RESPIRATORY VIRUS SURVEILLANCE REPORT

Week 49, Ending December 11, 2021

Wisconsin Department of Health Services | Division of Public Health
Bureau of Communicable Diseases | Communicable Diseases Epidemiology Section

www.dhs.wisconsin.gov/dph/bcd.htm | dhsdphbcd@dhs.wi.gov
INFLUENZA-LIKE ILLNESS (ILI) ACTIVITY

STATE OF WISCONSIN

REGION V OF US (WI, MN, IL, MI, OH, IN)

UNITED STATES

AT-A-GLANCE:

- Predominant Viruses of the Week:
  Rhino/enterovirus is the predominant virus this week.

Current Alerts:
Influenza activity continues to increase statewide. 428 confirmed cases of influenza were reported last week. Influenza A/H3 is the predominant influenza virus.

Additional data on SARS-CoV-2 (the virus causing COVID-19) trends in Wisconsin can be found at: https://www.dhs.wisconsin.gov/covid-19/data.htm

INFLUENZA-ASSOCIATED PEDIATRIC DEATHS REPORTED:

<table>
<thead>
<tr>
<th></th>
<th>Week 49, 2021</th>
<th>October 1, 2021 to present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nationwide</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

For National US influenza surveillance statistics visit: www.cdc.gov/flu/weekly/
INFLUENZA AND PNEUMONIA-ASSOCIATED MORTALITY

Influenza and Pneumonia Deaths, Wisconsin

Influenza- and pneumonia-associated deaths by influenza season year and week, Wisconsin

<table>
<thead>
<tr>
<th>Influenza season week</th>
<th>Influenza-associated deaths (I)</th>
<th>Pneumonia-associated deaths (P)</th>
<th>Percent I+P of all deaths</th>
<th>Baseline I+P of all deaths</th>
<th>Threshold I+P of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>0</td>
<td>160</td>
<td>11.5%</td>
<td>4.9%</td>
<td>5.7%</td>
</tr>
<tr>
<td>48</td>
<td>0</td>
<td>178</td>
<td>13.5%</td>
<td>5.0%</td>
<td>5.8%</td>
</tr>
<tr>
<td>49 Preliminary Data</td>
<td>1</td>
<td>149</td>
<td>14.2%</td>
<td>5.1%</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

Data source: DPH, Office of Health Informatics
Wisconsin positive influenza results and subtypes by PCR

Cumulative number of positive influenza PCR tests by subtype
October 9, 2021 to present

<table>
<thead>
<tr>
<th></th>
<th>Influenza A:</th>
<th>97%</th>
<th>Influenza B:</th>
<th>3%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A (2009 H1N1)</td>
<td></td>
<td>B (Victoria)</td>
<td></td>
</tr>
<tr>
<td>Total positive (n)</td>
<td>7</td>
<td>322</td>
<td>1,051</td>
<td>44</td>
</tr>
<tr>
<td>% of total positive</td>
<td>0%</td>
<td>23%</td>
<td>74%</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>A (H3N2 seasonal)</th>
<th>A (H1N1)</th>
<th>A (H3N2v)</th>
<th>B (Victoria)</th>
<th>B (Yamagata)</th>
<th>B (Unknown)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total positive (n)</td>
<td>322</td>
<td>1,051</td>
<td>1</td>
<td>0</td>
<td>44</td>
<td>1,425</td>
<td></td>
</tr>
<tr>
<td>% of total positive</td>
<td>23%</td>
<td>74%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

**Trends in respiratory virus activity by PCR**

![Graph showing the percentage of positive PCR tests for various respiratory viruses over time.]

**Week 49 Ending on December 11, 2021**

<table>
<thead>
<tr>
<th>Respiratory virus</th>
<th>Tested</th>
<th>Positive (n)</th>
<th>Positive (%)</th>
<th>Influenza A</th>
<th>Influenza B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H3N2</td>
<td>2009</td>
</tr>
<tr>
<td>Influenza</td>
<td>10220</td>
<td>531</td>
<td>5.2%</td>
<td>92</td>
<td>0</td>
</tr>
<tr>
<td>Parainfluenza</td>
<td>1263</td>
<td>91</td>
<td>7.2%</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Coronavirus (seasonal)</td>
<td>221</td>
<td>9</td>
<td>4.1%</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>RSV</td>
<td>5226</td>
<td>329</td>
<td>6.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human metapneumovirus</td>
<td>1281</td>
<td>25</td>
<td>2.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhino-enterovirus</td>
<td>1222</td>
<td>192</td>
<td>15.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adenovirus</td>
<td>221</td>
<td>4</td>
<td>1.8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**WISCONSIN STATE SUMMARY**

ILI activity trend analysis by influenza season, Wisconsin

![Chart showing ILI activity trend analysis by influenza season, Wisconsin](chart.png)

**Influenza-associated hospitalizations, Wisconsin Electronic Disease Surveillance System**

October 1, 2021 to present

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Total reported (n)</th>
<th>Influenza subtype</th>
<th>Admitted to ICU</th>
<th>Required mechanical ventilation</th>
<th>Pregnant</th>
<th>Postpartum (≤6 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>0</td>
<td>A (2009 H1N1)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1-4</td>
<td>0</td>
<td>A (H3N2)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5-17</td>
<td>0</td>
<td>A (Unknown)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18-49</td>
<td>0</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50-64</td>
<td>0</td>
<td>Not reported</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>65+</td>
<td>0</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

**Reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin**

![Chart showing reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin](chart2.png)

*The 2020 - 2021 influenza season was unusually low due much in part to the ongoing COVID-19 pandemic. As such, numbers for that season are substantially different than previous seasons and should be considered an anomaly.*
ILI ACTIVITY TREND ANALYSIS

Wisconsin

Northeastern Region

Northern Region
ILI ACTIVITY TREND ANALYSIS

Southeastern Region

Average % ILI

Week ending

Baseline

Threshold

Southern Region

Average % ILI

Week ending

Baseline

Threshold

Western Region

Average % ILI

Week ending

Baseline

Threshold
**Influenza vaccine composition 2021-2022:**

**Egg-based vaccines** are recommended to contain:
- A/Victoria/2570/2019 (H1N1) pdm09-like virus
- A/Cambodia/e0826360/2020 (H3N2)-like virus
- B/Washington/02/2019- like virus (B/Victoria lineage)
- B/Phuket/3073/2013-like virus (B/Yamagata lineage)

**Cell- or recombinant-based vaccines** are recommended to contain:
- A/Wisconsin/588/2019 (H1N1) pdm09-like virus
- A/Cambodia/e0826360/2020 (H3N2)-like virus
- B/Washington/02/2019- like virus (B/Victoria lineage)
- B/Phuket/3073/2013-like virus (B/Yamagata lineage)

Data source: All influenza vaccination rates presented were calculated using data from the Wisconsin Immunization Registry (numerator) and Wisconsin population estimates (denominator).

As of this week, the influenza vaccination coverage in Wisconsin is 5% lower than this time last year.
SEASONAL INFLUENZA VACCINATION

Percentage of Wisconsin residents who received one or more doses of influenza vaccine, by age group and influenza season

Each season includes doses administered during the same time period (August 1 through May 3).

Percentage of Wisconsin residents who received one or more doses of influenza vaccine, by race and ethnicity and region, 2021-2022 influenza season

All of Wisconsin

Northeastern

Northern

Southeastern

Southern

Western

Non-Hispanic

Hispanic

White

Black

Asian

American Indian/Alaska-Native

Total

34%

32%

31%

29%

28%

27%

26%

24%

23%

21%

20%

19%

18%

17%

16%

15%

14%

13%

12%

11%

10%

9%

8%

7%

6%

5%

4%

3%

2%

1%

0%