

Weekly Influenza & Respiratory Illness Activity Report

A summary of influenza surveillance indicators prepared by the Division of Infectious Disease Epidemiology Prevention & Control

Week Ending February 29, 2020 | WEEK 9

All data are preliminary and may change as more information is received

Minnesota Influenza Geographic Spread

No Activity

Sporadic

Local

Regional

Widespread

During the week ending February 29, 2020 (Week 9), surveillance indicators showed widespread geographic spread of influenza *(based on CDC's Activity Estimates Definitions)*.

Since the start of the influenza season, 2 pediatric influenza-related deaths have been reported.

[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/)

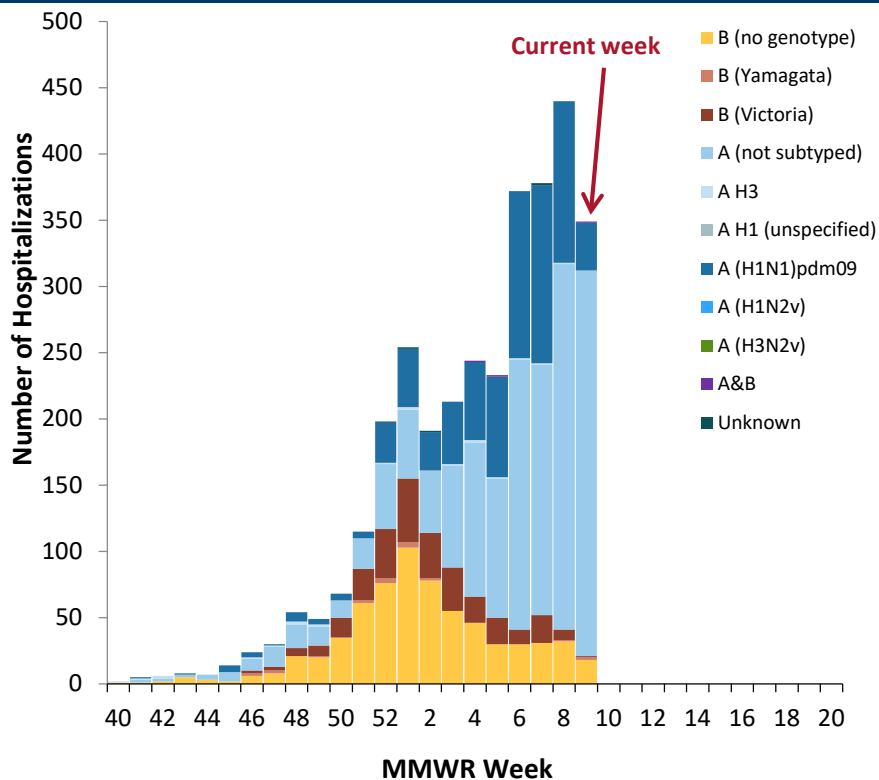
North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

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

Hospitalized Influenza Surveillance

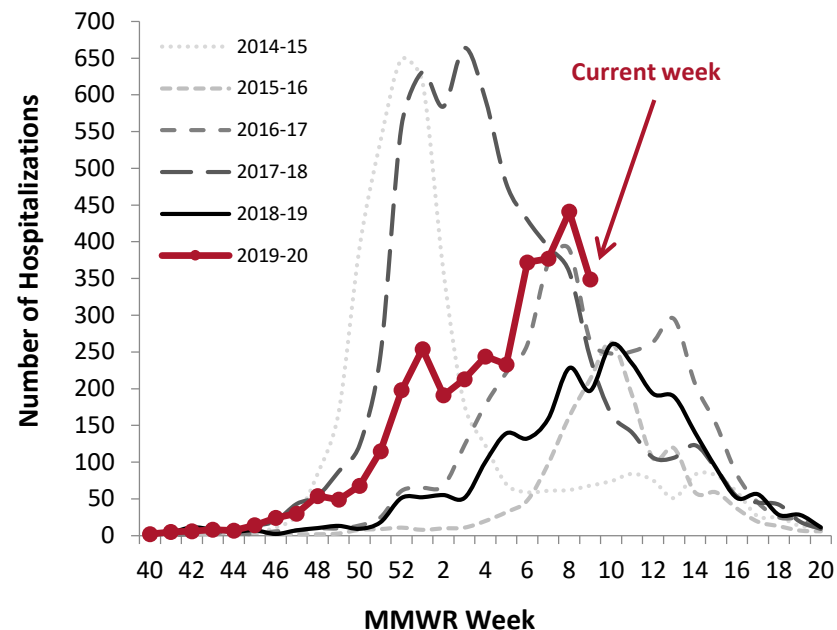
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. **Due 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)
349	441	3,254

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

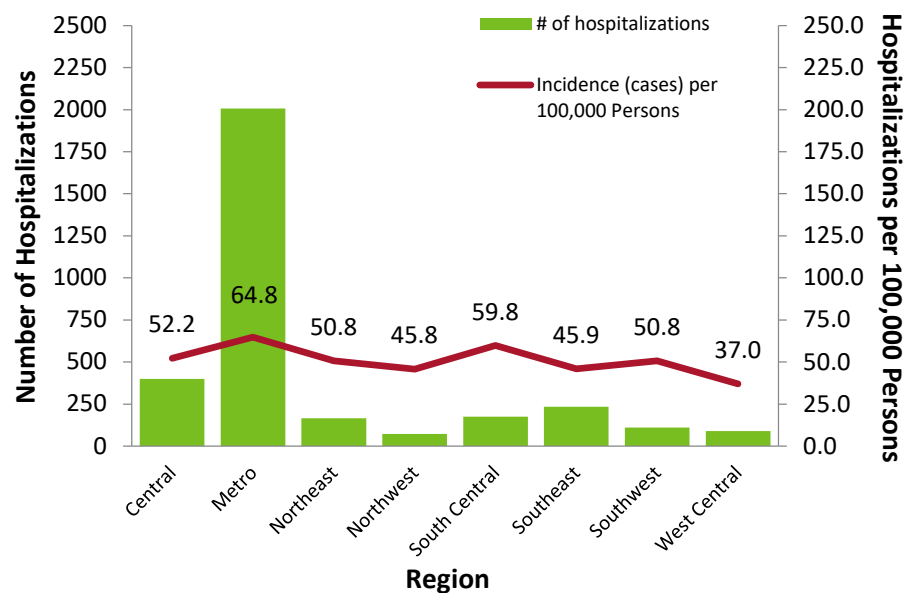


Season	Total hospitalizations (historic)
2014-2015	4,081
2015-2016	1,538
2016-2017	3,695
2017-2018	6,446
2018-2019	2,543
2019-2020	3,254 (to date)

*Influenza Surveillance Network

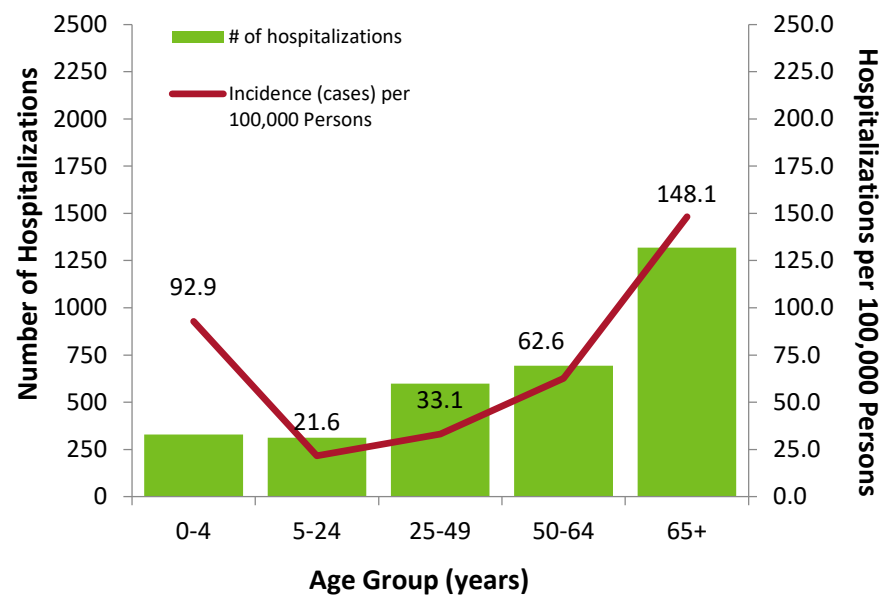
Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota September 29, 2019 – February 29, 2020



Region	Hospitalizations this week	Total (to date)
Central	48 (14%)	400 (12%)
Metro	176 (50%)	2,007 (62%)
Northeast	15 (4%)	165 (5%)
Northwest	4 (1%)	73 (2%)
South Central	24 (7%)	175 (5%)
Southeast	47 (13%)	234 (7%)
Southwest	12 (3%)	110 (3%)
West Central	23 (7%)	90 (3%)

Number of Influenza Hospitalizations and Incidence by Age, Minnesota September 29, 2019 – February 29, 2020

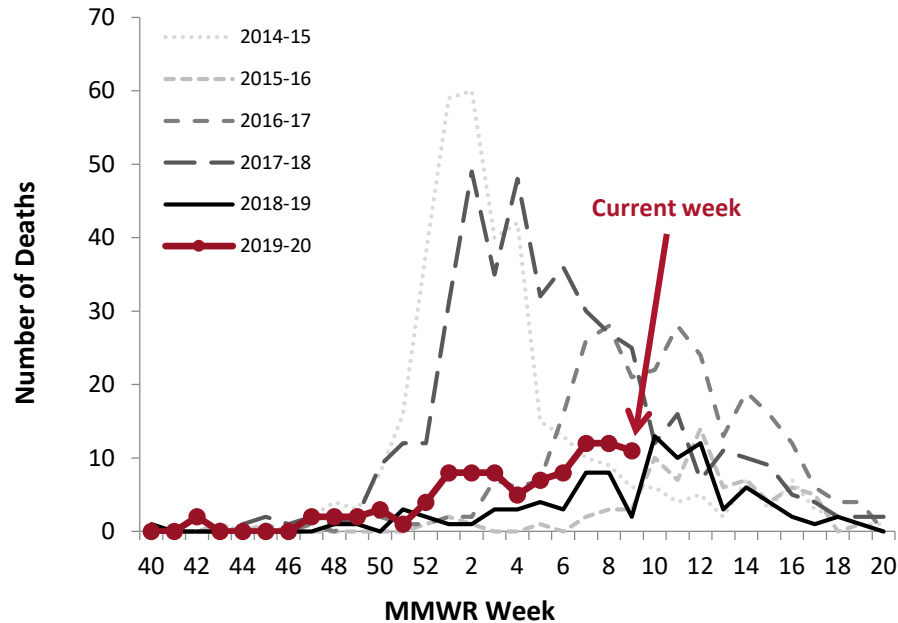


Median age (years) at time of admission
59.0

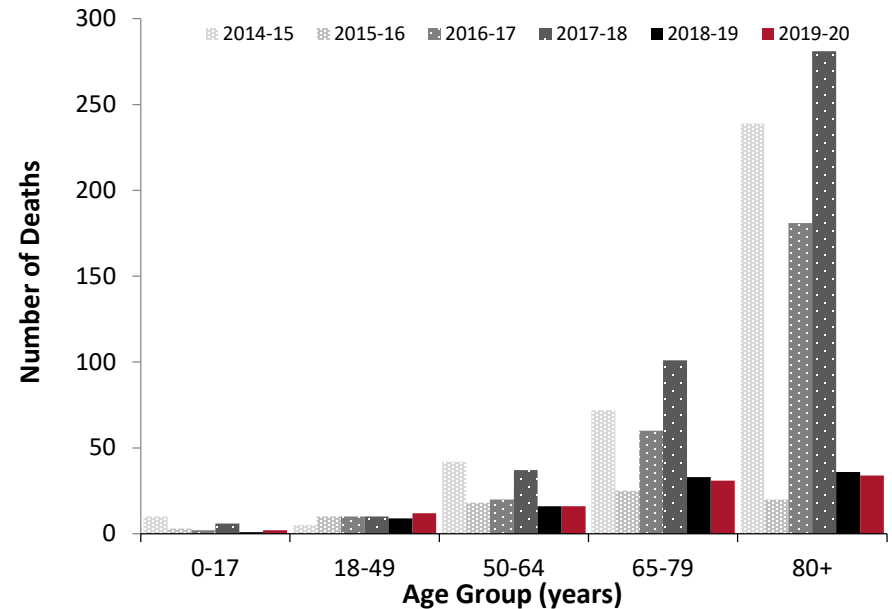
Influenza-Associated Death Surveillance

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)
2014-2015	368	10
2015-2016	76	3
2016-2017	273	2
2017-2018	440	6
2018-2019	95	1
2019-2020	95 (to date)	2 (to date)

Season	Median age (years) at time of death
2014-2015	85
2015-2016	68
2016-2017	86
2017-2018	85
2018-2019	75
2019-2020	73.0 (to date)

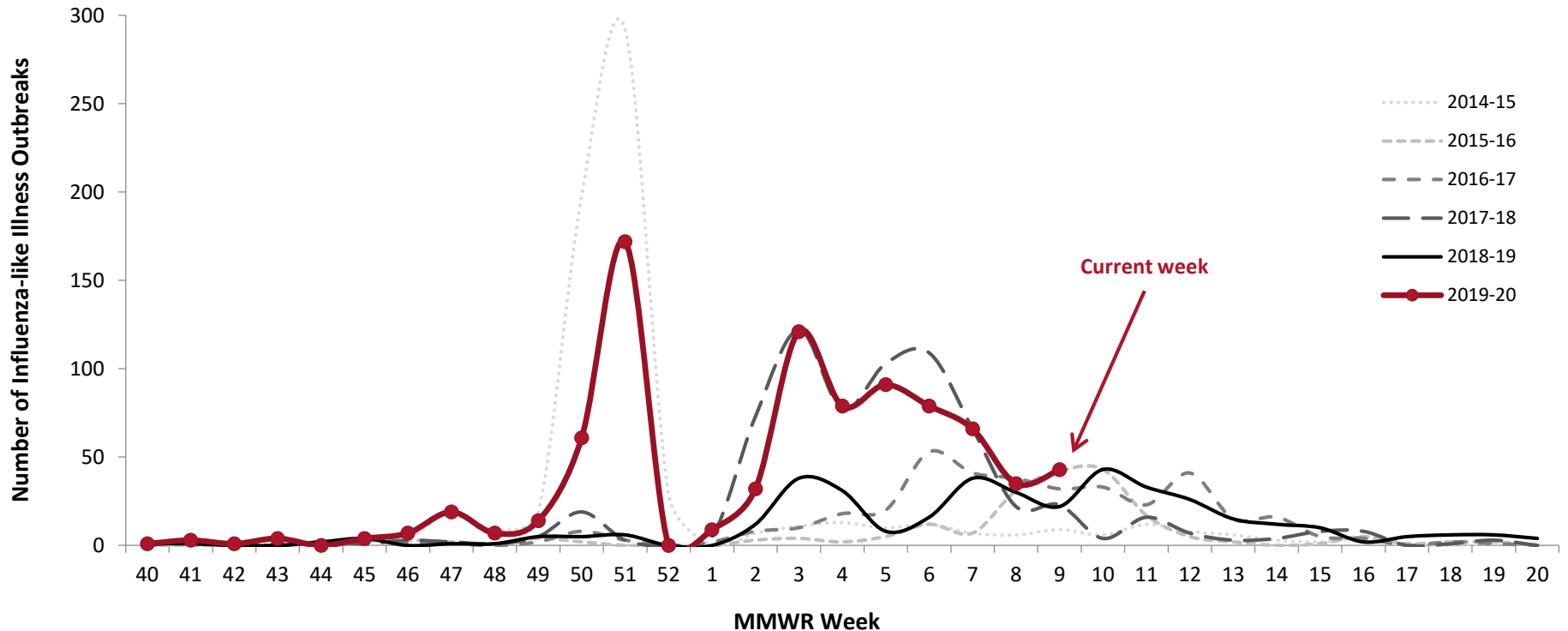
*Influenza Surveillance Network

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

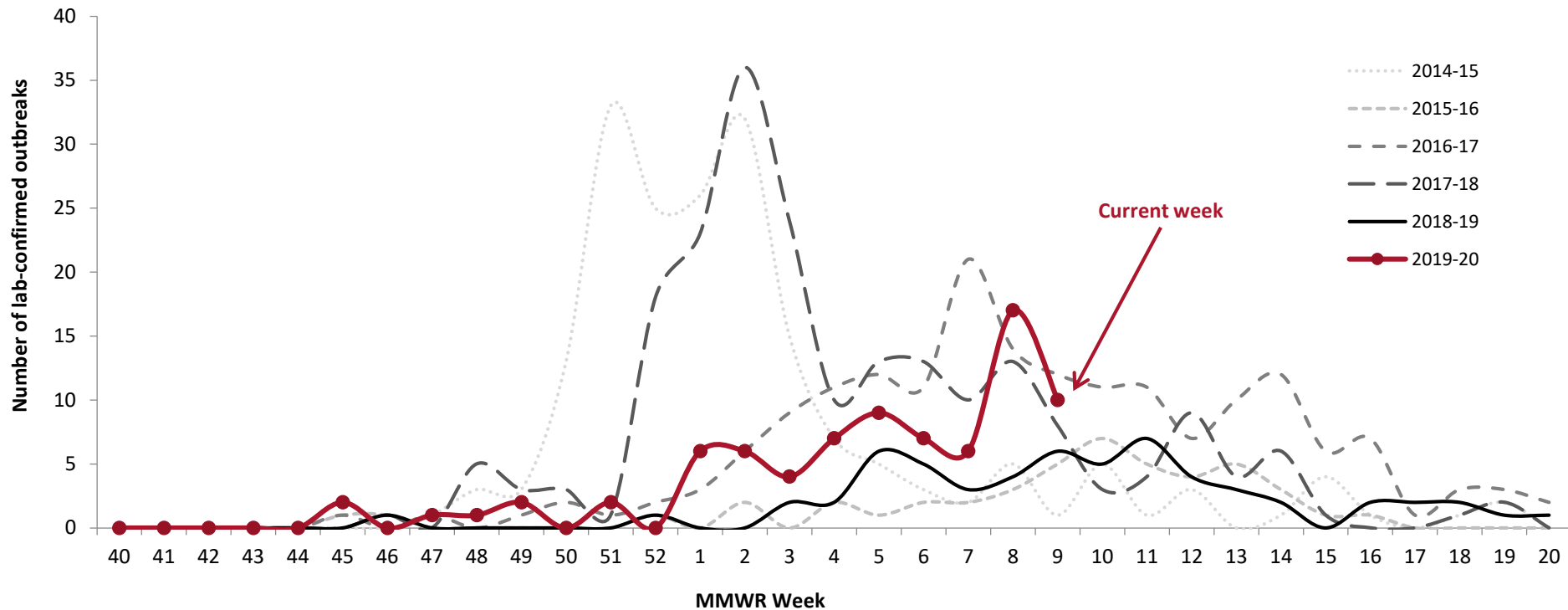


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
43	35	848

Long-Term Care (LTC) Outbreaks

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

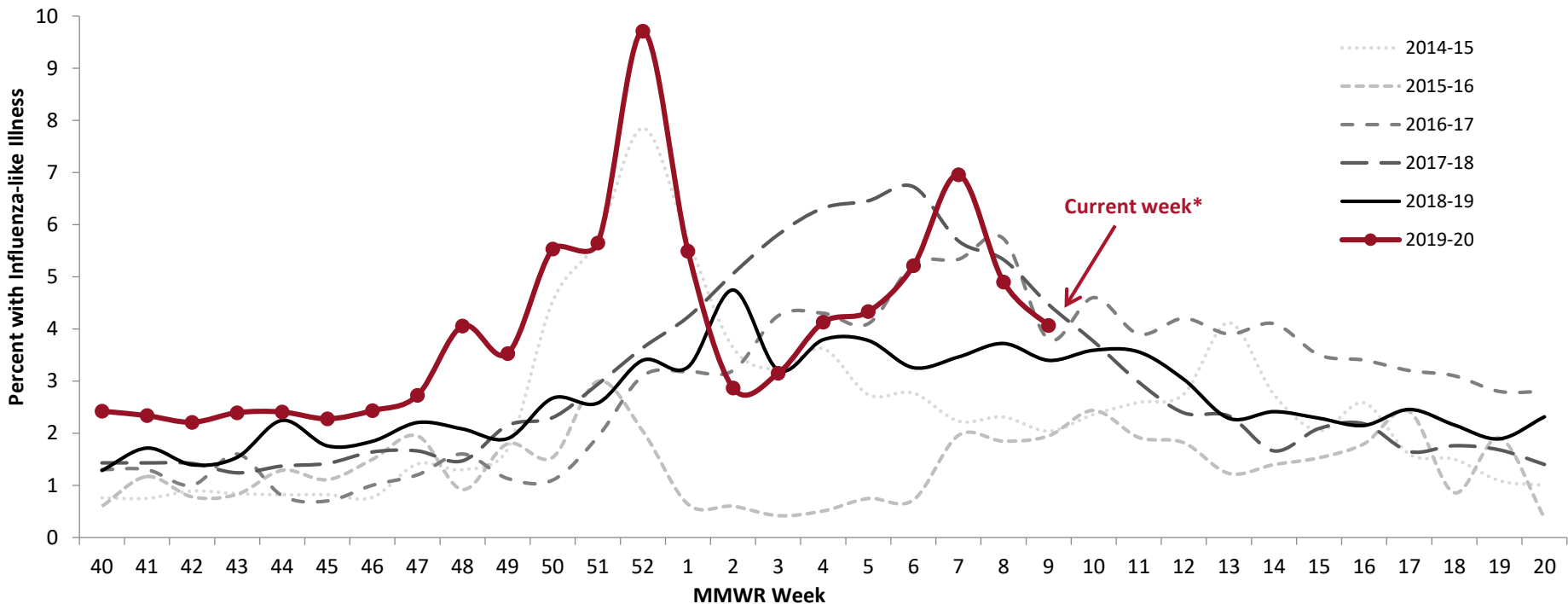


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
10	17	80

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)



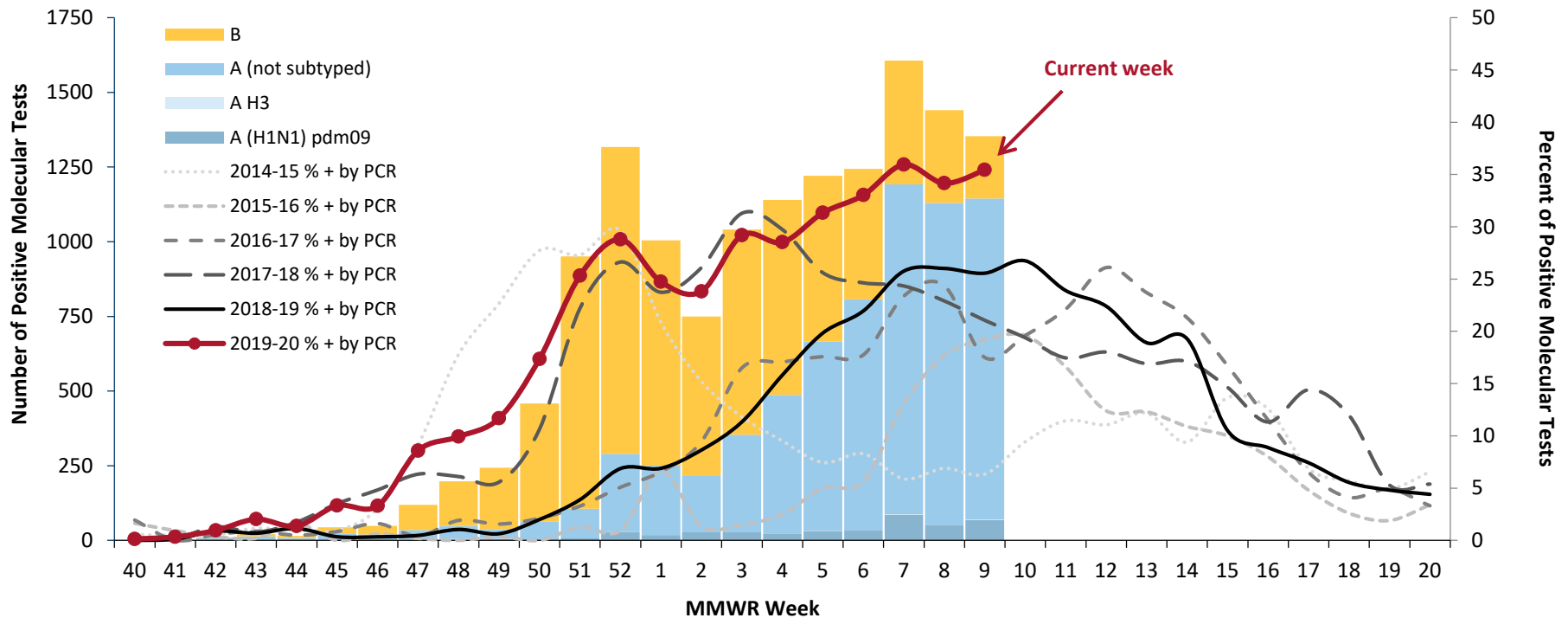
% of outpatients with ILI this week	% of outpatients with ILI last week
4.1%	4.9%

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

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

35.5%

% molecular tests positive last week

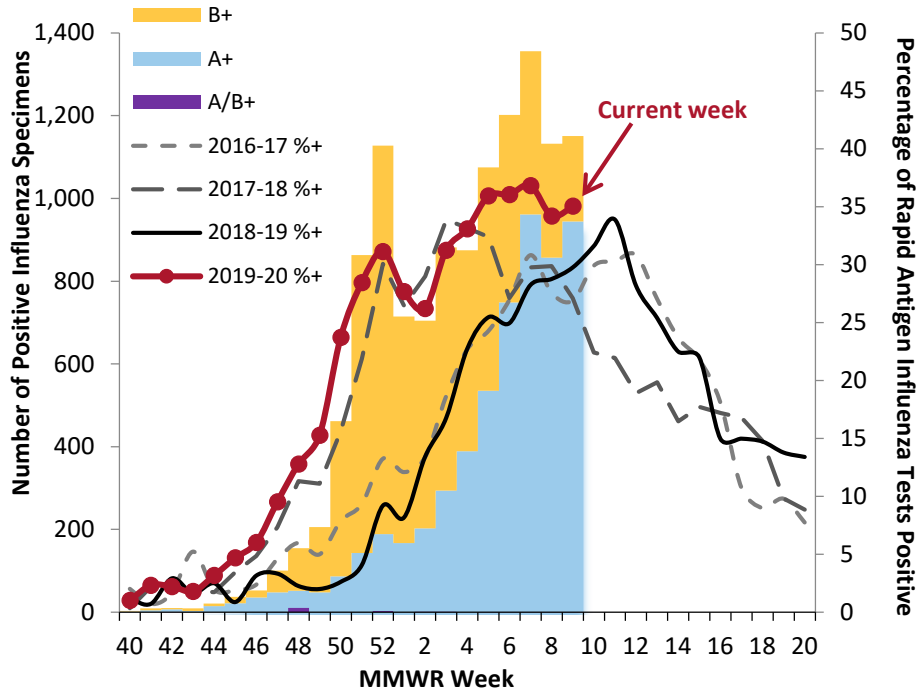
34.2%

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

Laboratory Surveillance (continued)

MLS Laboratories – Influenza Testing

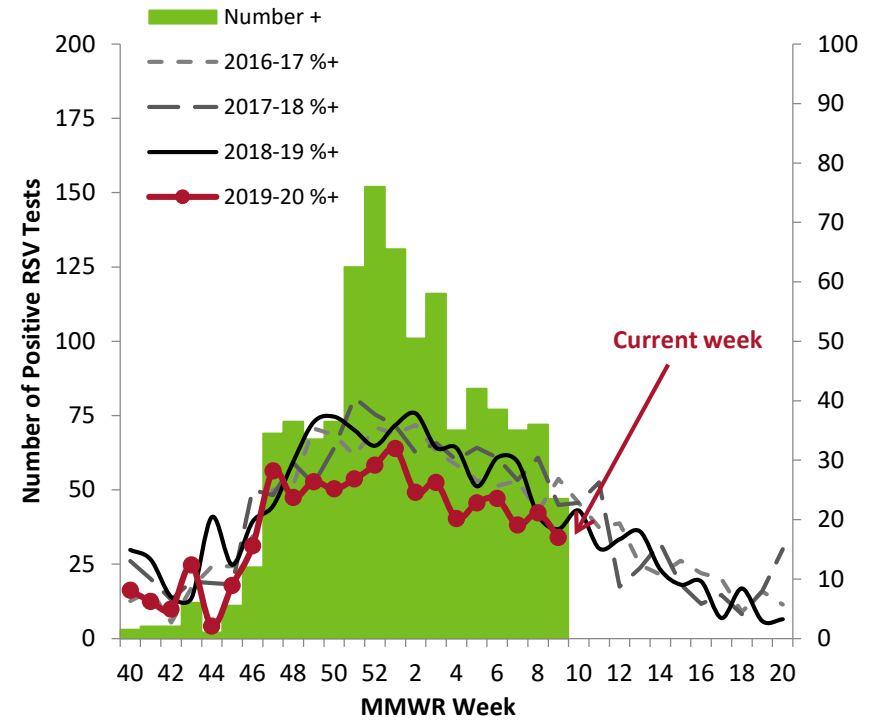
Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Central	29%
Metro	35%
Northeast	41%
Northwest	28%
South Central	32%
Southeast	44%
Southwest	28%
West Central	----
State (overall)	35%

MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week

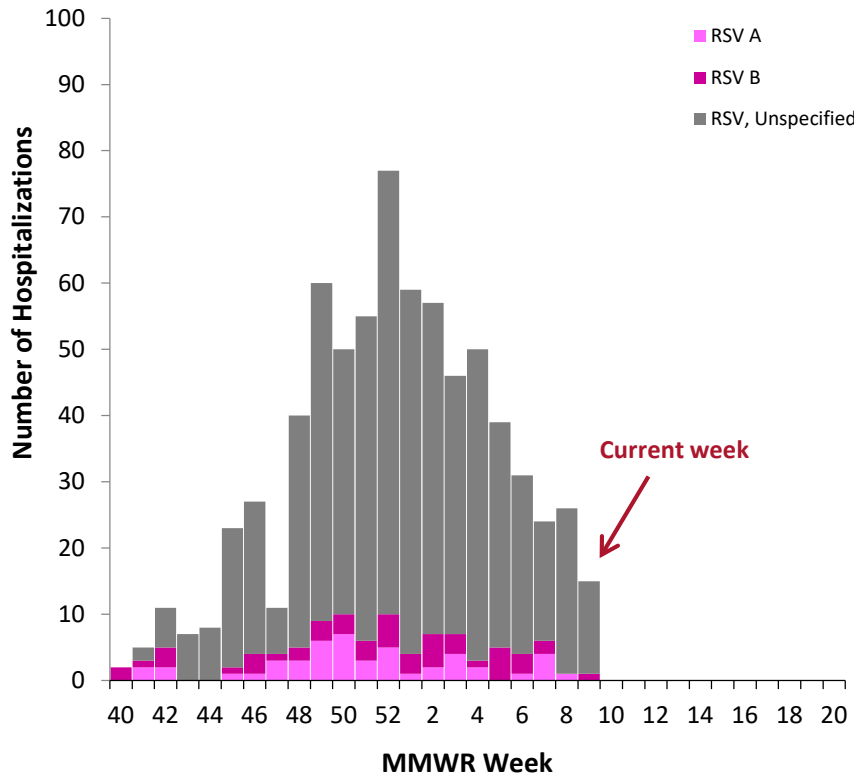


Region	% rapid antigen RSV tests + (current week)
Central	18%
Metro	17%
Northeast	14%
Northwest	18%
South Central	50%
Southeast	25%
Southwest	11%
West Central	----
State (overall)	17%

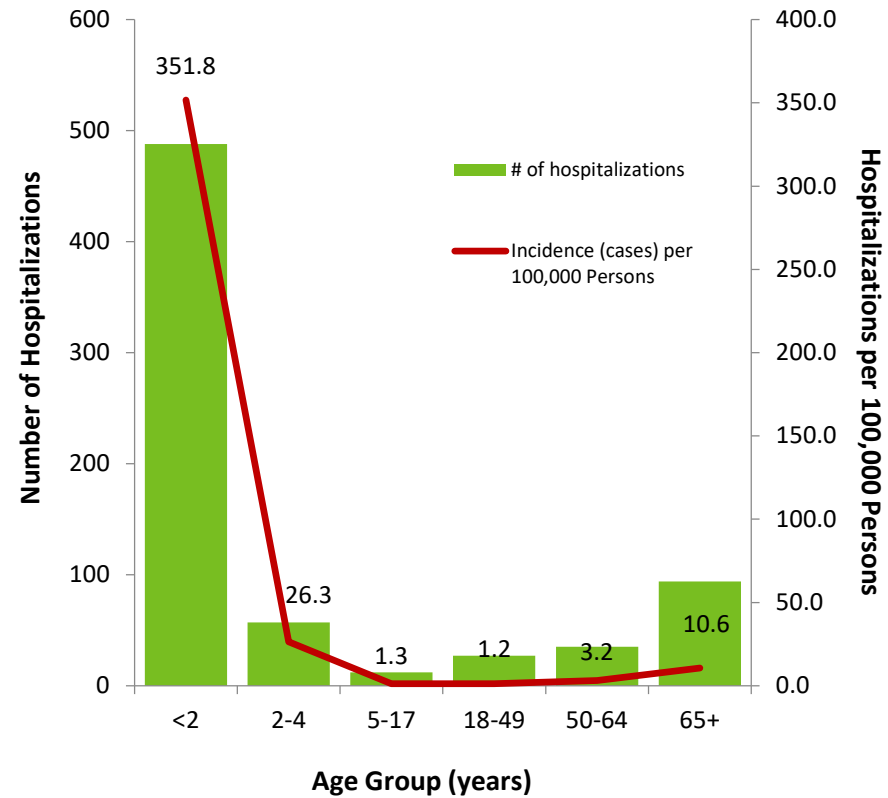
Hospitalized RSV Surveillance

Surveillance for respiratory syncytial virus (RSV) began in September 2016. Hospitalized inpatients of all ages who reside in the 7-county Twin Cities metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington) with laboratory-confirmed RSV are reportable. **Due to the need to confirm reports and reporting delays, consider current week data preliminary.**

Hospitalized RSV Cases by Subtype, Minnesota



Number of RSV Hospitalizations and Incidence by Age, Minnesota



Hospitalizations this week

15

Hospitalizations last week

26

Total hospitalizations

713

Median age at time of admission

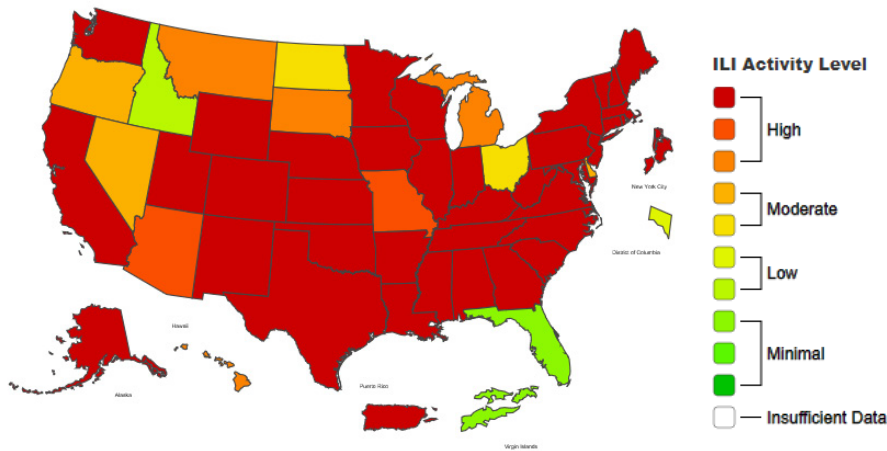
9 months

Weekly U.S. Influenza Surveillance Report

2019-2020 Influenza Season Week 8, ending February 22, 2020

Key indicators that track flu activity remain high but decreased for the second week in a row. Severity indicators (hospitalizations and deaths) remain moderate to low overall, but hospitalization rates differ by age group, with high rates among children and young adults.

Influenza-Like Illness (ILI) Activity: Outpatient Illness



The number of jurisdictions experiencing high ILI activity decreased slightly from 46 last week to 45 this week.

Geographic Spread of Influenza



The number of jurisdictions reporting regional or widespread influenza activity decreased from 51 last week to 50 this week.

Key Messages from CDC

- Outpatient ILI and clinical laboratory data remain elevated but decreased for the second week in a row. The percentage of specimens testing positive for both influenza A and influenza B viruses decreased.
- Overall, hospitalization rates remain similar to this time during recent seasons, but rates among school aged children and young adults are higher at this time than in recent seasons and rates among children 0-4 years old are now the highest CDC has on record at this point in the season, surpassing rates reported during the second wave of the 2009 H1N1 pandemic.
- Pneumonia and influenza mortality has been low, but 125 influenza-associated deaths in children have been reported so far this season. This number is higher for the same time period than in every season since reporting began in 2004-05, except for the 2009 pandemic.
- CDC estimates that so far this season there have been at least 32 million flu illnesses, 310,000 hospitalizations and 18,000 deaths from flu.
- Interim estimates of 2019-2020 flu vaccine effectiveness were released last week. So far this season, flu vaccines are reducing doctor's visits for flu illness by 45% overall and 55% in children.
- Antiviral medications are an important adjunct to flu vaccine in the control of influenza. Almost all (>99%) of the influenza viruses tested this season are susceptible to the four FDA-approved influenza antiviral medications recommended for use in the U.S. this season.