



Chicago Flu Update



Lori E. Lightfoot, Mayor

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News & Updates

The two primary influenza surveillance indicators show decreasing activity; however, the COVID-19 outbreak in the United States may affect healthcare seeking behavior which will impact the influenza-like illness (ILI) surveillance indicators (ILINet and ESSENCE). CDC estimates so far this season there have been at least 39 million flu illnesses, 400,000 hospitalizations and 24,000 deaths from flu.¹ Vaccination is the best way to protect against influenza infection and all Chicagoans six months and older are encouraged to get vaccinated every year. Chicagoans should ask their healthcare provider or pharmacist about vaccine availability when feasible. Please note that [CDPH Walk-in Immunization Clinics](#)² are closed until further notice.

What is the risk?

Currently, the risk of influenza infection continues to decrease.

Are severe cases of influenza occurring?

For the week of March 15-21, 2020, 8 influenza-associated ICU hospitalizations were reported (Figure 1).

Since September 29, 2019, 470* influenza-associated ICU hospitalizations have been reported; 364 (77%) were positive for influenza A (8 H3N2, 118 H1N1pdm09, 238 unknown subtype [subtyping not performed or not all subtypes tested]) and 106 (23%) were positive for influenza B. The median age of influenza A cases is 55 years and the median age of influenza B cases is 36.5 years (overall range of 1 month-96 years); three pediatric deaths were reported and 14 outbreaks in long-term care facilities; selected attributes are summarized in **Table 1**.

*total case counts may change as additional information is received.

Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents during the 2019-2020 season, October-May.

Age Group*	#	%†	Sex	#	%
0-4	80	17	Male	242	52
5-17	29	6	Female	227	48
18-24	17	4	Med. Cond./Complication‡		
25-49	81	17	Lung Disease	159	34
50-64	138	29	Cardiac Disease	139	30
≥65	124	26	Diabetes	108	23
			Ventilator Support	103	22
Race/Ethnicity			Reported Deaths§	19	4
NH-White	103	22	Treatment/Vaccination‡		
NH-Black	258	55	Reported Antiviral Tx	376	80
Hispanic	87	19	Reported Flu Shot	141	30
Asian/Other	21	4			

* One patient missing age and race/ethnicity at time of report; † Percentages may not add up to 100 due to rounding; ‡ As reported in INEDSS (Illinois National Electronic Disease Surveillance System); § Date of death occurring within one week of positive influenza test among reported influenza-associated ICU hospitalizations.

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of March 15-21, 2020, 79 of the 1,438 (5.5%) reported specimens that were tested for influenza were positive; 55 typed as influenza A (2 H3N2, 32 H1N1pdm09, and 21 unknown subtype [subtyping not performed or not all subtypes tested]) and 24 typed as influenza B (Figure 2).

Since September 29, 2019, 6,441 of the 34,715 (18.5%) reported specimens that were tested for influenza have been positive; 4,007 (62%) typed as influenza A (67 H3N2, 1,299 H1N1pdm09, and 2,641 unknown subtype [subtyping not performed or not all subtypes tested]) and 2,434 (38%) typed as influenza B. The cumulative number of specimens testing positive for influenza so far this season is higher than last season (10%) but similar to the 2017-2018 season (18.5%) for the same time period.[§]



Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2019-2020) and previous season (2018-2019), October-May.

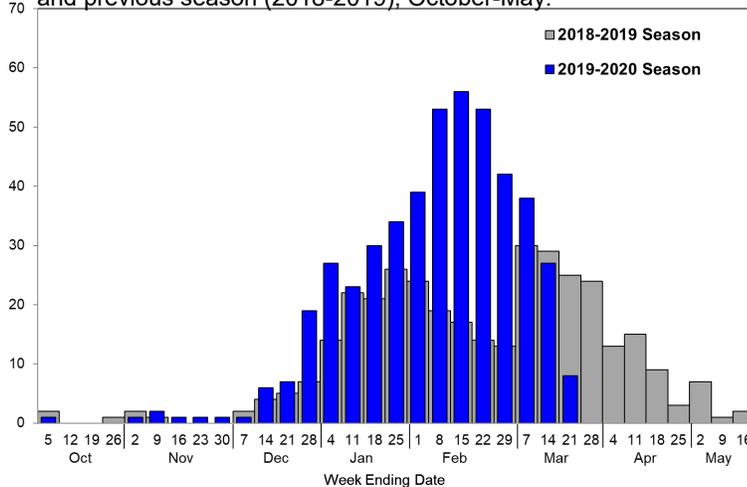
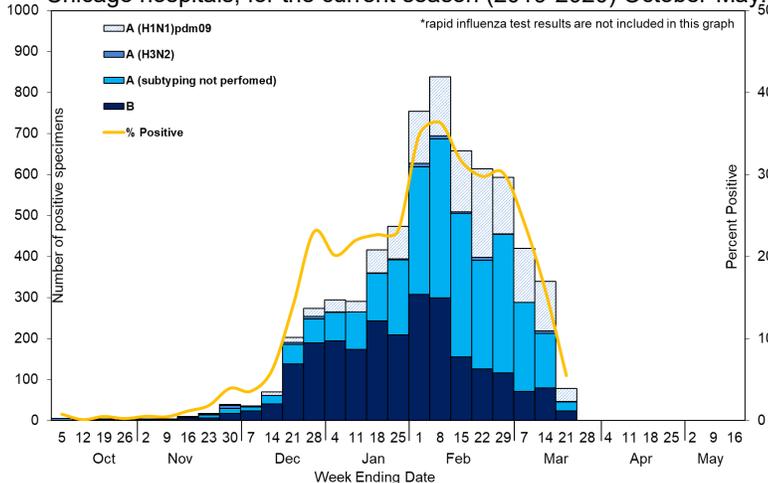


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2019-2020) October-May.



§ Reported percentages represent final end of season data and may differ from previously published reports. All data are preliminary and may change as more reports are received.

¹ <https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm>;

² https://www.chicago.gov/city/en/depts/cdph/supp_info/health-protection/immunizations_walk-inclinics.html

How much influenza-like illness is occurring?

Several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on a weekly basis the total number of outpatient clinic visits, and of those visits, the number with influenza-like illness (ILI). For the week of March 15-21, 2020, 202 of the 4,104 (4.9%) reported outpatient clinic visits were due to influenza-like illness, which is higher than the previous two seasons for same time period (**Figure 3**).

In addition to ILINet, ESSENCE is an electronic syndromic surveillance system that utilizes the chief complaints of patients visiting emergency departments to monitor for influenza-like illness. Currently, ESSENCE captures nearly every emergency department visit in the city on a daily basis. For the week of March 15-21, 2020, 1,558 of the 20,691 (7.5%) total emergency department visits were due to influenza-like illness (**Figure 4**).

Figure 5 represents the percentage of emergency department visits due to influenza-like illness aggregated by Chicago patient zip codes. For the week of March 15-21, 2020, 52 of 59 (88%) zip codes had moderate to high ILI activity levels; this is higher than last season where 64% of zip codes were at moderate to high levels for the same time period and the 16th consecutive week where over half of zip codes had moderate to high ILI activity levels.

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.

Reporting Information

Illinois Department of Public Health recently issued [Influenza Testing and Reporting Guidance](#)⁷. The Chicago Department of Public Health has previously issued guidance on [reporting influenza-associated ICU hospitalizations](#)⁸. Healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (INEDSS)⁹. For more information contact: SyndromicSurveillance@cityofchicago.org

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Figure 3. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week for the current season (2019-2020) and previous two seasons, October-May.

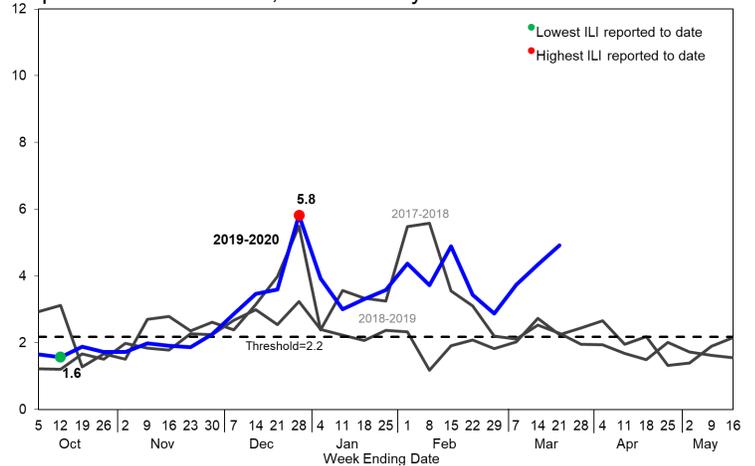


Figure 4. Percent of emergency department visits attributed to influenza-like illness for Chicago zip codes based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2019-2020) and previous two seasons, October-May.

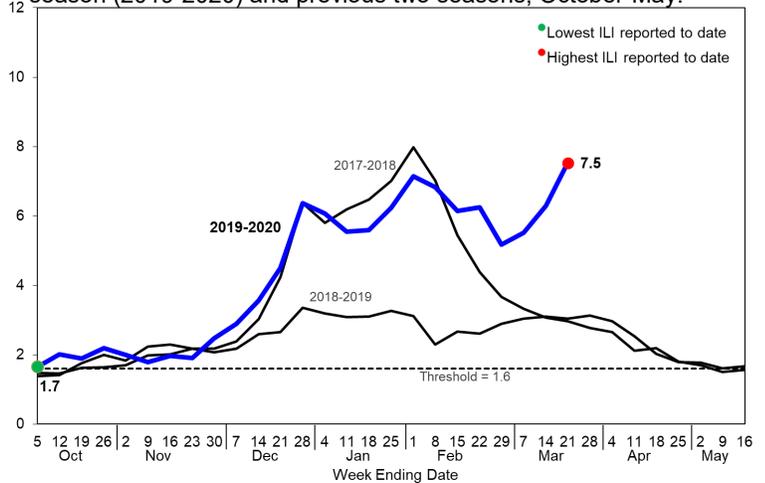
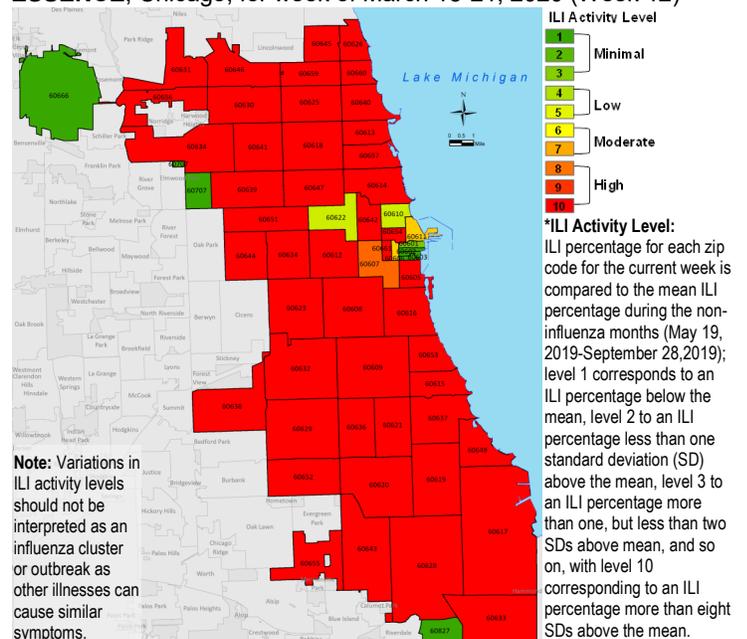


Figure 5. Influenza-like Illness (ILI) activity level by Chicago patient zip codes determined by chief complaint data submitted to ESSENCE, Chicago, for week of March 15-21, 2020 (Week 12)



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

³ <http://www.cdc.gov/flu/weekly/index.htm>, ⁴ <http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/influenza-surveillance>, ⁵ <https://ccdphcd.shinyapps.io/influenza/>;

⁶ https://www.chicago.gov/city/en/depts/cdph/supp_info/health-protection/current_flu_situationinchicago.html;

⁷ www.dph.illinois.gov/sites/default/files/publications/20190916idphohp-annual-flu-testing.pdf ;

⁸ <https://www.chicagohan.org/documents/14171/39923/Reporting+Influenza-Associated+ICU+Hospitalizations/bc2f49b2-cf74-487c-9441-0b0a930e4b41>; ⁹ <httpsdph.partner.illinois.gov/>