



Chicago Flu Update



Rahm Emanuel, Mayor

March 3, 2017

Julie Morita, MD, Commissioner

News & Updates

Among reporting Chicago laboratories, the percentage of specimens testing positive for influenza has reached the highest point so far this season; **it's not too late to get a flu shot**. Influenza activity extends through the month of May and can circulate at low levels for several months after. 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. For those without a healthcare provider or whose healthcare providers do not have the influenza vaccine, a list of [City of Chicago Fast-Track Immunization 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.

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting recommendations](#)²; healthcare facilities can report cases to the Chicago Department of Public Health via [INEDSS](#)³.

What is the risk?

Currently, the risk of influenza infection is high.

Are severe cases of influenza occurring?

For the week of February 19-25, 2017, 30 influenza-associated ICU hospitalizations were reported (**Figure 1**).

Since October 2, 2016, 142 influenza-associated ICU hospitalizations have been reported; 110 were positive for influenza A (67 H3N2, 1 H1N1pdm09 and 42 unknown subtype [subtyping not attempted or not all subtypes tested]) and 32 were positive for influenza B. The median age of reported cases is 62.5 years (range of 8 months - 100 years). Seven deaths have been reported among ICU cases including one pediatric patient and 11 cases were admitted from long-term care facilities; selected characteristics are summarized in **Table 1**.

Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents for current season (2016-2017), October-May.

Age Group	#	%	Sex	#	%
0-4	10	7	Male	61	43
5-17	14	10	Female	81	57
18-24	3	2	Med. Cond./Complication†		
25-49	19	13	Lung Disease	46	32
50-64	28	20	Cardiac Disease	40	28
≥65	68	48	Ventilator Support	39	27
			Reported Deaths	7	5
Race/Ethnicity			Treatment/Vaccination†		
NH-White	42	30	Reported Antiviral Tx	97	68
NH-Black	47	33	Reported Flu Shot	62	44
Hispanic	44	31			
Asian	9	6			

* Percentages may not add up to 100 due to rounding; † Among cases with reported information.

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).

Several hospitals in Chicago that provide emergent care 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 19-25, 2017, with 9 hospitals reporting, 5.2% of emergency department visits were due to ILI (**Figure 2**).

Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2016-2017) and previous season (2015-2016), October-May.

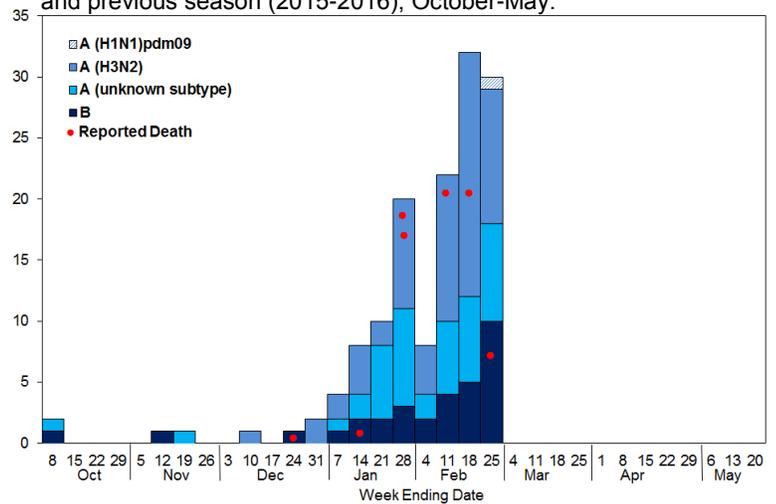
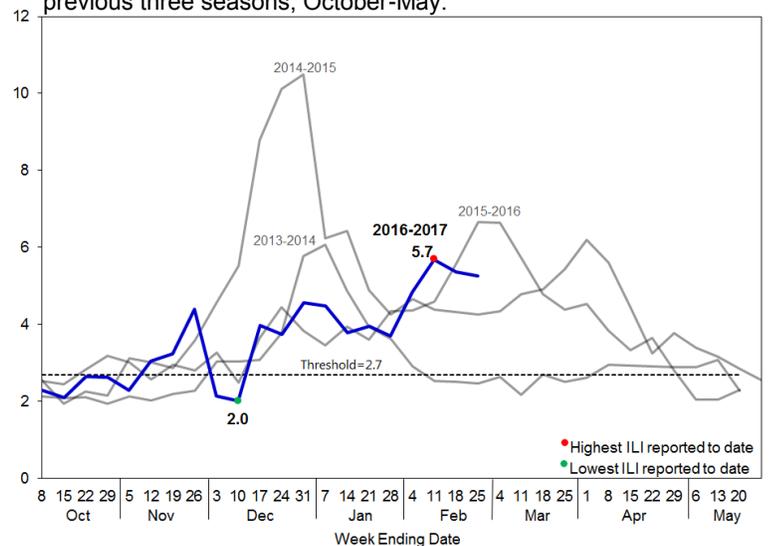


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reports by individual hospitals, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.



¹ https://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/ohp-labs-influenzaannual-testing-and-reportingmemo-09222016.pdf>; ³ <https://dph.partner.illinois.gov/>

ESSENCE is an electronic syndromic surveillance system that utilizes emergency department chief complaint data submitted daily by 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, all Chicago hospitals submit data to ESSENCE, covering every emergency department visit in the city. For the week of February 19-25, 2017, 4.4% of all emergency department visits were due to ILI; Northside hospitals had slightly higher ILI at 4.7%, Southside and Westside hospitals had slightly lower ILI at 4.2% (Figure 3).

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. For the week of February 19-25, 2017, with 23 facilities reporting, 8.0% of outpatient 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 RT-PCR. For the week of February 19-25, 2017, with 6 laboratories reporting, 255 of the 1,032 (24.7%) specimens tested for influenza were positive (145 A (H3N2), 3 A (H1N1pdm09), 20 A [unknown subtype], and 87 influenza B).

Since October 2, 2016, 1,103 of 13,365 (8.3%) specimens tested for influenza have been positive; 809 typed as influenza A (698 H3N2, 13 H1N1pdm09, and 98 unknown subtype [subtyping not attempted or not all subtypes tested]) and 294 typed as influenza B (Figure 5). The cumulative percent of specimens testing positive for influenza is lower than previous seasons during the same time period where influenza A (H3N2) was the predominant strain (Table 2).

Table 2. Cumulative percent of specimens testing positive for influenza by RT-PCR by type for the current season (2016-2017) and the previous four seasons, Chicago, Weeks 40-08.

Influenza Season	% Pos.	% A H3N2	% A H1N1pdm09	% A Not Sub-typed	% B
2012-2013*	14.6	74.7	6.4	13.8	5.1
2013-2014	8.9	1.9	69.5	26.0	2.6
2014-2015*	15.0	74.6	0	16.9	8.2
2015-2016	5.9	2.8	76.3	17.1	3.8
2016-2017*	8.3	63.3	1.2	8.9	26.7

* Influenza seasons where A (H3N2) was the predominant circulating strain

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.

Figure 3. Percent of emergency department visits attributed to influenza-like illness by hospital region based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

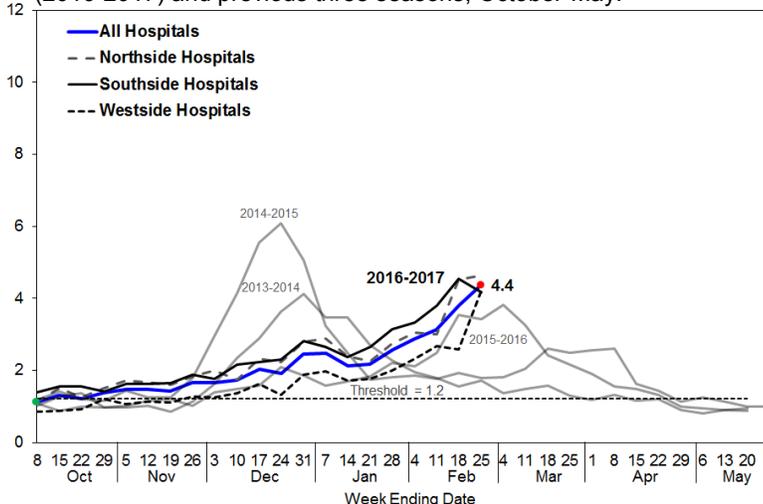


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

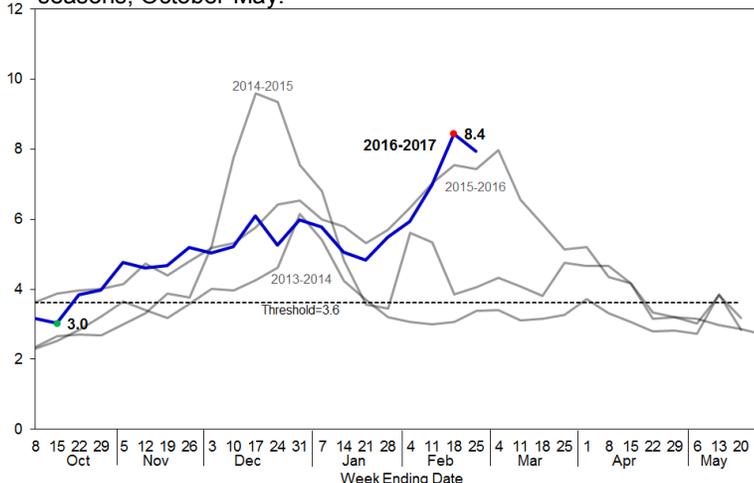


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2016-2017) October-May.

