Influenza activity was categorized as **Regional** for MMWR Week 16

- Decreased levels of Influenza-like Illness (ILI)* activity seen in emergency departments
  - Of the total emergency room visits, **1.4% were due to ILI**
- Decreased levels of ILI activity reported by outpatient providers
  - Sentinel providers reported **1.5% of patients had ILI**
- Vermont Department of Health Laboratory reported **10 positive flu tests**
- National Respiratory and Enteric Virus Surveillance System reported **36 positive flu tests**
- Four ILI outbreaks reported
  - Three at LTCFs in the Southwest Region
  - One at a LTCF in the Central Region

**Based on CDC’s Activity Estimates Definitions:**
[www.cdc.gov/flu/weekly/overview.htm](http://www.cdc.gov/flu/weekly/overview.htm)

**VT Flu Geographic Spread**

- No Activity
- Sporadic
- Local
- **Regional**
- Widespread

**Outbreaks this week:** 4
**Total Outbreaks:** 38

*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 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

*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

*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 2018/2019 Flu Season

*The ILI data are more robust when a higher percentage of provider reports are received. Recent data are provisional due to reporting lags.
### Laboratory Data

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.

#### VDHL*

<table>
<thead>
<tr>
<th>Specimens Tested</th>
<th>2018-2019 Season Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Specimens Tested</td>
<td>16</td>
</tr>
<tr>
<td>Positive Specimens</td>
<td>10</td>
</tr>
</tbody>
</table>

#### NREVSS*

<table>
<thead>
<tr>
<th>Specimens Tested</th>
<th>2018-2019 Season Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Positive Specimens</td>
<td>247</td>
</tr>
<tr>
<td>Positive Specimens</td>
<td>36</td>
</tr>
</tbody>
</table>

#### Positive Specimens by Type/Subtype

<table>
<thead>
<tr>
<th>Influenza A</th>
<th>VDHL* 2018-2019 Season Total</th>
<th>NREVSS* 2018-2019 Season Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Influenza A</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>A (2009 H1N1)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>A (H1)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>A (H3)</td>
<td>9</td>
<td>90%</td>
</tr>
<tr>
<td>A (unsubtyped)</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>A (H3) and A (2009 H1N1)</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

#### 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 VDHDL for additional testing, therefore being reported both in NREVSS and VDHL.
### ILI Outbreak Data

#### Long-Term Care Facility Outbreaks

- **Number of Outbreaks**: 22
- **Outbreak Regions**:
  - Central: 6
  - Northeastern: 1
  - Northwestern: 4
  - Southeastern: 0
  - Southwestern: 11

#### School Outbreaks

- **Number of Outbreaks**: 11
- **Outbreak Regions**:
  - Central: 3
  - Northeastern: 1
  - Northwestern: 1
  - Southeastern: 2
  - Southwestern: 4

#### Outbreaks at Other Facilities

- **Number of Outbreaks**: 5
- **Outbreak Regions**:
  - Central: 0
  - Northeastern: 0
  - Northwestern: 3
  - Southeastern: 0
  - Southwestern: 2

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*Suspected outbreaks of ILI should be reported to the health department*

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**MAP OF INFLUENZA SURVEILLANCE REGIONS IN VERMONT**

Influenza activity continues to decrease in the United States. Influenza A(H1N1)pdm09 viruses predominated from October to mid-February, and influenza A(H3N2) viruses have been more commonly identified since late February. Small numbers of influenza B viruses also have been reported.

Full FluView report can be found here: https://www.cdc.gov/flu/weekly/index.htm
5 influenza-associated pediatric deaths were reported to CDC during week 16.
So far this season, there have been 96 influenza-associated pediatric deaths reported to CDC.
There were no influenza-associated pediatric deaths reported in Vermont during week 16.
There has been 1 influenza-associated pediatric death reported in Vermont this season.

Full FluView report can be found here: https://www.cdc.gov/flu/weekly/index.htm
The proportion of outpatient visits for Influenza-like Illness for week 16 was 2.1% which is below 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
During week 16, the following ILI activity levels were experienced:
- Puerto Rico experienced high ILI activity.
- One state (Kentucky) experienced moderate ILI activity.
- Nine states (Arizona, Colorado, Louisiana, Massachusetts, Rhode Island, South Carolina, Utah, Virginia and Wisconsin) experienced low ILI activity.
- Data were insufficient to calculate an ILI activity level from the U.S. Virgin Islands.

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2018-19 Influenza Season Week 16 ending Apr 20, 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 disproportionately 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 16**:

No activity was not reported.

Sporadic activity was reported by the D.C., U.S. Virgin Islands and 9 states.

Local activity reported by 19 states.

Regional activity was reported by Puerto Rico and 17 states.

Widespread activity was reported by 5 states.

Full FluView report can be found here: https://www.cdc.gov/flu/weekly/index.htm
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