MI Flu Focus
Influenza Surveillance Updates
Bureaus of Epidemiology and Laboratories

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Influenza Surveillance Report for the Week Ending January 7, 2017

MI’s Influenza Activity Level:
Regional

Updates of Interest: Nationally, three influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season. Two deaths were associated with influenza A, and one with influenza B.

Sentinel Provider Surveillance
The proportion of visits due to influenza-like illness (ILI) decreased to 2.5% overall, which is above the regional baseline of 1.9%. A total of 210 patient visits due to ILI were reported out of 8,283 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (34 total):
- C (13)
- N (1)
- SE (15)
- SW (5)

National Surveillance: In the United States, 3.2% of outpatient visits were due to influenza-like illness, which is above the national baseline of 2.2%.

Become a Sentinel Provider!
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly.
**Hospital Surveillance**

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases from Oct. 1, 2016 until Apr. 30, 2017, for Clinton, Eaton, Genesee, and Ingham counties. Since Oct. 1, there have been 3 pediatric and 19 adult influenza-related hospitalizations reported in the catchment area for the 2016-2017 season. Note: Cumulative totals may change from week to week as cases are reviewed to determine if they meet the case definition.

The MDHHS Influenza Sentinel Hospital Network monitors influenza-related admissions reported voluntarily by hospitals statewide, with 10 facilities (N, C, SE, SW) reporting during this time period. Results for the 2016-17 flu season are listed in the table below. Additional hospitals are encouraged to join; please contact Seth Eckel at eckels1@michigan.gov.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>New Flu Hospitalizations Reported</th>
<th>Total 2016-17 Flu Hospitalizations Reported to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>1 (SW)</td>
<td>4 (1N, 1SE, 2SW)</td>
</tr>
<tr>
<td>5-17 years</td>
<td>0</td>
<td>2 (1SE, 1SW)</td>
</tr>
<tr>
<td>18-49 years</td>
<td>2 (SE)</td>
<td>5 (4SE, 1SW)</td>
</tr>
<tr>
<td>50-64 years</td>
<td>8 (1N, 7SE)</td>
<td>14 (5N, 9SE)</td>
</tr>
<tr>
<td>65 years &amp; older</td>
<td>18 (1N, 15SE, 2SW)</td>
<td>41 (8N, 30SE, 3SW)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29 (2N, 24SE, 3SW)</td>
<td>66 (14N, 45SE, 7SW)</td>
</tr>
</tbody>
</table>

**Influenza-associated Pediatric Mortality**

No new influenza-associated pediatric deaths were reported to MDHHS. In Michigan, there have been no influenza-associated pediatric deaths reported for the 2016-17 season. Nationally, three influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

**Laboratory Surveillance**

MDHHS Bureau of Laboratories reported 21 new positive influenza results (17 A/H3 and 4 flu B) during this time period. A total of 115 positive influenza results have been reported for the 2016-17 season. Influenza results for the 2016-17 season are in the table below.

<table>
<thead>
<tr>
<th>Respiratory Virus</th>
<th># Positive Respiratory Virus Results by Region</th>
<th>Total</th>
<th># Specimens Antigenically Characterized</th>
<th># Tested for Antiviral Resistance</th>
<th># Resistant / Total # Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 A/H1N1pdm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza A/H3</td>
<td>15 / 3 / 66 / 15</td>
<td>99</td>
<td>2 (A/HONG KONG/4801/2014-LIKE)</td>
<td>0 / 8</td>
<td></td>
</tr>
<tr>
<td>Influenza B</td>
<td>7 / 9 / 16</td>
<td>16</td>
<td>1 (B/PHUKET/3073/2013-LIKE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A / unsubtypeable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAIV recovery</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

In addition, 11 sentinel clinical labs (2SE, 2SW, 6C, 1N) reported influenza testing results. Eight labs (SE, SW, C) reported influenza A activity, with continued increases noted in the SE region. Five labs (SE, SW, C) reported sporadic or low influenza B activity. Three labs (C, SE, SW) reported slightly increasing Parainfluenza activity. Ten labs (SE, SW, C) reported ongoing RSV activity with further increases seen in the SE region. Four labs (SE, SW, C) reported sporadic or low Adenovirus activity. Four labs (SE, SW, C) reported low or slightly increasing hMPV activity. Testing volumes are steady in the moderate range at most sites.
Congregate Setting Outbreaks of Viral Respiratory Illness
There were four new respiratory facility outbreak (1SE, 3SW) reported to MDHHS during this time period, three of which were confirmed as influenza A/H3. Respiratory facility outbreaks for the 2016-2017 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>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Long-term Care / Assisted Living Facility</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td></td>
<td>8</td>
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<tr>
<td>Healthcare Facility</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daycare</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Correctional Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

Michigan Disease Surveillance System
MDSS influenza data indicated that compared to levels from the previous week, aggregate and individual reports had both increased. Aggregate reports were lower than levels seen during the same time period last year, while individual reports were higher.

Emergency Department Surveillance
Compared to levels from the week prior, emergency department visits from constitutional complaints were similar, while respiratory complaints had increased. Levels of constitutional complaints were similar to those recorded during the same time period last year, while respiratory complaints were higher.
- 2 constitutional alerts (1C, 1SW)
- 6 respiratory alerts (2N, 2C, 1SE, 1SW)
- Last MIFF report: 13 con alerts (6C, 3SE, 2SW, 2 statewide), 19 res alerts (2N, 6C, 3SE, 7SW, 1 statewide)
CDC 2017 CHILDHOOD IMMUNIZATION CHAMPION AWARD

The Centers for Disease Control and Prevention (CDC) Childhood Immunization Champion Award is an annual award to recognize individuals who make a significant contribution toward improving public health through their work in childhood immunizations. This award is given jointly by the CDC Foundation and the CDC. Champions can include coalition members, parents, healthcare professionals, and other immunization leaders.

Updated information: All nominations need to be submitted to MDHHS Division of Immunizations, Attention: Stephanie Sanchez (SanchezS@michigan.gov) no later than February 17, 2017.

The 2017 Michigan Champion nomination should be based on meeting one or more of the following criteria:

- **Leadership:** The candidate is considered an authority on immunization in their community, medical system, or individual practice. Activities may include acting as a spokesperson, trainer, mentor, or educator.

- **Collaboration:** The candidate has worked to build support for and increase immunization rates in infants and young children. Activities may include establishing or strengthening partnerships, coalitions, committees, working groups, or other.

- **Innovation:** The candidate has used creative or innovative strategies to promote immunization or address challenges to immunization in their practice, community, state, or region. Activities may include either new strategies or adapting existing strategies in new ways such as for reaching under-immunized populations.

- **Advocacy:** The candidate is active in advancing policies and best practices to support immunization in infants and young children in their community, state, or region. Activities may include providing legislative testimony or promoting, analyzing, or evaluating policies.

2016-2017 INFLUENZA ANTIVIRAL RECOMMENDATIONS

As a part of the CDC Expert Commentary Series on Medscape, Angela Campbell, a physician in the Influenza Division at the Centers for Disease Control and Prevention (CDC), discusses influenza antiviral medications for the treatment of influenza. Please share this brief clip and article with anyone who will be treating patients diagnosed with influenza.

INFLUENZA-RELATED JOURNAL ARTICLES

- State laws requiring hand sanitation stations at animal contact exhibits – United States, March-April 2016
- Outbreak of H7N2 flu virus in cats
- Non-annual seasonality of influenza-like illness in a tropical urban setting

OTHER INFLUENZA-RELATED NEWS

- Experts say flu, pneumonia vaccines essential to fight illnesses
- The value of vaccine
- Hazmat suits and 500 shelter cats: Rare flu forces New York quarantine
- Situation update: Summary of weekly FluView Report - CDC
- Flu season officially in full swing, doctors warn
- Doctors urge use of virtual clinics as emergency rooms become inundated with flu patients

AVIAN INFLUENZA INTERNATIONAL NEWS

- H5N2 avian influenza detected in wild mallard duck in Montana
- Hyderabad woman dies of swine flu, authorities urge precautions
- Update on imported human case of avian influenza A(H7N9) – Hong Kong
- High activity of avian influenza A(H7N9) in GuangDong: Hong Kong CHP

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
http://vaccine.healthmap.org/

Archived editions of FluBytes are available here and MI FluFocus archives are here.

For questions or to be added to the distribution list, please contact Jalyn Ingalls at ingallsj@michigan.gov.

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