

### RESPIRATORY VIRUS SURVEILLANCE REPORT

Week 2: Ending January 11, 2020

Wisconsin Department of Health Services | Division of Public Health

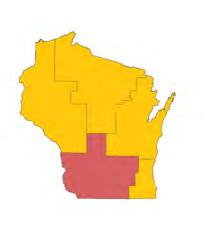
Bureau of Communicable Diseases | Communicable Diseases Epidemiology Section

www.dhs.wisconsin.gov/dph/bcd.htm | dhsdphbcd@dhs.wi.gov

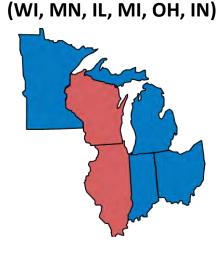








### **REGION V OF US** (WI, MN, IL, MI, OH, IN)







ILI: HIGH LEVELS

ILI: MODERATE LEVELS

ILI: BELOW BASELINE

ILI: INSUFFICIENT DATA

### AT-A-GLANCE:

- Weekly Respiratory Report Description
- **Predominant Viruses of the Week:** Influenza B and RSV are the predominant viruses this week.

#### **CURRENT ALERTS:**

Influenza B (Victoria lineage) continues to be the predominant influenza virus in Wisconsin.

A total of 22 flu related deaths have been reported in Wisconsin this season.

### **INFLUENZA-ASSOCIATED PEDIATRIC DEATHS REPORTED:**

|            | Week 2, 2020 | October 1, 201<br>to present |
|------------|--------------|------------------------------|
| Wisconsin  | 0            | 1                            |
| Nationwide | 7            | 39                           |



For National US influenza surveillance statistics visit: <a href="www.cdc.gov/flu/weekly/">www.cdc.gov/flu/weekly/</a>

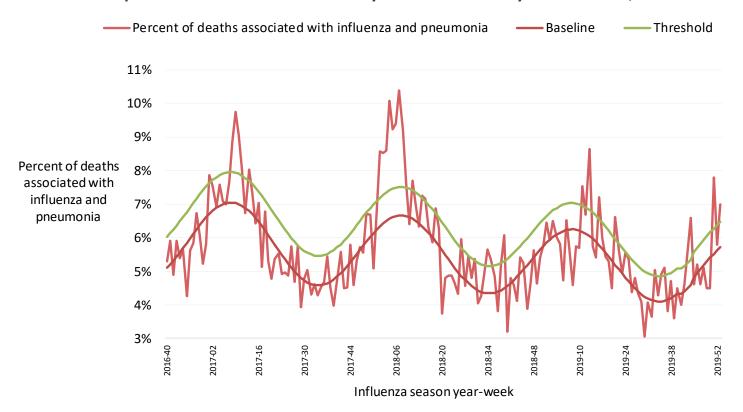




### INFLUENZA AND PNEUMONIA-ASSOCIATED MORTALITY

### Influenza and Pneumonia Deaths, Wisconsin

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



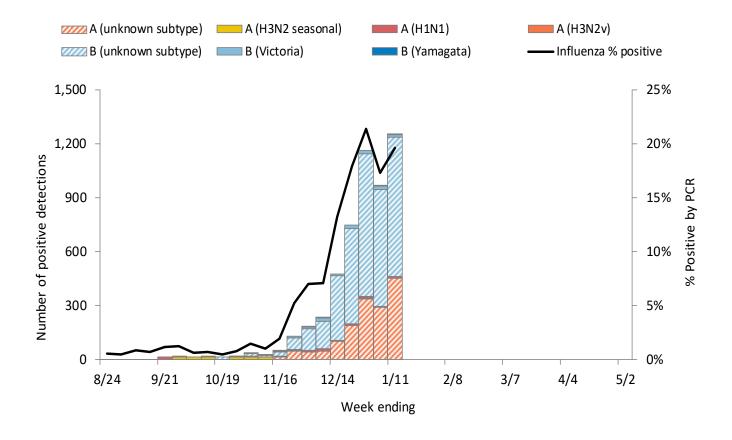
Influenza- and pneumonia-associated deaths by most recent influenza season week, Wisconsin, 2019-2020 season

| Influenza season week | Influenza-<br>associated<br>deaths (I) | Pneumonia-<br>associated<br>deaths (P) | Percent I+P of all deaths | Baseline I+P<br>of all deaths | Threshold I+P<br>of all deaths |
|-----------------------|--|--|---------------------------|-------------------------------|--------------------------------|
| 52                    | 2                                      | 44                                     | 4.2%                      | 5.6%                          | 6.4%                           |
| 1                     | 2                                      | 83                                     | 7.8%                      | 5.7%                          | 6.5%                           |
| 2<br>Preliminary Data | 7                                      | 62                                     | 7.4%                      | 5.8%                          | 6.6%                           |
| Seasonal total        | 22                                     | 1061                                   | 5.0%                      | NA                            | NA                             |

Data source: <u>DPH, Office of Health Informatics</u>

# WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

#### Wisconsin positive influenza results and subtypes by PCR

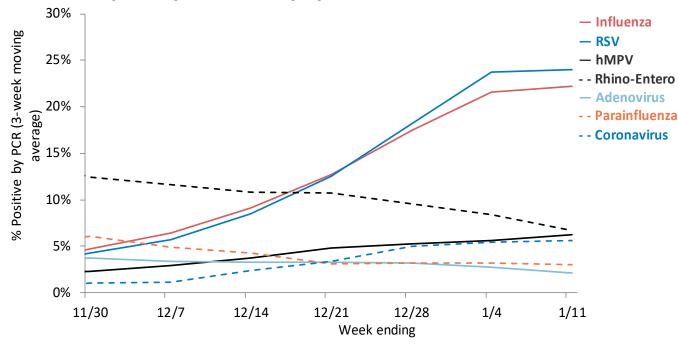


### Cumulative number of positive influenza PCR tests by subtype September 1, 2019 to present

|                     | A (2009 H1N1) | Influenza A:<br>A (H3N2) | 32%<br>A (Unknown) | B (Victoria) | Influenza B:<br>B (Yamagata) | 68%<br>B (Unknown) | Total |
|---------------------|---------------|--------------------------|--------------------|--------------|------------------------------|--------------------|-------|
| Total positive (n)  | 70            | 51                       | 1550               | 119          | 10                           | 3504               | 5304  |
| % of total positive | 1%            | 1%                       | 29%                | 2%           | 0%                           | 66%                | 100%  |

## WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

### Trends in respiratory virus activity by PCR



Week 2: Ending on January 11, 2020

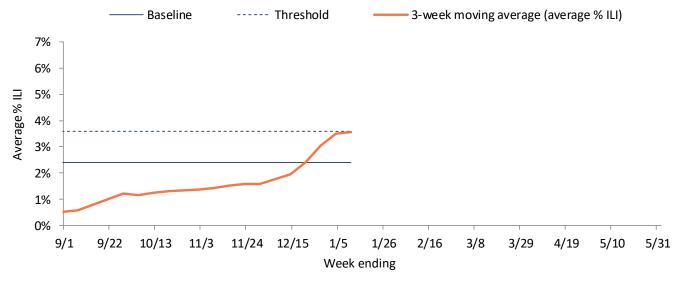
| Barrian           | Todad  | Posi | itive      | Posit       | ive           | Influenza A |          |         |            |        | Influenza B |        |            |       |               |   |          |
|-------------------|--------|------|------------|-------------|---------------|-------------|----------|---------|------------|--------|-------------|--------|------------|-------|---------------|---|----------|
| Respiratory virus | restea | (r   | 1)         | (%)         | )             | H3N2        | 2009     | H1N1    | Unknown Vi |        | Victoria    |        | Yamagata   |       | Unknown       |   |          |
| Influenza         | 6376   | 12   | 50         | 19.6        | 5%            | 2           |          | 8       | 449        |        |             | 14     | 1          |       | 776           |   |          |
| Respiratory virus | s Tes  | sted | Posi<br>(r | itive<br>n) | Posit         | P           | arainflu | ienza 1 | Paraint    | fluenz | a 2         | Parain | ıfluenza 3 | Pai   | rainfluenza 4 |   |          |
| Parainfluenza     | 8      | 63   | 1          | .6          | 1.99          | %           | 10       | )       |            | 0      |             |        | 0          |       | 6             |   |          |
| Respiratory virus | Tes    | ted  | Posit      |             | Positi<br>(%) |             | CoV 22   | 29E     | CoV OC43   |        | DC43        |        | Co\        |       | / NL63        | ( | CoV HKU1 |
| Coronavirus (Co\  | /) 47  | 72   | 28         | 8           | 5.9%          | %           | 0        | 2       |            | 2 1    |             | 1      |            | 25    |               |   |          |
|                   |        |      |            |             |               |             |          |         |            |        |             |        |            | (2.0) |               |   |          |

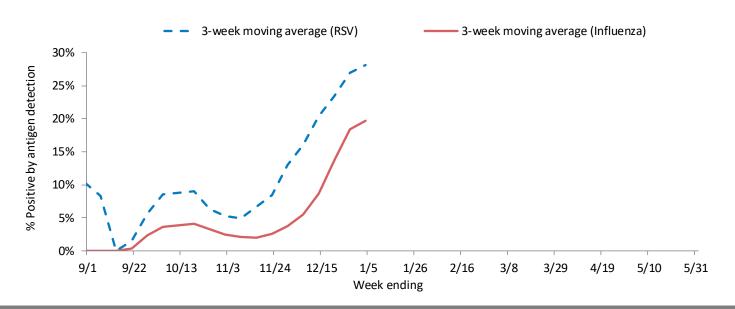
| Respiratory virus     | Tested | Positive (n) | Positive (%) |
|-----------------------|--------|--------------|--------------|
| RSV                   | 1959   | 360          | 18.4%        |
| Human metapneumovirus | 890    | 70           | 7.9%         |
| Rhino-enterovirus     | 774    | 37           | 4.8%         |
| Adenovirus            | 472    | 9            | 1.9%         |

## WISCONSIN STATE SUMMARY

|        | Influenz    | Positive (n) % Positi |       | uenza rapid antigen tests |        |              | RSV r       | apid antigen | tests    | Influenza-like illness (ILI) |  |  |  |
|--------|-------------|--|-------|---------------------------|--------|--------------|-------------|--------------|----------|------------------------------|--|--|--|
| Tostad |             | Positive (n)   |       | 0/ Desitive               | Tostod | Docitive (n) | 0/ Docitive | 11.1.0/      | Dasalina | Throshold                    |  |  |  |
| Tested | Influenza A | Influenza B  | Total | % Positive                | Tested | Positive (n) | % Positive  | ILI %        | Baseline | Threshold                    |  |  |  |
| 1312   | 113         | 138  | 251   | 19.1%                     | 331    | 87           | 26.3%       | 3.3%         | 2.4%     | 3.6%                         |  |  |  |

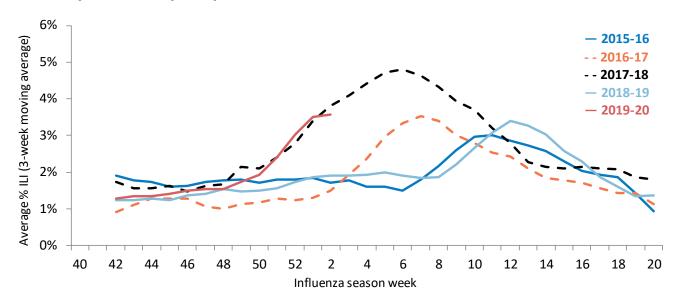
### **ILI** activity trend analysis





### WISCONSIN STATE SUMMARY

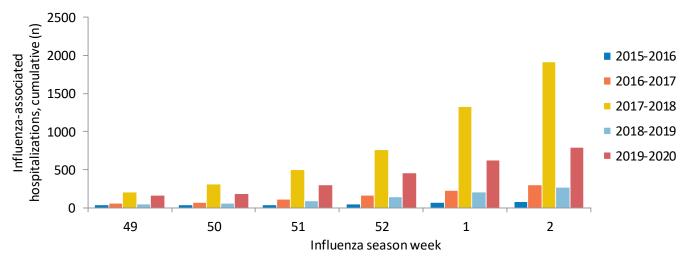
ILI activity trend analysis by influenza season, Wisconsin



Influenza-associated hospitalizations, Wisconsin Electronic Disease Surveillance System September 1, 2019 to present

| Ago group            | Total           |                  | lr          | ıfluenza subty | /pe |                 | Admitted | Required               |          | Postpartum |
|----------------------|-----------------|------------------|-------------|----------------|-----|-----------------|----------|------------------------|----------|------------|
| Age group<br>(years) | reported<br>(n) | A (2009<br>H1N1) | A<br>(H3N2) | A<br>(Unknown) | В   | Not<br>reported | to ICU   | mechanical ventilation | Pregnant | (≤6 weeks) |
| <1                   | 26              | 1                | 0           | 6              | 14  | 5               | 5        | 2                      | 0        | 0          |
| 1-4                  | 49              | 0                | 0           | 9              | 27  | 13              | 8        | 2                      | 0        | 0          |
| 5-17                 | 71              | 2                | 0           | 7              | 33  | 29              | 6        | 1                      | 0        | 0          |
| 18-49                | 180             | 7                | 1           | 63             | 81  | 28              | 33       | 9                      | 18       | 2          |
| 50-64                | 175             | 13               | 4           | 84             | 61  | 13              | 34       | 9                      | 0        | 0          |
| 65+                  | 288             | 21               | 12          | 145            | 97  | 13              | 33       | 6                      | 0        | 0          |
| Total                | 789             | 44               | 17          | 314            | 313 | 101             | 119      | 29                     | 18       | 2          |

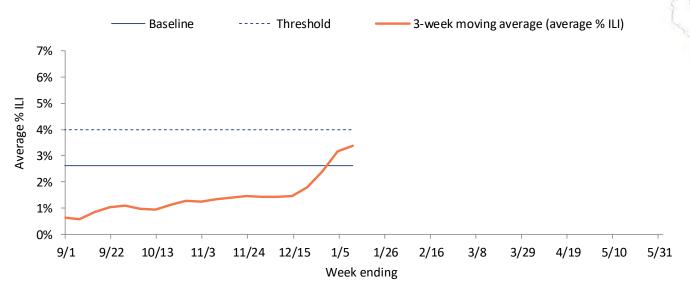
Reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin

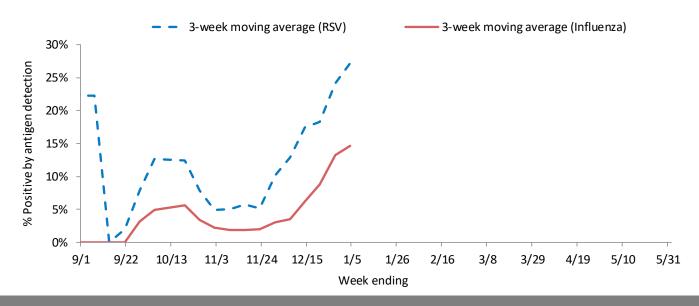


### **NORTHEASTERN REGION**

|        | Influenz    | a rapid anti | gen tests |             | RSV r  | RSV rapid antigen tests |             |         | Influenza-like illness (ILI) |           |  |
|--------|-------------|--------------|-----------|-------------|--------|-------------------------|-------------|---------|------------------------------|-----------|--|
| Taskad |             | Positive (n) |           | 0/ Docitive | Taskad | Dasitiva (n)            | 0/ Desitive | 11.1.07 | Danalina                     | Thusabald |  |
| Tested | Influenza A | Influenza B  | Total     | % Positive  | Tested | Positive (n)            | % Positive  | ILI %   | Baseline                     | Threshold |  |
| 499    | 37          | 38           | 75        | 15.0%       | 192    | 49                      | 25.5%       | 3.1%    | 2.6%                         | 4.0%      |  |

### ILI activity trend analysis

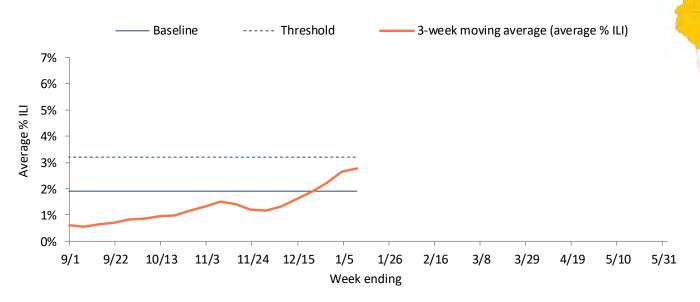


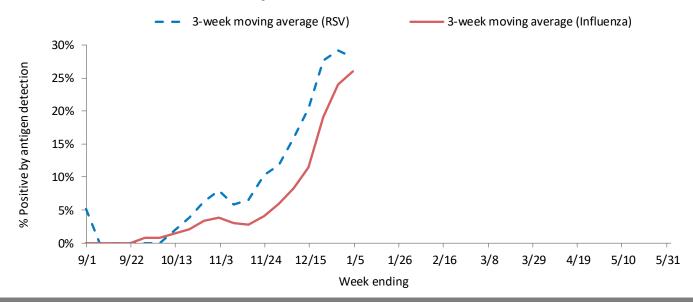


### NORTHWESTERN REGION

|        | Influenz    | ienza A Influenza B Total |       |             | RSV r  | apid antigen | tests       | Influenza-like illness (ILI) |          |           |  |
|--------|-------------|---------------------------|-------|-------------|--------|--------------|-------------|------------------------------|----------|-----------|--|
| Tostad |             | Positive (n)              |       | 0/ Desitive | Tostod | Docitive (n) | 0/ Desitive | 11.1.0/                      | Dasalina | Throshold |  |
| Tested | Influenza A | Influenza B               | Total | % Positive  | Tested | Positive (n) | % Positive  | ILI %                        | Baseline | Threshold |  |
| 460    | 47          | 71                        | 118   | 25.7%       | 106    | 26           | 24.5%       | 2.7%                         | 1.9%     | 3.2%      |  |

### ILI activity trend analysis

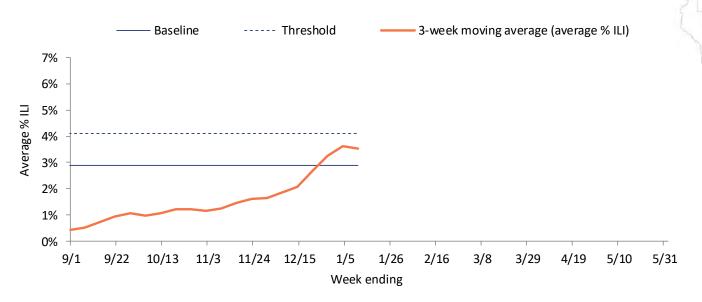


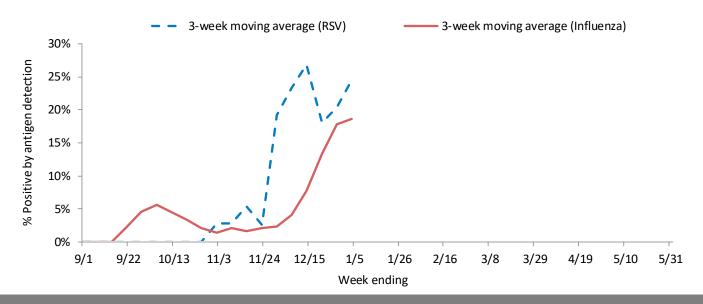


### SOUTHEASTERN REGION

|        | Influenz    | Influenza rapid antigen tests  Positive (n)  Influenza A Influenza B Total  **Positive Total** |       |             | RSV rapid antigen tests |              |             | Influenza-like illness (ILI) |          |           |  |
|--------|-------------|--|-------|-------------|-------------------------|--------------|-------------|------------------------------|----------|-----------|--|
| Tostad |             | Positive (n)   |       | 0/ Desitive | Tostod                  | Docitive (n) | 0/ Desitive | 11.1.0/                      | Dasalina | Throchold |  |
| Tested | Influenza A | Influenza B  | Total | % Positive  | Tested                  | Positive (n) | % Positive  | ILI %                        | Baseline | Threshold |  |
| 291    | 24          | 22   | 46    | 15.8%       | 15                      | 1            | 6.7%        | 3.2%                         | 2.9%     | 4.1%      |  |

### ILI activity trend analysis

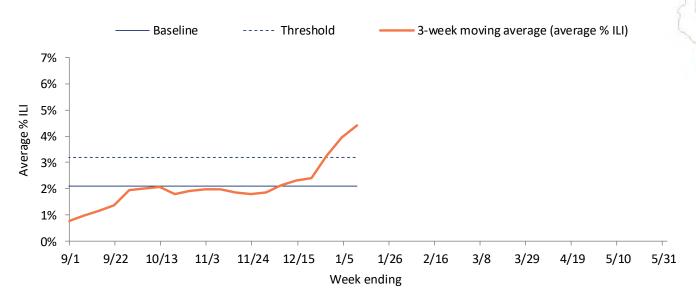


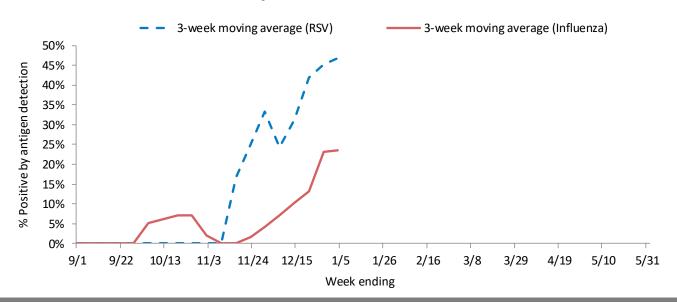


### **SOUTHERN REGION**

|        | Influenz    | uenza rapid antigen tests RSV |       | RSV r      | apid antigen | tests        | Influenza-like illness (ILI) |       |          |           |
|--------|-------------|-------------------------------|-------|------------|--------------|--------------|------------------------------|-------|----------|-----------|
|        |             | Positive (n)                  |       |            |              |              |                              |       |          |           |
| Tested | Influenza A | Influenza B                   | Total | % Positive | Tested       | Positive (n) | % Positive                   | ILI % | Baseline | Threshold |
| 62     | 5           | 7                             | 12    | 19.4%      | 18           | 11           | 61.1%                        | 3.9%  | 2.1%     | 3.2%      |

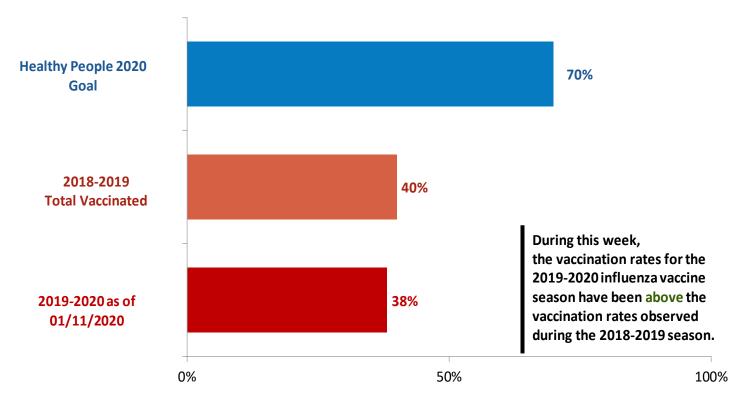
### ILI activity trend analysis







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



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

### Influenza vaccine composition 2019-2020:

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

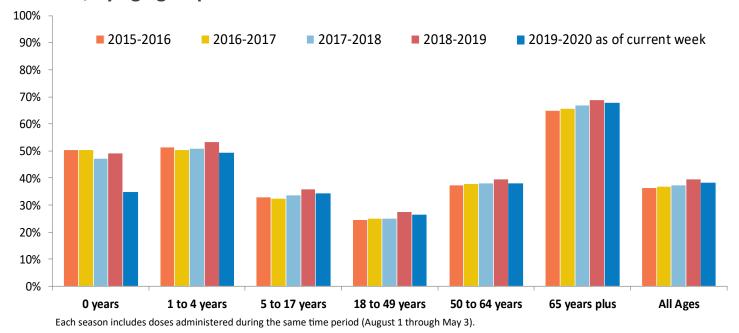
- A/Brisbane/02/2018 (H1N1)pdm09-like virus (updated)
- A/Kansas/14/2017 (H3N2)-like virus (updated)
- B/Colorado/06/2017-like (Victoria lineage) virus

It is recommended that <u>quadrivalent</u> vaccines containing two influenza B viruses contain the above three viruses and:

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

### SEASONAL INFLUENZA VACCINATION

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



Percentage of Wisconsin residents who received one or more doses of influenza vaccine, by race and ethnicity and region, 2019-2020 influenza season

