The purpose of this report is to describe the spread and prevalence of influenza-like illness (ILI) in Indiana. It is meant to provide local health departments, hospital administrators, health professionals and residents with a general understanding of the burden of ILI. Data from several surveillance programs are analyzed to produce this report. Data are provisional and may change as additional information is received, reviewed and verified. For questions regarding the data presented in this report, please call the ISDH Surveillance and Investigation Division at 317-233-7125.

**WEEKLY OVERVIEW**

<table>
<thead>
<tr>
<th>Influenza-like Illness - Week Ending February 25, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ILI Geographic Distribution</strong></td>
</tr>
<tr>
<td><strong>ILI Activity Code</strong></td>
</tr>
<tr>
<td><strong>Percent of ILI reported by sentinel outpatient providers</strong></td>
</tr>
<tr>
<td><strong>Percent of ILI reported by emergency department chief complaints</strong></td>
</tr>
<tr>
<td><strong>Percent positivity of influenza specimens tested at ISDH</strong></td>
</tr>
<tr>
<td><strong>Number of influenza-associated deaths this season</strong></td>
</tr>
<tr>
<td><strong>Number of long-term care facility outbreaks this season</strong></td>
</tr>
<tr>
<td><strong>Number of school-wide outbreaks this season</strong></td>
</tr>
</tbody>
</table>
SENTINEL SURVEILLANCE SYSTEM

Data are obtained from sentinel outpatient providers participating in the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet). Data are reported on a weekly basis for the previous Morbidity and Mortality Weekly Report (MMWR) Week by the sentinel sites and are subject to change as sites back-report or update previously submitted weekly data.

### Percent of ILI Reported by Type of Sentinel Outpatient Facility, Indiana, 2016-2017 Season

<table>
<thead>
<tr>
<th>MMWR Week</th>
<th>All Reporters %ILI (n)</th>
<th>Universities %ILI (n)</th>
<th>Non-Universities %ILI (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>5.34% (23)</td>
<td>3.3% (11)</td>
<td>6.73% (12)</td>
</tr>
<tr>
<td>7</td>
<td>6% (24)</td>
<td>4.44% (12)</td>
<td>7.12% (12)</td>
</tr>
<tr>
<td>6</td>
<td>4.72% (25)</td>
<td>6.49% (12)</td>
<td>3.46% (13)</td>
</tr>
</tbody>
</table>

### Percent of ILI Reported by Age Category in Sentinel Outpatient Facilities, Indiana, 2016-2017 Season

<table>
<thead>
<tr>
<th>Age Category, years</th>
<th>Total Number of ILI</th>
<th>Percent of ILI</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>78</td>
<td>24.6%</td>
</tr>
<tr>
<td>5-24</td>
<td>200</td>
<td>63.1%</td>
</tr>
<tr>
<td>25-49</td>
<td>23</td>
<td>7.3%</td>
</tr>
<tr>
<td>50-64</td>
<td>7</td>
<td>2.2%</td>
</tr>
<tr>
<td>65+</td>
<td>9</td>
<td>2.8%</td>
</tr>
<tr>
<td>Total</td>
<td>317</td>
<td>100%</td>
</tr>
</tbody>
</table>
SYNDROMIC SURVEILLANCE SYSTEM

Data are obtained from hospital emergency department chief complaint data through the Indiana Public Health Emergency Surveillance System (PHESS). Data are reported on a weekly basis for the previous Morbidity and Mortality Weekly Report (MMWR) Week and are subject to change as hospitals back-report or update previously submitted weekly data.

| Percent of ILI Reported in Emergency Departments by District, Indiana, 2016-2017 Season |
|-----------------------------------------------|-----------------------------------------------|
|                                                | Previous MMWR Week | Current MMWR Week |
| Indiana                                        | 2.52              | 2.73              |
| District 1                                     | 2.42              | 2.04              |
| District 2                                     | 3.16              | 3.86              |
| District 3                                     | 1.35              | 1.71              |
| District 4                                     | 2.22              | 2.44              |
| District 5                                     | 2.32              | 2.46              |
| District 6                                     | 3.15              | 3.77              |
| District 7                                     | 2.33              | 2.25              |
| District 8                                     | 3.37              | 3.17              |
| District 9                                     | 3.19              | 3.82              |
| District 10                                    | 2.57              | 2.67              |
INFLUENZA-ASSOCIATED MORTALITY

Data are obtained from the Indiana National Electronic Disease Surveillance System (I-NEDSS). Influenza-associated deaths are reportable within 72 hours of knowledge; however, not all cases are reported in a timely manner so data in this report as subject to change as additional cases are back-reported.

<table>
<thead>
<tr>
<th>Age Category, years</th>
<th>Season Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>1</td>
</tr>
<tr>
<td>5-24</td>
<td>1</td>
</tr>
<tr>
<td>25-49</td>
<td>2</td>
</tr>
<tr>
<td>50-64</td>
<td>6</td>
</tr>
<tr>
<td>65+</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
</tr>
</tbody>
</table>

*Due to changes in the reporting rule as of 12/2015, influenza-associated deaths are reportable if either laboratory confirmed or listed as cause of death on death certificate. Therefore, case counts are not directly comparable to previous seasons in which influenza-associated deaths were only reportable by laboratory confirmation.

Counties with ≥5 Laboratory Confirmed Influenza-Associated Deaths for All Ages, 2016-2017 Season

<table>
<thead>
<tr>
<th>County</th>
<th>Season Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen</td>
<td>6</td>
</tr>
<tr>
<td>Marion</td>
<td>5</td>
</tr>
</tbody>
</table>
VIROLOGIC SURVEILLANCE

Circulating Influenza Viruses Detected by ISDH Laboratory*, Indiana, 2016-2017 Season

<table>
<thead>
<tr>
<th>PCR Result</th>
<th>Week 8</th>
<th>Season Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent of Specimens Received</td>
<td>Number</td>
</tr>
<tr>
<td>2009 A/H1N1pdm virus</td>
<td>3</td>
<td>3%</td>
<td>34</td>
</tr>
<tr>
<td>Influenza A/H3 seasonal virus</td>
<td>69</td>
<td>59%</td>
<td>490</td>
</tr>
<tr>
<td>Influenza A/H1 seasonal virus</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Influenza B seasonal virus</td>
<td>25</td>
<td>22%</td>
<td>93</td>
</tr>
<tr>
<td>Influenza negative</td>
<td>19</td>
<td>16%</td>
<td>181</td>
</tr>
<tr>
<td>Inconclusive</td>
<td>0</td>
<td>0%</td>
<td>4</td>
</tr>
<tr>
<td>Unsatisfactory specimen†</td>
<td>0</td>
<td>0%</td>
<td>57</td>
</tr>
<tr>
<td>Influenza Co-infection†</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>100%</td>
<td>860</td>
</tr>
</tbody>
</table>

*Data obtained from the ISDH Laboratory via specimens submitted from the ISDH Sentinel Influenza Surveillance System and IN Sentinel Laboratories.
†Unsatisfactory specimens include specimens that leaked in transit, were too long in transit, or were inappropriately labeled.
Δ All previous-year co-infections have been influenza A/H3 and influenza B.

Circulating Non-Influenza Viruses Detected by the ISDH Laboratory, Indiana, 2016-2017 Season

<table>
<thead>
<tr>
<th>Result</th>
<th>Week 8</th>
<th>Season Total (Since 10/1/16)</th>
<th>Early Surveillance (9/1/16 - 9/30/16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenovirus</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Coronavirus 229E</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coronavirus HKU1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coronavirus NL63</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coronavirus OC43</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Enterovirus NOS</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Enterovirus/Rhinovirus¹</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Human Metapneumovirus</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Parainfluenza 1 Virus</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Parainfluenza 2 Virus</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Parainfluenza 3 Virus</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Parainfluenza 4 Virus</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rhinovirus</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Respiratory Syncytial Virus</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

¹Some specimens were tested outside of ISDH Laboratory
FLU REVIEW

Flu Resources
- Information regarding the weekly U.S Influenza surveillance report is available [here].
- Frequently asked questions for the 2016-2017 Influenza Season.
- Weekly US: Influenza Summary Update available [here].
- Influenza information for Schools and Childcare Providers available at the [CDC].

Flu News and Related Studies
- Seasonal and Pandemic Flu Content was moved from flu.gov to the [CDC] on November 4, 2016.
- The latest information about the 2016-2017 influenza is available at the American Academy of Pediatrics.
- H7N9: Frequently Asked Questions available from [CDC].
- March 3, 2017 MMWR early release article on avian influenza A(H7N9)

For Further Information
http://www.in.gov/isdh/25462.htm
http://www.cdc.gov/flu/