



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?

The risk of influenza infection in the Chicago area 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. People who have not already gotten a flu vaccine this season should do so now. It is not too late to get vaccinated. 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 December 16-22, 2012 (week 51), **18 influenza-associated ICU hospitalizations** were reported; all were positive for influenza A (9 H3N2, 2 H1N1, and 7 were not subtyped).

Since September 30, 2012, 48 influenza-associated ICU hospitalizations have been reported; 46 were positive for influenza A (23 H3N2, 3 H1N1, and 20 not subtyped) and 2 were positive for influenza B. Twenty-nine (60%) were female, 22 (46%) were African-American, and 35 (73%) were 50 years of age or older (median age of 61 years with a range between 5-96 years). Nineteen (39%) had lung disease, 15 (31%) had heart disease and 11 (23%) required ventilator support. Two adult deaths were reported.

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 December 16-22, 2012, with 16 hospitals reporting, **6.4%** of emergency department visits were due to ILI. Currently, ILI activity is higher than levels seen in the same period of the past two seasons (**Figure 1**).

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 2** shows the percent of the total emergency department visits due to ILI for pediatric patients (**4%**) and adult patients (**3.1%**) for the week of December 16-22, 2012 plus the ILI activity by age group for the previous season.

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 December 16-22, 2012, with

Figure 1. 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.

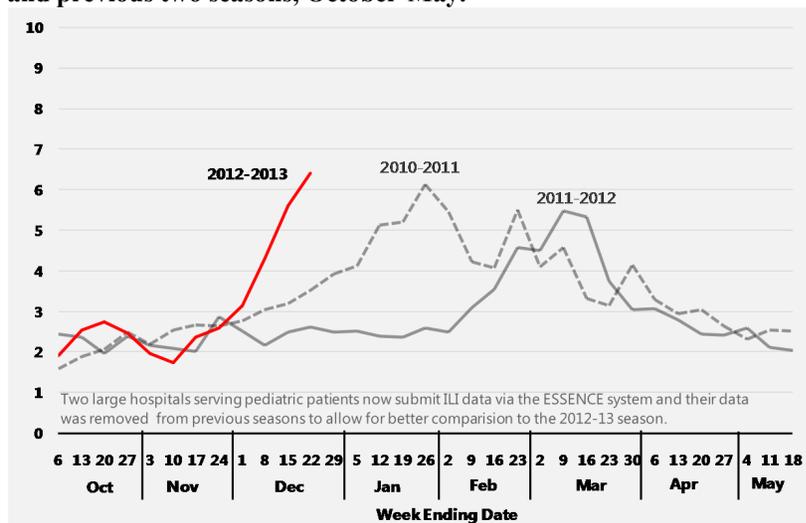
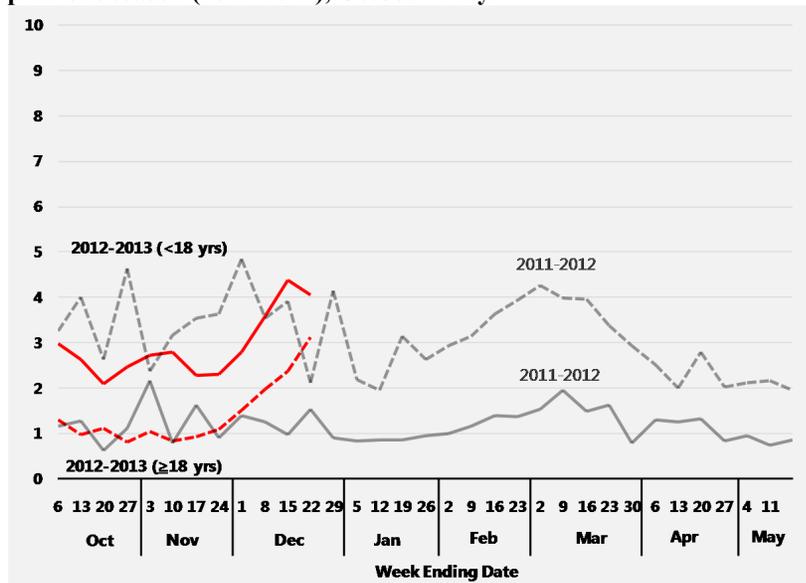


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on chief complaint data submitted to ESSENCE, Chicago, by week, for current season (2012-2013) and previous season (2011-2012), October-May.



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

36 outpatient clinics reporting, 7.4% of doctor's office visits were due to influenza-like illness (Figure 3).

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza subtyping. For the week of December 16-22, 2012, with 5 laboratories reporting, 226 of the 726 (31%) specimens tested for influenza were positive. Among the positive specimens, 225 were typed as influenza A (191 H3N2, 11 H1N1, and 23 were not subtyped) and 1 typed as influenza B (Figure 4). Table 1 shows the total number of specimens tested for influenza this season and the number positive by subtype compared to the same time period last season. Since September 2012, 540 of 3,788 (14%) specimens tested for influenza have been positive

Where can I get more information?

The Centers for Disease Control and Prevention's [Flu-View](#)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 (December 16-22, 2012)

Viral Surveillance: Of 6,234 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories in week 51, 1,846 (29.6%) were positive for influenza.

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

Influenza-associated Pediatric Deaths: Eight influenza-associated pediatric deaths were reported. Three were associated with influenza B viruses, 3 were associated with influenza A (H3) viruses, and 2 were associated with influenza A viruses for which the subtype was not determined.

Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 4.2%; above the national baseline of 2.2%. Nine of 10 regions reported ILI above region-specific baseline levels. New York City and 16 states experienced high ILI activity; 8 states experienced moderate ILI activity; 10 states experienced low ILI activity; 14 states experienced minimal ILI activity, and the District of Columbia and 2 states had insufficient data.

Geographic Spread of Influenza: Thirty-one states reported widespread geographic influenza activity; 14 states reported regional activity; the District of Columbia and 3 states reported local activity; 2 states reported sporadic activity; Guam reported no influenza activity, and Puerto Rico and the U.S. Virgin Islands did not report.

Figure 3. Percent of outpatient visits attributed to influenza-like illness, Chicago, by week, for current season (2012-2013) and previous two seasons, October-May.

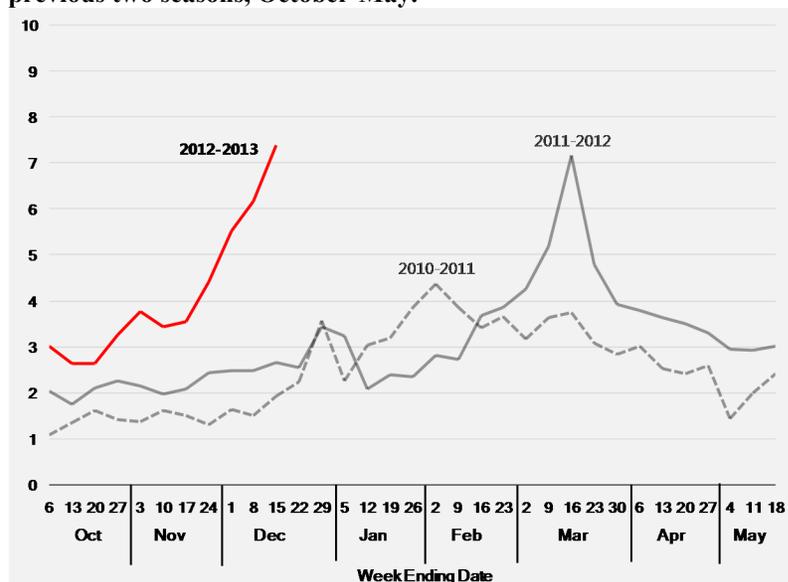


Figure 4. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2012-2013) October-May.

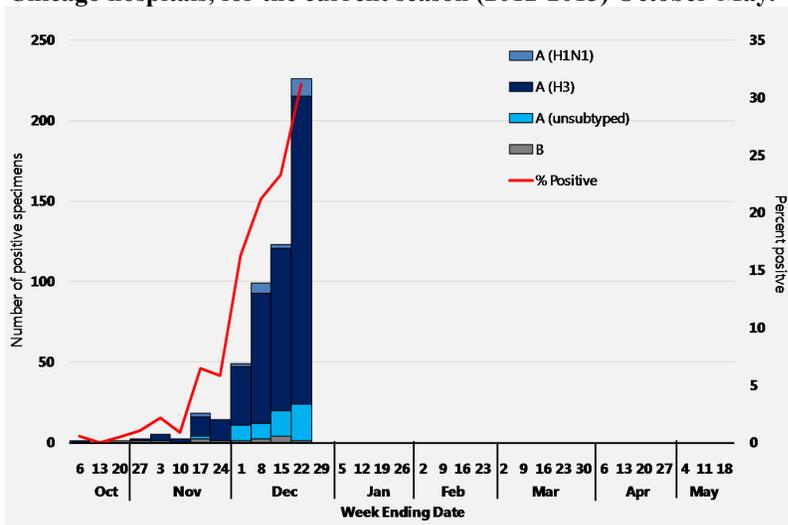


Table 1. Influenza testing results reported for surveillance weeks 40 through 51 by season, Chicago.

Laboratory Results	Influenza Season	
	2011-2012	2012-2013
# Specimens Tested*	1,625	3,788
# Specimens Positive	4	540
Positive for Influenza A	2	526
Subtype H3N2	1	442
Subtype 2009 H1N1	0	23
Not Subtyped	1	61
Positive for Influenza B	2	14

*Six Chicago laboratories performing influenza subtyping that have consistently reported results for both seasons.

Report is preliminary and may change as additional data is received

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