Michigan Disease Surveillance System (MDSS) data through the week ending 4/30/16 indicates that the peak of the 2015-16 flu season was later than typical, in mid-March. Individual reports of confirmed flu (1) were lower than levels seen in the previous three flu seasons, though testing is not always reflective of the prevalence of influenza in a community. Aggregate reports (Figures 1-3) of flu-like illness at the end of the season are similar to what is expected based on the average of the previous three seasons. Influenza activity has decreased from widespread to local and has been stable for the past six weeks.

Figure 1. Reported Cases of Flu-like Illness by Week for Past Four Years

Figure 2. Flu-like Illness in Ottawa County During 2015 & 2016 by Reporting Source

MDSS data in Figure 2 reports flu-like illness (defined as fever in the presence of a cough and/or sore throat) by source. Schools & licensed childcare facilities are the primary sources of reporting. April 2016 had more cases reported than the same month last year. The first two weeks of May are at expected levels.

Figure 3. Comparison of Current Flu-like Illness Activity to the Average over the Previous Three Flu Seasons

MDSS data in Figure 3 indicates that this season's weekly number of flu-like illness cases is following the expected seasonal pattern, but hit a much higher than expected level in mid-March. By contrast, week 50 was the peak week of reporting during the 2014-15 flu season. Spring break had a typical drop in reporting; cases have increased since but have not returned to season high levels.
Michigan Syndromic Surveillance System (MSSS): Data from two emergency departments in Ottawa County indicates that through 4/30/16, the percentage of visits for constitutional complaints (Figure 4) has been steadily decreasing since the mid-March peak that corresponded with this season’s peak of flu-like illness. Constitutional visits have been decreasing for the past two weeks, but are still higher than the same week last year.

The percentage of emergency department visits for respiratory complaints (Figure 5) is generally following a typical seasonal pattern. The month of April ended at expected levels and visits have continued to decline in the first two weeks of May.

Constitutional symptoms include fever, chills, fatigue, among others. Respiratory symptoms include cough, sore throat, congestion, among others.

Influenza and Respiratory Illness Outbreaks in Congregate Settings: There have been two respiratory illness facility outbreaks reported to OCDPH for the 2015-16 season. Respiratory facility outbreaks are listed in the table below by facility type.

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed Childcare</td>
<td>0</td>
</tr>
<tr>
<td>K-12 School</td>
<td>1</td>
</tr>
<tr>
<td>Long-term Care or Assisted Living</td>
<td>2</td>
</tr>
</tbody>
</table>

Influenza-associated Pediatric Mortality: There has been one influenza-associated pediatric death reported in Michigan for the 2015-16 season. Sixty-seven pediatric deaths have been reported in the U.S for the 2015-16 flu season.

The data are provisional, based on current reports in the MI Disease Surveillance System (MDSS) and the MI Syndromic Surveillance System (MSSS).