RESPIRATORY VIRUS SURVEILLANCE REPORT
Week 7, Ending February 15, 2020

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:

- Weekly Respiratory Report Description
- Predominant Viruses of the Week:
  Influenza A/H1 is the predominant virus this week.

INFLUENZA-ASSOCIATED PEDIATRIC DEATHS REPORTED:

Week 7, 2020  October 1, 2019 to present

Wisconsin  1  3
Nationwide  13  105

CURRENT ALERTS:

- The third influenza-associated pediatric death in Wisconsin was reported this week.
- 431 influenza hospitalizations were reported this week.

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

Percent of deaths associated with influenza and pneumonia

<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>5</td>
<td>3</td>
<td>67</td>
<td>5.9%</td>
<td>6.0%</td>
<td>6.7%</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>51</td>
<td>5.5%</td>
<td>6.0%</td>
<td>6.8%</td>
</tr>
<tr>
<td>7 Preliminary Data</td>
<td>8</td>
<td>78</td>
<td>9.3%</td>
<td>6.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Seasonal total</td>
<td>44</td>
<td>1345</td>
<td>5.1%</td>
<td>NA</td>
<td>NA</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
September 1, 2019 to present

<table>
<thead>
<tr>
<th>Subtype</th>
<th>Total positive (n)</th>
<th>45%</th>
<th>2009 H1N1</th>
<th>H3N2</th>
<th>Unknown</th>
<th>Victoria</th>
<th>Yamagata</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total positive</td>
<td>19496</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of total positive</td>
<td>2%</td>
<td>0%</td>
<td>42%</td>
<td>2%</td>
<td>0%</td>
<td>53%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Trends in respiratory virus activity by PCR

<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 H1N1</td>
</tr>
<tr>
<td>Influenza</td>
<td>10282</td>
<td>4038</td>
<td>39.3%</td>
<td>16</td>
<td>114</td>
</tr>
<tr>
<td>Parainfluenza</td>
<td>710</td>
<td>7</td>
<td>1.0%</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Coronavirus</td>
<td>117</td>
<td>5</td>
<td>4.3%</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respiratory virus</th>
<th>Tested</th>
<th>Positive (n)</th>
<th>Positive (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSV</td>
<td>2906</td>
<td>363</td>
<td>12.5%</td>
</tr>
<tr>
<td>Human metapneumovirus</td>
<td>672</td>
<td>44</td>
<td>6.5%</td>
</tr>
<tr>
<td>Rhino-enterovirus</td>
<td>695</td>
<td>45</td>
<td>6.5%</td>
</tr>
<tr>
<td>Adenovirus</td>
<td>117</td>
<td>5</td>
<td>4.3%</td>
</tr>
</tbody>
</table>
**WISCONSIN STATE SUMMARY**

### Influenza rapid antigen tests

<table>
<thead>
<tr>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>ILI %</th>
<th>Baseline</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Influenza A</td>
<td>119</td>
<td></td>
<td>Influenza B</td>
<td>570</td>
<td>80</td>
<td>5.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>470</td>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2944</td>
<td>35.3%</td>
<td>Total</td>
<td>1040</td>
<td>350</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### RSV rapid antigen tests

<table>
<thead>
<tr>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>360</td>
<td>24.7%</td>
</tr>
</tbody>
</table>

### Influenza-like illness (ILI)

**ILI activity trend analysis**

![Graph showing ILI activity trend analysis]

**Influenza and RSV trend analysis**

![Graph showing influenza and RSV trend analysis]
WISCONSIN STATE SUMMARY

ILI activity trend analysis by influenza season, Wisconsin

Influenza-associated hospitalizations, Wisconsin Electronic Disease Surveillance System
September 1, 2019 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>71</td>
<td>A (2009 H1N1) 3</td>
<td>22</td>
<td>9</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1-4</td>
<td>128</td>
<td>0 (H3N2) 27</td>
<td>49</td>
<td>18</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5-17</td>
<td>239</td>
<td>(Unknown) 36</td>
<td>74</td>
<td>20</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>18-49</td>
<td>534</td>
<td>A (2009 H1N1) 28</td>
<td>152</td>
<td>76</td>
<td>26</td>
<td>49</td>
</tr>
<tr>
<td>50-64</td>
<td>544</td>
<td>(H3N2) 44</td>
<td>74</td>
<td>89</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td>849</td>
<td>(Unknown) 522</td>
<td>191</td>
<td>99</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2365</td>
<td></td>
<td>593</td>
<td>311</td>
<td>91</td>
<td>49</td>
</tr>
</tbody>
</table>

Reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin
NORTHEASTERN REGION

ILI activity trend analysis

<table>
<thead>
<tr>
<th>week ending</th>
<th>Baseline</th>
<th>Threshold</th>
<th>3-week moving average (average % ILI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>9/22</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>10/13</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>11/3</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>11/24</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>12/15</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>1/5</td>
<td>6%</td>
<td>7%</td>
<td>Average % ILI</td>
</tr>
<tr>
<td>1/26</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/16</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/29</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/19</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/10</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/31</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Influenza and RSV trend analysis

<table>
<thead>
<tr>
<th>week ending</th>
<th>3-week moving average (RSV)</th>
<th>3-week moving average (Influenza)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>9/22</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>10/13</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>11/3</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>11/24</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>12/15</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>1/5</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>1/26</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>2/16</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>3/8</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>3/29</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>4/19</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>5/10</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>5/31</td>
<td>13%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Influenza rapid antigen tests

<table>
<thead>
<tr>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>Influenza B</td>
<td>Total</td>
</tr>
<tr>
<td>1010</td>
<td>155</td>
<td>208</td>
</tr>
</tbody>
</table>

RSV rapid antigen tests

<table>
<thead>
<tr>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>55</td>
<td>26.1%</td>
</tr>
</tbody>
</table>

Influenza-like illness (ILI)

<table>
<thead>
<tr>
<th>week ending</th>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>ILI %</th>
<th>Baseline</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>9/22</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>10/13</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>11/3</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>11/24</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>12/15</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>1/5</td>
<td>6%</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>1/26</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>2/16</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>3/8</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>3/29</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>4/19</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>5/10</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>5/31</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
<td>16%</td>
<td>17%</td>
<td>18%</td>
</tr>
</tbody>
</table>
ILI activity trend analysis

Influenza and RSV trend analysis
SOUTHEASTERN REGION

ILI activity trend analysis

<table>
<thead>
<tr>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>ILI %</th>
<th>Baseline</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>Influenza B</td>
<td>Total</td>
<td>Influenza A</td>
<td>Influenza B</td>
<td>Total</td>
<td>Influenza A</td>
<td>Influenza B</td>
<td>Total</td>
</tr>
<tr>
<td>891</td>
<td>212</td>
<td>93</td>
<td>305</td>
<td>9</td>
<td>2</td>
<td>4.7%</td>
<td>2.9%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Influenza and RSV trend analysis

% Positive by antigen detection

Week ending
## SOUTHERN REGION

### ILI activity trend analysis

<table>
<thead>
<tr>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>Tested</th>
<th>Positive (n)</th>
<th>% Positive</th>
<th>ILI %</th>
<th>Baseline</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>75</td>
<td>17</td>
<td>33.3%</td>
<td>20</td>
<td>8</td>
<td>40.0%</td>
<td>6.0%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Influenza B</td>
<td>8</td>
<td>8</td>
<td>100.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>25</td>
<td>30.1%</td>
<td>28</td>
<td>16</td>
<td>57.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Influenza and RSV trend analysis

- **Influenza**
  - 3-week moving average (average % ILI)
  - % Positive by antigen detection

- **RSV**
  - 3-week moving average (RSV)
  - % Positive by antigen detection

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*Division of Public Health*  
*Respiratory Virus Surveillance Report*  
*Week 7: Ending February 15, 2020*  

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*Page 11*
**Influenza vaccine composition 2019-2020:**

The **trivalent** vaccines for use in the 2019-2020 influenza season contain the following:

- A/Brisbane/02/2018 (H1N1)pdm09–like virus (updated)
- A/Kansas/14/2017 (H3N2)-like virus (updated)
- B/Colorado/06/2017-like (Victoria lineage) virus

It is recommended that **quadrivalent** vaccines containing two influenza B viruses contain the above three viruses and:

- B/Phuket/3073/2013-like virus (Yamagata lineage)

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

**Cumulative percentage of Wisconsin residents who received 1 or more doses of influenza vaccine, 2019-2020 influenza season**

- **Healthy People 2020 Goal:** 70%
- **2018-2019 Total Vaccinated:** 40%
- **2019-2020 as of 02/15/2020:** 41%

During this week, the vaccination rates for the 2019-2020 influenza vaccine season have been above the vaccination rates observed during the 2018-2019 season.
## 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, 2019-2020 influenza season

<table>
<thead>
<tr>
<th>Region</th>
<th>All of Wisconsin</th>
<th>Northeastern</th>
<th>Northern</th>
<th>Southeastern</th>
<th>Southern</th>
<th>Western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaska-Native</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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