I. Influenza-like Illness (ILI) Weekly Summary

- Influenza activity is currently **high**. This risk assessment is based on:
  - The proportion of emergency department visits for ILI was 2.90%, above the regional baseline of 1.05%, and has been increasing for one week.
  - The proportion of outpatient provider visits for ILI was 1.70%, above the regional baseline of 0.73%, and has been increasing for one week.
  - The proportion of deaths associated with pneumonia or influenza was 5.90%, below the epidemic threshold of 6.86%.
- Five hundred thirteen (15.75%) laboratory specimens tested positive for influenza: 55 influenza A H1N1, 1 influenza A H3N2, 437 influenza A unknown subtype, and 20 influenza B.
- Ten influenza-associated intensive care unit (ICU) hospitalizations were reported during Week 3. Fifty-six ICU hospitalizations have been reported since Week 35.
- Since Week 35, 0 influenza-associated pediatric deaths, 0 clusters of ILI in schools, and 4 outbreaks of influenza in congregate care settings have been reported.
- **Current recommendations:** Promote vaccination, respiratory hygiene, and prompt treatment with antivirals. Facilities may wish to consider temporary visitor restrictions.

Note: Surveillance for ILI in suburban Cook County involves the weekly collection of data from hospitals, physicians' offices, and laboratories. Thank you to all of our surveillance partners for their help in collecting this information.

II. Influenza Activity Level / Disease Burden

**Emergency Department Syndromic Surveillance**

![Graph showing weekly percentage of visits for ILI from Week 35 to Week 52, with data points for 2015-2016, 2016-2017, 2017-2018, and 2018-2019 years. The graph indicates a peak in ILI visits during the winter months.]

Week 3 / Page 1
Syndromic Surveillance by Age Group

Outpatient Sentinel Providers

Week 3 / Page 2
### III. Circulating Strains

From Week 1 to Week 3, the percent of lab specimens testing positive for flu has increased by 69%.

![Graph showing circulating strains over weeks]

### IV. Seasonal Severity

#### ICU Hospitalizations

<table>
<thead>
<tr>
<th>Cumulative Case Count</th>
<th># Incidence Rate</th>
<th>Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cases</td>
<td>56</td>
<td>2.47</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Incidence Rate by Age</th>
<th>Incidence Rate by Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>4.19 North</td>
</tr>
<tr>
<td>5-24</td>
<td>0.17 West</td>
</tr>
<tr>
<td>25-49</td>
<td>1.72 Southwest</td>
</tr>
<tr>
<td>50-64</td>
<td>3.53 South</td>
</tr>
<tr>
<td>65+</td>
<td>6.43</td>
</tr>
</tbody>
</table>

The median age of patients admitted to the ICU with influenza so far this season in Suburban Cook County is 59 years old, and 64% of flu ICU hospitalizations have been in those 50 and over.

![Graph showing ICU hospitalizations over weeks]
Pneumonia and Influenza Mortality

V. Regional Flu Activity
VI. United States Flu Activity

2018-19 Influenza Season Week 3 ending Jan 19, 2019

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


1. Data extracted from syndromic surveillance system, ESSENCE; all hospital emergency departments (EDs) in suburban Cook County participate in ESSENCE. Influenza-like-illness (ILI) defined as a symptom complex of fever and cough or sore throat. ILI = # of ED visits for ILI / total # of ED visits.

2. Data extracted from the U.S. Influenza-like Illness Surveillance Network (ILINet); 6 hospitals and 3 physician offices serve as CDC sentinel sites in Cook County. ILI defined as fever ≥ 100°F, cough and/or sore throat in the absence of a known cause other than influenza. ILI = # of visits for ILI / total # of visits.

3. Includes viral culture, RT-PCR, and the rapid antigen test. Cases may reside outside suburban Cook County. Participating laboratories: Illinois Department of Public Health Sentinel Laboratories, NorthShore University Health System, Loyola University Medical Center, and ACL Laboratories.

4. Cases reported are suburban Cook County residents (excluding Evanston, Skokie, Oak Park, and Stickney) with known age and residence. Cases aggregated by week of admission. Includes all cases reported through the presented week. Rates calculated with 2010 census data.

5. Includes all deaths where the immediate cause of death or a contributing factor was pneumonia and/or influenza (aspiration pneumonia excluded). Data includes all of Cook County and has one week lag behind other surveillance indicators. The 3-week running median is displayed. The percentage of deaths due to P&I are compared with a seasonal baseline and epidemic threshold value calculated for each week. Seasonal baseline is calculated using a periodic regression model that incorporates a CDC based robust regression procedure applied to data from the previous four years. An increase of 1.645 standard deviations above the seasonal baseline of P&I deaths is considered the “epidemic threshold,” i.e., the point at which the observed proportion of deaths attributed to pneumonia or influenza was significantly higher than would be expected at that time of the year in the absence of substantial influenza-related mortality. http://www.cdc.gov/flu/weekly/overview.htm#Mortality

6. Map produced using the proportion of outpatient visits to health care providers for ILI reported through ILINet. Activity levels are compared to the average percent of ILI visits that occur during weeks with little or no influenza virus circulation. http://www.cdc.gov/flu/weekly/index.htm