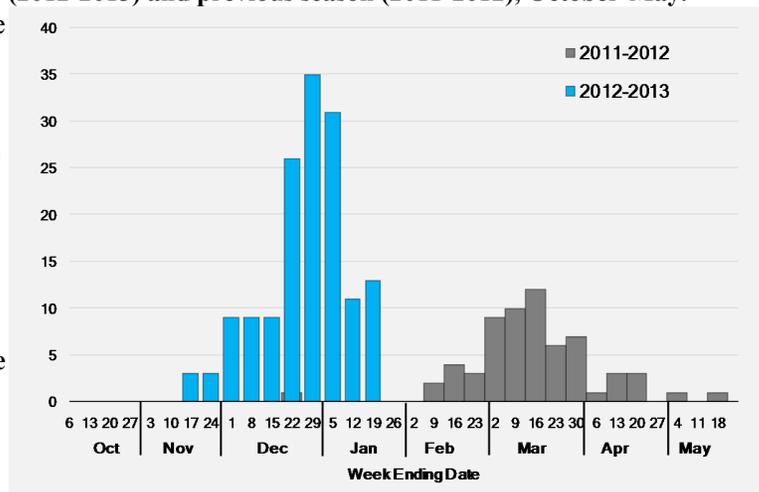
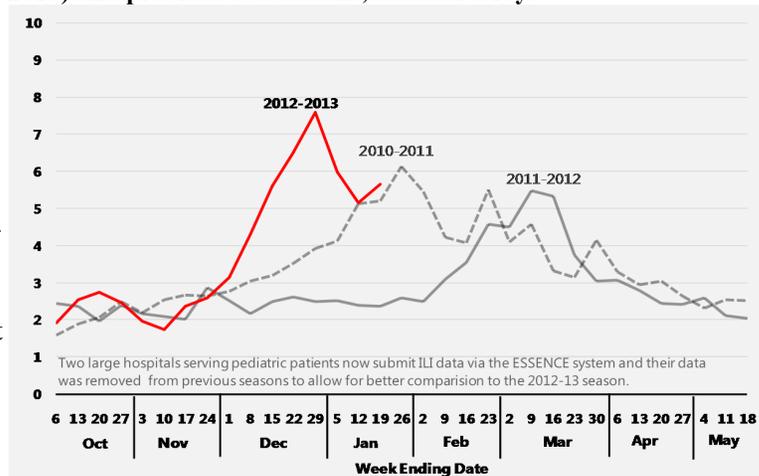


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reporting as determined by individual hospitals, Chicago, by week, for current season (2012-2013) and previous two seasons, October-May.



Two large hospitals serving pediatric patients now submit ILI data via the ESSENCE system and their data was removed from previous seasons to allow for better comparison to the 2012-13 season.

¹http://www.cityofchicago.org/city/en/depts/cdp/h/supp_info/clinical_health/immunizations_walk-inclinics.html; ²<https://dph.partner.illinois.gov/>

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 January 13-19, 2013, with 36 outpatient clinics reporting, 5.2% of doctor's office visits were due to influenza-like illness. This is the fourth consecutive week that a decrease has been noted, yet is higher than levels seen during the same week for the previous two 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 January 13-19, 2013, with 7 laboratories reporting, 78 of the 760 (10%) specimens tested for influenza were positive. Among the positive specimens, 75 were typed as influenza A (64 H3N2, 6 H1N1, and 5 were not subtyped) and 3 typed as influenza B (Figure 5). Since September 2012, 1,249 of 7,088 (18%) specimens tested for influenza have been positive; 1,213 typed as influenza A (992 H3N2, 71 H1N1, and 150 not subtyped) and 36 typed as influenza B.

Where can I get more information?

The Centers for Disease Control and Prevention's [FluView](#)³ 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](#)⁴ and [Suburban Cook County](#)⁵ 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](#)⁶.

National Snapshot (January 13-19, 2013)

Viral Surveillance: Of 11,984 specimens tested and reported by collaborating laboratories, 3,129 (26.1%) were positive for influenza.

Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.

Influenza-associated Pediatric Deaths: Eight influenza-associated pediatric deaths were reported.

Influenza-Associated Hospitalizations: A cumulative rate for the season of 22.2 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. Of all hospitalizations, 50% were among adults 65 years and older.

Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 4.3%; this is above the national baseline of 2.2%. All 10 regions reported ILI above region-specific baseline levels. Twenty-six states and New York City experienced high ILI activity; 14 states experienced moderate activity; 9 states experienced low activity; 1 state experienced minimal activity, and the District of Columbia had insufficient data.

Geographic Spread of Influenza: Forty-seven states reported widespread geographic influenza activity; 2 states reported regional activity; the District of Columbia and one state reported local activity; Guam reported sporadic influenza activity, and Puerto Rico and the U.S. Virgin Islands did not report.

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 (2012-2013) and previous season (2011-2012), October-May.

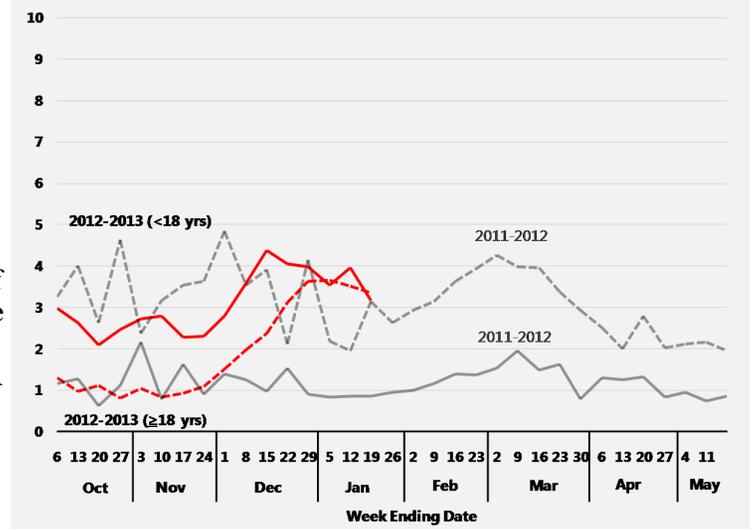


Figure 4. Percent of outpatient visits attributed to influenza-like illness, Chicago, by week, for current season (2012-2013) and previous two seasons, October-May.

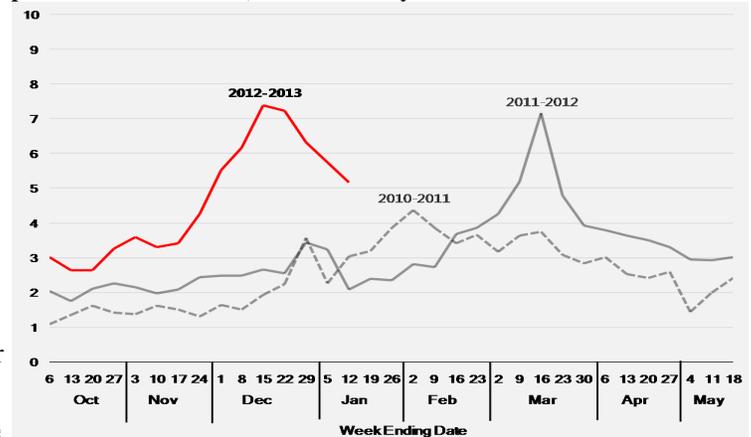
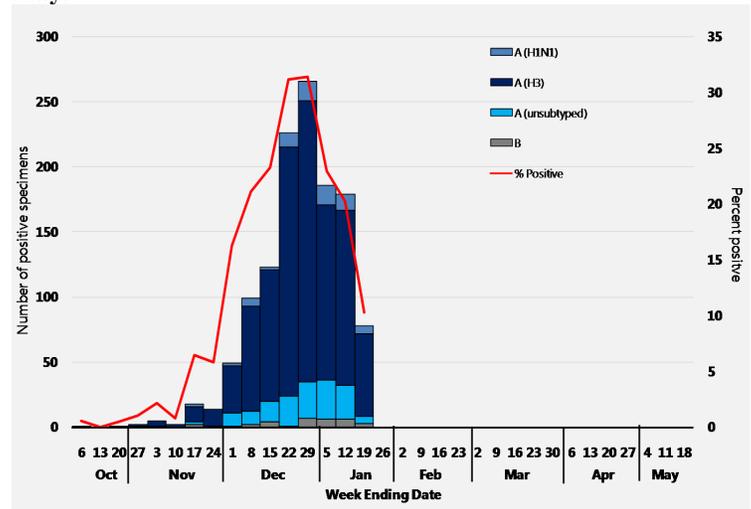


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2012-2013) October-May.



³<http://www.cdc.gov/flu/weekly/index.htm>; ⁴<http://www.idph.state.il.us/flu/surveillance.htm>; ⁵<http://www.cookcountypublichealth.org/data-reports#influenza>; ⁶http://www.cityofchicago.org/city/en/depts/cdp/supp_info/influenza/current_flu_situationinchicago2011.html