Summary of 2018-19 Hospitalized Influenza Cases in Washtenaw Residents

**Overall:** This was a moderate to severe flu season which was predominated by influenza A (96%), with A/H1N1 circulating earlier, followed by A/H3 later in spring. Influenza B (4%) viruses circulated at low levels as well. Flu season activity started increasing in December 2018, reaching its largest peak in March, and extending into May 2019. The vaccine was a low to moderate match this season, with a 29% overall vaccine effectiveness reported by the CDC (June 2019). This low effectiveness was, in part, due to a poor vaccine match against the influenza A/H3 which circulated in spring 2019.

**Flu-related hospitalizations high.** 213 residents of Washtenaw County had influenza-related hospitalizations in the 2018-19 influenza season. A majority of the hospitalizations were in individuals over 65 years old (54%), however the A/H1N1 peak in early 2019 led to more hospitalizations in younger adults as well. Almost all adults who were hospitalized (95%) had an underlying high-risk health condition (including obesity). Obesity was reported in 33% of adults who were hospitalized from flu-related illness. There were 9 flu-related deaths reported in adults, with an age range of 24 to 87 years.

**Facility outbreaks:** During this season, six (6) outbreaks of influenza A were reported in Washtenaw County long-term care and assisted living facilities.

**Influenza in Washtenaw children.** 7% percent of hospitalizations in the 2018-19 season occurred in children and teens (0 -17 years). Unfortunately, there was one flu-related death in a Washtenaw County child, who was not able to be vaccinated against flu. Of hospitalized children, 73% had an underlying high-risk health condition; however, only 40% were vaccinated against flu.

<table>
<thead>
<tr>
<th>Total hospitalizations</th>
<th>ICU Admissions</th>
<th>Adult Flu-Associated Deaths*</th>
<th>Child Flu-Associated Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>213</td>
<td>8%</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

*The deaths in adults were 24-87 years of age. All had high-risk underlying health conditions. Deaths are associated with both Influenza A/H3 and A/H1N1.

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Flu-related Hospitalizations by Agegroup
Washtenaw County Residents
2018-19 Influenza Season
Seasonal Count (n = 213)

# hospitalizations each week

Data Source: Michigan Disease Surveillance System (MDSS)
Ages of hospitalized cases (range = 1 month to 102 years)
- 0-4 years = 3%
- 5-17 years = 4%
- 18-49 years = 16%
- 50-64 years = 23%
- 65-74 years = 23%
- 75+ years = 34%

Influenza-strains in hospitalized cases
- A (not subtyped) = 60%
- A/H3 = 16%
- A/H1N1 = 20%
- B = 4%

Underlying conditions in flu-related hospitalized cases (children)
- 73%

Underlying conditions in flu-related hospitalized cases (adults)
- High risk conditions, including obesity and pregnancy = 95%
- Asthma = 17%
- Diabetes = 24%
- Obesity = 33%

Length of hospitalization
- Range: 1 – 55 days
- Median: 3 days
- Mean (average): 5 days

<table>
<thead>
<tr>
<th>% of total hospitalized cases</th>
<th>Area within Washtenaw County</th>
</tr>
</thead>
<tbody>
<tr>
<td>41%</td>
<td>Ypsilanti (48197, 48198)</td>
</tr>
<tr>
<td>36%</td>
<td>Ann Arbor (48103, 48104, 48105, 48108)</td>
</tr>
<tr>
<td>11%</td>
<td>Saline/Milan/Willis (48176, 48160, 48190)</td>
</tr>
<tr>
<td>9%</td>
<td>Chelsea/Dexter/Manchester (48118, 48130, 48137, 48158)</td>
</tr>
<tr>
<td>2%</td>
<td>Whitmore Lake/Northfield/Salem (48178, 48189)</td>
</tr>
</tbody>
</table>

Race of Hospitalized patients
- Asian = 5%
- Black or African American = 20%
- White or Caucasian = 71%

Flu vaccine status of hospitalized Washtenaw residents

<table>
<thead>
<tr>
<th>Age group</th>
<th>% vaccinated</th>
<th>% not vaccinated</th>
<th>% vaccine status unknown*</th>
</tr>
</thead>
<tbody>
<tr>
<td>6mo – 17 years</td>
<td>40%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>18 - 49 years</td>
<td>32%</td>
<td>15%</td>
<td>52%</td>
</tr>
<tr>
<td>50 – 64 years</td>
<td>49%</td>
<td>16%</td>
<td>35%</td>
</tr>
<tr>
<td>65 - 74 years</td>
<td>63%</td>
<td>7%</td>
<td>29%</td>
</tr>
<tr>
<td>75 yrs and older</td>
<td>51%</td>
<td>8%</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Entry of adult flu vaccine into Michigan Care Improvement Registry (MCIR) is not yet mandatory