**MI Flu Focus**
Influenza Surveillance Updates
Bureaus of Epidemiology and Laboratories

**MI’s Influenza Activity Level:**
Sporadic

**Updates of Interest:**
Families Fighting Flu has created a [toolkit](#) for Healthcare Professionals to help fight the spread of influenza. More details in FluBytes below.

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**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 189 patient visits due to ILI were reported out of 13,176 office visits. Please note: These rates may change as additional reports are received.

**Number of Reports by Region**
(34 total):
- C (9)
- N (2)
- SE (13)
- SW (10)

**National Surveillance:** In the United States, 1.9% 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](mailto:IngallsJ@michigan.gov)) for more information.

Additional information is in the weekly FluView reports available at: [www.cdc.gov/flu/weekly](http://www.cdc.gov/flu/weekly).

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**Influenza-associated Pediatric Mortality**
No pediatric deaths have been reported to MDHHS during the 2017-2018 flu season. Nationally, 1 influenza-associated pediatric death has 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 3 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 6 facilities (N, C, SE & SW) 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>1 (N)</td>
</tr>
<tr>
<td>18-49 years</td>
<td>0</td>
<td>1 (SE)</td>
</tr>
<tr>
<td>50-64 years</td>
<td>1 (SE)</td>
<td>1 (SE)</td>
</tr>
<tr>
<td>65 years &amp; older</td>
<td>3 (1N, 2SE)</td>
<td>7 (4N, 3SE)</td>
</tr>
<tr>
<td>Total</td>
<td>4 (1N, 3SE)</td>
<td>10 (5N, 5SE)</td>
</tr>
</tbody>
</table>

Laboratory Surveillance
MDHHS Bureau of Laboratories reported 8 new positive influenza results (7 A/H3 and 1 flu B) during this time period. A total of 42 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</td>
<td>N</td>
<td>SE</td>
<td>SW</td>
<td></td>
</tr>
<tr>
<td>2009 A/H1N1pdm</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Influenza A/H3</td>
<td>7</td>
<td>4</td>
<td>22</td>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td>Influenza B</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>4</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>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, 10 sentinel clinical labs (2SE, 2SW, 6C, 0N) reported influenza testing results. Three (3) labs (SE, C) reported sporadic influenza A activity. Two (SE, C) labs reported sporadic influenza B activity. Three labs (SE, SW, C) reported low or slightly increasing Parainfluenza activity. Four (4) labs (SE, C) reported low or slightly increasing RSV activity. Two (2) labs (SE, C) reported sporadic Adenovirus activity. One lab (SE) reported sporadic hMPV activity. Testing volumes are generally in the low range although most sites continue to slowly trend upwards.

Congregate Setting Outbreaks of Viral Respiratory Illness
There were 3 new respiratory outbreaks reported to MDHHS during this time period. 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>2</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Long-term Care / Assisted Living Facility</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Healthcare Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daycare</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Homeless Shelter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
HEPATITIS A OUTBREAKS: RESPONSE AND PREVENTION WEBINAR

The California Immunization Coalition is hosting a webinar on the hepatitis A outbreak in California. The webinar will describe hepatitis A modes of transmission, the unique characteristics of the California outbreak, and identify strategies that California counties have employed in response to the outbreak, and strategies to increase hepatitis A vaccination. The webinar is scheduled for December 5, 2017 from 3:00pm to 4:00pm (ET). Advanced registration is required.

IMMUNIZATION ACTION COALITION: ASK THE EXPERT INFLUENZA QUESTIONS

Q: A 1-year-old was inadvertently given a 0.25 mL dose of FluLaval rather than the recommended 0.5 mL dose. What should we do?

A: If the error is discovered while the child is still in the office, you can administer the other "half" of the FluLaval dose. If the error is discovered later, the dose should not be counted, and then the child should be recalled to the office and given a full age-appropriate repeat dose, either a 0.5 mL dose of FluLaval or a 0.25 mL dose of Fluzone.

Q: I heard that a recent study suggested an increase in miscarriage among women who received inactivated influenza vaccine. Please provide details.

A: A CDC-funded study found that women who had been vaccinated early in pregnancy with an influenza vaccine containing the pandemic H1N1 (H1N1pdm09) component and who also had been vaccinated the prior season with an H1N1pdm09-containing influenza vaccine had an increased risk of spontaneous abortion (miscarriage) in the 28 days after vaccination. This study does not quantify the risk of miscarriage and does not prove that influenza vaccine was the cause of the miscarriage. Earlier studies have not found a link between influenza vaccination and miscarriage. There is an ongoing investigation to study this issue further among women who were pregnant and eligible to receive influenza vaccine during the 2012–13 through 2014–15 influenza seasons. Results are anticipated in late 2018 or 2019. CDC and ACIP have not changed the recommendation for influenza vaccination of pregnant women. It is recommended that pregnant women receive influenza vaccine during any trimester of their pregnancy because influenza poses a danger to pregnant women and the vaccine can prevent influenza in pregnant women.

FAMILIES FIGHTING FLU: TOOLKIT FOR HEALTHCARE PROFESSIONALS

Families Fighting Flu has created a toolkit for Healthcare Professionals to help fight the spread of flu. The toolkit includes resources for healthcare professionals, resources that can be shared with parents, perspectives from a pediatric nurse, and information about the impact that flu has had on families. Please share this toolkit with healthcare professionals.

INFLUENZA-RELATED JOURNAL ARTICLES

- Resource utilization and cost of influenza requiring hospitalization in Canadian Adults: A study from the serious outcomes surveillance network of the Canadian Immunization Research Network
- Seasonal influenza vaccine effectiveness in preventing laboratory-confirmed influenza in primary care in Israel 2016-2017 season: insights into novel age-specific analysis
- Late diagnosis of influenza in adult patients during a seasonal outbreak

OTHER INFLUENZA-RELATED NEWS

- Another voice: You owe it to others to get a flu shot
- Researchers discover new mechanism to battle influenza
- Flu vaccination is a team sport
- New avian flu outbreaks noted as USDA OK’s DNA poultry vaccine
- H3N2 mutation in last year’s influenza vaccine responsible for lowered efficacy
- The Americas lead in vaccination for pregnant women against influenza
- Intravenous Zanamivir safe, efficacious in children with influenza
- Improved vaccination coverage could yield major health and economic impacts this flu season, says Virginia Tech Expert

AVIAN INFLUENZA INTERNATIONAL NEWS

- Avian influenza detected in southern S. Korea

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.