Sentinel Provider Surveillance
The proportion of visits due to influenza-like illness (ILI) increased to 2.0% overall, which is above the regional baseline of 1.8%. A total of 208 patient visits due to ILI were reported out of 10,341 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (31 total):
- C (8)
- N (2)
- SE (12)
- SW (9)

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, 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 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 6 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 8 new positive influenza results (7 A/H3 and 1 A/H1) during this time period. A total of 23 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></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza A/H3</td>
<td>7</td>
<td>10</td>
<td>2</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Influenza B</td>
<td>2</td>
<td></td>
<td></td>
<td>2</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>
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<td></td>
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</tr>
</tbody>
</table>

In addition, 10 sentinel clinical labs (2SE, 2SW, 6C, 0N) reported influenza testing results. Four (4) labs (SE, SW, C) reported sporadic influenza A activity. One (1) lab (C) reported sporadic influenza B activity. Four (4) labs (SE, SW, C) reported low or slightly increased Parainfluenza activity. Five (5) labs (SE, SW, C) reported sporadic or low RSV activity. Two (2) labs (SE, C) reported sporadic Adenovirus activity. One lab (SE) reported sporadic hMPV activity. Testing volumes are generally steady in the low range although a few sites are slowly trending upwards.

Congregate Setting Outbreaks of Viral Respiratory Illness
There were no new respiratory facility 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></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term Care / Assisted Living Facility</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daycare</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Homeless Shelter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>
FluBytes

OCTOBER ACIP RECAP WEBINAR
The National Foundation for Infectious Diseases (NFID) is hosting a webinar recapping important updates from the October ACIP meeting. The webinar is scheduled for Thursday, November 9, at 12:00pm (ET). Dr. William Schaffner and Dr. Amanda Cohn will discuss updates from the October ACIP meeting, including current vaccination recommendations for adults, adolescents, and children. The webinar is free, but you must register in advance.

CDC BLOG-A-THON
The CDC is hosting a Blog-a-thon focused on healthcare providers, and encouraging them to give a strong flu vaccine recommendation to patients. The blog-a-thon is scheduled for the second week of November (6-11). To participate in the blog-a-thon, write your own post on the importance of flu vaccination and the role that healthcare providers play. Copy the blog-a-thon badge to include with your post, and share your blog link on social media.

MAKE A STRONG FLU VACCINE RECOMMENDATION: A RESOURCE FOR HEALTH CARE PROFESSIONALS
The Centers for Disease Control and Prevention have 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.

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

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

INFLUENZA-RELATED JOURNAL ARTICLES
- Low interim influenza vaccine effectiveness, Australia, 1 May to 24 September 2017
- Benefit of early initiation of neuraminidase inhibitor treatment to hospitalized patients with avian influenza A (H7N9) virus - abstract
- Influenza antiviral prescribing for outpatients with an acute respiratory illness and at high risk for influenza-associated complications during five influenza seasons – United States, 2011-2016
- Detection of influenza C viruses among outpatients and patients hospitalized for severe acute respiratory infection, Minnesota, 2013-2016
- Mammalian pathogenesis and transmission of avian influenza A(H7N9) viruses, Tennessee, USA, 2017
- A structural explanation for the low effectiveness of the seasonal influenza H3N2 vaccine
- Influenza vaccine uptake in primary school children: 2016-2017, England

OTHER INFLUENZA-RELATED NEWS
- CDC confirms new H1N2v flu case in Ohio
- The region of the Americas leads in the vaccination of pregnant women against influenza
- Argument by vaccine package inserts – they’re not infallible
- With severe flu season lurking, shots a must
- Iowa reports first flu-related death of the 2017-18 season
- How bad will flu season be? U. of C. researchers have had an idea for months

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.

MDHHS Contributors
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