**Weekly Influenza & Respiratory Illness Activity Report**

**A summary of influenza surveillance indicators prepared by the Division of Infectious Disease Epidemiology Prevention & Control**

**Summary of the 2015-16 Influenza Season**

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

**Summary of the 2015-16 Season**

- 1,541 people were hospitalized with laboratory-confirmed influenza
- 3 pediatric influenza-related deaths were confirmed
- 48 outbreaks of influenza in long-term care were reported
- 203 outbreaks of ILI in schools were reported

**Minnesota Influenza Surveillance Website:** [http://www.health.state.mn.us/diseases/flu/stats/](http://www.health.state.mn.us/diseases/flu/stats/)


**Neighboring states’ influenza information:**

- **Iowa** [http://www.idph.state.ia.us/IdphArchive/Archive.aspx?channel=FluReports](http://www.idph.state.ia.us/IdphArchive/Archive.aspx?channel=FluReports)
- **North Dakota** [http://www.ndflu.com/default.aspx](http://www.ndflu.com/default.aspx)
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories.

**Hospitalized Influenza Surveillance Network**

<table>
<thead>
<tr>
<th>Season</th>
<th>Total Hospitalizations (historic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>965</td>
</tr>
<tr>
<td>2011-2012</td>
<td>556</td>
</tr>
<tr>
<td>2012-2013</td>
<td>3,068</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1,540</td>
</tr>
<tr>
<td>2014-2015</td>
<td>4,138</td>
</tr>
<tr>
<td>2015-2016</td>
<td>1,541</td>
</tr>
</tbody>
</table>

*Influenza Surveillance Network*
Hospitalized Influenza Surveillance – continued

**Number of Influenza Hospitalizations and Incidence by Region, Minnesota October 4, 2015 – May 21, 2016**

<table>
<thead>
<tr>
<th>Region</th>
<th>Total (to date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>226 (15%)</td>
</tr>
<tr>
<td>Metro</td>
<td>1,004 (65%)</td>
</tr>
<tr>
<td>Northeast</td>
<td>84 (5%)</td>
</tr>
<tr>
<td>Northwest</td>
<td>9 (1%)</td>
</tr>
<tr>
<td>South Central</td>
<td>68 (4%)</td>
</tr>
<tr>
<td>Southeast</td>
<td>73 (5%)</td>
</tr>
<tr>
<td>Southwest</td>
<td>45 (3%)</td>
</tr>
<tr>
<td>West Central</td>
<td>32 (2%)</td>
</tr>
</tbody>
</table>

**Number of Influenza Hospitalizations and Incidence by Age, Minnesota October 4, 2015 – May 21, 2016**

<table>
<thead>
<tr>
<th>Age Group (years)</th>
<th>Number of Hospitalizations</th>
<th>Incidence (cases) per 100,000 Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>32.3</td>
<td>32.3</td>
</tr>
<tr>
<td>5-24</td>
<td>10.4</td>
<td>10.4</td>
</tr>
<tr>
<td>25-49</td>
<td>16.4</td>
<td>16.4</td>
</tr>
<tr>
<td>50-64</td>
<td>42.8</td>
<td>42.8</td>
</tr>
<tr>
<td>65+</td>
<td>79.2</td>
<td>79.2</td>
</tr>
</tbody>
</table>

**Median age (years) at time of admission**

57.0
School Outbreaks
K-12 schools report an outbreak of influenza-like illness (ILI) when the number of students absent with ILI reaches 5% of total enrollment or three or more students with ILI are absent from the same elementary classroom.

Influenza-like Illness (ILI) in Schools by Season

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>203</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MMWR Week

Number of influenza-like illness outbreaks

- 0
- 50
- 100
- 150
- 200
- 250
- 300

Respiratory Disease Outbreak Surveillance
Long-Term Care (LTC) Outbreaks

LTC facilities report to MDH when they suspect an outbreak of influenza in their facility. Laboratory confirmed outbreaks are reported here.
MDH collaborates with healthcare providers who report the total number of patients seen and the total number of those patients presenting to outpatient clinics with influenza-like illness.

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**Sentinel Provider Surveillance (Outpatients)**

Minnesota Department of Health Weekly Influenza & Respiratory Activity | Summary 2015-16

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**Percentage of Persons Presenting to Outpatient Clinics with Influenza-Like Illness (ILI)**

- **2011-12**
- **2012-13**
- **2013-14**
- **2014-15**
- **2015-16**

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**Peak % of outpatients with ILI**

2.84%
The MN Lab System (MLS) Laboratory Influenza Surveillance Program is made up of more than 310 clinic- and hospital-based laboratories, voluntarily submitting testing data weekly. These laboratories perform rapid testing for influenza and Respiratory Syncytial Virus (RSV). Significantly fewer labs perform PCR testing for influenza and three also perform PCR testing for other respiratory viruses. MDH-PHL provides further characterization of submitted influenza isolates to determine the hemagglutinin serotype to indicate vaccine coverage. Tracking the laboratory results assists healthcare providers with patient diagnosis of influenza-like illness and provides an indicator of the progression of the influenza season as well as prevalence of disease in the community.

### Specimens Positive for Influenza by RT-PCR, by Week

- **B**
- **A (not subtyped)**
- **A H3**
- **A (H1N1) pdm09**

#### Specimen Counts by Week

- 2012-13 % + by PCR
- 2013-14 % + by PCR
- 2014-15 % + by PCR
- 2015-16 % + by PCR

#### Peak % RT-PCR Positive

19.6%
Laboratory Surveillance – Rapid Test

**MLS Laboratories – Influenza Testing**

Specimens Positive by Influenza Rapid Test, by Week

- Number of Positive Influenza Specimens
- Percentage of Rapid Influenza Tests Positive

**Peak % rapid positive**

- 30.7%

**MLS Laboratories – RSV Testing**

Specimens Positive by RSV Rapid Test, by Week

- Number of Positive RSV Tests
- Percentage of Rapid RSV Tests Positive

**Peak % rapid positive**

- 39.7%
MN Influenza Incidence Project (IISP) - Outpatients

Pathogens Detected, Minnesota IISP
2015-2016

- Influenza C
- Influenza A (H1N1) pdm09
- Human Metapneumovirus
- Adenovirus
- Coronavirus NL63
- Coronavirus OC43
- Coronavirus 229E
- Coronavirus HKU1
- Parainfluenza-1
- Parainfluenza-2
- Parainfluenza-3
- Parainfluenza-4
- Influenza B
- Influenza A Unspecified
- RSV
- Rhinovirus
- Enterovirus

*Indicates current week-data may be delayed by 2 or more weeks
Severe Acute Respiratory Illness Surveillance (SARI) - Inpatients

Positive Respiratory Pathogens by PCR, by MMWR Week

- Influenza B
- Influenza A (H3)
- Influenza A (H1N1) pdm09

- Influenza A Unspecified
- Influenza A

- Human Metapneumovirus
- Rhinovirus/Enterovirus

- Coronavirus NL63
- Coronavirus OC43

- Coronavirus HKU1
- Coronavirus 229E

- Parainfluenza-1
- Parainfluenza-4

- Parainfluenza-3

- Coronavirus NL63
- Coronavirus HKU1
- Coronavirus OC43
- Coronavirus 229E
- Parainfluenza-1
- Parainfluenza-4

- Parainfluenza-3

- Chlamyphila pneumoniae
- Mycoplasma pneumoniae

- Bordetella pertussis
- Bordetella parapertussis

*Indicates current week-data may be delayed by 2 or more weeks