



RESPIRATORY VIRUS SURVEILLANCE REPORT

Week Ending November 10, 2018

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

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





INFLUENZA LIKE ILLNESS (ILI) ACTIVITY

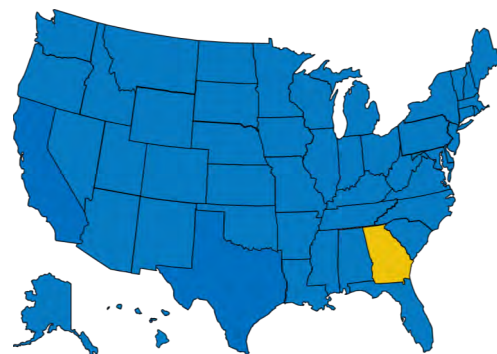
STATE OF WISCONSIN



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



UNITED STATES



● ILI: HIGH LEVELS ● ILI: MODERATE LEVELS ● ILI: BELOW BASELINE ● ILI: INSUFFICIENT DATA

AT-A-GLANCE:

■ Weekly Respiratory Report Description

■ **Predominant Virus of the Week:**

Rhinovirus/enterovirus is the predominant virus this week.

INFLUENZA-ASSOCIATED PEDIATRIC DEATHS REPORTED:

| | Week 45, 2018 | October 1, 2018 to present |
|------------|---------------|----------------------------|
| Wisconsin | 0 | 0 |
| Nationwide | 0 | 2 |

CURRENT ALERTS:

- Parainfluenza and RSV activity are increasing statewide.



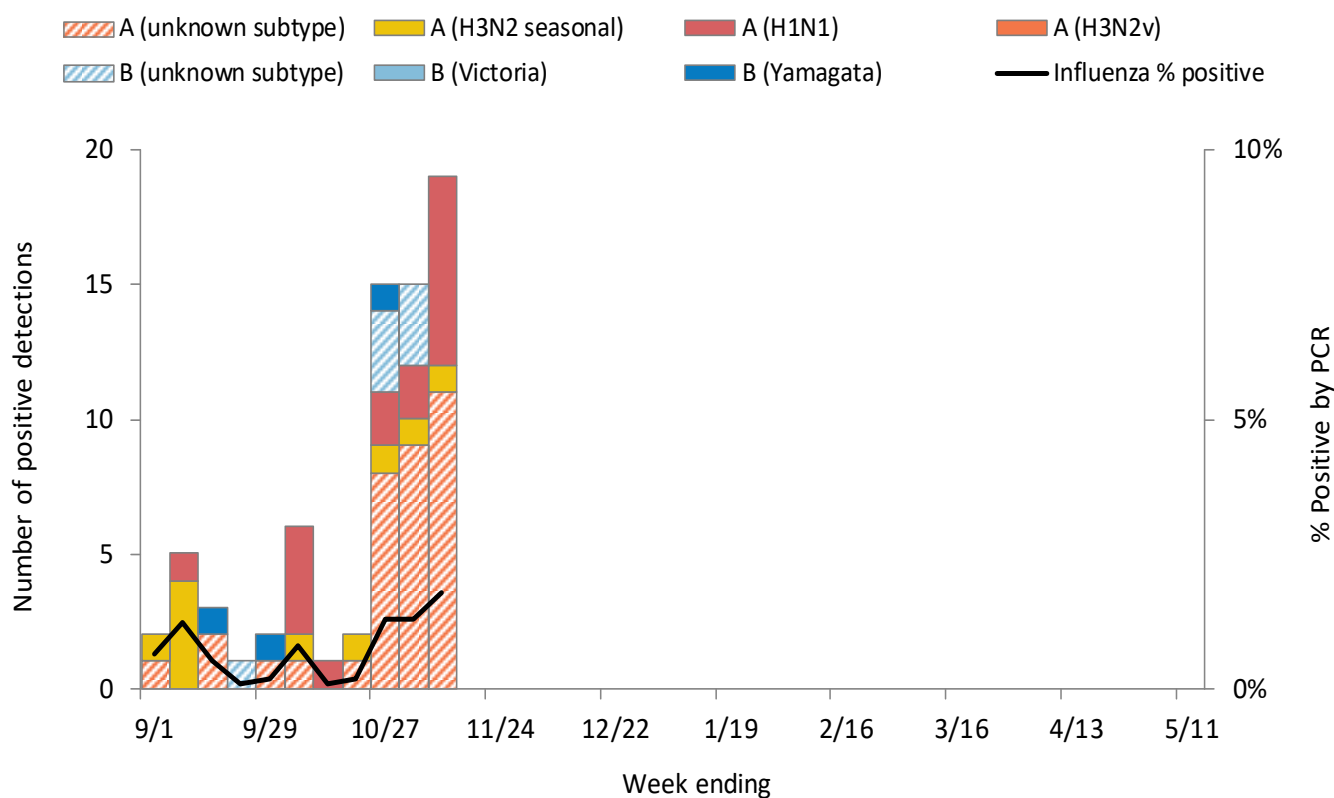
For National US influenza surveillance statistics visit: www.cdc.gov/flu/weekly/





WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Wisconsin positive influenza results and subtypes by PCR

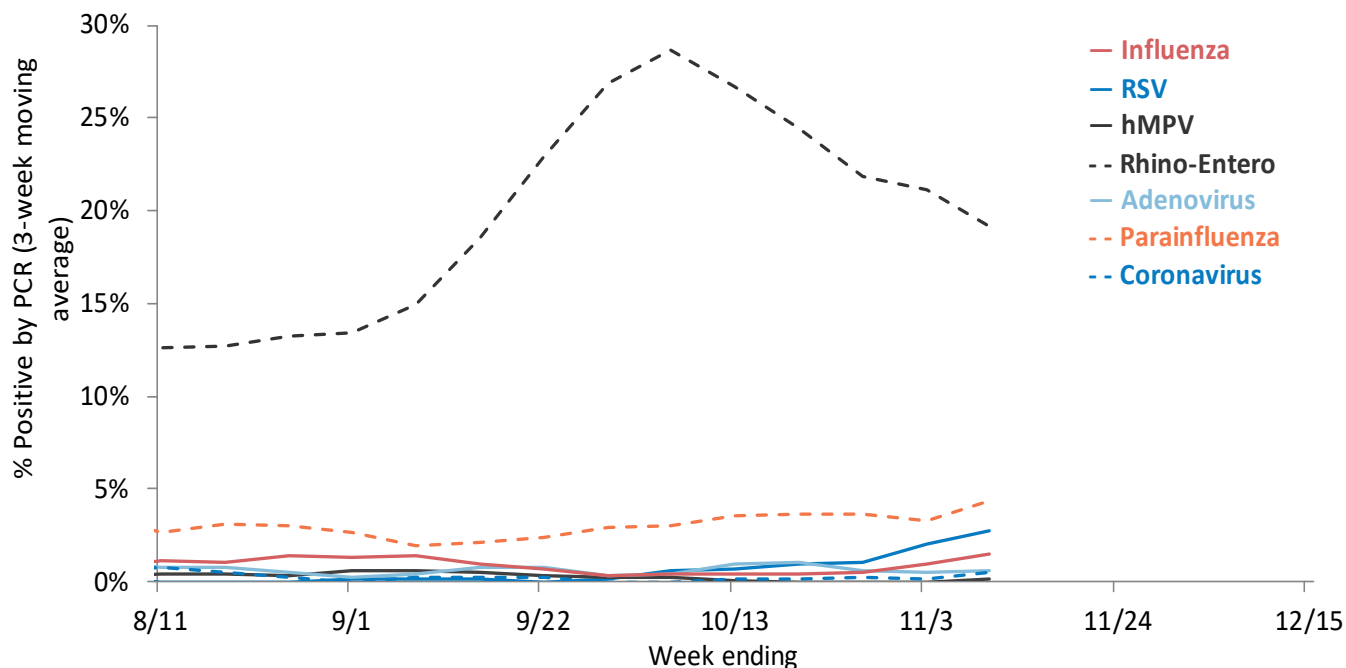


Cumulative number of positive influenza PCR tests by subtype September 1, 2018 to present

| | Influenza A: 86% | | | Influenza B: 14% | | | Total |
|----------------------------|------------------|----------|-------------|------------------|--------------|-------------|-------------|
| | A (2009 H1N1) | A (H3N2) | A (Unknown) | B (Victoria) | B (Yamagata) | B (Unknown) | |
| Total positive (n) | 17 | 12 | 33 | 0 | 3 | 7 | 72 |
| % of total positive | 24% | 17% | 46% | 0% | 4% | 10% | 100% |

WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Trends in respiratory virus activity by PCR



Week ending on November 10, 2018

| Respiratory virus | Tested | Positive (n) | Positive (%) | Influenza A | | | Influenza B | | |
|-------------------|--------|--------------|--------------|-------------|-----------|---------|-------------|----------|---------|
| | | | | H3N2 | 2009 H1N1 | Unknown | Victoria | Yamagata | Unknown |
| Influenza | 1044 | 19 | 1.8% | 1 | 9 | 11 | 0 | 0 | 0 |

| Respiratory virus | Tested | Positive (n) | Positive (%) | Parainfluenza 1 | Parainfluenza 2 | Parainfluenza 3 | Parainfluenza 4 |
|-------------------|--------|--------------|--------------|-----------------|-----------------|-----------------|-----------------|
| Parainfluenza | 500 | 33 | 6.6% | 0 | 23 | 3 | 7 |

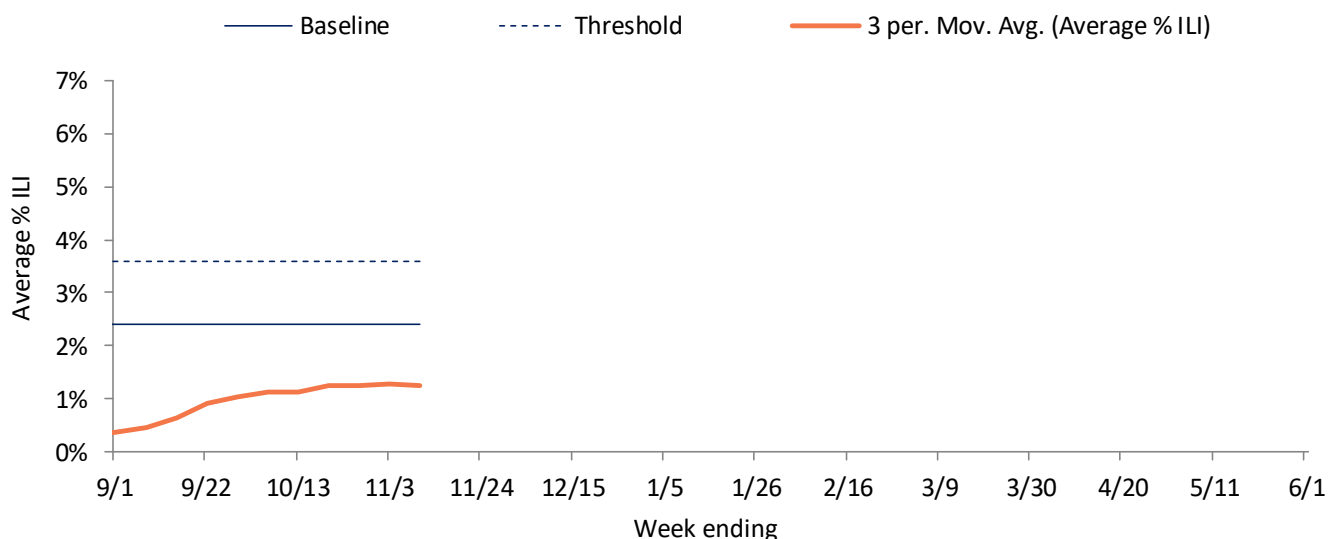
| Respiratory virus | Tested | Positive (n) | Positive (%) | CoV 229E | CoV OC43 | CoV NL63 | CoV HKU1 |
|-------------------|--------|--------------|--------------|----------|----------|----------|----------|
| Coronavirus (CoV) | 199 | 2 | 1.0% | 0 | 2 | 0 | 0 |

| Respiratory virus | Tested | Positive (n) | Positive (%) |
|-----------------------|--------|--------------|--------------|
| RSV | 621 | 20 | 3.2% |
| Human metapneumovirus | 516 | 2 | 0.4% |
| Rhino-enterovirus | 482 | 80 | 16.6% |
| Adenovirus | 199 | 1 | 0.5% |

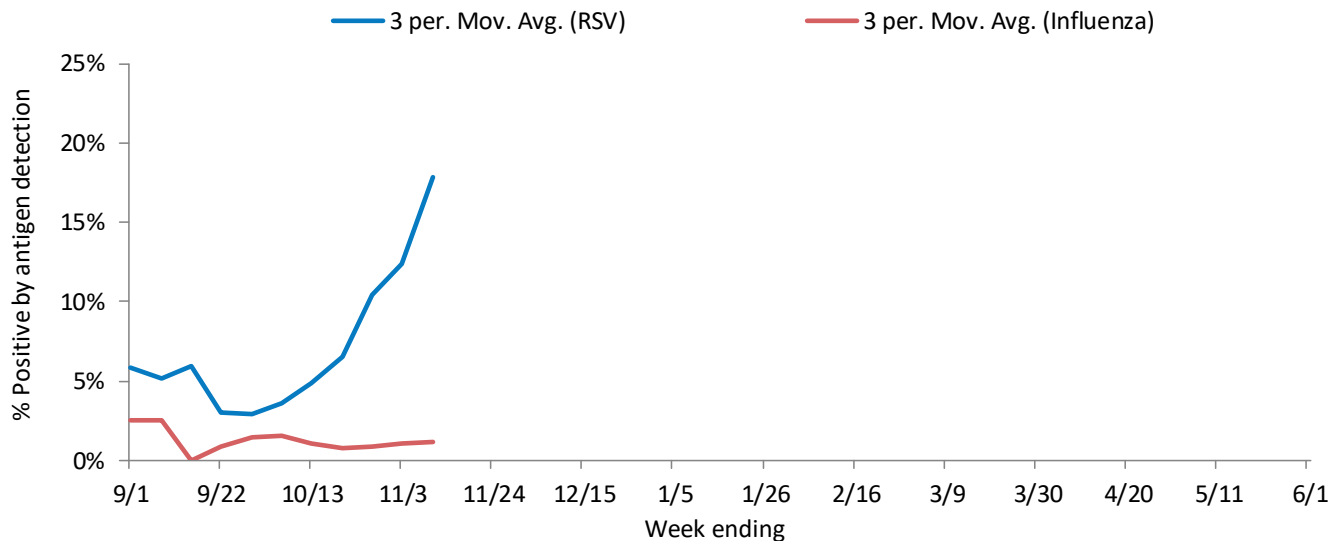
WISCONSIN STATE SUMMARY

| Influenza rapid antigen tests | | | | | RSV rapid antigen tests | | | Influenza-like illness (ILI) | | |
|-------------------------------|--------------|-------------|-------|------------|-------------------------|--------------|------------|------------------------------|----------|-----------|
| Tested | Positive (n) | | | % Positive | Tested | Positive (n) | % Positive | ILI % | Baseline | Threshold |
| | Influenza A | Influenza B | Total | | | | | | | |
| 428 | 4 | 0 | 4 | 0.9% | 69 | 18 | 26.1% | 1.2% | 2.4% | 3.6% |

ILI activity trend analysis

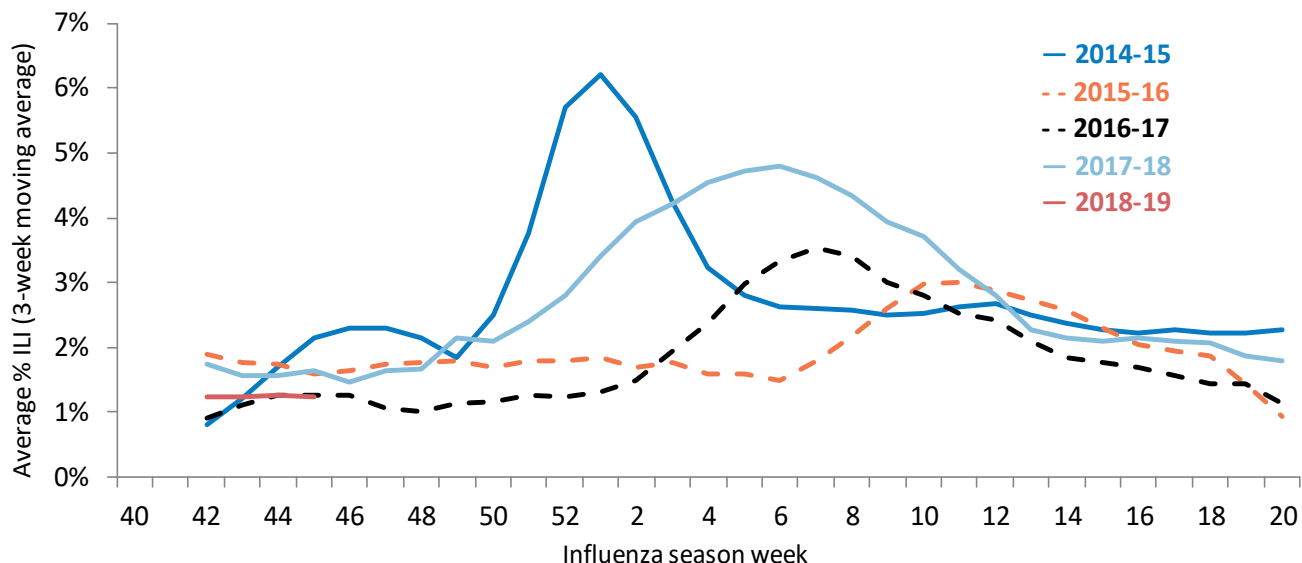


Influenza and RSV trend analysis



WISCONSIN STATE SUMMARY

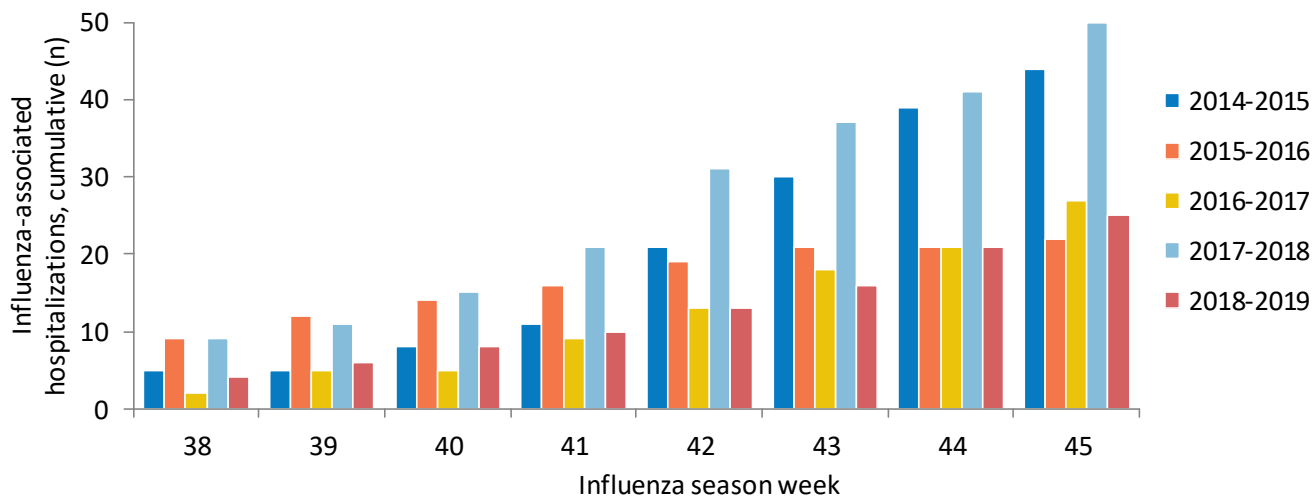
ILI activity trend analysis by influenza season, Wisconsin



Influenza-associated hospitalizations, Wisconsin Electronic Disease Surveillance System September 1, 2018 to present

| Age group (years) | Total reported (n) | Influenza subtype | | | | | Admitted to ICU | Required mechanical ventilation | Pregnant | Postpartum (≤6 weeks) |
|-------------------|--------------------|-------------------|----------|-------------|----------|--------------|-----------------|---------------------------------|----------|-----------------------|
| | | A (2009 H1N1) | A (H3N2) | A (Unknown) | B | Not reported | | | | |
| <1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5-17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-49 | 8 | 1 | 0 | 5 | 2 | 0 | 1 | 0 | 0 | 0 |
| 50-64 | 4 | 0 | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 0 |
| 65+ | 11 | 1 | 1 | 6 | 3 | 0 | 3 | 1 | 0 | 0 |
| Total | 25 | 2 | 1 | 13 | 9 | 0 | 5 | 1 | 0 | 0 |

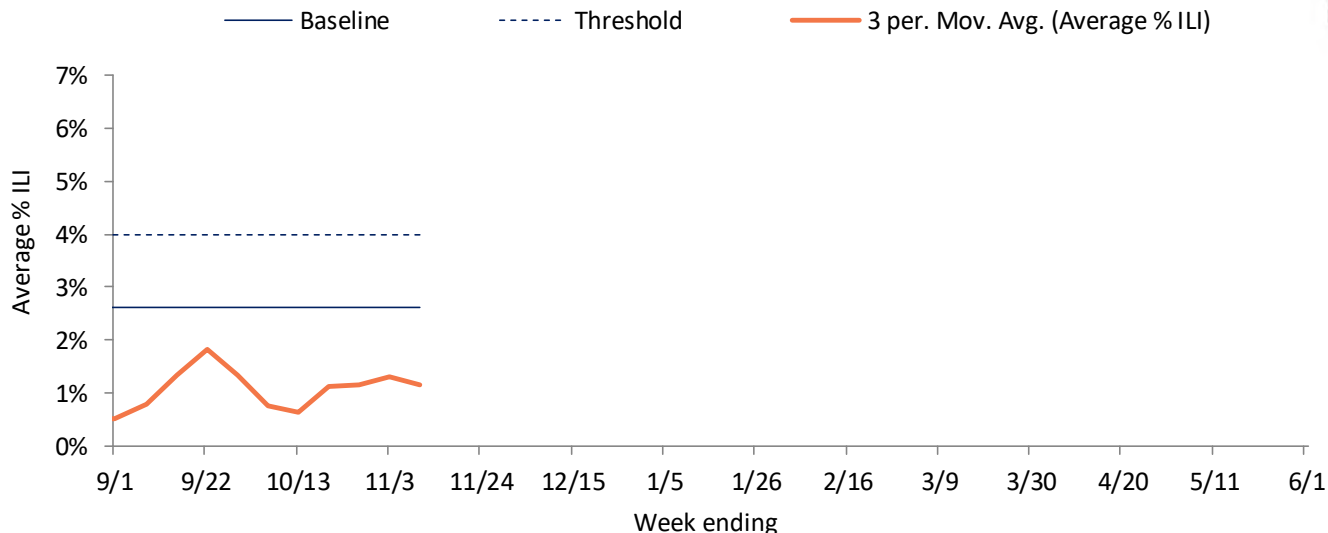
Reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin



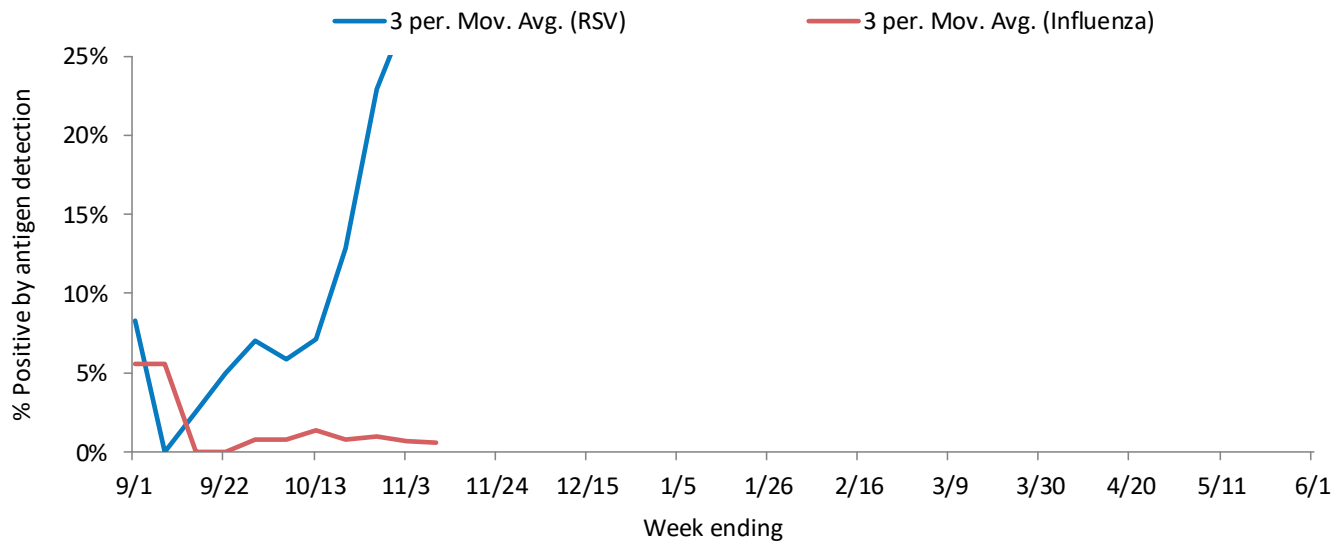
NORTHEASTERN REGION

| Influenza rapid antigen tests | | | | | RSV rapid antigen tests | | | Influenza-like illness (ILI) | | |
|-------------------------------|--------------|-------------|-------|------------|-------------------------|--------------|------------|------------------------------|----------|-----------|
| Tested | Positive (n) | | | % Positive | Tested | Positive (n) | % Positive | ILI % | Baseline | Threshold |
| | Influenza A | Influenza B | Total | | | | | | | |
| 213 | 1 | 0 | 1 | 0.5% | 41 | 17 | 41.5% | 1.1% | 2.6% | 4.0% |

ILI activity trend analysis



Influenza and RSV trend analysis

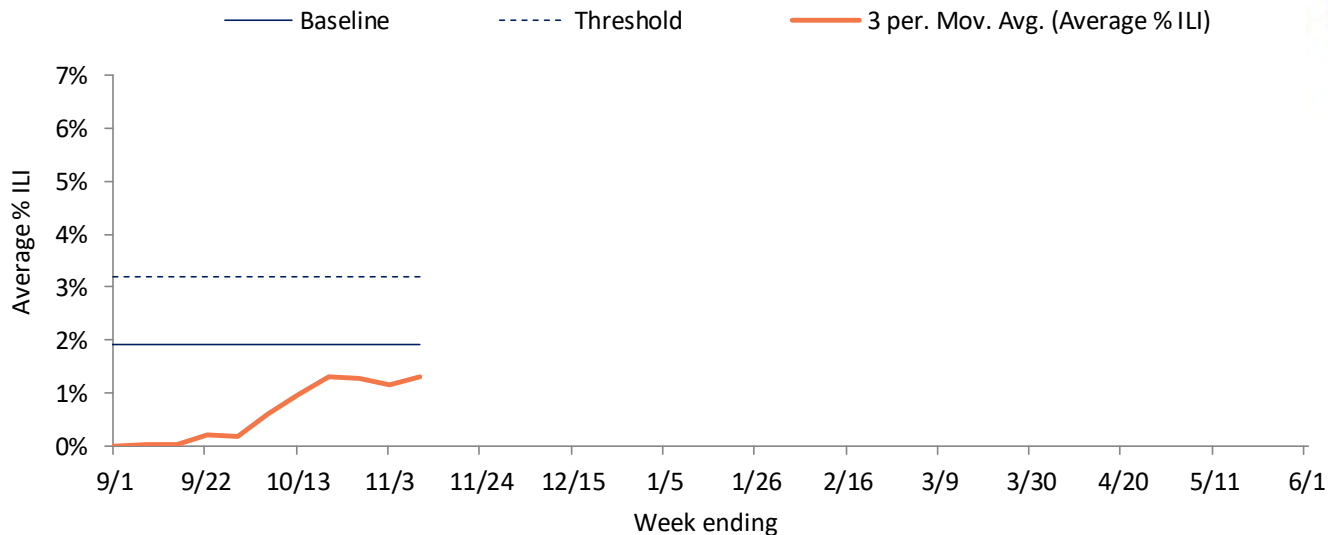




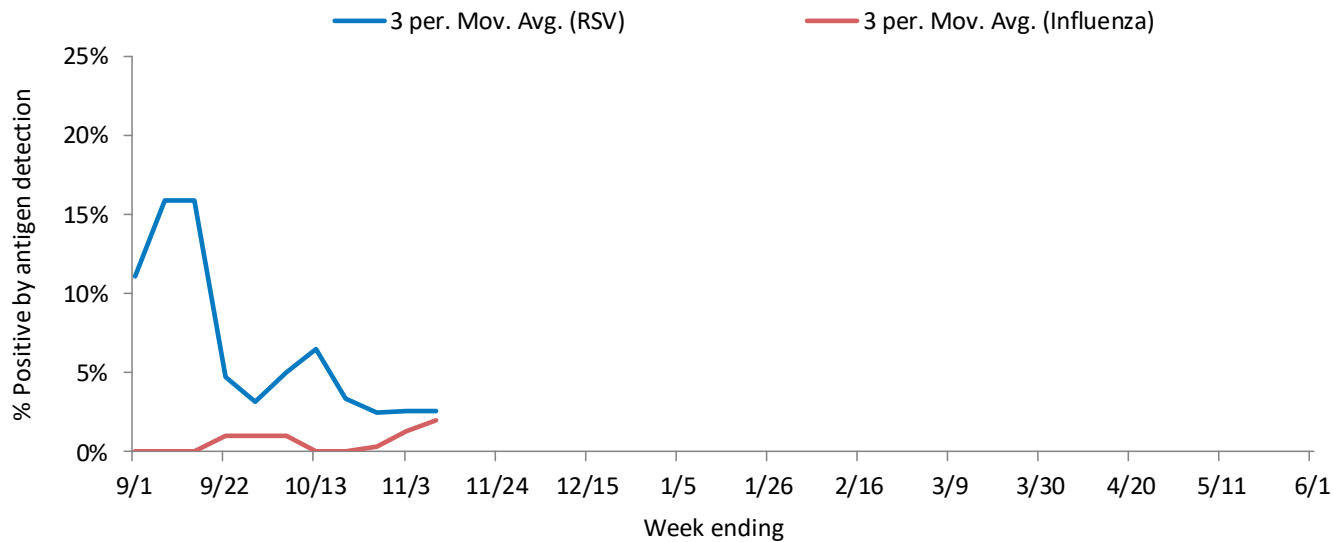
NORTHWESTERN REGION

| Influenza rapid antigen tests | | | | RSV rapid antigen tests | | | Influenza-like illness (ILI) | | | |
|-------------------------------|--------------|-------------|-------|-------------------------|--------|--------------|------------------------------|-------|----------|-----------|
| Tested | Positive (n) | | | % Positive | Tested | Positive (n) | % Positive | ILI % | Baseline | Threshold |
| | Influenza A | Influenza B | Total | | | | | | | |
| 100 | 2 | 0 | 2 | 2.0% | 19 | 0 | 0.0% | 1.4% | 1.9% | 3.2% |

ILI activity trend analysis



Influenza and RSV trend analysis

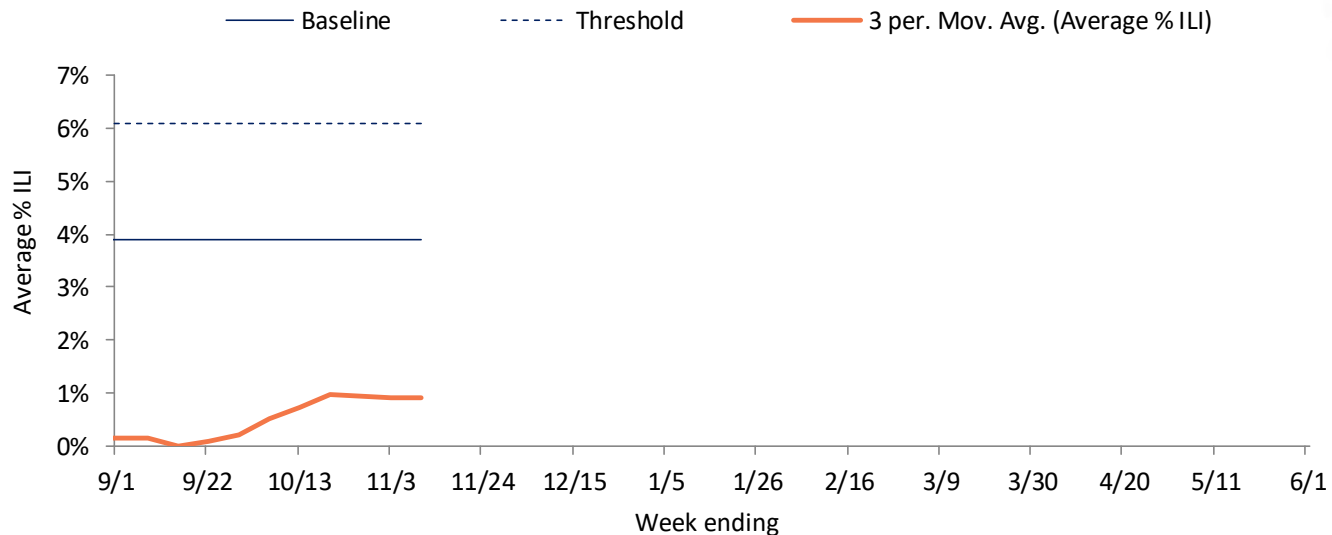




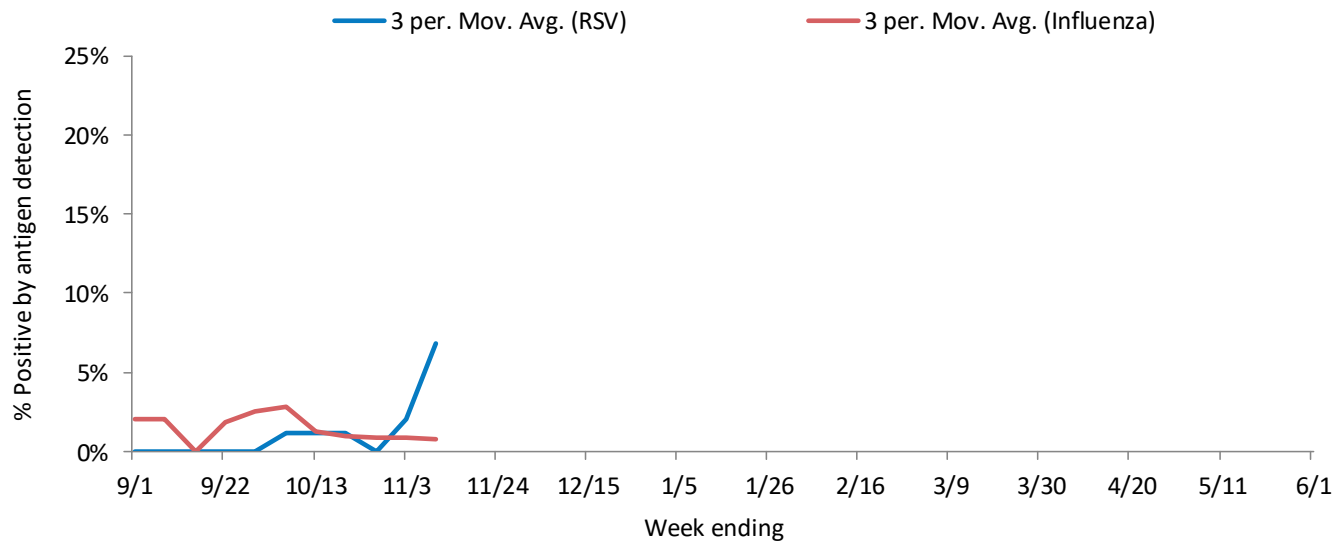
SOUTHEASTERN REGION

| Influenza rapid antigen tests | | | | | RSV rapid antigen tests | | | Influenza-like illness (ILI) | | |
|-------------------------------|--------------|-------------|-------|------------|-------------------------|--------------|------------|------------------------------|----------|-----------|
| Tested | Positive (n) | | | % Positive | Tested | Positive (n) | % Positive | ILI % | Baseline | Threshold |
| | Influenza A | Influenza B | Total | | | | | | | |
| 100 | 1 | 0 | 1 | 1.0% | 7 | 1 | 14.3% | 1.0% | 4.0% | 6.1% |

ILI activity trend analysis



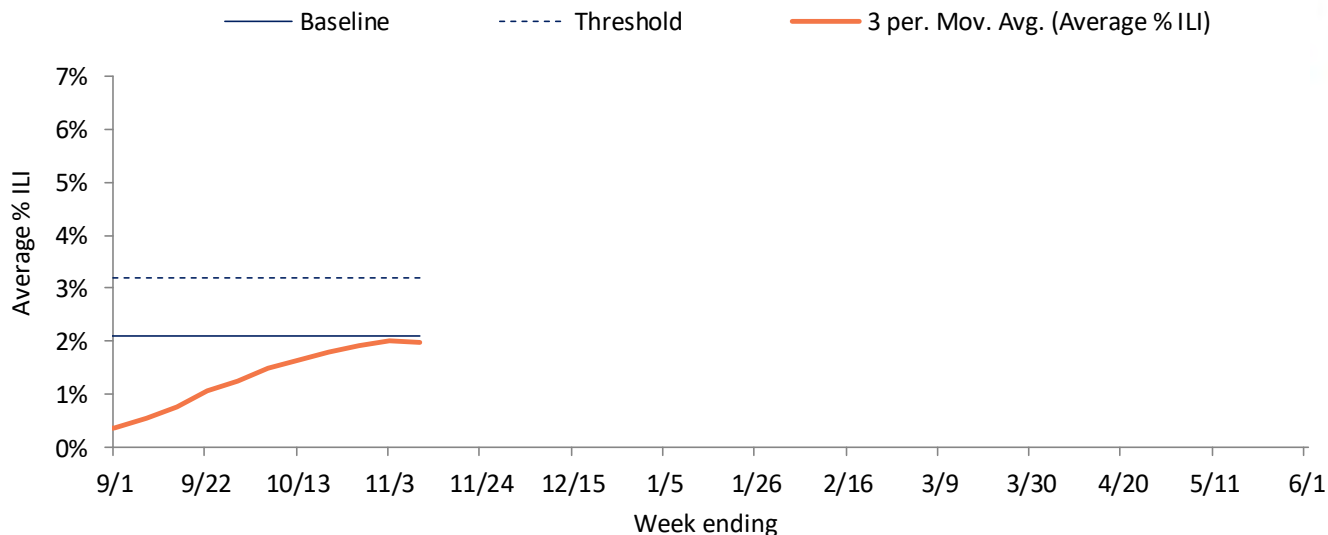
Influenza and RSV trend analysis



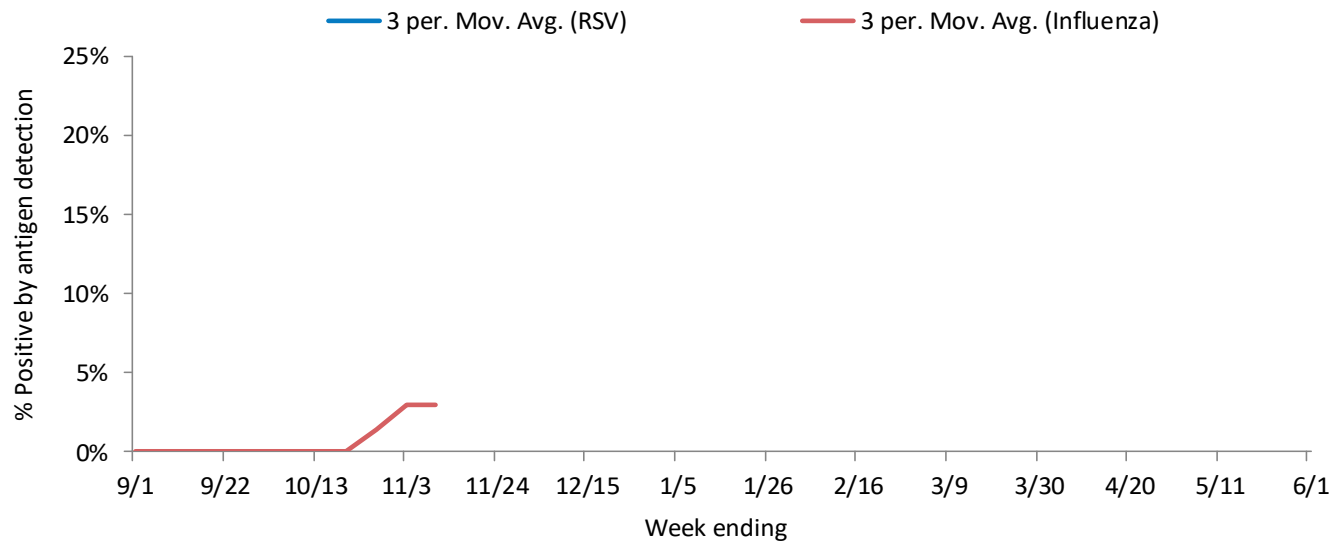
SOUTHERN REGION

| Influenza rapid antigen tests | | | | | RSV rapid antigen tests | | | Influenza-like illness (ILI) | | |
|-------------------------------|--------------|-------------|-------|------------|-------------------------|--------------|------------|------------------------------|----------|-----------|
| Tested | Positive (n) | | | % Positive | Tested | Positive (n) | % Positive | ILI % | Baseline | Threshold |
| | Influenza A | Influenza B | Total | | | | | | | |
| 15 | 0 | 0 | 0 | 0.0% | 2 | 0 | 0.0% | 1.7% | 2.1% | 3.2% |

ILI activity trend analysis

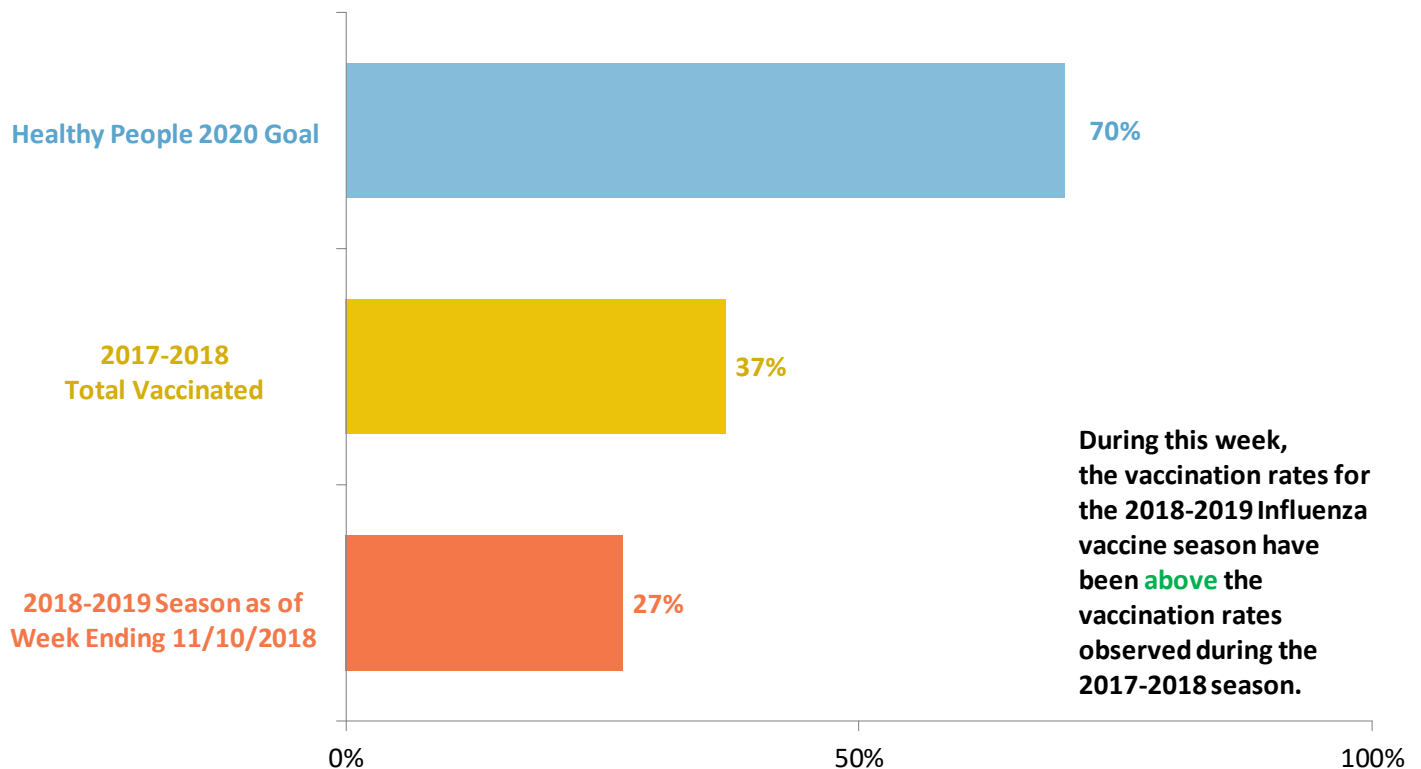


Influenza and RSV trend analysis



SEASONAL INFLUENZA VACCINATION

Cumulative percentage of Wisconsin residents who received 1 or more doses of influenza vaccine, 2018-2019 influenza season



During this week, the vaccination rates for the 2018-2019 influenza vaccine season have been **above** the vaccination rates observed during the 2017-2018 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 2018-2019:

The **trivalent** vaccines for use in the 2018-2019 influenza season contain the following:

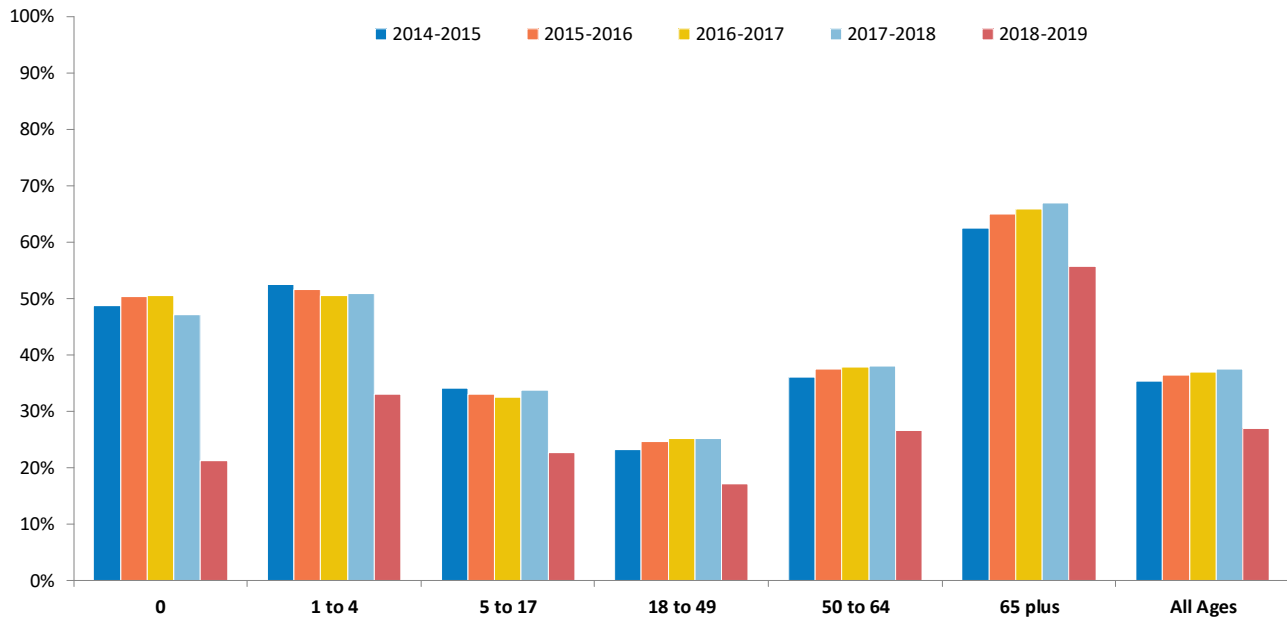
- A/Michigan/45/2015 (H1N1)pdm09-like virus
- A/Singapore/INFIMH-16-0019/2016 A(H3N2)-like virus (updated)
- B/Colorado/06/2017-like (Victoria lineage) virus (updated)

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

- B/Phuket/3073/2013-like virus (B/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, 2018-2019 influenza season

