MI Flu Focus
Influenza Surveillance Updates
Bureaus of Epidemiology and Laboratories

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Influenza Surveillance Report for the Week Ending October 14, 2017

MI’s Influenza Activity Level: Sporadic

Updates of Interest: The Centers for Disease Control and Prevention has released a resource encouraging health care professionals to make a strong recommendation for flu vaccine to all patients. For more information about this resource, see FluBytes on page 3.

Sentinel Provider Surveillance
The proportion of visits due to influenza-like illness (ILI) increased to 1.4% overall, which is below the regional baseline of 1.8%. A total of 112 patient visits due to ILI were reported out of 7,740 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (26 total):
- C (5)
- N (2)
- SE (13)
- SW (6)

National Surveillance: In the United States, 1.3% of outpatient visits were due to influenza-like illness, which is below 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.

Influenza-associated Pediatric Mortality
No pediatric deaths have been reported to MDHHS during the 2017-2018 flu season. Nationally, 0 influenza-associated pediatric deaths have been reported thus far for the 2017-2018 flu season.
Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project 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. Since Oct. 1, there has been 1 pediatric and 1 adult influenza-related hospitalizations reported in the catchment area for the 2017-2018 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 5 facilities (N, C, SE) reporting during this time period. Results for the 2017-18 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 2017-18 Flu Hospitalizations Reported to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5-17 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18-49 years</td>
<td>0</td>
<td>1 (SE)</td>
</tr>
<tr>
<td>50-64 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>65 years &amp; older</td>
<td>0</td>
<td>2 (1N, 1SE)</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>3 (1N, 2SE)</td>
</tr>
</tbody>
</table>

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 7 new positive influenza results (5 A/H3 and 2 flu B) during this time period. A total of 15 positive influenza results have been reported for the 2017-18 season. Influenza results for the 2017-18 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></td>
<td>C N SE SW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009 A/H1N1pdm</td>
<td>1 1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza A/H3</td>
<td>4 6 2 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza B</td>
<td>2 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A / unsubtypeable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LAIV recovery</td>
<td></td>
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</tr>
</tbody>
</table>

In addition, 9 sentinel clinical labs (2SE, 2SW, 5C, 0N) reported influenza testing results. Five (5) labs (SE, SW, C) reported sporadic influenza A activity. One (1) lab (SE) reported sporadic influenza B activity. Three (3) labs (SE, SW, C) reported low or slightly increased Parainfluenza activity. Four (4) labs (SE, SW, C) reported sporadic RSV activity. One (1) lab (C) reported sporadic Adenovirus activity. No labs reported hMPV activity. Testing volumes are generally steady in the low range although a few sites are showing small increases.

Congregate Setting Outbreaks of Viral Respiratory Illness

There were no new respiratory facility outbreaks reported to MDHHS during this time perio. Respiratory facility outbreaks for the 2017-2018 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>
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<td></td>
<td></td>
</tr>
<tr>
<td>Long-term Care / Assisted Living Facility</td>
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<td></td>
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<tr>
<td>Healthcare Facility</td>
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<td></td>
<td></td>
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<tr>
<td>Daycare</td>
<td></td>
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<td></td>
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<tr>
<td>Homeless Shelter</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
MAKE A STRONG FLU VACCINE RECOMMENDATION: A RESOURCE FOR HEALTH CARE PROFESSIONALS

The Centers for Disease Control and Prevention has released a resource encouraging health care professionals to make a strong recommendation for flu vaccine to all patients. The document discusses the SHARE method for talking with patients about vaccines: S-Share, H-Highlight, A-Address, R-Remind, E-Explain. To read more about each step of the SHARE method, please review this resource and share with all health care professionals.

2016-17 SEASON INFLUENZA VACCINATION COVERAGE ESTIMATES – CDC

The CDC has released the 2016-17 season influenza vaccination coverage estimates. Nationally, 46.8% of persons aged 6 months and older were vaccinated with 1+ dose of flu vaccine. Here are a couple of highlights from Michigan’s data:

- Overall coverage in Michigan increased 2% to 44.2%
- Children aged 6 months through 12 years of age decreased in coverage
- Michigan saw an increase among adults aged 18 through 49 years of age with high-risk conditions, a 6.5% increase from the 2015-16 season

National flu vaccination coverage among healthcare personnel and pregnant women are also available. Please note, only national data is available for these special populations.

SOUTHERN HEMISPHERE FLU VACCINE COMPOSITION

The World Health Organization has announced the recommended composition of influenza virus vaccines for use in the 2018 southern hemisphere influenza season. There is a new H3N2 strain, and a switch from the Victoria B lineage virus back to a Yamagata B lineage virus for trivalent vaccines. It is recommended that trivalent vaccines contain the following:

- A/Michigan/45/2015 (H1N1)pdm09-like virus
- A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus (NEW)
- B/Phuket/3073/2013-like virus

Quadivalent vaccines will also include a B/Brisbane/30/2008-like virus.

INFLUENZA-RELATED JOURNAL ARTICLES

- Epidemiology and burden of influenza in the U.S. Department of Veteran Affairs
- Hospital acquired pneumonia prevention initiative-2: Incidence of nonventilator hospital-acquired pneumonia in the United States
- Low 2016-17 season vaccine effectiveness against hospitalized influenza A(H3N2) among elderly: Awareness warranted for 2017-18 season
- A highly pathogenic avian H7N9 influenza virus isolated from A human is lethal in some ferrets infected via respiratory droplets (summary provided by CIDRAP)
- Intravenous Zanamivir in hospitalized patients with influenza
- In- and out-of-hospital mortality associated with seasonal and pandemic influenza and respiratory syncytial virus in South Africa, 2009-2013

OTHER INFLUENZA-RELATED NEWS

- Can employers require the flu shot? Many hospitals do
- Flu antivirals significantly cut ICU admission, Mechanical ventilation need
- Full and partial flu vaccination coverage in young children, six Immunization Information Systems sentinel sites, 2012-13 – 2016-17
- Experts tackle myth that flu vaccine causes influenza
- Influenza pandemics more likely to emerge in spring, summer
- RSV recommendation unchanged after review of data (AAP)
- Experts outline pathway to a universal influenza vaccine
- HIV quintuples risk for severe influenza

AVIAN INFLUENZA INTERNATIONAL NEWS

- China confirms bird flu outbreak at poultry farms in central province
- ECDC/EFSA joint report: Avian influenza overview October 2016 – August 2017
- Indonesia reports H5N1 avian influenza death

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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