



RESPIRATORY VIRUS SURVEILLANCE REPORT

Week 48: Ending November 30, 2019

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



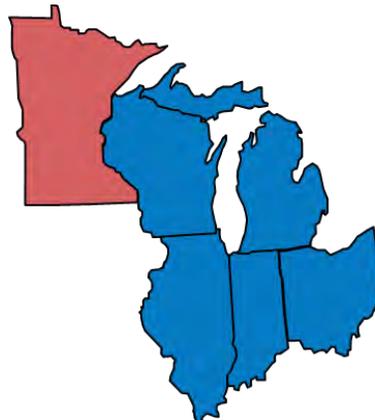


INFLUENZA LIKE ILLNESS (ILI) ACTIVITY

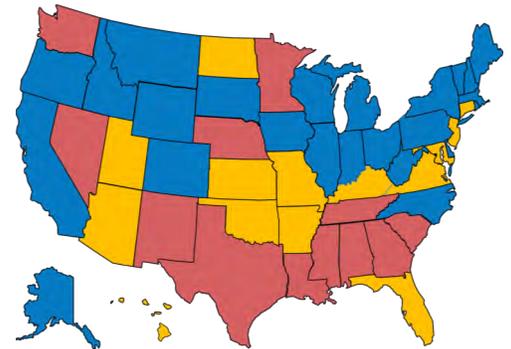
STATE OF WISCONSIN



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



UNITED STATES



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

AT-A-GLANCE:

- [Weekly Respiratory Report Description](#)

- **Predominant Viruses of the Week:**

Rhino/enteroviruses are currently the predominant viruses followed closely by influenza viruses.

INFLUENZA-ASSOCIATED PEDIATRIC DEATHS REPORTED:

Week 48, 2019 October 1, 2019 to present

| | | |
|------------|---|---|
| Wisconsin | 0 | 0 |
| Nationwide | 1 | 6 |

CURRENT ALERTS:

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



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

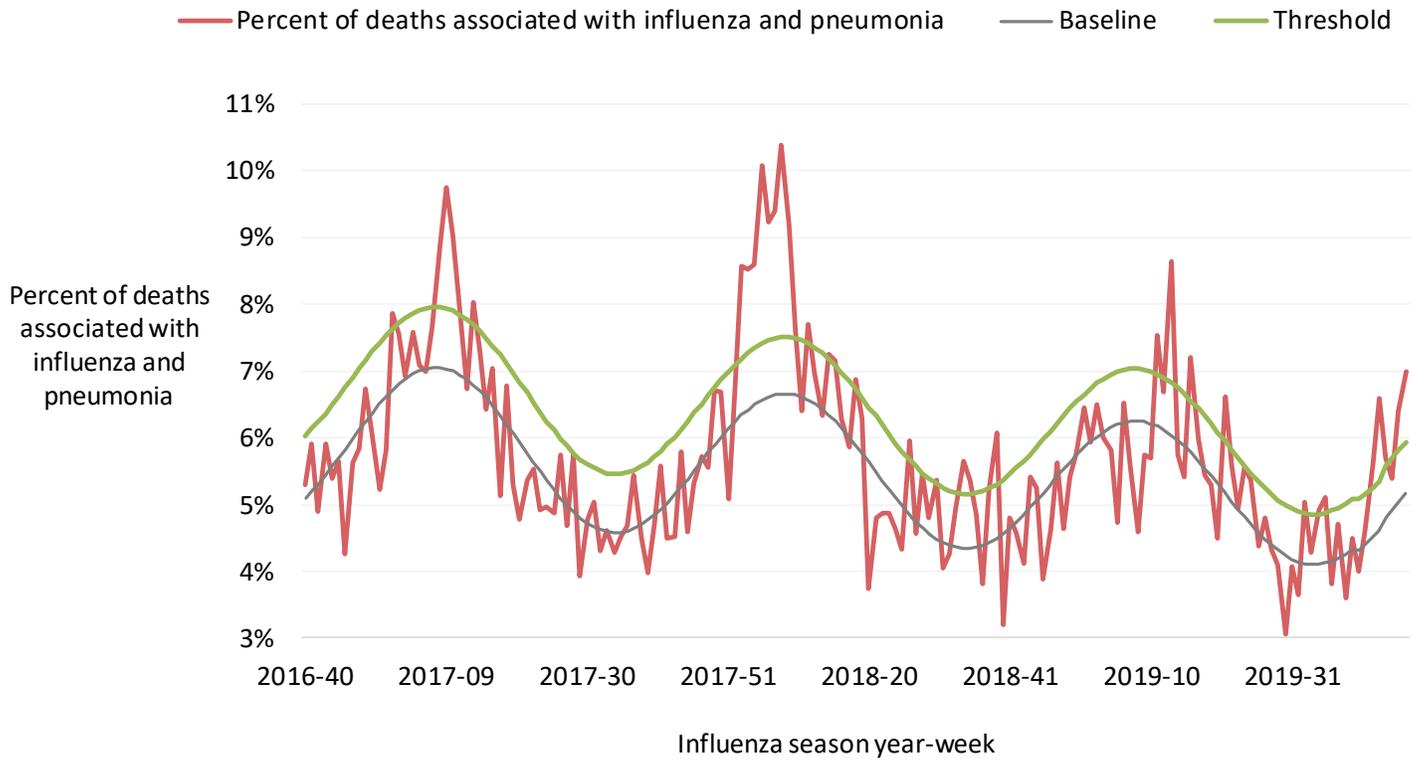




INFLUENZA AND PNEUMONIA-ASSOCIATED MORTALITY

Influenza and Pneumonia Deaths, Wisconsin

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



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

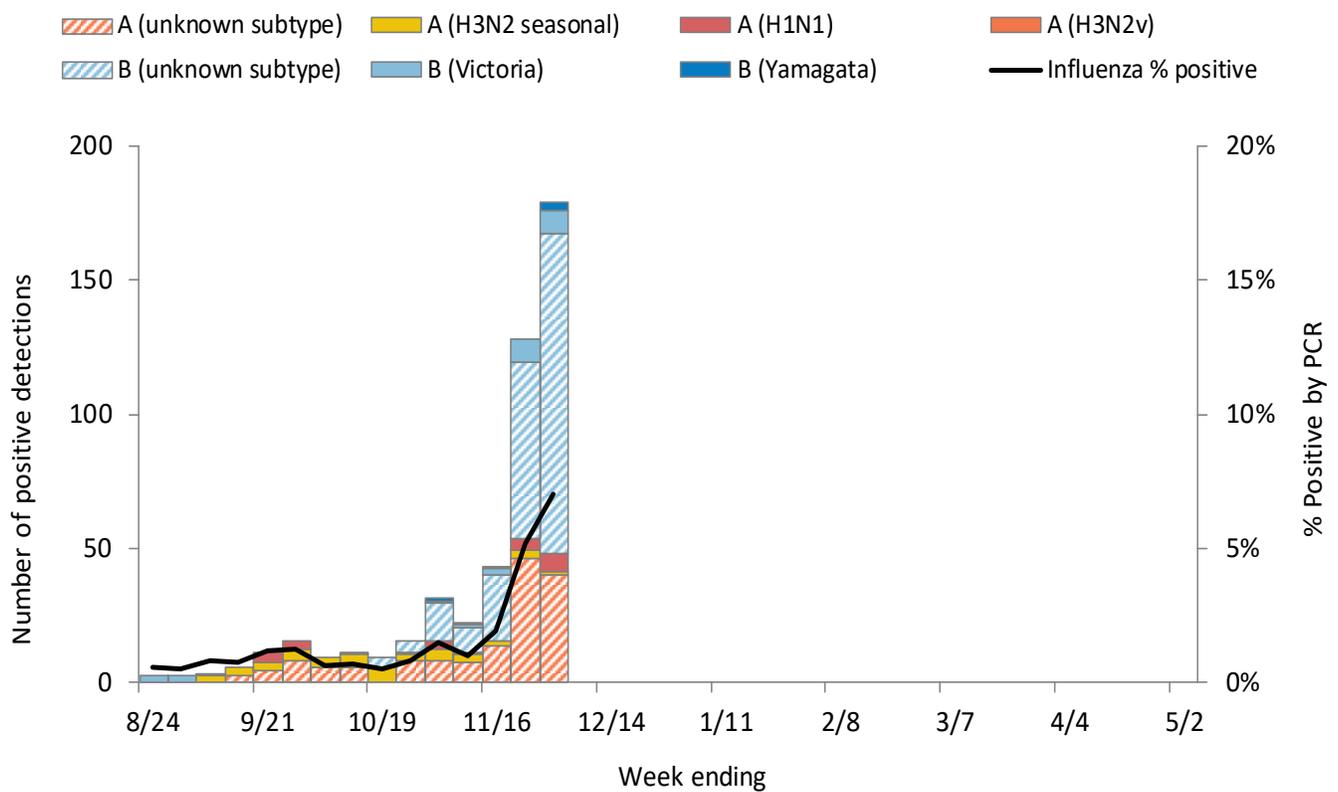
| Influenza season week | Influenza-associated deaths (I) | Pneumonia-associated deaths (P) | Percent I+P of all deaths | Baseline I+P of all deaths | Threshold I+P of all deaths |
|--------------------------|---------------------------------|---------------------------------|---------------------------|----------------------------|-----------------------------|
| 46 | 0 | 56 | 5.4% | 4.9% | 5.7% |
| 47 | 0 | 64 | 6.4% | 5.1% | 5.8% |
| 48 (Preliminary data) | 0 | 53 | 7.0% | 5.2% | 5.9% |
| Seasonal total | 6 | 661 | 4.9% | NA | NA |

Data source: [DPH, Office of Health Informatics](#)



WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Wisconsin positive influenza results and subtypes by PCR

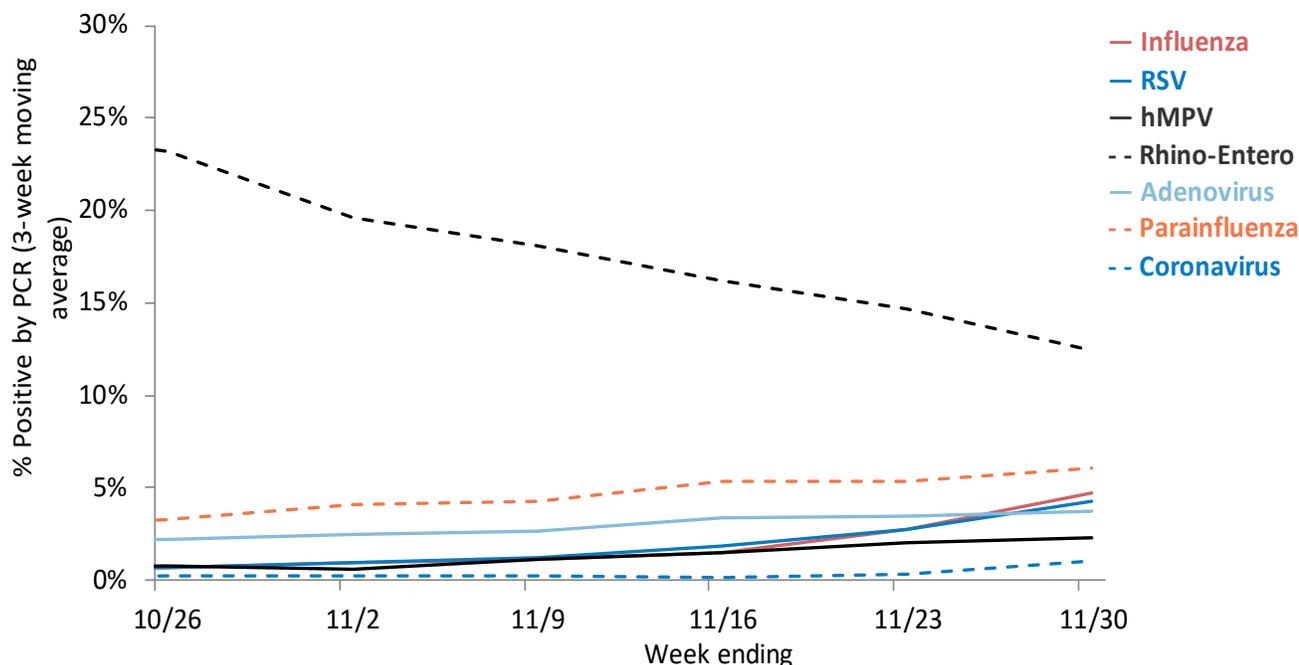


Cumulative number of positive influenza PCR tests by subtype September 1, 2019 to present

| | A (2009 H1N1) | Influenza A: 44% | | | Influenza B: 56% | | | Total |
|---------------------|---------------|------------------|-------------|--------------|------------------|-------------|------|-------|
| | | A (H3N2) | A (Unknown) | B (Victoria) | B (Yamagata) | B (Unknown) | | |
| Total positive (n) | 23 | 41 | 146 | 22 | 6 | 243 | 481 | |
| % of total positive | 5% | 9% | 30% | 5% | 1% | 51% | 100% | |

WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Trends in respiratory virus activity by PCR



Week 48: Ending on November 30, 2019

| Respiratory virus | Tested | Positive (n) | Positive (%) | Influenza A | | | Influenza B | | |
|-------------------|--------|--------------|--------------|-------------|-----------|---------|-------------|----------|---------|
| | | | | H3N2 | 2009 H1N1 | Unknown | Victoria | Yamagata | Unknown |
| Influenza | 2541 | 179 | 7.0% | 1 | 7 | 40 | 9 | 3 | 119 |

| Respiratory virus | Tested | Positive (n) | Positive (%) | Parainfluenza 1 | Parainfluenza 2 | Parainfluenza 3 | Parainfluenza 4 |
|-------------------|--------|--------------|--------------|-----------------|-----------------|-----------------|-----------------|
| Parainfluenza | 582 | 36 | 6.2% | 21 | 0 | 2 | 3 |

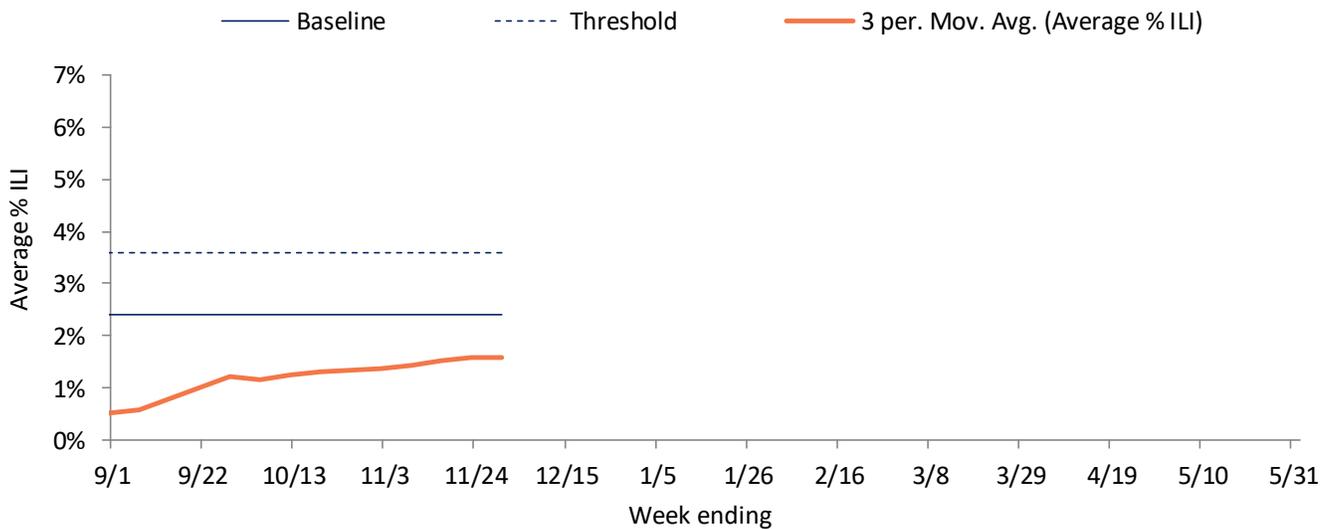
| Respiratory virus | Tested | Positive (n) | Positive (%) | CoV 229E | CoV OC43 | CoV NL63 | CoV HKU1 |
|-------------------|--------|--------------|--------------|----------|----------|----------|----------|
| Coronavirus (CoV) | 2673 | 6 | 2.3% | 0 | 0 | 0 | 6 |

| Respiratory virus | Tested | Positive (n) | Positive (%) |
|-----------------------|--------|--------------|--------------|
| RSV | 1027 | 57 | 5.6% |
| Human metapneumovirus | 597 | 17 | 2.8% |
| Rhino-enterovirus | 570 | 58 | 10.2% |
| Adenovirus | 263 | 10 | 3.8% |

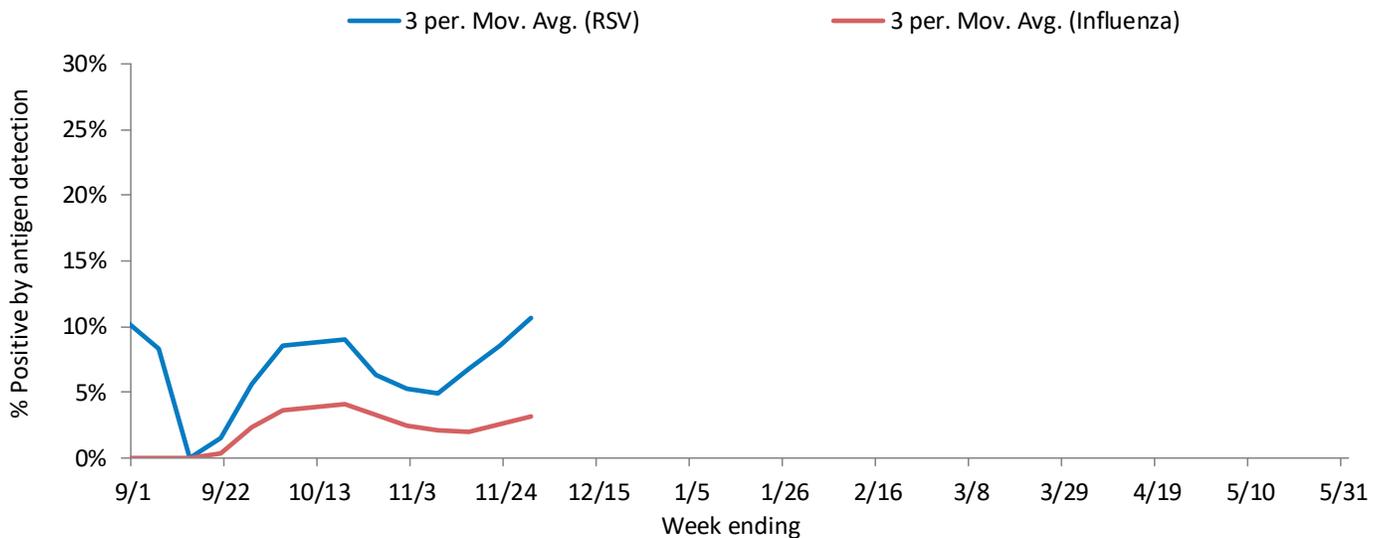
WISCONSIN STATE SUMMARY

| 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 | | | | | | | |
| 414 | 6 | 7 | 13 | 3.1% | 105 | 12 | 11.4% | 1.7% | 2.4% | 3.6% |

ILI activity trend analysis

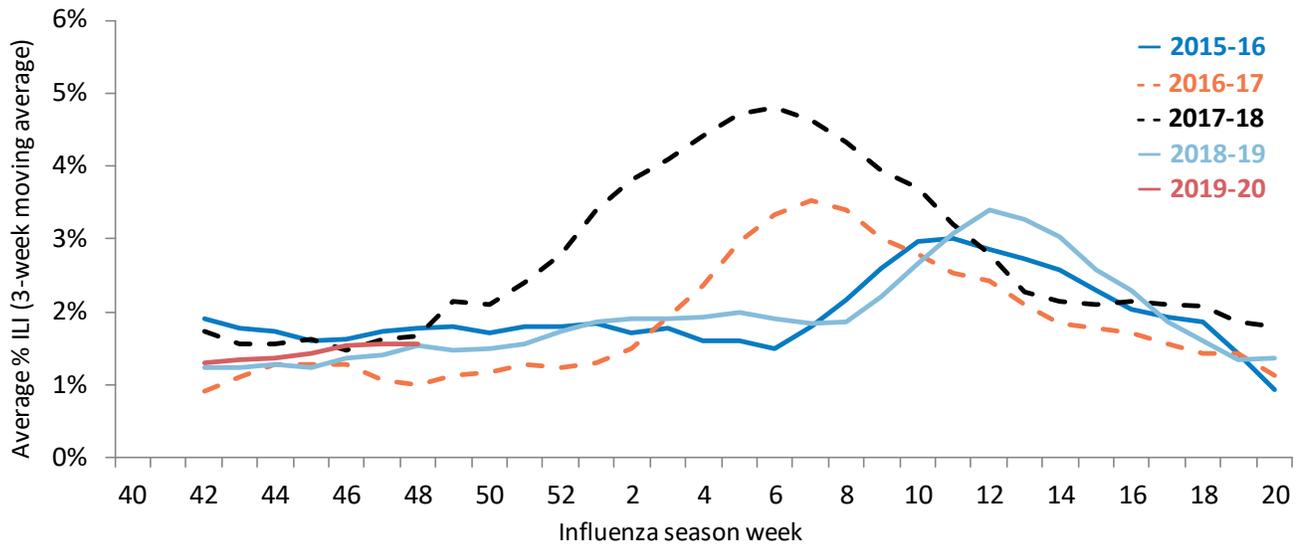


Influenza and RSV trend analysis



WISCONSIN STATE SUMMARY

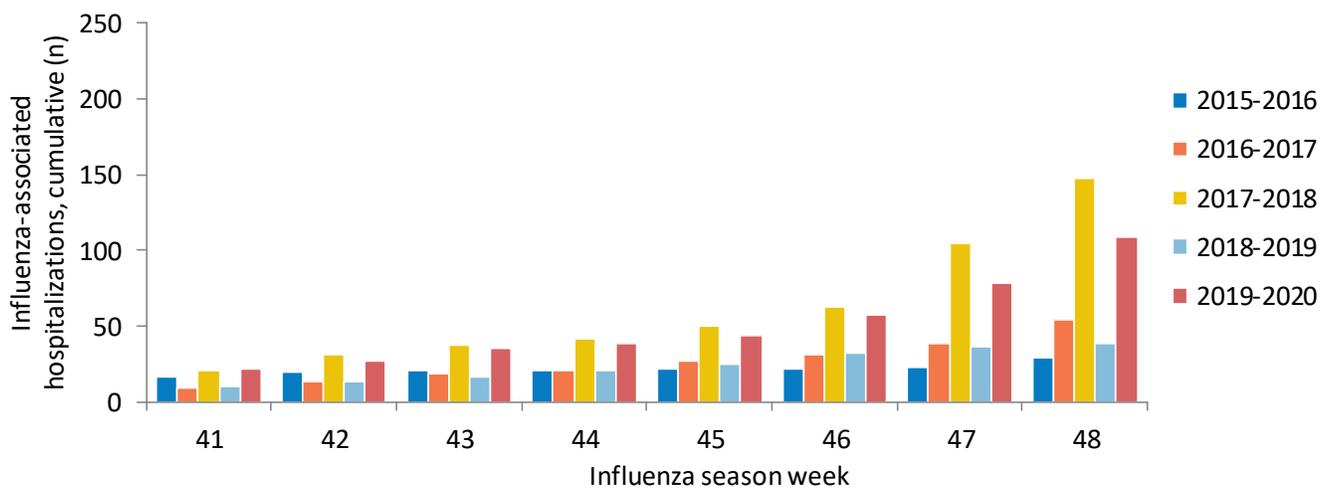
ILI activity trend analysis by influenza season, Wisconsin



Influenza-associated hospitalizations, Wisconsin Electronic Disease Surveillance System September 1, 2019 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 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1-4 | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5-17 | 9 | 1 | 0 | 0 | 7 | 1 | 1 | 0 | 0 | 0 |
| 18-49 | 25 | 1 | 1 | 6 | 16 | 1 | 6 | 0 | 3 | 2 |
| 50-64 | 23 | 1 | 4 | 9 | 8 | 1 | 4 | 1 | 0 | 0 |
| 65+ | 48 | 1 | 8 | 21 | 15 | 3 | 4 | 0 | 0 | 0 |
| Total | 109 | 4 | 13 | 38 | 48 | 6 | 15 | 1 | 3 | 2 |

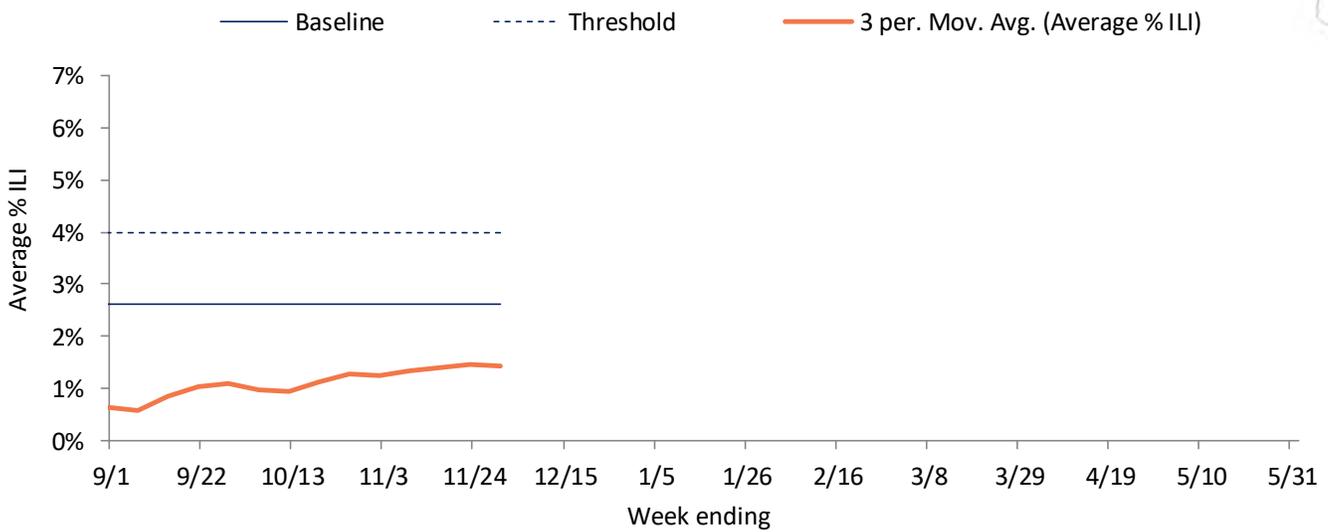
Reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin



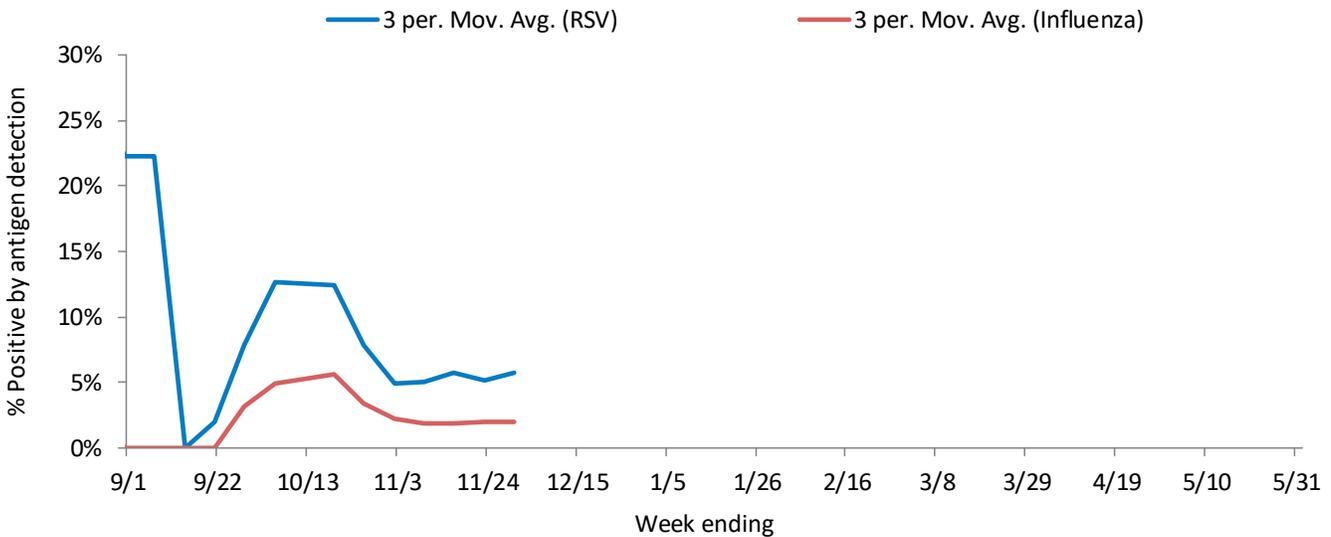
NORTHEASTERN REGION

| 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 | | | | | | | |
| 170 | 1 | 1 | 2 | 1.2% | 64 | 5 | 7.8% | 1.5% | 2.6% | 4.0% |

ILI activity trend analysis



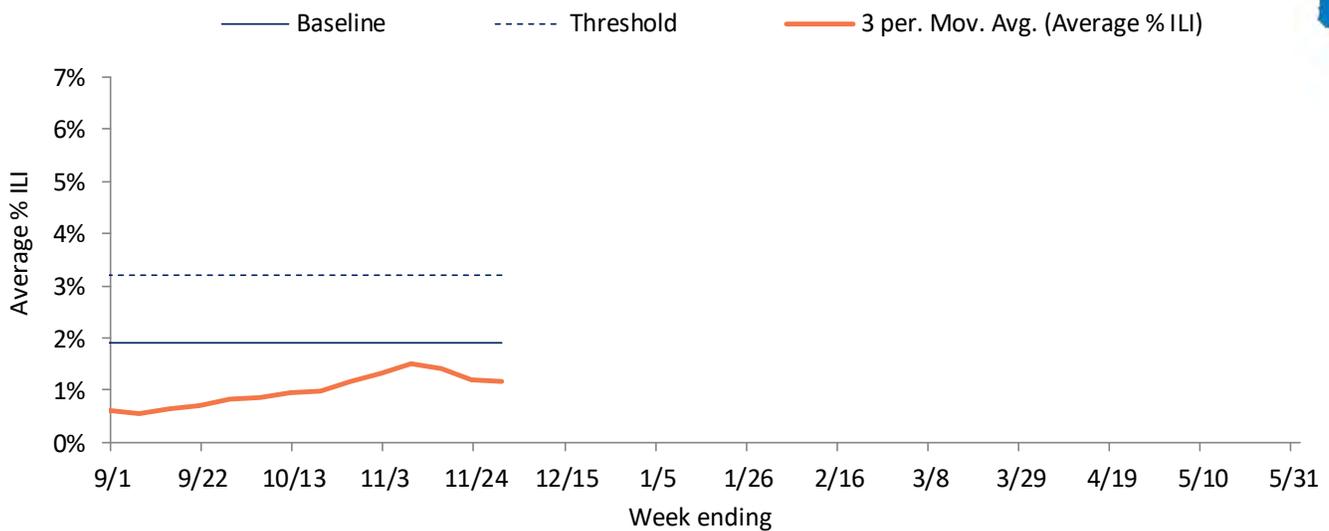
Influenza and RSV trend analysis



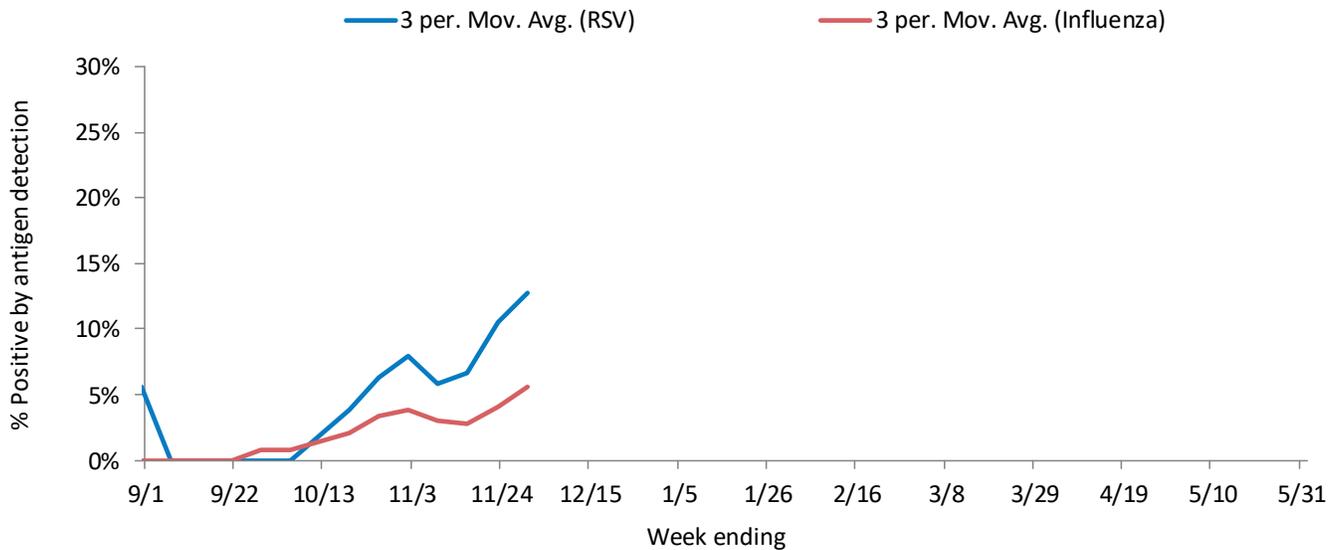
NORTHWESTERN REGION

| 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 | | | | | | | |
| 132 | 5 | 3 | 8 | 6.1% | 33 | 4 | 12.1% | 1.5% | 1.9% | 3.2% |

ILI activity trend analysis



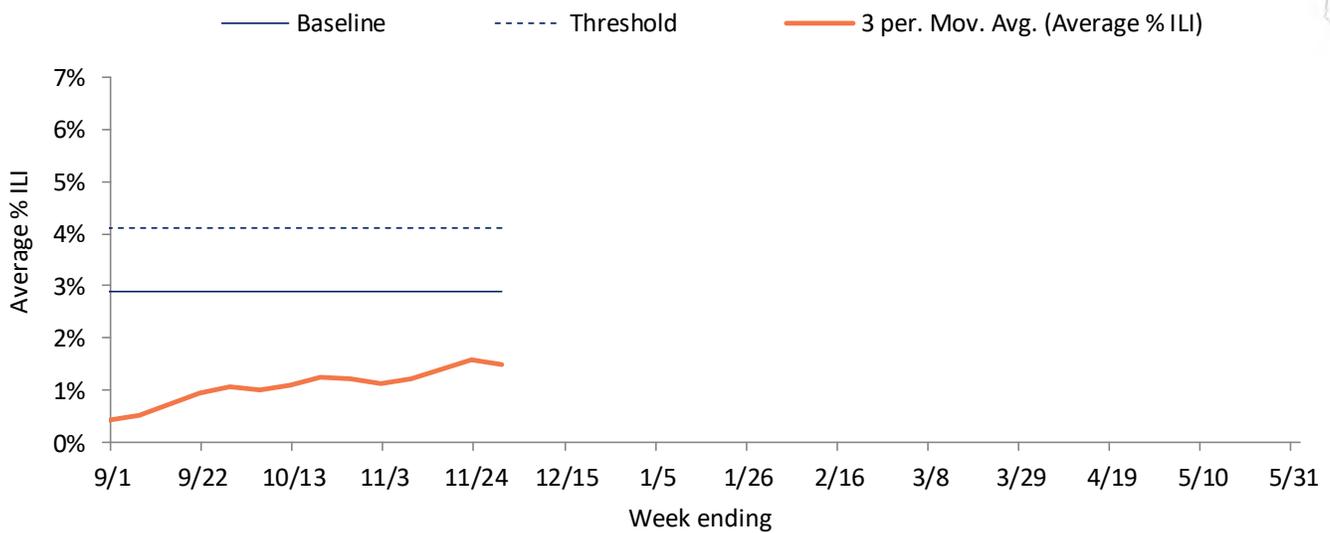
Influenza and RSV trend analysis



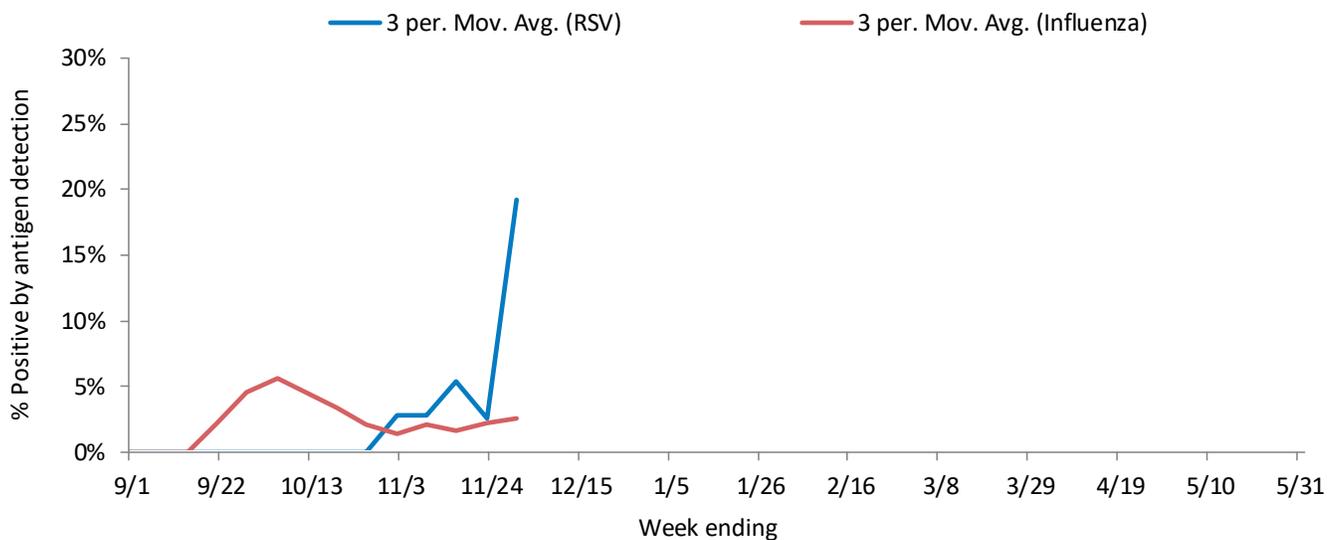
SOUTHEASTERN REGION

| 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 | | | | | | | |
| 96 | 0 | 3 | 3 | 3.1% | 4 | 2 | 50.0% | 1.4% | 2.9% | 4.1% |

ILI activity trend analysis



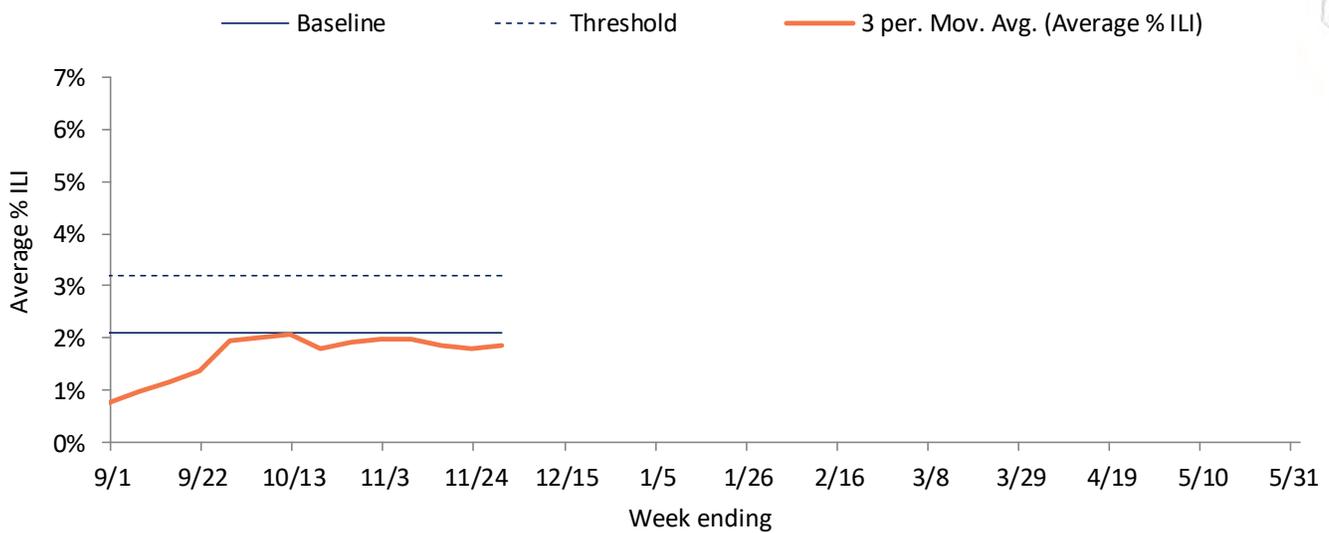
Influenza and RSV trend analysis



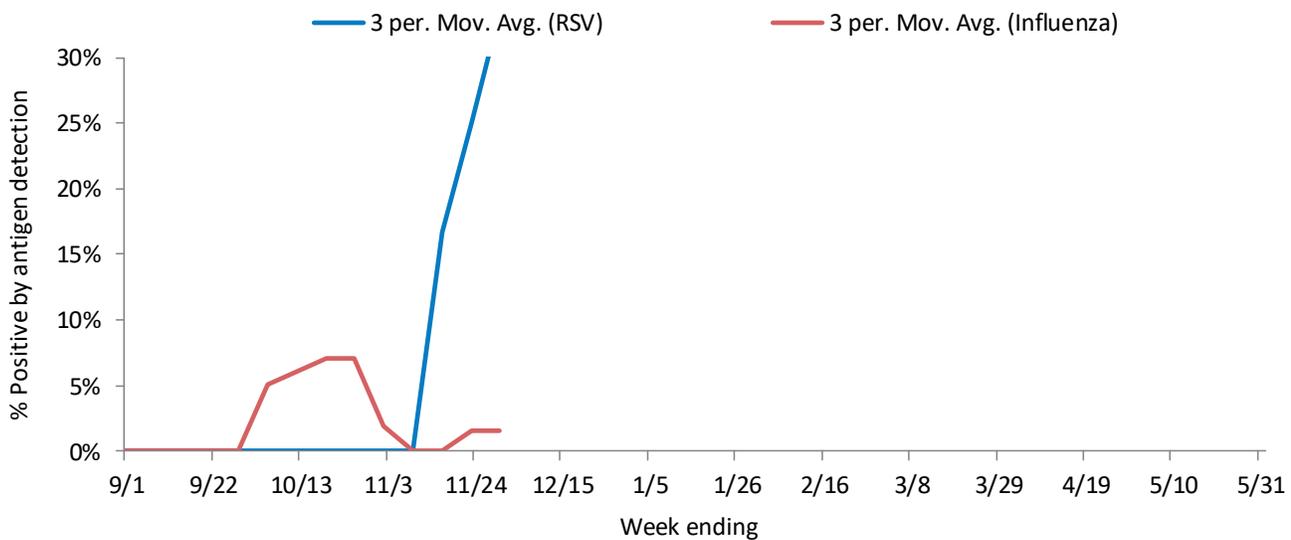
SOUTHERN REGION

| 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 | | | | | | | |
| 16 | 0 | 0 | 0 | 0.0% | 4 | 1 | 25.0% | 2.3% | 2.1% | 3.2% |

ILI activity trend analysis

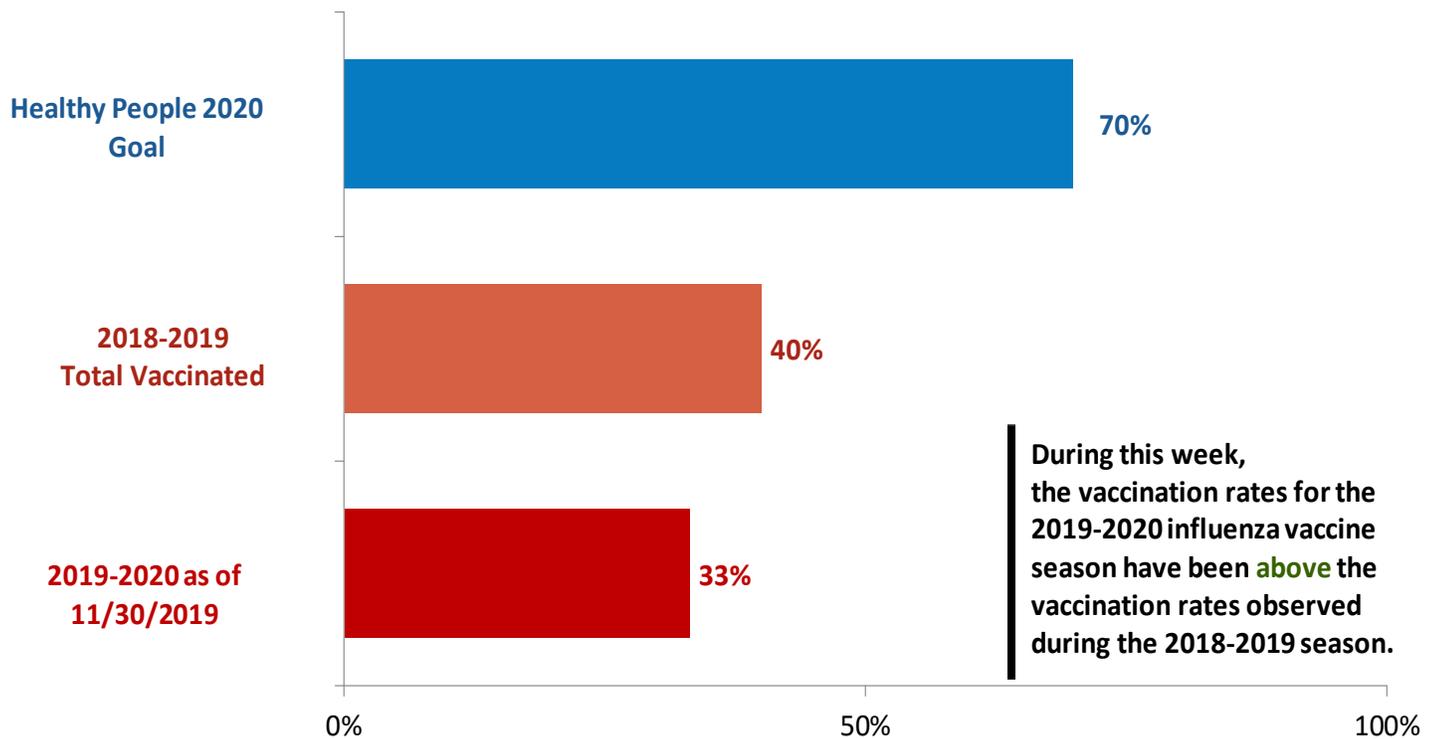


Influenza and RSV trend analysis



SEASONAL INFLUENZA VACCINATION

Cumulative percentage of Wisconsin residents who received 1 or more doses of influenza vaccine, 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:

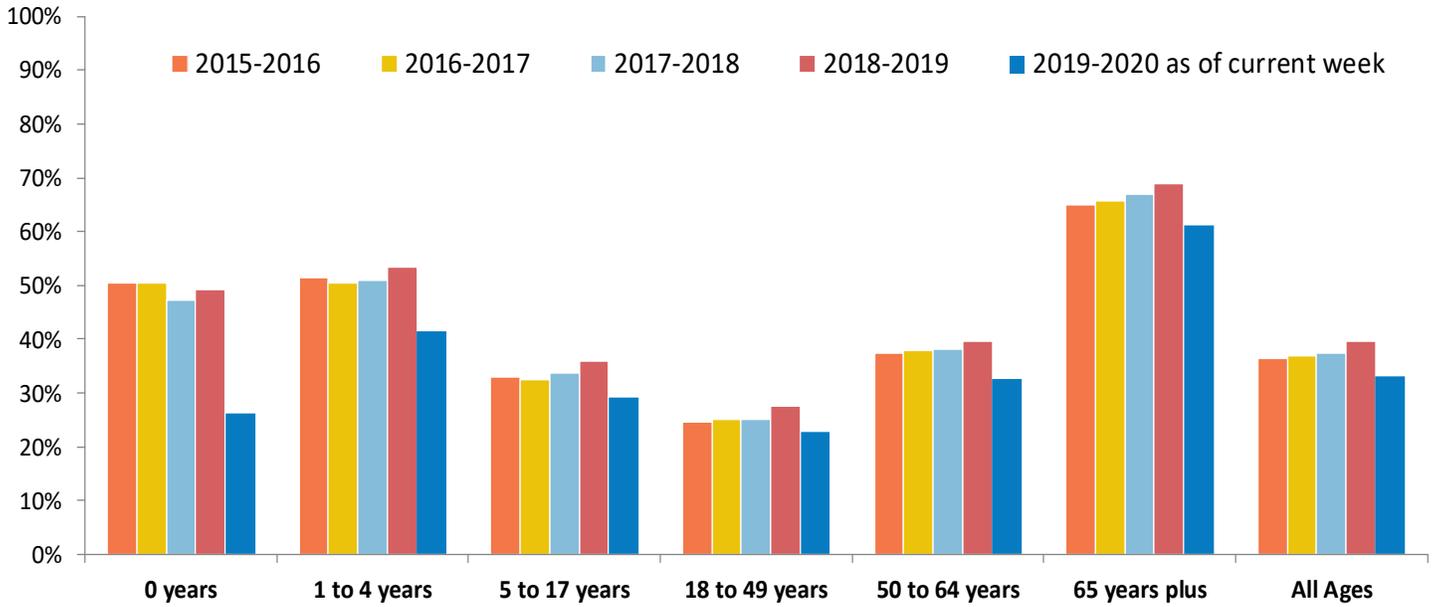
- A/Brisbane/02/2018 (H1N1)pdm09–like virus (updated)
- A/Kansas/14/2017 (H3N2)-like virus (updated)
- B/Colorado/06/2017-like (Victoria lineage) virus

It is recommended that **quadrivalent** 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



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

