Influenza

The Kent County Health Department (KCHD) received reports of influenza-like illness from more than 130 attendees across at least 25 states who had attended the National Rural Letter Carriers’ Association Conference held in Grand Rapids the week of August 12. Four Michigan residents associated with the conference tested positive for seasonal influenza A(H1N1). At least four other state health agencies also confirmed H1N1 infections among ill attendees.


“Flu season” is often thought to occur between October through April, but this outbreak serves as a reminder that influenza viruses circulate year-round.

Adenovirus

Public Health, Delta & Menominee Counties (PHDM) and Michigan Department of Health and Human Services (MDHHS) are investigating a cluster of severe respiratory illnesses associated with adenovirus infection in individuals residing in Michigan’s central Upper Peninsula (UP). Additional reports of illness are being investigated and laboratory testing is ongoing to further describe the virus causing illness.

Adenovirus is a common cause of cold-like illnesses seen every year, but it can also result in a more serious illness, such as bronchitis and pneumonia. More significant infections occur most frequently in those with immune-compromising conditions or underlying respiratory and cardiovascular disease.

FluBytes

- CIDRAP Flu Scan: Tests Find Flu, Common Cold Viruses in Ill Passengers on Emirates Flights
- New Single-Dose Antiviral Cuts Flu Symptoms, Viral Loads
- American Academy of Pediatrics (AAP) Urges Flu Shots Over Nasal Spray for Kids When Possible
Outbreaks and Sentinel Provider Surveillance  
Week Ending September 1

Congregate Setting Respiratory Virus Outbreaks

There were 2 (2N, 0C, 0SE, 0SW) new respiratory virus outbreaks reported to MDHHS since June 1, 2018. Respiratory outbreaks for the 2018 summer season are listed in the table below.

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>C</th>
<th>N</th>
<th>SE</th>
<th>SW</th>
<th>Summer 2018 Total</th>
<th>2017-18 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools: K-12 &amp; College</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Long-term Care / Assisted Living Facility</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>239</td>
</tr>
<tr>
<td>Healthcare Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Daycare</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Homeless Shelter</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correctional Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>271</td>
</tr>
</tbody>
</table>

Influenza-like Illness Activity

During the 2017-18 influenza season, national activity peaked the week ending February 3, 2018 at 7.7%.
Michigan activity also peaked the week ending February 3, 2018 at 5.9% and reported above the baseline of 2.2% for 15 weeks

- Total number of reports by region: 24 (5C, 2N, 13SE, 4SW)
- Proportion of visits due to ILI: ↓ 0.4% (regional baseline*: 1.8%)
- 29 patient visits due to ILI were reported out of 7,287 office visits

*Regional baseline is developed by calculating the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons and adding two standard deviations.

Did you know?

Congregate setting outbreaks of viral respiratory illnesses are required to be reported to your local health department? See:

- Influenza Guidance for Healthcare Providers
- Guideline for influenza and Respiratory Virus Outbreaks in Long-Term Care Facilities

Become a sentinel provider!
Contact Cristi Bramer at BramerC@michigan.gov
Laboratory Surveillance

Week Ending September 1

MDHHS Bureau of Laboratories (BOL)

There were 10 (0N, 2C, 5SE, 3SW) new respiratory virus results reported to MDHHS since June 1, 2018. Positive respiratory viruses for the 2018 summer season are listed in the table below.

<table>
<thead>
<tr>
<th>Respiratory Virus</th>
<th># Positive Respiratory Virus Results by Region</th>
<th>Summer 2018 Total</th>
<th>2017-18 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td>N</td>
<td>SE</td>
</tr>
<tr>
<td>2009 A/H1N1pdm</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Influenza A/H3</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Influenza B</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Influenza Positive Test Results, 2017-2018

- FLU A, unsubtypable
- H1N1
- H3
- FLU B, no lineage
- Victoria
- Yamagata

*Based on STARLIMS MDHHS BOL Testing Portal

Note: Flu B subtyping will be reported based on MDHHS BOL testing runs (roughly each month) and will be backtracked into this graph

Most recent MDHHS BOL Flu B subtyping run: June 6, 2018.

Michigan Sentinel Clinical Lab Respiratory Virus Data

Nine (9) sentinel clinical labs (2SE, 2SW, 5C, 0N) reported during this time period

SE Region
- Influenza A: no activity
- Influenza B: no activity
- Parainfluenza: low activity
- RSV: no/sporadic activity
- Adenovirus: sporadic activity
- hMPV: sporadic activity

Central Region
- Influenza A: sporadic activity
- Influenza B: no activity
- Parainfluenza: sporadic activity
- RSV: no activity
- Adenovirus: no activity
- hMPV: no activity

SW Region
- Influenza A: no activity
- Influenza B: no activity
- Parainfluenza: no/sporadic activity
- RSV: no activity
- Adenovirus: no activity
- hMPV: sporadic activity

North Region
- No data available
The CDC Influenza Hospitalization Surveillance Project (IHSP) provides population-based rates of hospitalization due to severe influenza-related illness through active surveillance and chart review of lab-confirmed cases from Oct. 1, 2017 until Apr. 30, 2018, for Clinton, Eaton, Ingham, Genesee, and Washtenaw counties. A total of **1,616 (148 pediatric, 1,468 adult)** influenza-related hospitalizations have been reported in the catchment area for the 2017-2018 season.

**Influenza-associated Pediatric Mortality**

Two (2) pediatric influenza deaths (A/H3) have been confirmed by MDHHS for the 2017-2018 flu season.

Nationally, 180 influenza-associated pediatric deaths have been reported since October 1, 2017.

**MDHHS Contributors**

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For questions or to be added to the distribution list, please contact Seth Eckel at EckelS1@michigan.gov