# Chicago Influenza Surveillance Activity Report



Lori E. Lightfoot, Mayor

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Allison Arwady, MD, MPH, Commissioner

No Activity **News & Updates** The CDC Health Advisory<sup>1</sup> reminds clinicians on the importance of prompt

Illinois Influenza Geographic Spread

antiviral treatment in patients with influenza and to continue influenza vaccination efforts as long as influenza viruses are circulating. Vaccination is the best way to protect against influenza infection and all Chicagoans six months and older are encouraged to get vaccinated. Chicagoans should ask their healthcare provider or pharmacist about vaccine availability. To locate the closest City of Chicago clinic or retail pharmacy, go to www.chicagoflushots.org. Uninsured or underinsured adults and children 0-18 years old who are uninsured, underinsured, or Medicaid (Title XIX) insured can visit any CDPH Walk-in Immunization Clinic<sup>2</sup> to receive the flu vaccine.

#### What is the risk?

Currently, the risk of influenza infection is high.

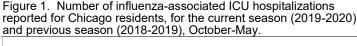
## Are severe cases of influenza occurring? For the week of January 26-February 1, 2020, 40 influenza-associated ICU hospitalizations were reported (Figure 1).

Since September 29, 2019, 193 influenza-associated ICU hospitalizations have been reported; 120 (62%) were positive for influenza A (5 H3N2, 30 H1N1pdm09, 85 unknown subtype [subtyping not performed or not all subtypes tested]) and 73 (38%) were positive for influenza B. The median age of influenza A cases is 57 years and the median age of influenza B cases is 35 years (overall range of 1 month-96 years); two pediatric deaths were reported and ten cases were admitted from long-term care facilities; selected attributes are summarized in Table 1.

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

Age Group	#	% <sup>*</sup>	Sex	#	%
0-4	33	17	Male	96	50
5-17	15	8	Female	97	50
18-24	8	4	Med. Cond./Complication <sup>†</sup>		
25-49	35	18	Lung Disease	65	34
50-64	47	24	Cardiac Disease	50	26
≥65	55	29	Diabetes	50	26
Race/Ethnicity			Ventilator Support	41	21
NH-White	32	21	Reported Deaths <sup>‡</sup>	6	3
NH-Black	75	50	Treatment/Vaccination <sup>†</sup>		
Hispanic	35	23	Reported Antiviral Tx	149	77
Asian/Other	8	5	Reported Flu Shot	60	31

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



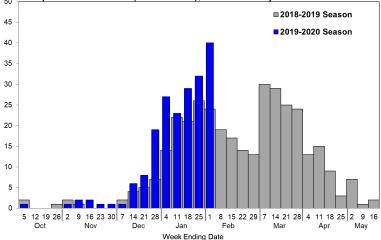
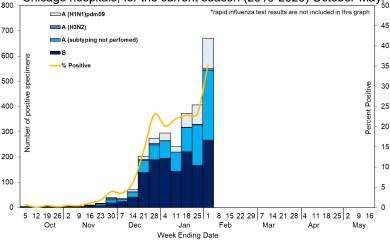


Figure 2. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2019-2020) October-May



# Which influenza strains are circulating?

Data on influenza virus test results are reported by

Chicago laboratories performing influenza RT-PCR. For the week of January 26-February 1, 2020, 669 of the 1,899 (35%) specimens tested for influenza were positive; 402 typed as influenza A (7 H3N2, 119 H1N1pdm09, and 276 unknown subtype [subtyping not performed or not all subtypes tested]) and 267 typed as influenza B (Figure 2).

Since September 29, 2019, 2,654 of 19,999 (13%) specimens tested for influenza have been positive; 1,227 (46%) typed as influenza A (39 H3N2, 352 H1N1pdm09, and 836 unknown subtype [subtyping not performed or not all subtypes tested]) and 1,427 (54%) typed as influenza B. The cumulative number of specimens testing positive for influenza so far this season is higher than last season (6%) but lower than 2017-2018 (18%) for the same time period.§

<sup>§</sup> 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.

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 January 26-February 1, 2020, 262 of the 6,003 (4.4%) reported outpatient clinic visits were due to influenza-like illness, which is lower than Illinois at 7.0% (**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 January 26-February 1, 2020, 1,854 of the 25,931 (7.1%) 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 patient zip code. For the week of January 26-February 1, 2020, 52 of 59 (88%) zip codes had moderate to high ILI activity levels; this is higher than last season where 61% of zip codes were at moderate to high levels for the same time period and the eighth consecutive week where over half of zip codes had moderate to high ILI activity levels.

## Where can I get more information?

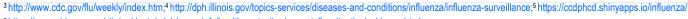
The Centers for Disease Control and Prevention's FluView<sup>3</sup> report provides national updates and trends related to the intensity of influenza activity across the United States, as well as detailed information on antiviral resistance, severity of illness, and other topics. Updates specific to Illinois<sup>4</sup> and Suburban Cook County<sup>5</sup> 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<sup>6</sup>.

### **Reporting Information**

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



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



 $<sup>{}^6\</sup>text{https://www.chicago.gov/city/en/depts/cdph/supp\_info/health-protection/current\_flu\_situationinchicago.html;}$ 

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

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.

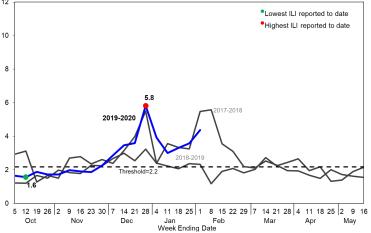


Figure 4. Percent of **emergency department** visits attributed to influenza-like illness for Chicago zip codes based on chief complaint data submitted to **ESSENCE**, Chicago, by week, for the current

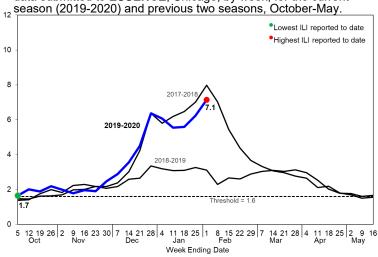
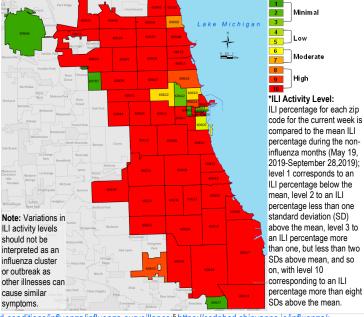


Figure 5. Influenza-like Illness (ILI) activity level by patient zip code determined by chief complaint data submitted to **ESSENCE**, Chicago, for week of January 26-February 1, 2020 (Week 5)



ILI Activity Level