Chicago Flu Update

Lori E. Lightfoot, Mayor

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Allison Arwady, MD, MPH, Commissioner

Chicago Influenza Surveillance Activity Report

Surveillance Week 11 (March 8-14, 2020)

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 38 million flu illnesses, 390,000 hospitalizations and 23,000 deaths from flu. 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 are closed until further notice.

What is the risk?

Currently, the risk of influenza infection is decreasing but remains elevated.

Are severe cases of influenza occurring?

For the week of March 8-14, 2020, 27 influenza-associated ICU hospitalizations were reported (Figure 1).

Since September 29, 2019, 472 influenza-associated ICU hospitalizations have been reported; 366 (78%) were positive for influenza A (8 H3N2, 120 H1N1pdm09, 238 unknown subtype [subtyping not performed or not all subtypes tested]) and 106 (22%) were positive for influenza B. The median age of influenza A cases is 55 years and the median age of influenza B cases is 35.5 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.

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

<table>
<thead>
<tr>
<th>Age Group</th>
<th>%</th>
<th>Sex</th>
<th>%</th>
<th>Race/Ethnicity</th>
<th>%</th>
<th>Treatment/Vaccination</th>
<th>%</th>
<th>Race/Ethnicity</th>
<th>%</th>
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<tbody>
<tr>
<td>0-4</td>
<td>79</td>
<td>17</td>
<td>241</td>
<td>Male</td>
<td>51</td>
<td>Male</td>
<td>51</td>
<td>Ventilator Support</td>
<td>105</td>
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<td>5-17</td>
<td>30</td>
<td>6</td>
<td>230</td>
<td>Female</td>
<td>49</td>
<td>Reported Deaths†</td>
<td>4</td>
<td>Reported Deaths</td>
<td>4</td>
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<tr>
<td>18-24</td>
<td>17</td>
<td>4</td>
<td>161</td>
<td>Other</td>
<td>34</td>
<td>Reported Antiviral Tx</td>
<td>81</td>
<td>Reported Antiviral Tx</td>
<td>81</td>
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<tr>
<td>25-49</td>
<td>88</td>
<td>17</td>
<td>138</td>
<td>Hispanic</td>
<td>29</td>
<td>Reported Flu Shot</td>
<td>382</td>
<td>Reported Flu Shot</td>
<td>382</td>
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<tr>
<td>50-64</td>
<td>133</td>
<td>28</td>
<td>161</td>
<td>Other</td>
<td>29</td>
<td>Reported Flu Shot</td>
<td>382</td>
<td>Reported Flu Shot</td>
<td>382</td>
</tr>
<tr>
<td>≥65</td>
<td>124</td>
<td>26</td>
<td>110</td>
<td>Other</td>
<td>23</td>
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<td>382</td>
<td>Reported Flu Shot</td>
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<tr>
<td>NH-White</td>
<td>103</td>
<td>22</td>
<td>19</td>
<td>Other</td>
<td>4</td>
<td>Reported Flu Shot</td>
<td>382</td>
<td>Reported Flu Shot</td>
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<tr>
<td>NH-Black</td>
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<td>54</td>
<td>Treatment/Vaccination</td>
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<td>Ventilator Support</td>
<td>105</td>
<td>Reported Antiviral Tx</td>
<td>81</td>
<td></td>
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<tr>
<td>Hispanic</td>
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<td>20</td>
<td>Reported Antiviral Tx</td>
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<td>382</td>
<td>Reported Flu Shot</td>
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<tr>
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<td>4</td>
<td>141</td>
<td>Reported Flu Shot</td>
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<td></td>
<td></td>
<td></td>
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</tbody>
</table>

*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 8-14, 2020, 339 of the 2,132 (16%) specimens tested for influenza were positive; 259 typed as influenza A (8 H3N2, 120 H1N1pdm09, and 133 unknown subtype [subtyping not performed or not all subtypes tested]) and 80 typed as influenza B (Figure 2).

Since September 29, 2019, 6,362 of 33,277 (19%) specimens tested for influenza have been positive; 3,952 (62%) typed as influenza A (65 H3N2, 1,267 H1N1pdm09, and 2,620 unknown subtype [subtyping not performed or not all subtypes tested]) and 2,410 (38%) typed as influenza B. The cumulative number of specimens testing positive for influenza so far this season is higher than last season (9%) but similar to the 2017-2018 season (19%) for the same time period.

§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.

1https://www.cdc.gov/flu/about/burden/seasonal-estimates.htm
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 8-14, 2020, 246 of the 5,666 (4.3%) 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 8-14, 2020, 1,566 of the 24,871 (6.3%) 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 March 8-14, 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 fifteenth 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 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 and Suburban Cook County 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.

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

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

9 https://www.chicagohan.org/documents/14171/39923/Reporting+Influenza+Associated+ICU+Hospitalizations/bc2f49b2-cf7a-487c-9441-08e830e4b411; http://dph.partner.illinois.gov/