Weekly Influenza & Respiratory Illness Activity Report

Week Ending Dec. 16, 2023 | WEEK 50

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 | 10.6% | |
| Hospitalizations | 448 | |
| Most common strain | Influenza A | |
| School outbreaks | 43 | |
| Long-term care outbreaks | 6 | |
| Pediatric influenza-associated deaths | 0 | |

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Minnesota Influenza Surveillance (www.health.state.mn.us/diseases/flu/stats/)

Weekly U.S. Influenza Surveillance Report (www.cdc.gov/flu/weekly/)

World Health Organization (WHO) Surveillance (www.who.int/teams/global-influenza-programme/

surveillance-and-monitoring/influenza-surveillance-outputs)

Neighboring states' influenza information:

Iowa: Iowa Flu Reports (idph.iowa.gov/influenza/reports)

Wisconsin: Influenza (Flu) (https://dhs.wisconsin.gov/influenza/index.htm)

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

South Dakota: South Dakota Influenza Information (doh.sd.gov/diseases/infectious/flu/)

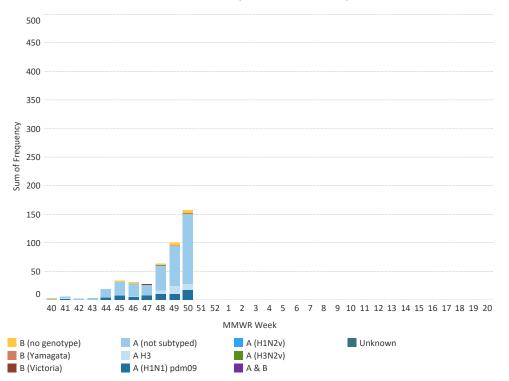
Due to the COVID-19 pandemic, CDC and MDH will not be posting the weekly geographic spread indicators (no activity, sporadic, local, regional, widespread) this season as they rely on influenza-like illness data (ILI). Because these data are based on symptoms, the cause of ILI cannot reliably be attributed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



Hospitalized Influenza Surveillance

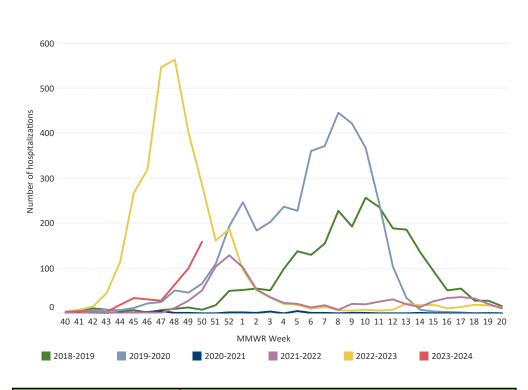
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. Due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

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



| Hospitalizations this week | Hospitalizations last week | Total hospitalizations (to date) |
|----------------------------|----------------------------|----------------------------------|
| 159 | 100 | 448 |

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



| Season | Total hospitalizations (historic) |
|---------------------|-----------------------------------|
| 2018-2019 | 2543 |
| 2019-2020 | 4022 |
| 2020-2021 | 35 |
| 2021-2022 | 905 |
| 2022-2023 | 3,338 |
| 2023-2024 (to date) | 448 |

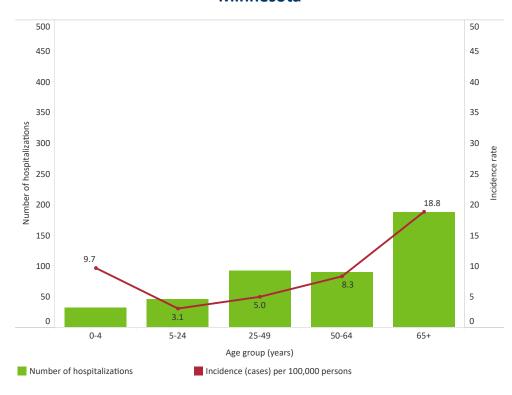
^{*}FluSurv-NET = Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota



Number of Influenza Hospitalizations and Incidence by Age, Minnesota



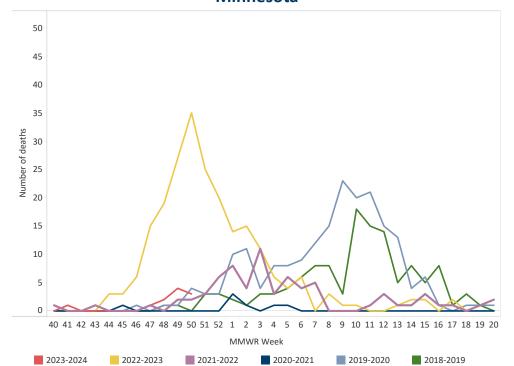
| Region | Hospitalizations this week | Total (to date) | % Hospitalizations this week | % Total (to date) |
|---------------|----------------------------|--------------------|------------------------------------|----------------------|
| Central | 28 | 80 | 18% | 18% |
| Metro | 86 | 267 | 54% | 60% |
| Northeast | 7 | 13 | 4% | 3% |
| Northwest | 0 | 9 | 0% | 2% |
| South Central | 7 | 19 | 4% | 4% |
| Southeast | 15 | 29 | 9% | 6% |
| Southwest | 7 | 11 | 4% | 2% |
| West Central | 9 | 20 | 6% | 4% |

| Median age (years) at time of admission | |
|---|--|
| 60 | |

Influenza-Associated Death Surveillance

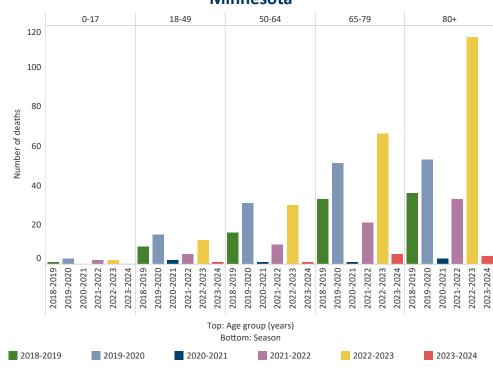
Influenza deaths are collected via reports from Minnesota's death certificate database, hospitals, and long-term care facilities. Decedents with influenza listed as a cause of or contributor to death, have recent laboratory confirmation of influenza, or are part of an ongoing influenza outbreak at a 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



| Season | Total deaths | Total pediatric (<18 years) deaths |
|---------------------|--------------|------------------------------------|
| 2018-2019 | 126 | 1 |
| 2019-2020 | 197 | 3 |
| 2020-2021 | 7 | 0 |
| 2021-2022 | 71 | 2 |
| 2022-2023 | 224 | 2 |
| 2023-2024 (to date) | 11 | 0 |

Deaths Associated with Influenza by Age Group and Season, Minnesota

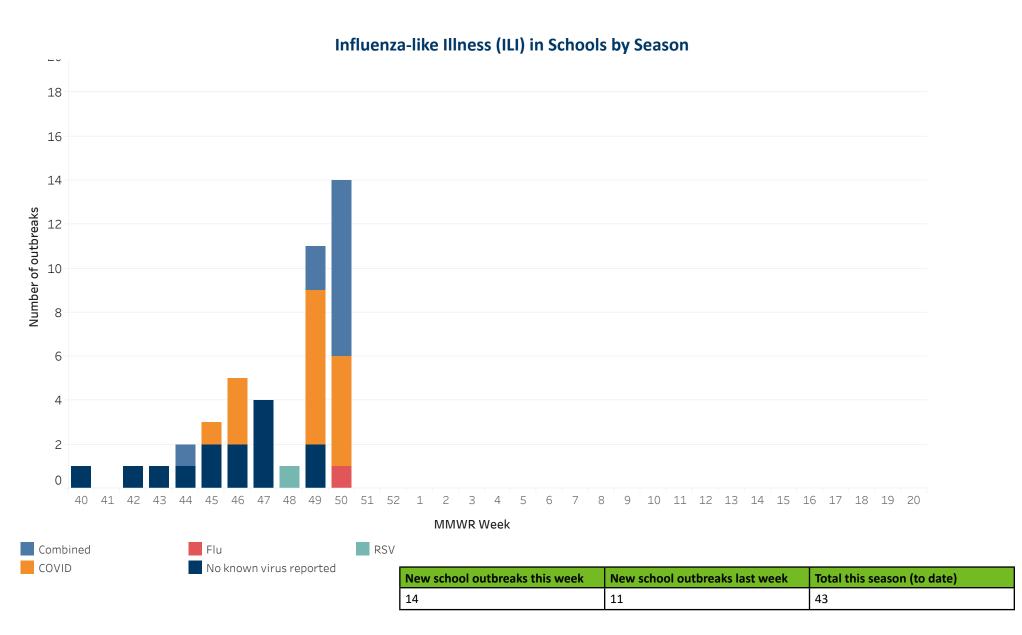


| Season | Median age (years) at time of death |
|---------------------|-------------------------------------|
| 2018-2019 | 75 |
| 2019-2020 | 73 |
| 2020-2021 | 76 |
| 2021-2022 | 77 |
| 2022-2023 | 80 |
| 2024-2024 (to date) | 71 |

*FluSurv-NET = Influenza Surveillance Network

Respiratory Disease Outbreak Surveillance: School Outbreaks

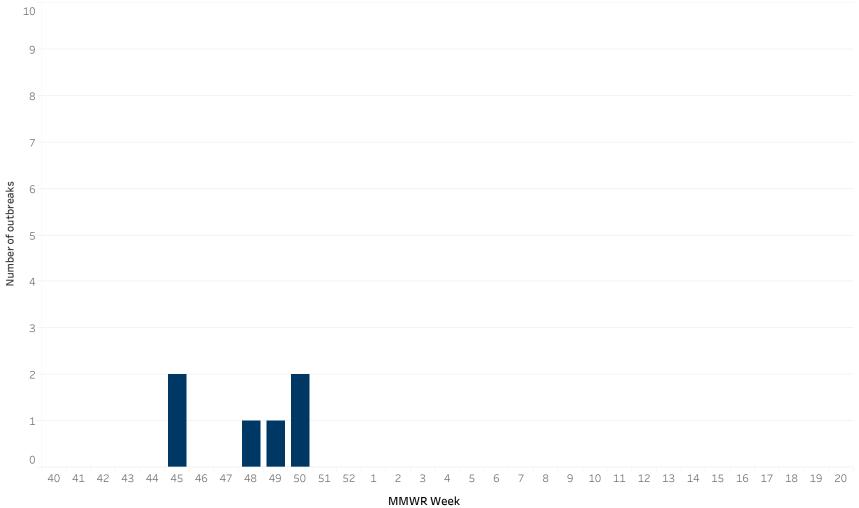
K-12 schools report an outbreak of acute respiratory illness (ARI; e.g. COVID-19, influenza, RSV) when the number of students absent with ARI reaches 10% of the facility's total enrollment.



Respiratory Disease Outbreak Surveillance: LTC Outbreaks

Long-Term Care (LTC) facilities report to MDH when they have a lab-confirmed influenza or RSV outbreak in their facility. The definition of an outbreak is at least 2 cases of laboratory-confirmed influenza (or RSV) identified within 72 hours of each other in residents on the same unit.

Confirmed Influenza Outbreaks in LTC by Season



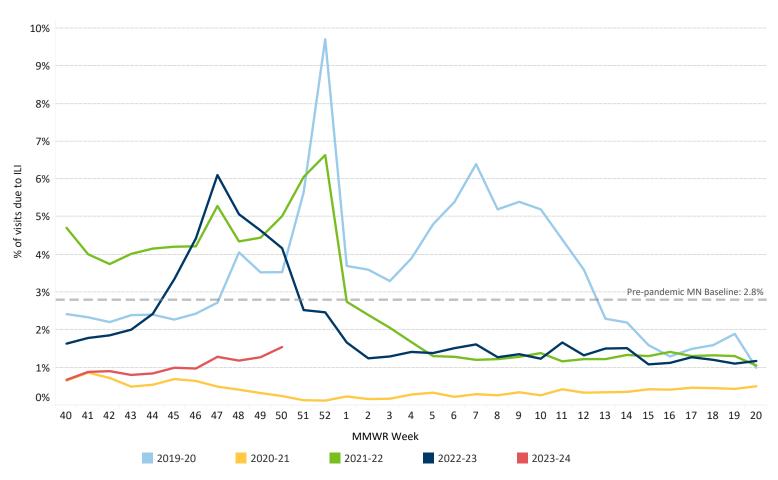
New LTC outbreaks this week New LTC outbreaks last week Total this season (to date)

6

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)



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

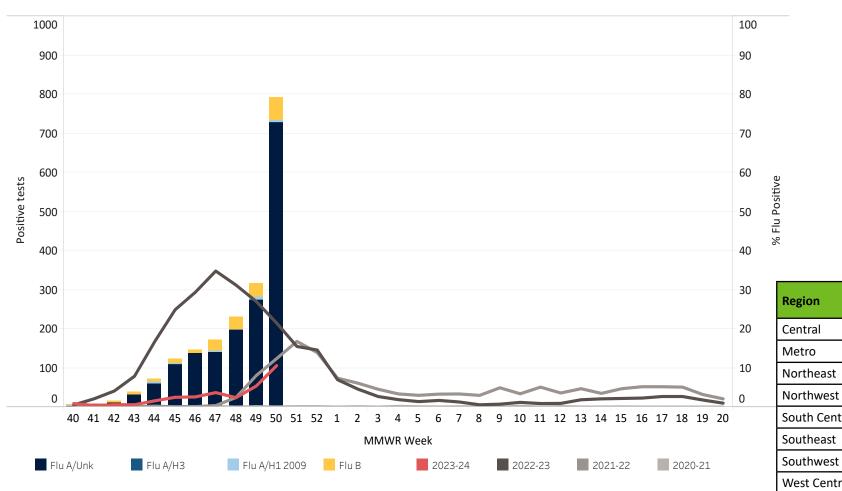
[‡] MN Baseline valid for 2020-21 season only, do not compare it with previous seasons. The baseline is calculated by averaging the ILI percent for non-influenza weeks over the previous four seasons and adding two standard deviations. Non-influenza weeks account for less than 2% of the season's total 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 |
|-------------------------------------|-------------------------------------|
| 1.6% | 1.3% |

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 antigen and molecular testing for influenza and Respiratory Syncytial Virus (RSV). A subset of labs also performs 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

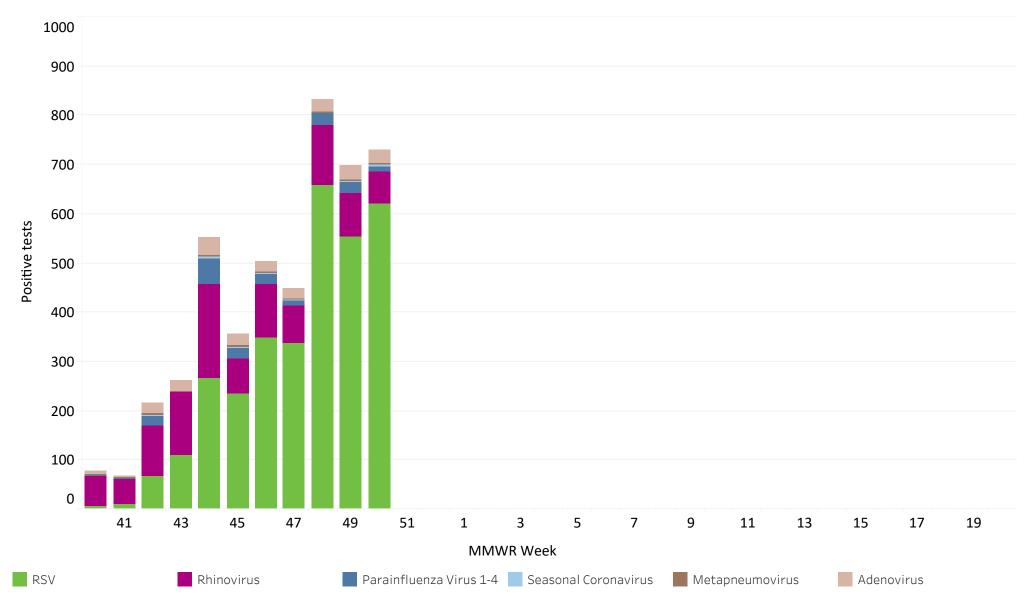


| Region | % molecular influenza tests + this week |
|---------------------|---|
| Central | 6.2% |
| Metro | 6.6% |
| Northeast | 4.3% |
| Northwest | 6.8% |
| South Central | 5.4% |
| Southeast | 1.4% |
| Southwest | 7.9% |
| West Central | 7.5% |
| Statewide (overall) | 10.6% |

Laboratory Surveillance (continued)

Some participants in the MN Lab System (MLS) Laboratory Influenza Surveillance Program also report testing data from respiratory virus panel PCR testing. Tracking these laboratory results assists monitoring for non-influenza/non-COVID viruses that may be circulating and causing influenza-like illness.

Other Molecular Testing Results by Virus from MLS Survey



Weekly U.S. Influenza Surveillance Report

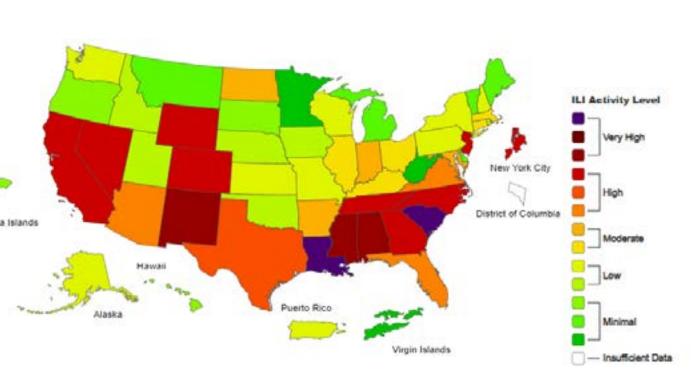
Week 49, ending December 9, 2023

Seasonal influenza activity is elevated in most parts of the country, with the southeast, south-central, and west coast areas of the country reporting the

highest levels of activity.

- Outpatient respiratory illness is above baseline nationally for the sixth consecutive week and is above baseline in all 10 HHS Regions.
- The number of weekly flu hospital admissions continues to increase.
- Two influenza-associated pediatric deaths were reported during Week 49, bringing the 2023-2024 season total to 14 pediatric deaths.
- During Week 49, of the 971 viruses reported by public health laboratories, 806 (83%) were influenza A and 165 (17%) were influenza B. Of the 500 influenza A viruses subtyped during week 49, 374 (74.8%) were influenza A(H1N1) and 126 (25.2%) were A(H3N2).
- CDC estimates that there have been at least 3.7 million illnesses, 38,000 hospitalizations, and 2,300 deaths from flu so far this season.
- CDC recommends that everyone 6 months and older get an annual flu vaccine, as there are still vaccines available. Now is still a good time to get vaccinated if you haven't already.
- There also are prescription flu antiviral drugs that can be used to treat flu illness; those should be started as early as possible and are especially important for higher risk patients.
- Flu viruses are among several viruses that contribute to respiratory disease activity. CDC is providing updated, integrated information about COVID-19, flu, and RSV activity on a weekly basis.

Outpatient Illness: ILINet Activity Map



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