VERMONT WEEKLY INFLUENZA SURVEILLANCE REPORT
February 10 – February 16, 2019 | MMWR WEEK 7

Infectious Disease Epidemiology | 802-863-7240
Influenza activity was categorized as **Widespread** for MMWR Week 7

- Increased levels of Influenza-like Illness (ILI)* activity seen in emergency departments
  - Of the total emergency room visits, **3.9% were due to ILI**
- Increased levels of ILI activity reported by outpatient providers
  - Sentinel providers reported **4% of patients had ILI**
- Vermont Department of Health Laboratory reported **37 positive flu tests**
- National Respiratory and Enteric Virus Surveillance System reported **139 positive flu tests**
- One ILI outbreak reported at a LTCF in the Southwestern region

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**Outbreaks this week:** 1
**Total Outbreaks:** 25

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*ILI is defined as a measured fever of at least 100° F and cough or sore throat, without a known cause other than influenza.
**Syndromic Surveillance** of Influenza-Like Illness at Vermont Hospitals, 2018-2019 vs. Historic Data

*Data pulled from ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics)*
SENTINEL PROVIDER DATA

Sentinel providers report the number of patients with ILI seen by their practice each week. There are 15 medical practices located throughout the state currently providing data.

Percent of Visits Reported by Vermont Sentinel Providers* with Influenza-like Illness by MMWR Week, 2016/17 – 2018/19 Flu Seasons

Week ending 2/16/2019 (Week 7)

*The ILI data are more robust when a higher percentage of provider reports are received. Recent data are provisional due to reporting lags.
Percent of Visits Reported by Vermont Sentinel Providers* with Influenza-like Illness by Age Group by MMWR Week, 2016/17 – 2018/19 Flu Seasons

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Percent of Visits Reported by Vermont Sentinel Providers* with Influenza-like Illness by Age Group by MMWR Week 2018/2019 Flu Season

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<table>
<thead>
<tr>
<th>Specimens Tested</th>
<th>VDHL* Current Week (Feb 10-Feb 16, 2019)</th>
<th>VDHL* 2018-2019 Season Total (Sep 30, 2018-Feb 16, 2019)</th>
<th>Number</th>
<th>Percentage</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Specimens</td>
<td>39</td>
<td>95%</td>
<td>234</td>
<td>82%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Specimens</td>
<td>0</td>
<td>100%</td>
<td>0</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positive Specimens by Type/Subtype</th>
<th>VDHL* Current Week (Feb 10-Feb 16, 2019)</th>
<th>VDHL* 2018-2019 Season Total (Sep 30, 2018-Feb 16, 2019)</th>
<th>Number</th>
<th>Percentage</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>37</td>
<td>100%</td>
<td>192</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (2009 H1N1)</td>
<td>27</td>
<td>73%</td>
<td>109</td>
<td>57%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (H1)</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (H3)</td>
<td>9</td>
<td>24%</td>
<td>79</td>
<td>41%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (unsubtyped)</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (H3) and A (2009 H1N1)</td>
<td>1</td>
<td>3%</td>
<td>1</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza B</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>NREVSS* Current Week (Feb 10-Feb 16, 2019)</th>
<th>NREVSS* 2018-2019 Season Total (Sep 30, 2018-Feb 16, 2019)</th>
<th>Number</th>
<th>Percentage</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specimens Tested</td>
<td>433</td>
<td>95%</td>
<td>4712</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>Positive Specimens</td>
<td>192</td>
<td>32%</td>
<td>876</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Negative Specimens</td>
<td>241</td>
<td>68%</td>
<td>3856</td>
<td>81%</td>
<td></td>
</tr>
</tbody>
</table>

Individual flu results are not reported to the Vermont Department of Health. The data below represents an unknown subset of the actual number of flu tests performed in Vermont.

Vermont Department of Health Laboratory (VDHL) tests specimens for flu to identify exactly which strains are currently causing illnesses in the state. Flu testing at the state laboratory is for surveillance purposes and is performed on specimens collected during an institutional outbreak and routinely by sentinel providers.

National Respiratory and Enteric Virus Surveillance System (NREVSS) data is collected from collaborating university and community hospital laboratories. These participating laboratories report positive results for a number of viruses, including influenza, on a weekly basis. Three Vermont hospitals voluntarily contribute data into this system.

*Laboratory data obtained from VDHL and NREVSS may include the same specimens tested for flu, they are not mutually exclusive. Facilities that report to NREVSS may submit a specimen to VHDL for additional testing, therefore being reported both in NREVSS and VDHL.
ILI OUTBREAK DATA

Long-Term Care Facility Outbreaks

Number of Outbreaks
13

Outbreak Regions
- Central: 2
- Northeastern: 1
- Northwestern: 3
- Southeastern: 0
- Southwestern: 7

School Outbreaks

Number of Outbreaks
9

Outbreak Regions
- Central: 3
- Northeastern: 1
- Northwestern: 1
- Southeastern: 0
- Southwestern: 4

Outbreaks at Other Facilities

Number of Outbreaks
3

Outbreak Regions
- Central: 0
- Northeastern: 0
- Northwestern: 2
- Southeastern: 0
- Southwestern: 1

MAP OF INFLUENZA SURVEILLANCE REGIONS IN VERMONT

*Suspected outbreaks of ILI should be reported to the health department
Influenza activity continues to increase in the United States. Influenza A(H1N1), A(H3N2), and B continue to co-circulate.

Full FluView report can be found here: https://www.cdc.gov/flu/weekly/index.htm
Seven influenza-associated pediatric deaths were reported to CDC during week 7. So far this season, there have been 41 influenza-associated pediatric deaths reported to CDC. **There have been no influenza-associated pediatric deaths reported in Vermont this season.**

Number of Influenza-Associated Pediatric Deaths by Week of Death: 2015-2016 season to present

- **2015-2016**
  - Number of Deaths Reported = 94

- **2016-2017**
  - Number of Deaths Reported = 110

- **2017-2018**
  - Number of Deaths Reported = 185

- **2018-2019**
  - Number of Deaths Reported = 41

Full FluView report can be found here: [https://www.cdc.gov/flu/weekly/index.htm](https://www.cdc.gov/flu/weekly/index.htm)
The proportion of outpatient visits for Influenza-like Illness for week 7 was 5.1% which is above the national baseline of 2.2%.

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2018-2019 and Selected Previous Seasons

Full FluView report can be found here: https://www.cdc.gov/flu/weekly/index.htm
During week 7, the following ILI activity levels were experienced:

- New York City and 30 states (Alabama, Alaska, Arkansas, Colorado, Georgia, Indiana, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wyoming) experienced high ILI activity.
- Six states (Florida, Michigan, Nevada, North Dakota, South Dakota and Wisconsin) experienced low ILI activity.
- The U.S. Virgin Islands and three states (Minnesota, New Hampshire and Ohio) experienced minimal ILI activity.
- Data were insufficient to calculate an ILI activity level from Puerto Rico.

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet

2018-19 Influenza Season Week 7 ending Feb 16, 2019

*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.

Data collected in ILINet may disproportionally represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.

Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map is based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data are received.

Differences in the data presented here by CDC and independently by some state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.

Full FluView report can be found here: https://www.cdc.gov/flu/weekly/index.htm
Geographic spread for week 7**: 

**No activity** was not reported.

**Sporadic** activity was reported by the US Virgin Islands and 1 state.

**Local** activity reported by D.C.

**Regional** activity was reported by 1 states.

**Widespread** activity was reported by Puerto Rico and 48 states.
RESOURCES

NATIONAL WEEKLY FLU REPORT
http://www.cdc.gov/flu/weekly/index.htm

NATIONAL WEEKLY FLU REPORT - INTERACTIVE
https://www.cdc.gov/flu/weekly/fluviewinteractive.htm

VERMONT FLU WEBSITE
www.healthvermont.gov/prevent/flu/flusurveillance.aspx

CDC SEASONAL INFLUENZA WEBSITE
https://www.cdc.gov/flu/index.htm

KEY FACTS ABOUT SEASONAL FLU VACCINE
https://www.cdc.gov/flu/protect/keyfacts.htm