

Weekly Influenza & Respiratory Illness Activity Report

Week Ending December 19, 2020 | WEEK 51

A summary of influenza surveillance indicators prepared by the Division of Infectious Disease Epidemiology Prevention & Control.
All data are preliminary and may change as more information is received.

| Minnesota Influenza Key Statistics | |
|--|-------------|
| Percent of molecular laboratory tests positive | 0.03% |
| Hospitalizations | 16 |
| Most common strain | Influenza B |
| School outbreaks | 3 |
| Long-term care outbreaks | 2 |
| Pediatric influenza-associated deaths | 0 |

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[Minnesota Influenza Surveillance \(www.health.state.mn.us/diseases/flu/stats/\)](http://www.health.state.mn.us/diseases/flu/stats/)

[Weekly U.S. Influenza Surveillance Report \(www.cdc.gov/flu/weekly/\)](http://www.cdc.gov/flu/weekly/)

[World Health Organization \(WHO\) Surveillance \(www.who.int/influenza/surveillance_monitoring/updates/en/\)](http://www.who.int/influenza/surveillance_monitoring/updates/en/)

Neighboring states' influenza information:

Iowa: [Iowa Flu Reports \(idph.iowa.gov/influenza/reports\)](http://idph.iowa.gov/influenza/reports)

Wisconsin: [Influenza \(Flu\) \(www.dhs.wisconsin.gov/communicable/influenza/\)](http://www.dhs.wisconsin.gov/communicable/influenza/)

North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

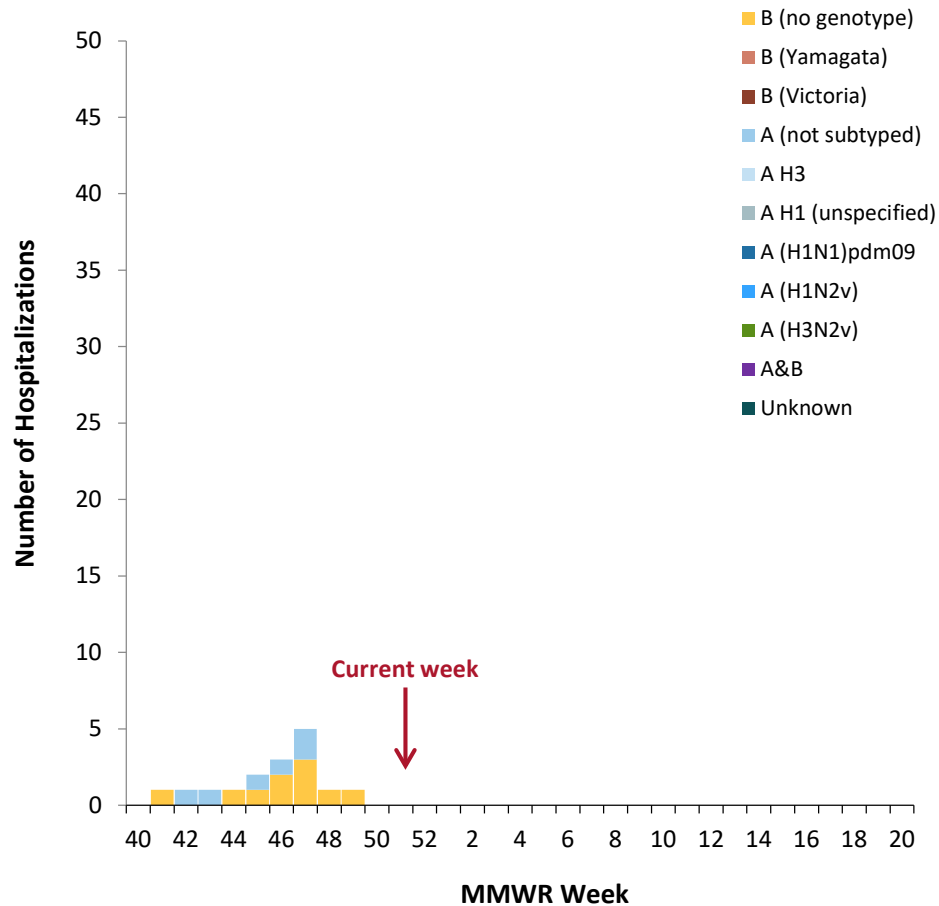
South Dakota: [South Dakota Influenza Information \(doh.sd.gov/diseases/infectious/flu/\)](http://doh.sd.gov/diseases/infectious/flu/)

Due to the COVID-19 pandemic, CDC and MDH will not be posting the weekly geographic spread indicators (no activity, sporadic, local, regional, widespread) this season as they rely on influenza-like illness data (ILI). Because these data are based on symptoms, the cause of ILI cannot reliably be attributed to influenza while COVID-19 is widely circulating.

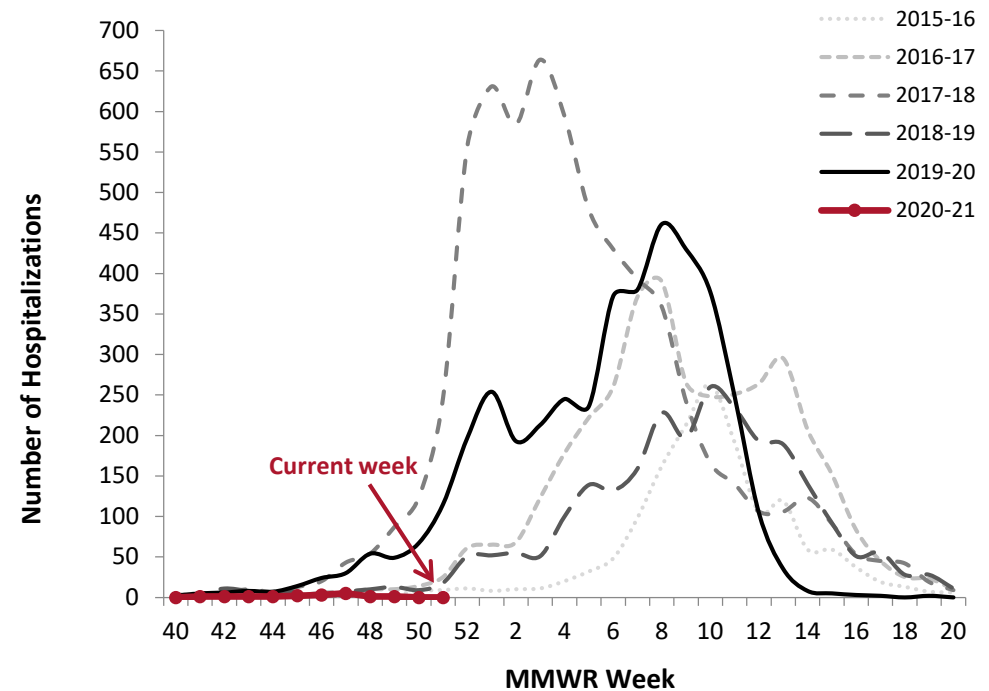
Hospitalized Influenza Surveillance

Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. Due to the need to confirm reports and reporting delays, consider current week data preliminary.

Hospitalized Influenza Cases by Type, Minnesota (FluSurv-NET*)



Hospitalized Influenza Cases by Season, Minnesota (FluSurv-NET*)



| Season | Total hospitalizations (historic) |
|------------------|-----------------------------------|
| 2015-2016 | 1,538 |
| 2016-2017 | 3,695 |
| 2017-2018 | 6,446 |
| 2018-2019 | 2,543 |
| 2019-2020 | 4,022 |
| 2020-2021 | 16 (to date) |

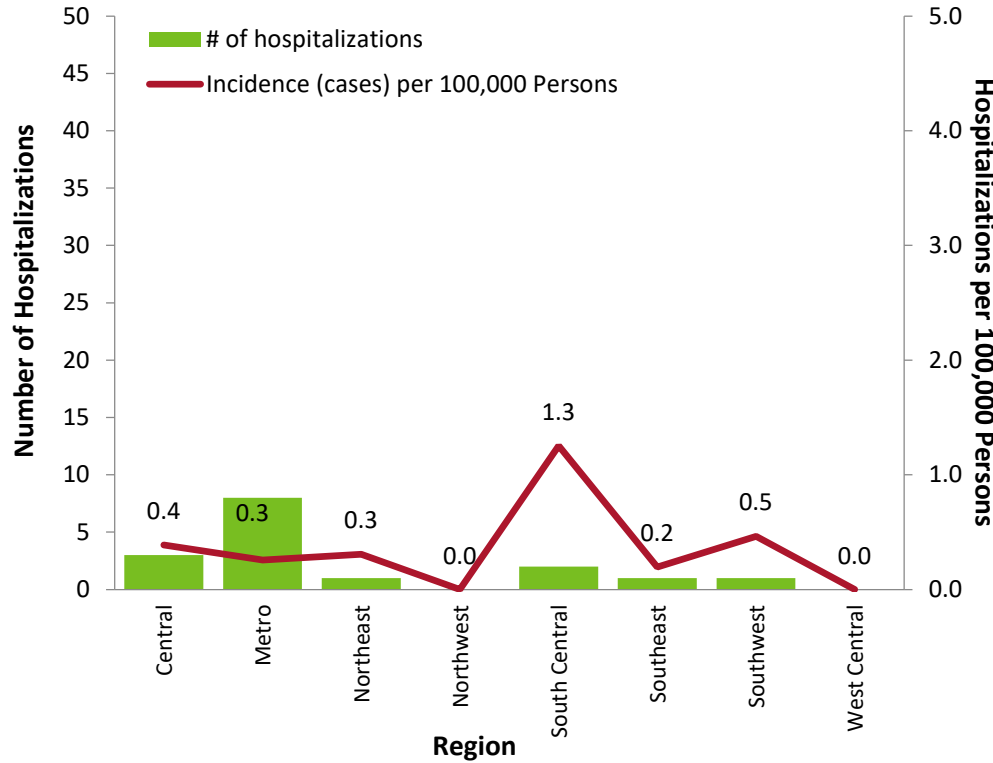
| Hospitalizations this week | Hospitalizations last week | Total hospitalizations (to date) |
|----------------------------|----------------------------|----------------------------------|
| 0 | 0 | 16 |

*FluSurv-NET = Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

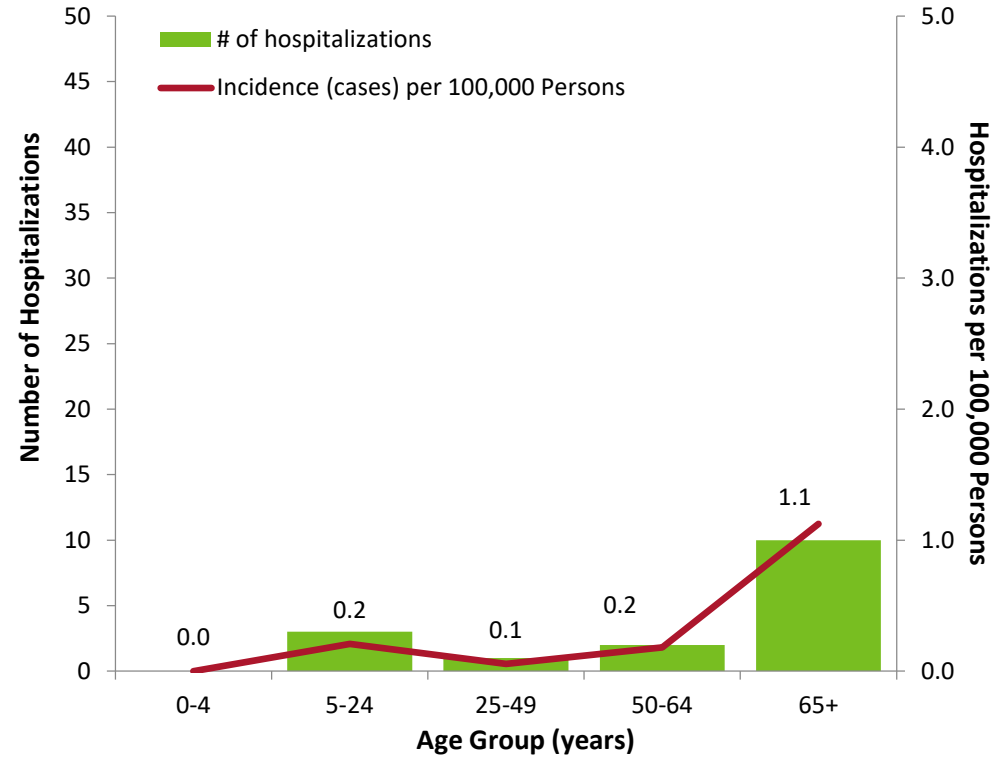
Number of Influenza Hospitalizations and Incidence by Region, Minnesota

September 27, 2020 – December 12, 2020



Number of Influenza Hospitalizations and Incidence by Age, Minnesota

September 27, 2020 – December 12, 2020



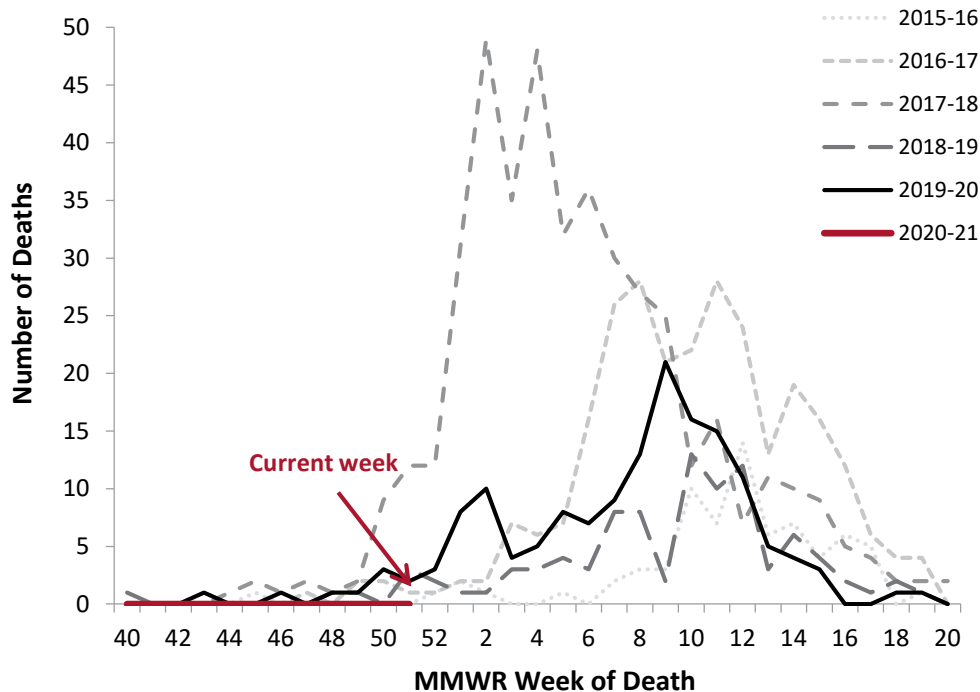
| Region | Hospitalizations this week | Total (to date) |
|---------------------|----------------------------|-----------------|
| Central | 0 (0%) | 3 (19%) |
| Metro | 0 (0%) | 8 (50%) |
| Northeast | 0 (0%) | 1 (6%) |
| Northwest | 0 (0%) | 0 (0%) |
| South Central | 0 (0%) | 2 (13%) |
| Southeast | 0 (0%) | 1 (6%) |
| Southwest | 0 (0%) | 1 (6%) |
| West Central | 0 (0%) | 0 (0%) |

| Median age (years) at time of admission |
|---|
| 70 |

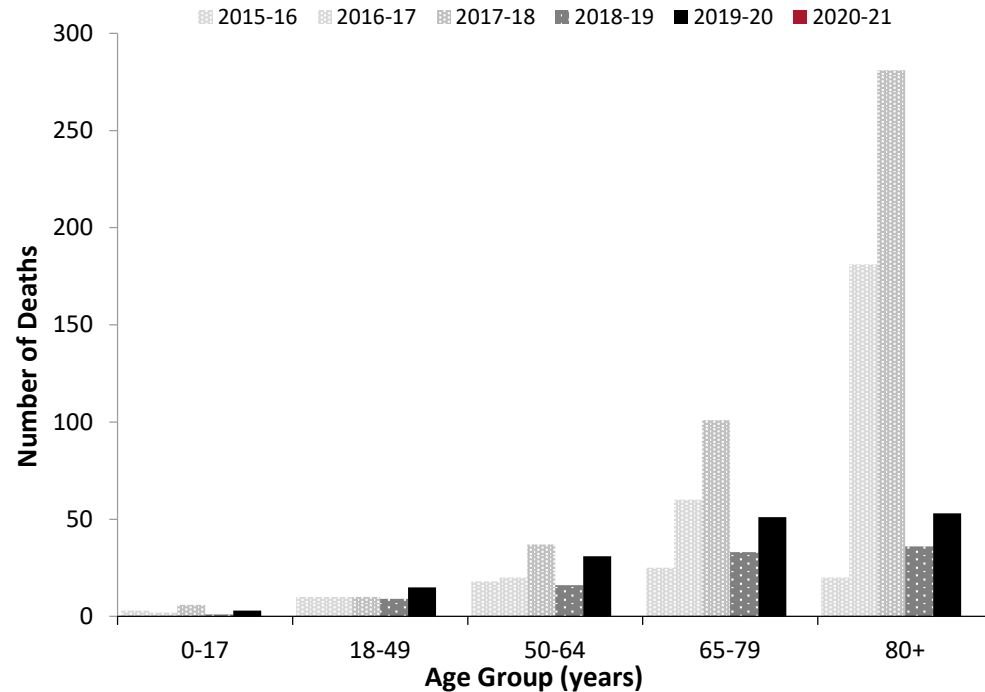
Influenza-Associated Death Surveillance

Influenza deaths are collected via reports from Minnesota’s death certificate database, hospitals, and long-term care facilities. Decedents with influenza listed as a cause of or contributor to death, have recent laboratory confirmation of influenza, or are part of an ongoing influenza outbreak at a long-term care facility are reported to influenza surveillance. Due to the need to confirm reports and reporting delays, consider current week data preliminary.

Deaths Associated with Influenza by Season, Minnesota



Deaths Associated with Influenza by Age Group and Season, Minnesota



| Season | Total deaths (historic) | Total pediatric (<18 years) deaths (historic) |
|------------------|-------------------------|---|
| 2015-2016 | 76 | 3 |
| 2016-2017 | 273 | 2 |
| 2017-2018 | 440 | 6 |
| 2018-2019 | 95 | 1 |
| 2019-2020 | 153 | 3 |
| 2020-2021 | 0 (to date) | 0 (to date) |

| Season | Median age (years) at time of death |
|------------------|-------------------------------------|
| 2015-2016 | 68 |
| 2016-2017 | 86 |
| 2017-2018 | 85 |
| 2018-2019 | 75 |
| 2019-2020 | 73 |
| 2020-2021 | - (to date) |

*FluSurv-NET = Influenza Surveillance Network

Respiratory Disease Outbreak Surveillance: School Outbreaks

K-12 schools report an outbreak of influenza-like illness (ILI) when the number of students absent with ILI reaches 5% of total enrollment or three or more students with ILI are absent from the same elementary classroom.

Influenza-like Illness (ILI) in Schools by Season

| New school outbreaks this week | New school outbreaks last week | Total this season (to date) |
|--------------------------------|--------------------------------|-----------------------------|
| 0 | 0 | 3 |

| New school outbreaks this week | New school outbreaks last week | Total this season (to date) |
|--------------------------------|--------------------------------|-----------------------------|
| 0 | 0 | 3 |

† The Week 53 value for these seasons is the average of Week 52 and Week 1

Respiratory Disease Outbreak Surveillance: LTC Outbreaks

Long-Term Care (LTC) facilities report to MDH when they suspect an outbreak of influenza in their facility. Laboratory-confirmed outbreaks are reported here.

Confirmed Influenza Outbreaks in LTC by Season

| New LTC outbreaks this week | New LTC outbreaks last week | Total this season (to date) |
|-----------------------------|-----------------------------|-----------------------------|
| 0 | 0 | 2 |

| New LTC outbreaks [†] this week | New LTC outbreaks last week | Total this season (to date) |
|--|-----------------------------|-----------------------------|
| 0 | 0 | 2 |

[†] The Week 53 value for these seasons is the average of Week 52 and Week 1

Sentinel Provider Surveillance (Outpatients)

MDH collaborates with healthcare providers who report the total number of patients seen and the total number of those patients presenting to outpatient clinics with influenza-like illness.

Percentage of Persons Presenting to Outpatient Clinics with Influenza-Like Illness (ILI)

| % of outpatients with ILI this week | % of outpatients with ILI last week |
|--|--|
| 0.2% | 0.4% |

* Indicates current week-data may be delayed by 1 or more weeks

† The Week 53 value for these seasons is the average of Week 52 and Week 1

‡ MN Baseline valid for 2020-21 season only, do not compare it with previous seasons. The baseline is calculated by averaging the ILI percent for non-influenza weeks over the previous four seasons and adding two standard deviations. Non-influenza weeks account for less than 2% of the season's total flu-positive specimens tested at Public Health Labs in HHS Region 5. Weeks where ILI % is above baseline reflect weeks with excess health care visits due to ILI.

| % of outpatients with ILI this week | % of outpatients with ILI last week |
|--|--|
| 0.2% | 0.4% |

Laboratory Surveillance

The MN Lab System (MLS) Laboratory Influenza Surveillance Program is made up of more than 310 clinic- and hospital-based laboratories, voluntarily submitting testing data weekly. These laboratories perform rapid testing for influenza and Respiratory Syncytial Virus (RSV). Significantly fewer labs perform PCR testing for influenza and three also perform PCR testing for other respiratory viruses. MDH-PHL provides further characterization of submitted influenza isolates to determine the hemagglutinin serotype to indicate vaccine coverage. Tracking the laboratory results assists healthcare providers with patient diagnosis of influenza-like illness and provides an indicator of the progression of the influenza season as well as prevalence of disease in the community.

Specimens Positive for Influenza by Molecular Testing*, by Week

| % molecular tests positive this week | % molecular tests positive last week |
|--------------------------------------|--------------------------------------|
| 0.03% | 0.1% |

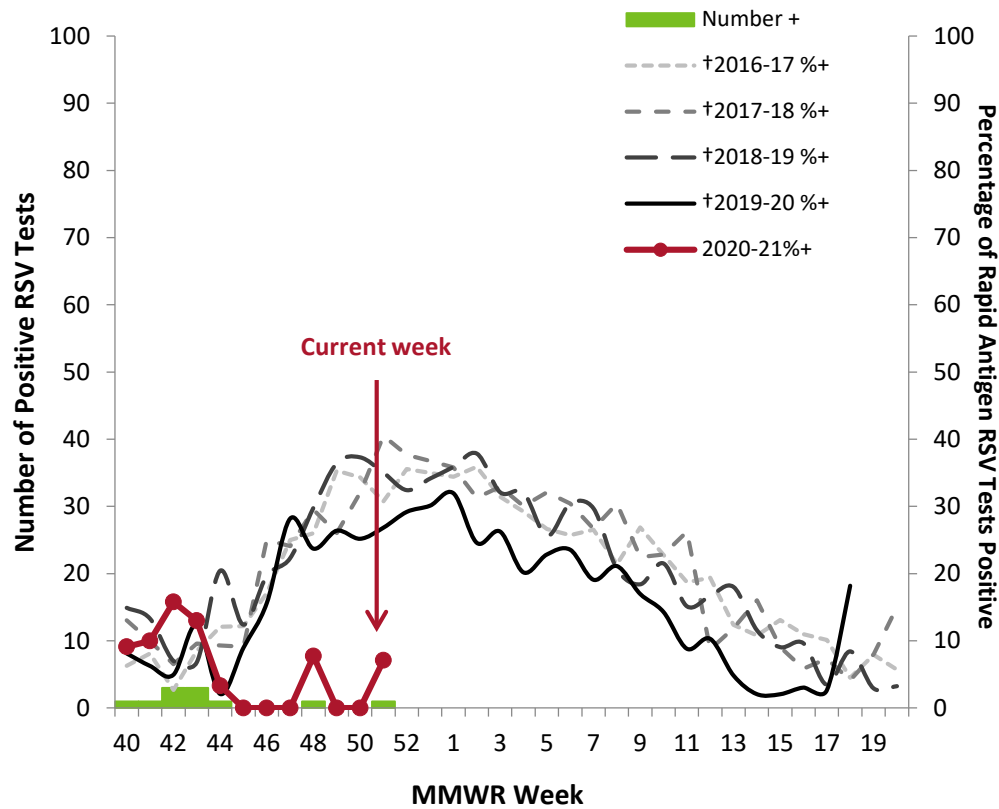
* Beginning in 2016-17, laboratories report results for rapid molecular influenza tests in addition to RT-PCR results

† The Week 53 value for these seasons is the average of Week 52 and Week 1

| % of molecular tests positive this week | % of molecular tests positive last week |
|---|---|
| 0.03% | 0.1% |

Laboratory Surveillance (continued)

MLS Laboratories – Influenza Testing Specimens Positive by Influenza Rapid Antigen Test, by Week



MLS Laboratories – RSV Testing Specimens Positive by RSV Rapid Antigen Test, by Week

| Region | % rapid antigen influenza tests + (current week) | Region | % rapid antigen RSV tests + (current week) |
|-----------------|--|-----------------|--|
| Central | 0% | Central | 17% |
| Metro | 0% | Metro | 0% |
| Northeast | 0% | Northeast | - |
| Northwest | - | Northwest | - |
| South Central | - | South Central | - |
| Southeast | 0% | Southeast | - |
| Southwest | 0% | Southwest | 0% |
| West Central | 0% | West Central | 0% |
| State (overall) | 0% | State (overall) | 7% |

| Region | % rapid antigen influenza tests + this week |
|----------------------------|---|
| Central | 0% |
| Metro | 0% |
| Northeast | 0% |
| Northwest | - |
| South Central | - |
| Southeast | 0% |
| Southwest | 0% |
| West Central | 0% |
| Statewide (overall) | 0% |

| Region | % rapid antigen RSV tests + this week |
|----------------------------|---------------------------------------|
| Central | 17% |
| Metro | 0% |
| Northeast | - |
| Northwest | - |
| South Central | - |
| Southeast | - |
| Southwest | 0% |
| West Central | 0% |
| Statewide (overall) | 7% |

† The Week 53 value for these seasons is the average of Week 52 and Week 1

Minnesota Influenza Incidence Surveillance Project (MIISP)

MIISP surveillance sites collect 10-20 specimens every week on patients presenting with acute respiratory illness with or without fever. The graph below illustrate the number of positive results by virus family detected each week. The primary purpose of these graphs is to visualize the respiratory viruses circulating in Minnesota.

MIISP Testing (Outpatient), by Week

| Pathogen Group | Pathogen | Frequency | Percent of detections |
|------------------------|---|-----------------|-----------------------|
| All Negative | None | 333 | |
| Adenovirus | Adenovirus | 2 | 1% |
| Bocavirus | Bocavirus | 3 | 1% |
| Influenza | Flu A/H1/2009 | 0 | 0% |
| | Flu A/H1/seasonal | 0 | 0% |
| | Flu A/H3 | 0 | 0% |
| | Flu A/Unknown | 0 | 0% |
| | Flu A/Unsubtypeable | 0 | 0% |
| | Flu B | 0 | 0% |
| | Parainfluenza | Parainfluenza-1 | 0 |
| Parainfluenza-2 | | 0 | 0% |
| Parainfluenza-3 | | 1 | 0% |
| Parainfluenza-4 | | 5 | 2% |
| RSV/Metapneumovirus | Metapneumovirus | 7 | 3% |
| | RSV | 0 | 0% |
| Seasonal Coronavirus | Coronavirus-229E | 1 | 0% |
| | Coronavirus-HKU1 | 0 | 0% |
| | Coronavirus-NL63 | 1 | 0% |
| | Coronavirus-OC43 | 0 | 0% |
| Rhinovirus/Enterovirus | Enterovirus | 5 | 2% |
| | Rhinovirus | 28 | 10% |
| | Rhinovirus/Enterovirus (non-differentiated) | 81 | 30% |
| SARS-CoV-2 (COVID-19) | SARS-CoV-2 | 133 | 50% |

Minnesota Influenza Incidence Surveillance Project (continued)

This table details the specific viruses detected during the 2020-21 Influenza season. Viruses are grouped by the virus family they belong to, with the exception of SARS-CoV-2 (the virus that causes COVID-19), which is singled out from the seasonal coronaviruses that regularly circulate throughout the year.

| Pathogen Group | Pathogen | Frequency | Percent of detections |
|------------------------|---|-----------|-----------------------|
| All Negative | None | 333 | |
| Adenovirus | Adenovirus | 2 | 1% |
| Bocavirus | Bocavirus | 3 | 1% |
| Influenza | Flu A/H1/2009 | 0 | 0% |
| | Flu A/H1/seasonal | 0 | 0% |
| | Flu A/H3 | 0 | 0% |
| | Flu A/Unknown | 0 | 0% |
| | Flu A/Unsubtypeable | 0 | 0% |
| | Flu B | 0 | 0% |
| Parainfluenza | Parainfluenza-1 | 0 | 0% |
| | Parainfluenza-2 | 0 | 0% |
| | Parainfluenza-3 | 1 | 0% |
| | Parainfluenza-4 | 5 | 2% |
| RSV/Metapneumovirus | Metapneumovirus | 7 | 3% |
| | RSV | 0 | 0% |
| Seasonal Coronavirus | Coronavirus-229E | 1 | 0% |
| | Coronavirus-HKU1 | 0 | 0% |
| | Coronavirus-NL63 | 1 | 0% |
| | Coronavirus-OC43 | 0 | 0% |
| Rhinovirus/Enterovirus | Enterovirus | 5 | 2% |
| | Rhinovirus | 28 | 10% |
| | Rhinovirus/Enterovirus (non-differentiated) | 81 | 30% |
| SARS-CoV-2 (COVID-19) | SARS-CoV-2 | 133 | 50% |

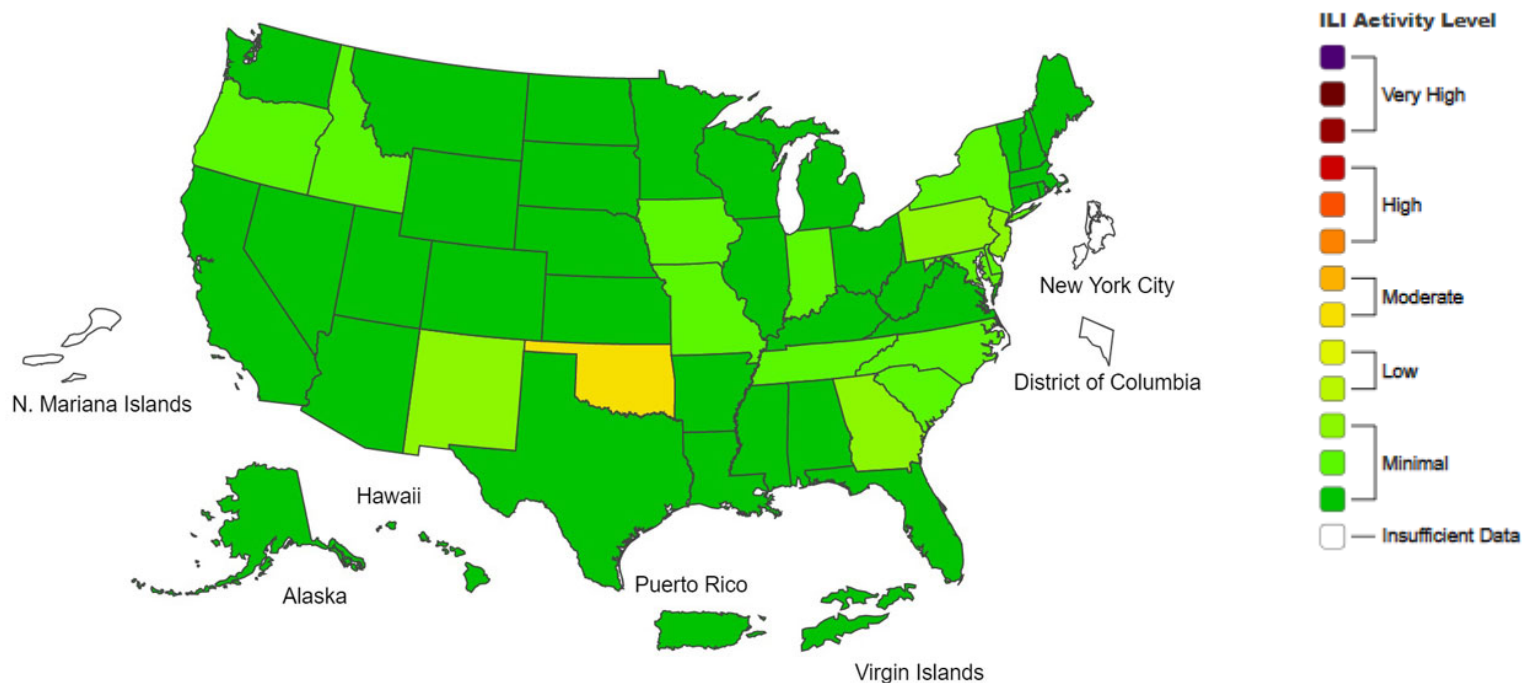
Weekly U.S. Influenza Surveillance Report

Week 50, ending December 12, 2020

Seasonal influenza activity in the United States remains lower than usual for this time of year.

- Flu activity is unusually low at this time but may increase in the coming months.
- An annual flu vaccine is the best way to protect against flu and its potentially serious complications.
- If you haven't gotten your flu vaccine yet, get vaccinated now.
- There are also flu antiviral drugs that can be used to treat flu illness.

Outpatient Illness: ILINet Activity Map



This week, one jurisdiction experienced moderate ILI activity and the remaining jurisdictions experienced minimal ILI activity. ILI activity levels may be impacted by the COVID-19 pandemic and should be interpreted with caution.

CDC National Influenza Surveillance (<http://www.cdc.gov/flu/weekly/>)