



RESPIRATORY VIRUS SURVEILLANCE REPORT

Week 14: Ending April 6, 2019

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

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INFLUENZA LIKE ILLNESS (ILI) ACTIVITY

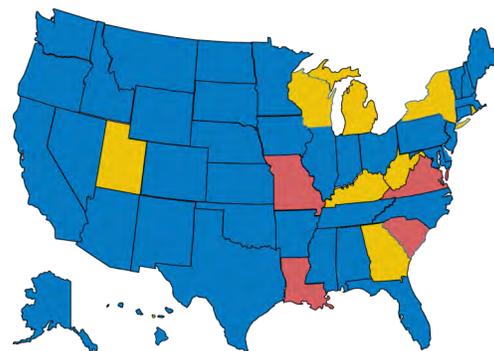
STATE OF WISCONSIN



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:**

Influenza A/H3 is the predominant virus this week.

INFLUENZA-ASSOCIATED PEDIATRIC DEATHS REPORTED:

| | Week 14, 2019 | October 1, 2018 to present |
|------------|---------------|----------------------------|
| Wisconsin | 0 | 2 |
| Nationwide | 4 | 86 |

CURRENT ALERTS:

- Influenza activity is lowing declining statewide.
- 257 flu-associated hospitalizations were reported this week.



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

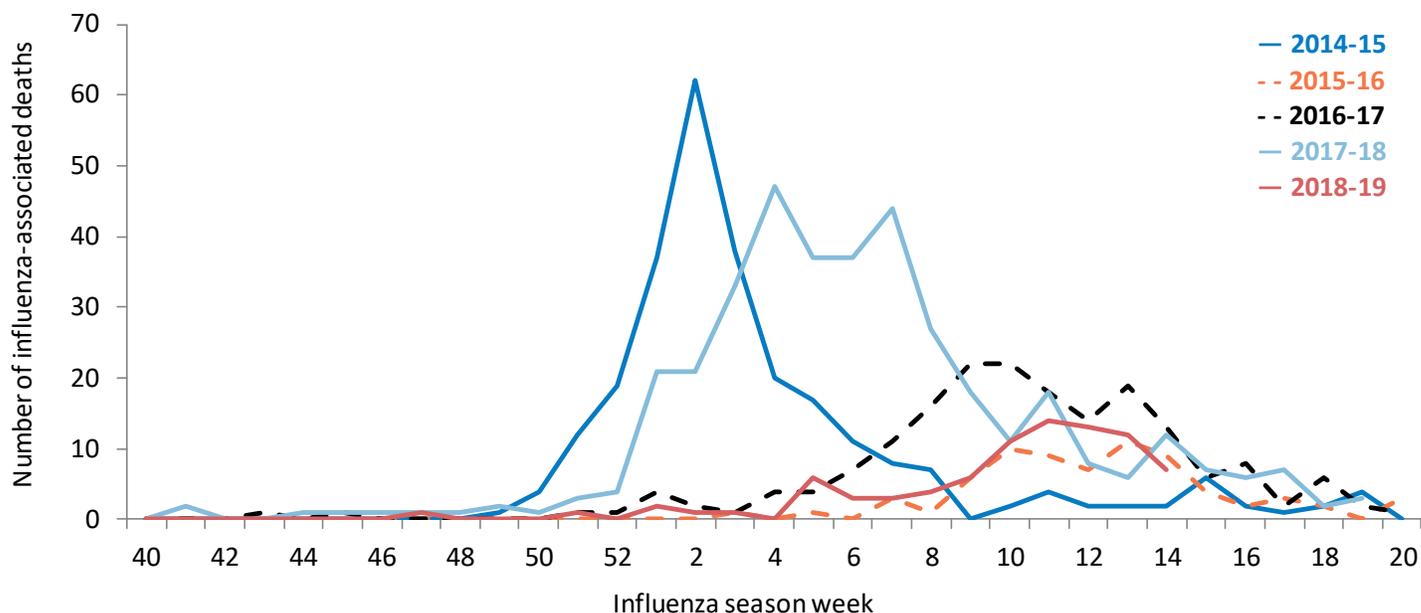




INFLUENZA AND PNEUMONIA-ASSOCIATED MORTALITY

Influenza and Pneumonia Deaths, Wisconsin

Influenza-associated deaths by week and influenza season, Wisconsin



Influenza and pneumonia-associated deaths by age group, 2018-2019 season

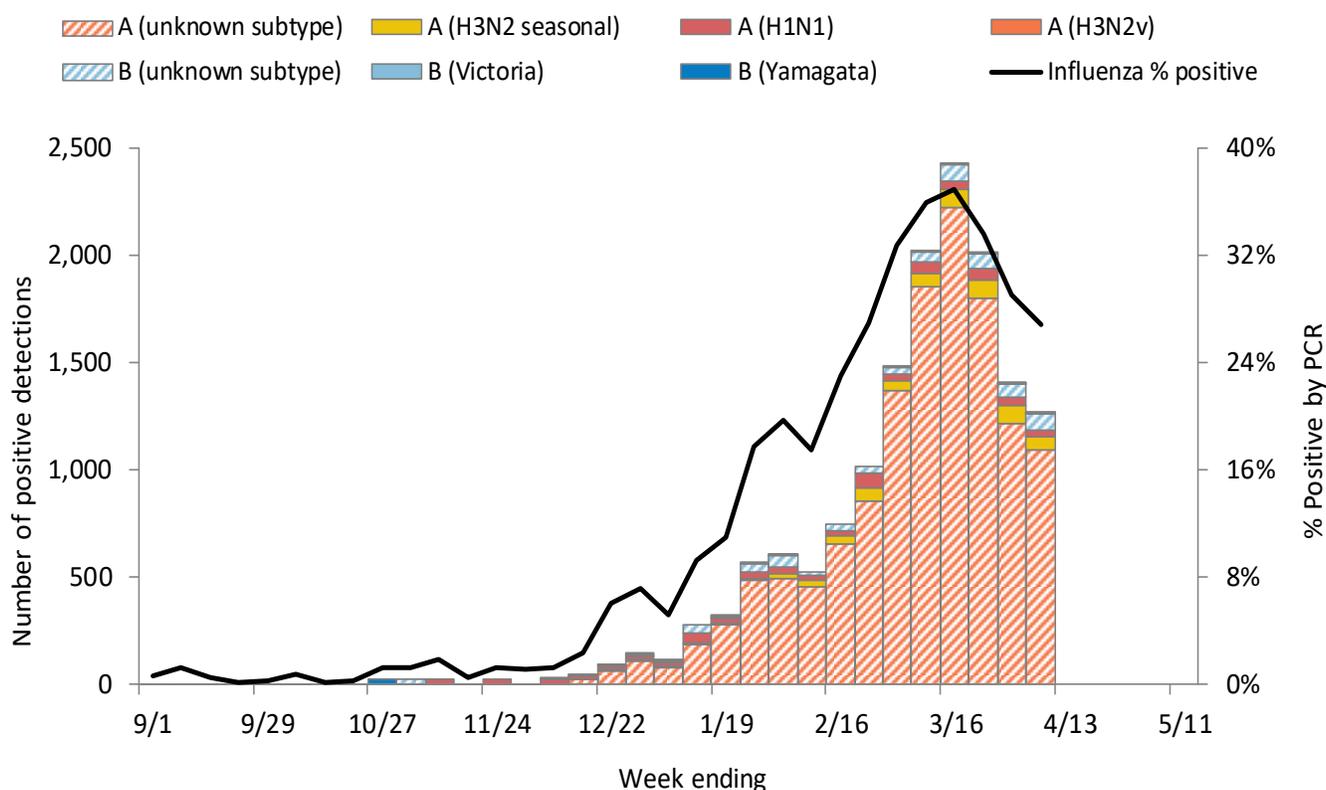
September 30, 2018 to April 6, 2019

| Age group (years) | Week 14, 2019 | | | Cumulative, 2018-2019 season | | |
|-------------------|---------------|---------------|---------------------------|------------------------------|---------------|---------------------------|
| | Influenza (I) | Pneumonia (P) | Percent I+P of all deaths | Influenza (I) | Pneumonia (P) | Percent I+P of all deaths |
| 0-4 | 0 | 0 | 0.0% | 2 | 5 | 2.4% |
| 5-17 | 0 | 1 | 33.3% | 0 | 3 | 3.1% |
| 18-49 | 0 | 2 | 4.4% | 11 | 69 | 3.6% |
| 50-64 | 2 | 4 | 4.8% | 19 | 214 | 4.6% |
| 65+ | 5 | 47 | 7.4% | 55 | 1497 | 5.8% |
| All ages | 7 | 54 | 7.0% | 86 | 1788 | 5.5% |



WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Wisconsin positive influenza results and subtypes by PCR

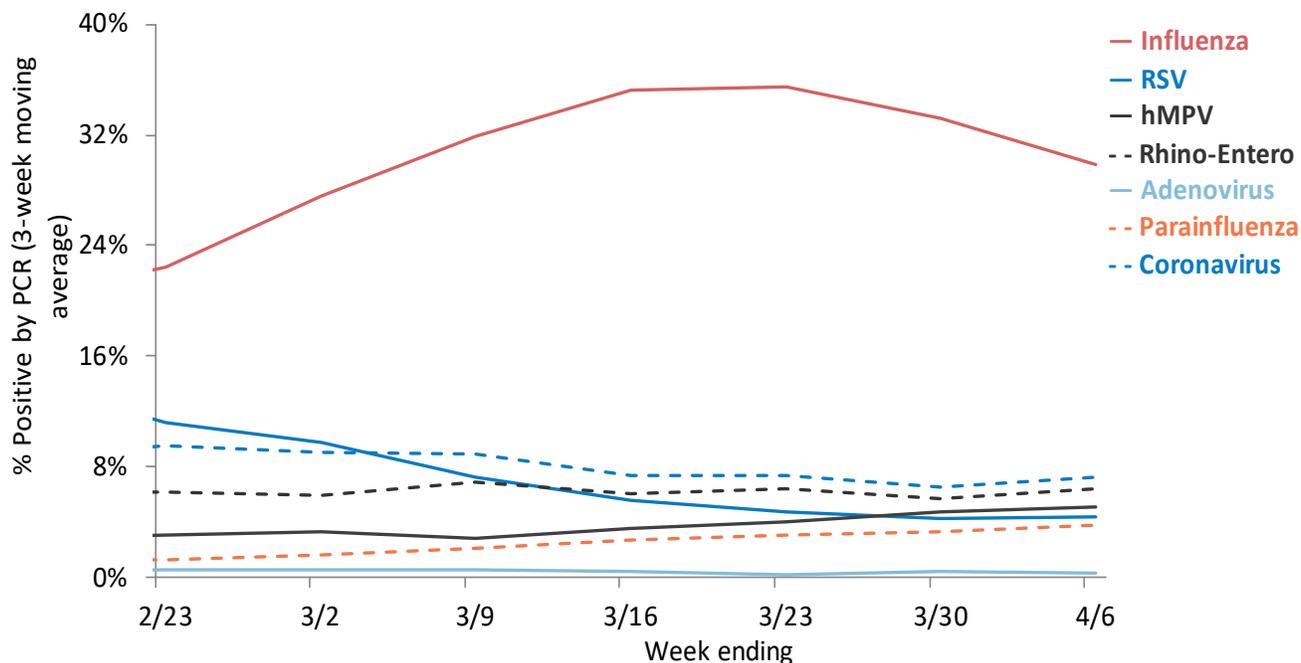


Cumulative number of positive influenza PCR tests by subtype September 1, 2018 to present

| | A (2009 H1N1) | Influenza A: 96% | | | Influenza B: 4% | | | Total |
|---------------------|---------------|------------------|-------------|--------------|-----------------|-------------|-------|-------|
| | | A (H3N2) | A (Unknown) | B (Victoria) | B (Yamagata) | B (Unknown) | | |
| Total positive (n) | 594 | 630 | 13230 | 9 | 23 | 592 | 15078 | |
| % of total positive | 4% | 4% | 88% | 0% | 0% | 4% | 100% | |

WISCONSIN LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES BY PCR

Trends in respiratory virus activity by PCR



Week 14: Ending on April 6, 2019

| Respiratory virus | Tested | Positive (n) | Positive (%) | Influenza A | | | Influenza B | | |
|-------------------|--------|--------------|--------------|-------------|-----------|---------|-------------|----------|---------|
| | | | | H3N2 | 2009 H1N1 | Unknown | Victoria | Yamagata | Unknown |
| Influenza | 4692 | 1260 | 26.9% | 64 | 26 | 1089 | 2 | 1 | 78 |

| Respiratory virus | Tested | Positive (n) | Positive (%) | Parainfluenza 1 | Parainfluenza 2 | Parainfluenza 3 | Parainfluenza 4 |
|-------------------|--------|--------------|--------------|-----------------|-----------------|-----------------|-----------------|
| Parainfluenza | 786 | 35 | 4.5% | 2 | 4 | 26 | 3 |

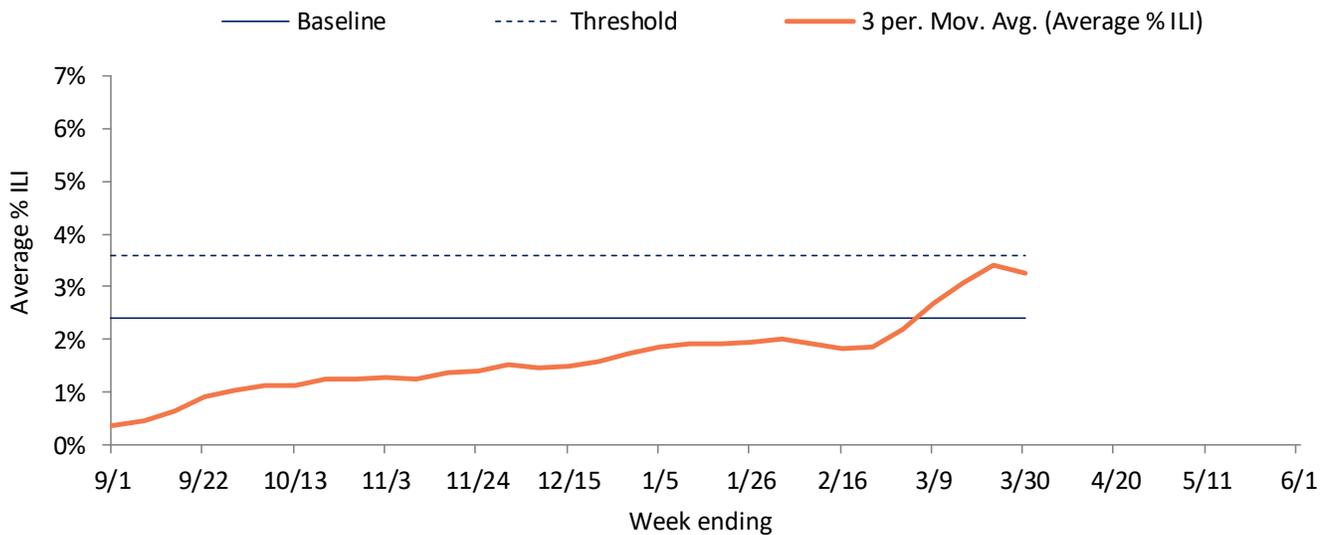
| Respiratory virus | Tested | Positive (n) | Positive (%) | CoV 229E | CoV OC43 | CoV NL63 | CoV HKU1 |
|-------------------|--------|--------------|--------------|----------|----------|----------|----------|
| Coronavirus (CoV) | 398 | 28 | 7.0% | 7 | 14 | 7 | 0 |

| Respiratory virus | Tested | Positive (n) | Positive (%) |
|-----------------------|--------|--------------|--------------|
| RSV | 1375 | 56 | 4.1% |
| Human metapneumovirus | 807 | 43 | 5.3% |
| Rhino-enterovirus | 765 | 49 | 6.4% |
| Adenovirus | 398 | 1 | 0.3% |

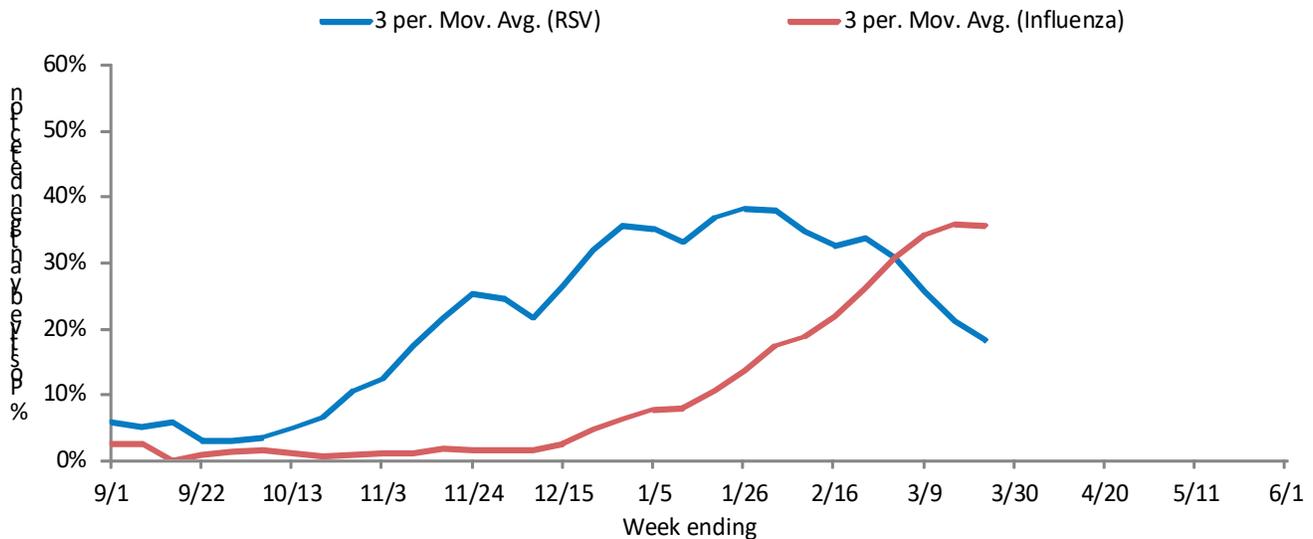
WISCONSIN STATE SUMMARY

| 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 | | | | | | | |
| 2191 | 488 | 54 | 542 | 24.7% | 133 | 18 | 13.5% | 2.7% | 2.4% | 3.6% |

ILI activity trend analysis

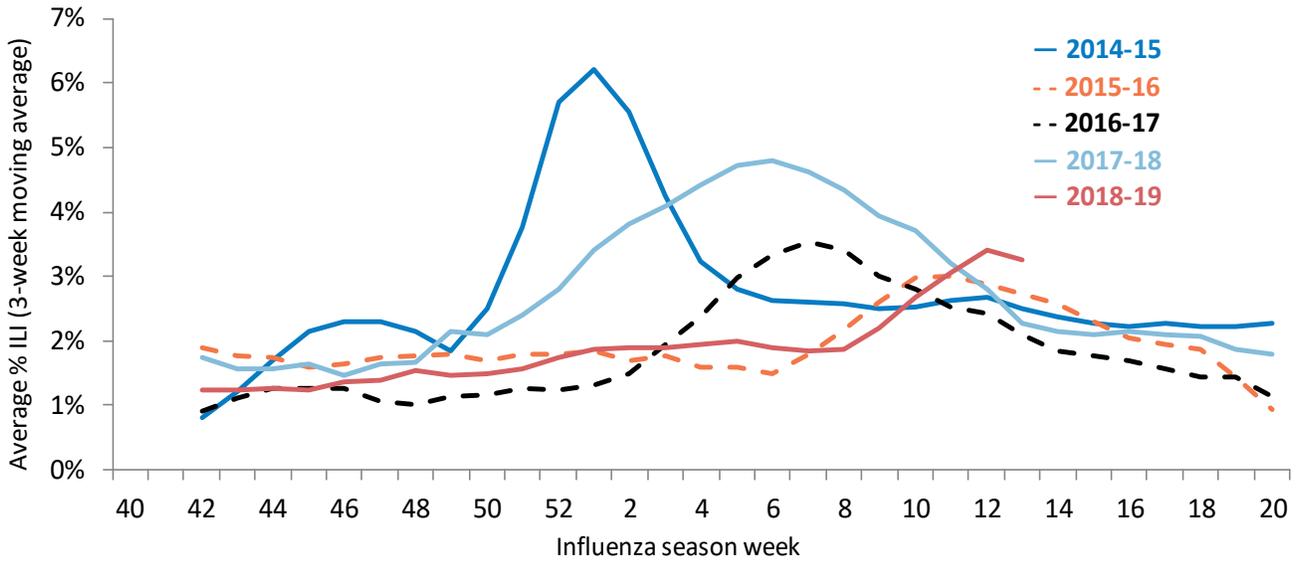


Influenza and RSV trend analysis



WISCONSIN STATE SUMMARY

ILI activity trend analysis by influenza season, Wisconsin

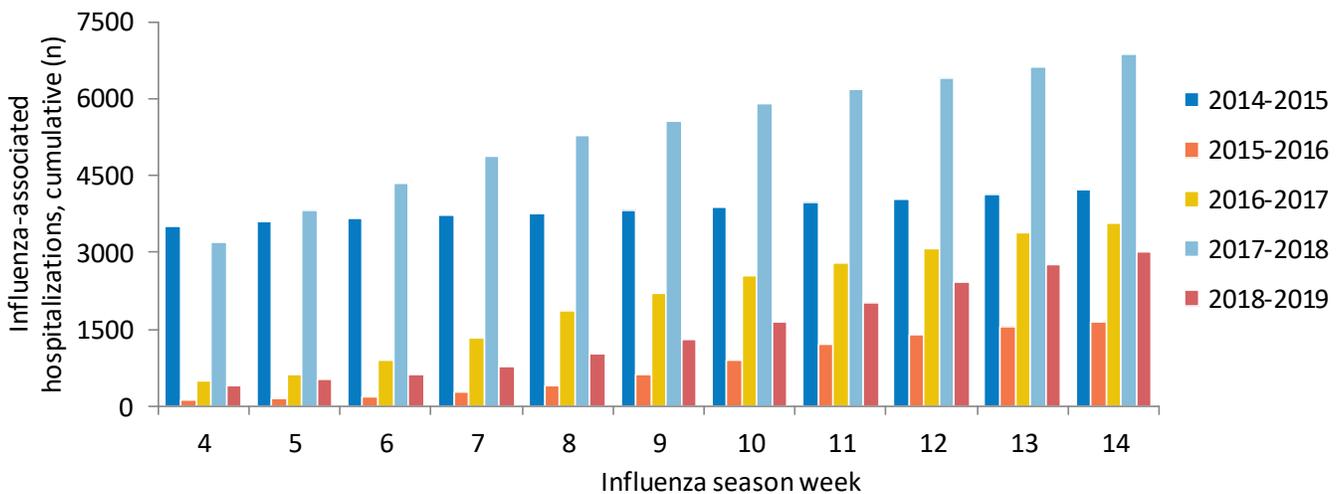


Influenza-associated hospitalizations, Wisconsin Electronic Disease Surveillance System

September 1, 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 | 44 | 5 | | 35 | 2 | 2 | 6 | 2 | 0 | 0 |
| 1-4 | 88 | 3 | 3 | 70 | 4 | 8 | 16 | 4 | 0 | 0 |
| 5-17 | 102 | 2 | 3 | 78 | 5 | 14 | 16 | 2 | 0 | 0 |
| 18-49 | 462 | 40 | 16 | 358 | 21 | 27 | 95 | 33 | 31 | 2 |
| 50-64 | 776 | 86 | 41 | 595 | 27 | 27 | 163 | 45 | 0 | 0 |
| 65+ | 1545 | 115 | 112 | 1194 | 77 | 47 | 217 | 56 | 0 | 0 |
| Total | 3017 | 251 | 175 | 2330 | 136 | 125 | 513 | 142 | 31 | 2 |

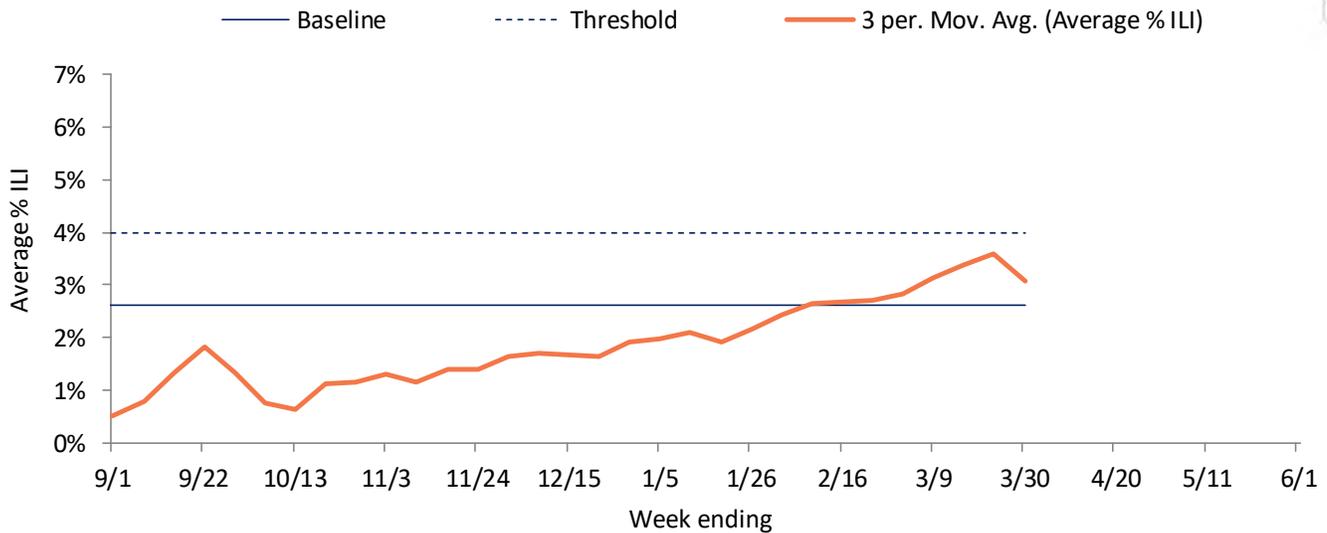
Reported cumulative influenza-associated hospitalizations by influenza season, Wisconsin



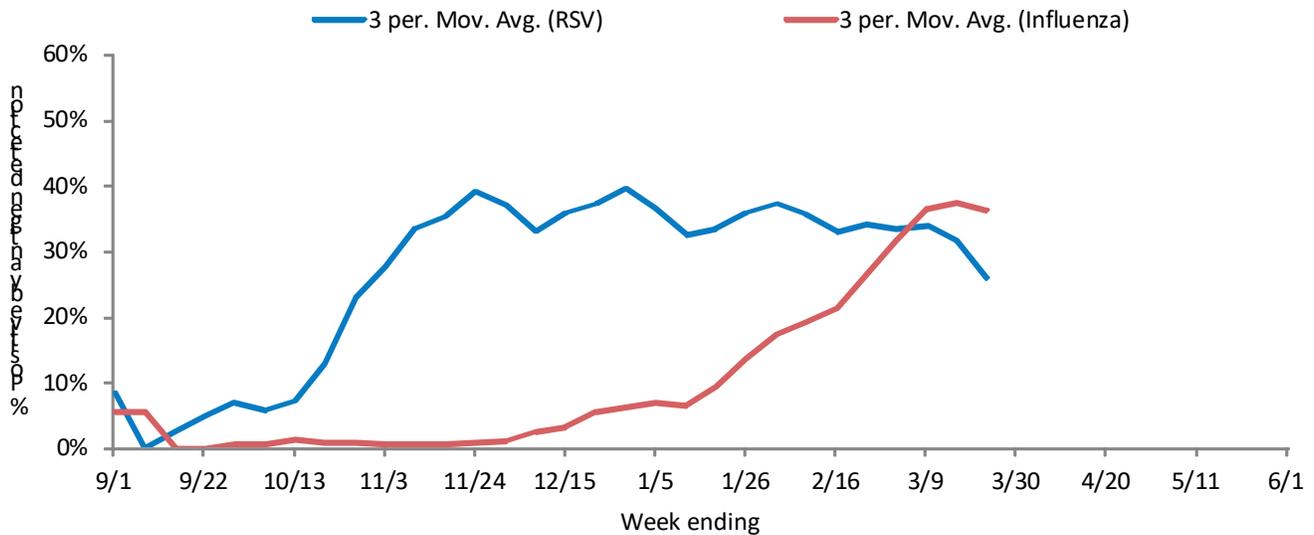
NORTHEASTERN REGION

| 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 | | | | | | | |
| 987 | 203 | 27 | 230 | 23.3% | 84 | 15 | 17.9% | 2.6% | 2.6% | 4.0% |

ILI activity trend analysis



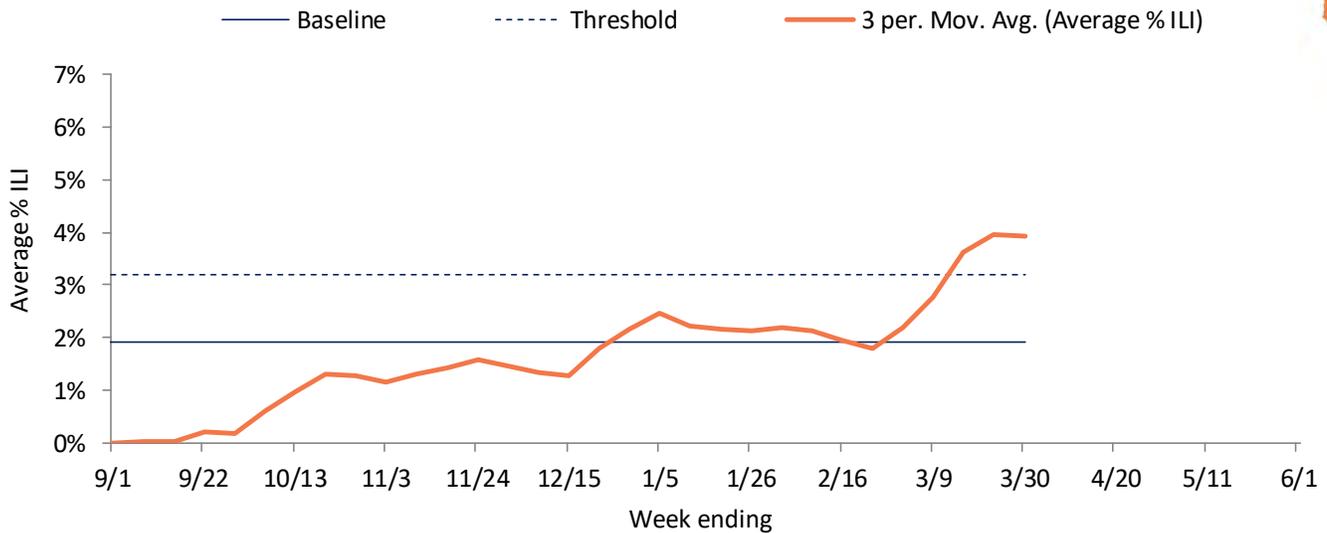
Influenza and RSV trend analysis



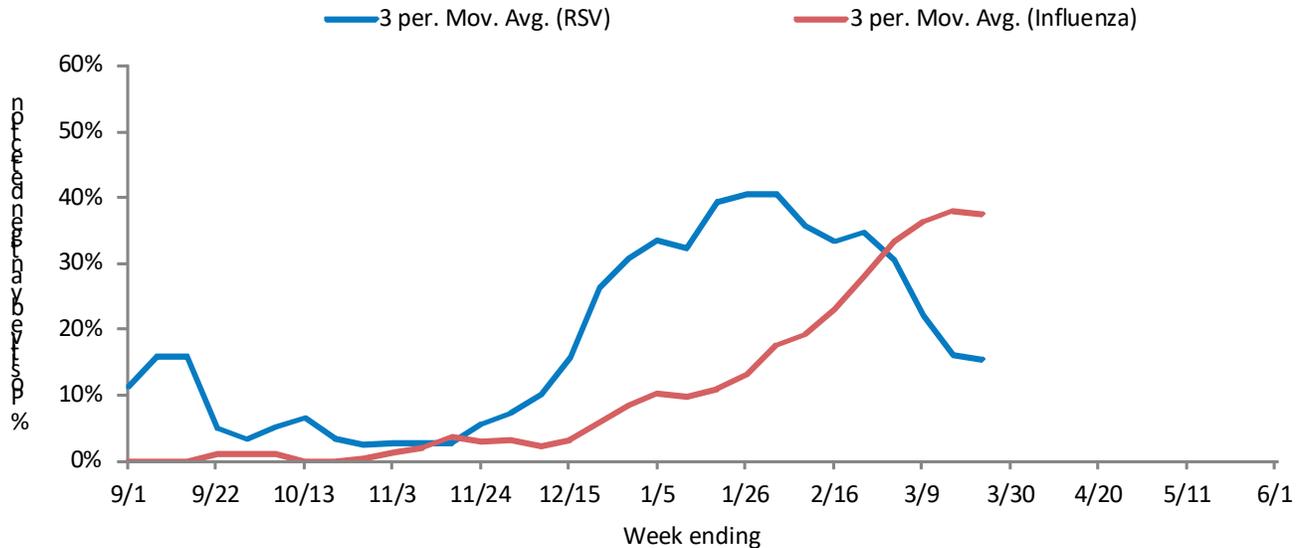
NORTHWESTERN REGION

| 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 | | | | | | | |
| 386 | 81 | 3 | 84 | 21.8% | 38 | 2 | 5.3% | 2.5% | 1.9% | 3.2% |

ILI activity trend analysis



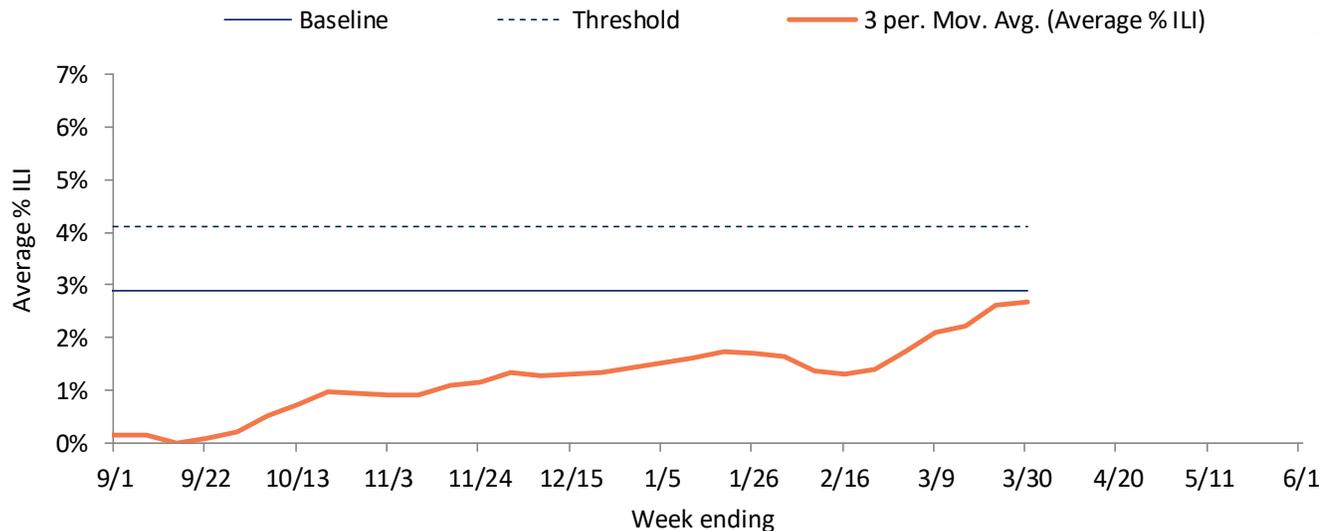
Influenza and RSV trend analysis



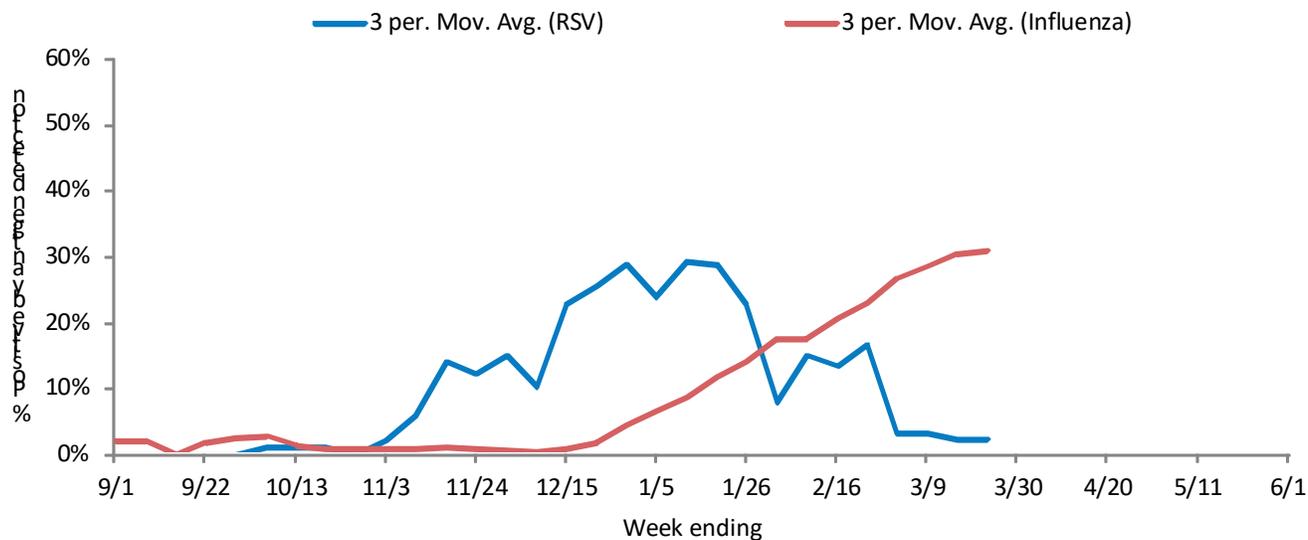
SOUTHEASTERN REGION

| 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 | | | | | | | |
| 756 | 184 | 23 | 207 | 27.4% | 8 | 0 | 0.0% | 2.3% | 2.9% | 4.1% |

ILI activity trend analysis



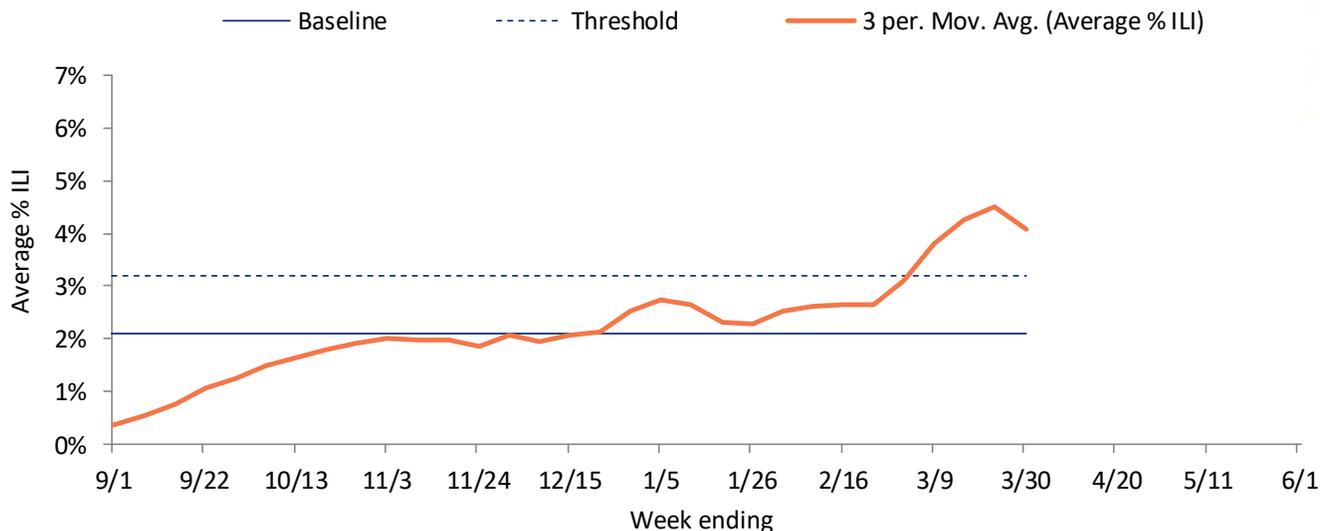
Influenza and RSV trend analysis



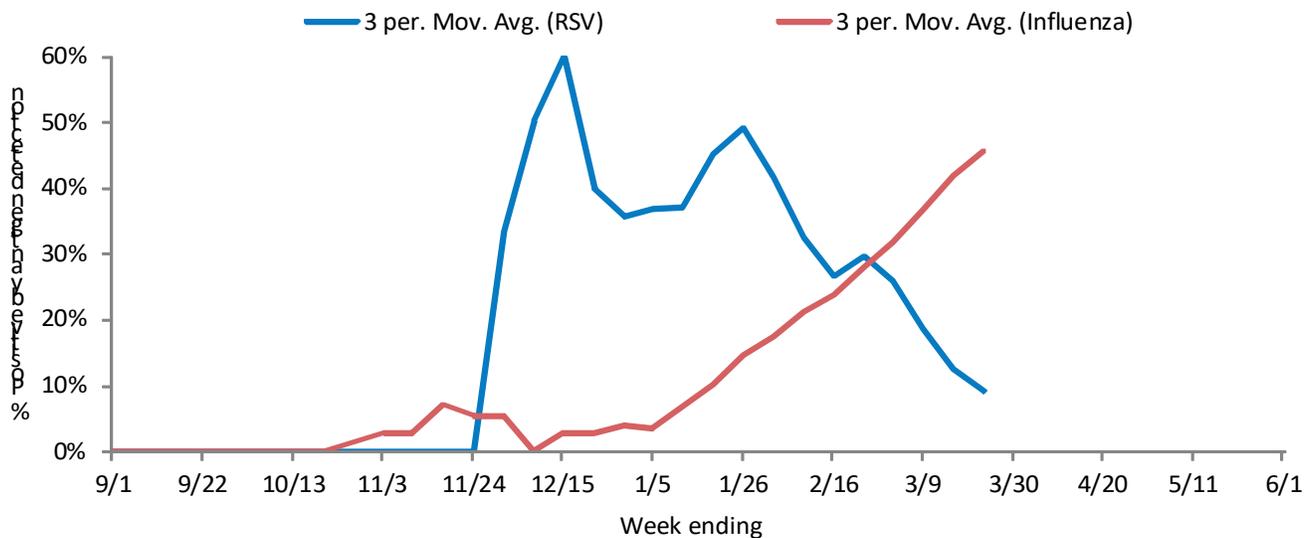
SOUTHERN REGION

| 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 | | | | | | | |
| 62 | 20 | 1 | 21 | 33.9% | 3 | 1 | 33.3% | 3.5% | 2.1% | 3.2% |

ILI activity trend analysis

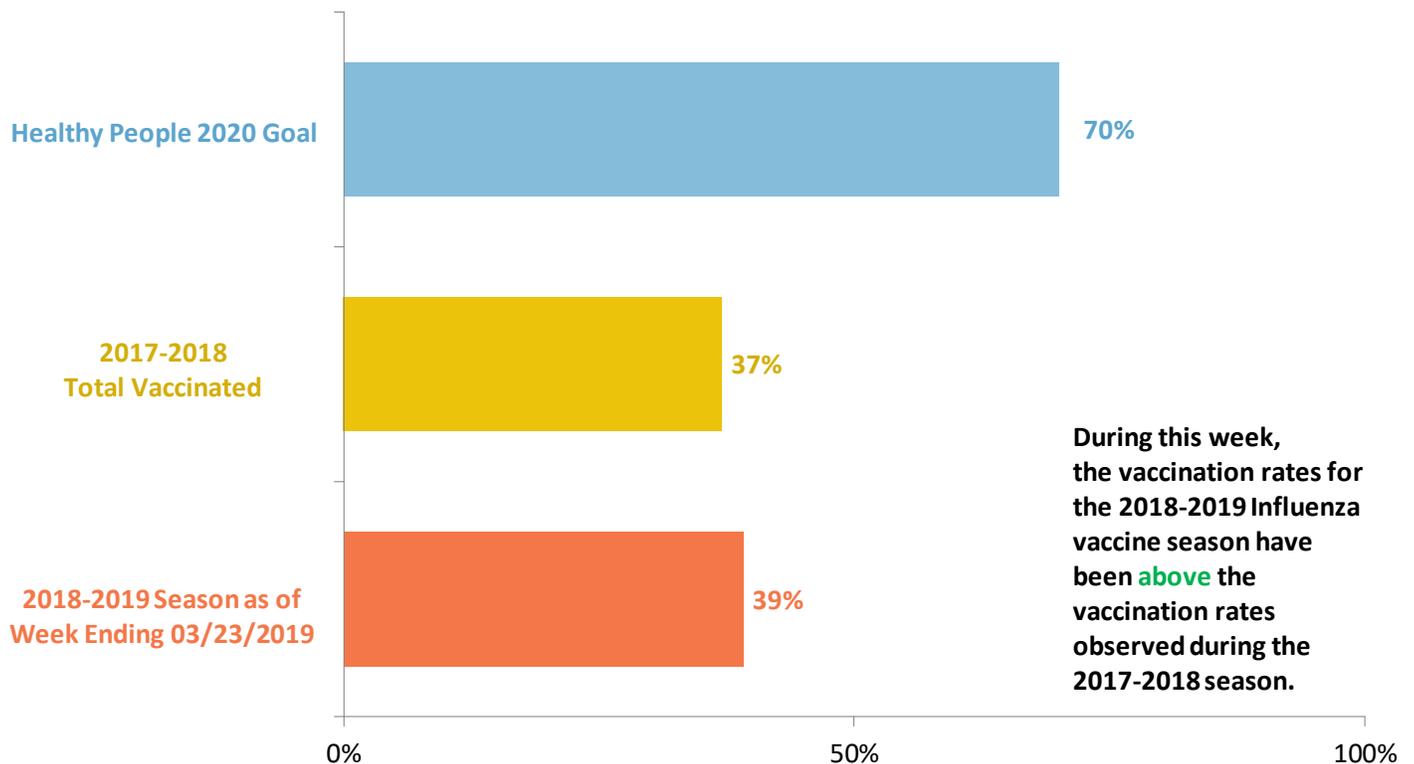


Influenza and RSV trend analysis



SEASONAL INFLUENZA VACCINATION

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



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:

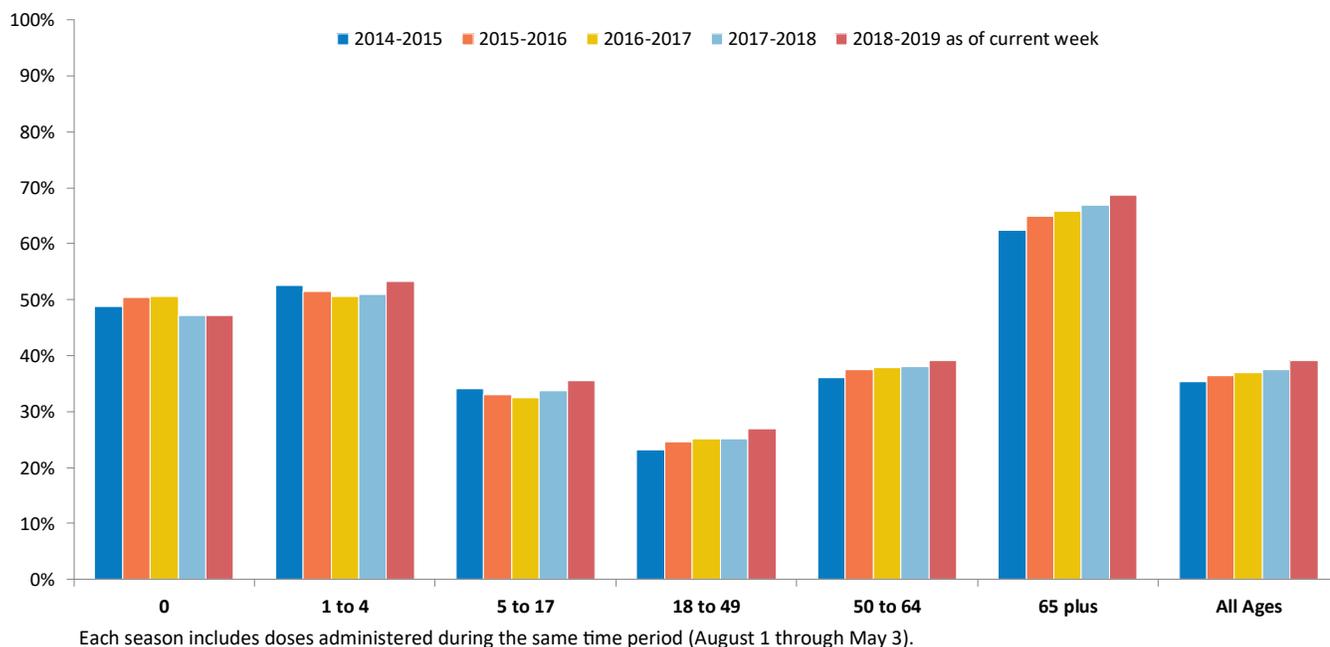
- A/Michigan/45/2015 (H1N1)pdm09-like virus
- A/Singapore/INFIMH-16-0019/2016 A(H3N2)-like virus (updated)
- B/Colorado/06/2017-like (Victoria lineage) virus (updated)

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

