

Weekly Influenza & Respiratory Illness Activity Report

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

Week Ending December 28, 2019 | WEEK 52

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 December 28, 2019 (Week 52), surveillance indicators showed widespread geographic spread of influenza (based on CDC's Activity Estimates Definitions).

Since the start of the influenza season, no 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/)

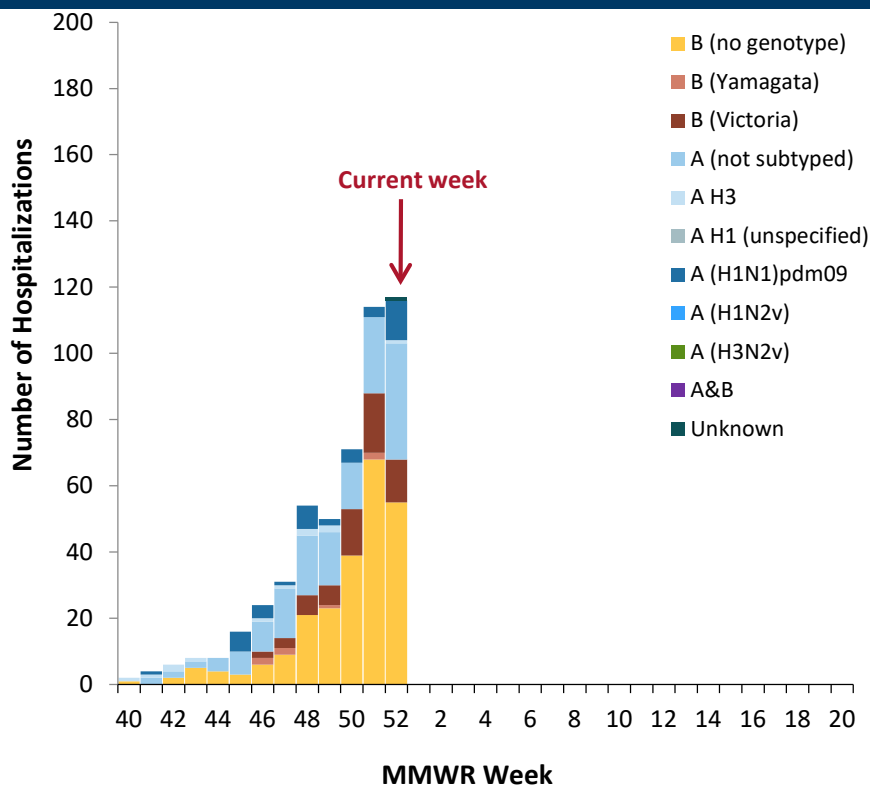
North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

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

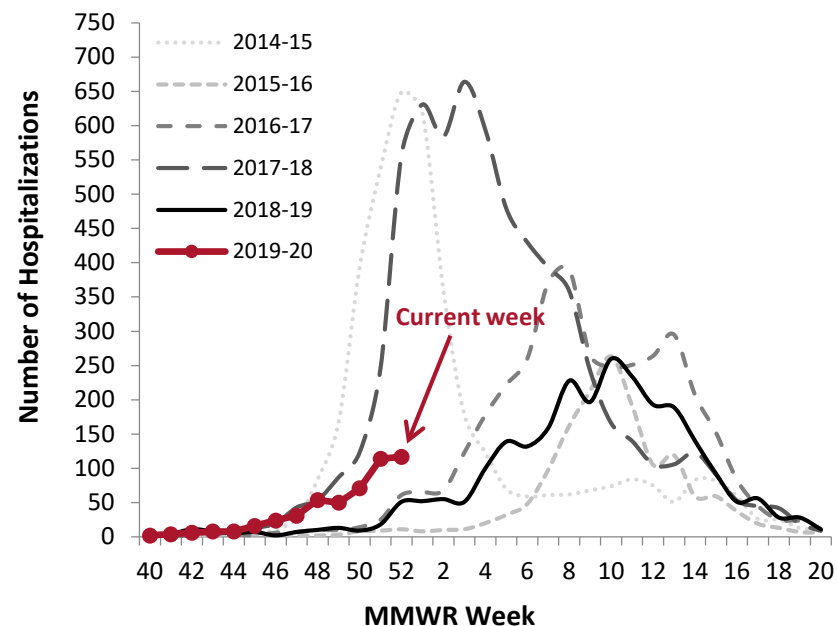
Hospitalized Influenza Surveillance

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*)



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



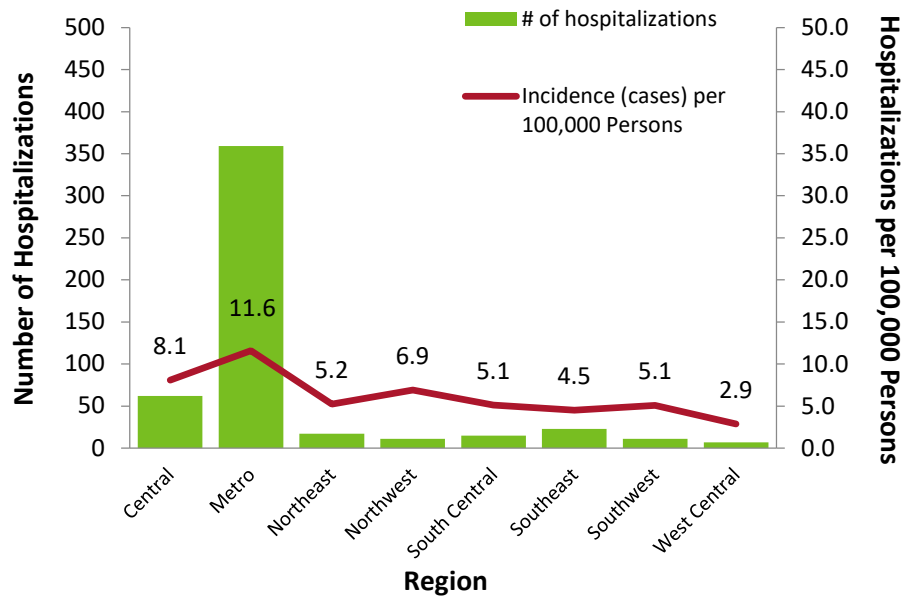
Hospitalizations this week	Hospitalizations last week	Total hospitalizations (to date)
117	114	505

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	505 (to date)

*Influenza Surveillance Network

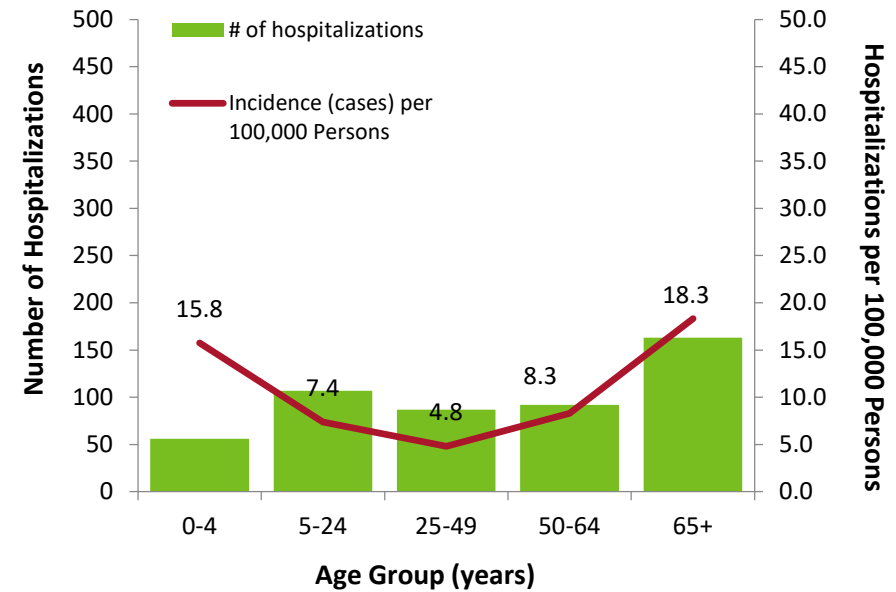
Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota September 29, 2019 – December 28, 2019



Region	Hospitalizations this week	Total (to date)
Central	18 (15%)	62 (12%)
Metro	72 (62%)	359 (71%)
Northeast	10 (9%)	17 (3%)
Northwest	1 (1%)	11 (2%)
South Central	6 (5%)	15 (3%)
Southeast	7 (6%)	23 (5%)
Southwest	2 (2%)	11 (2%)
West Central	1 (1%)	7 (1%)

Number of Influenza Hospitalizations and Incidence by Age, Minnesota September 29, 2019 – December 28, 2019

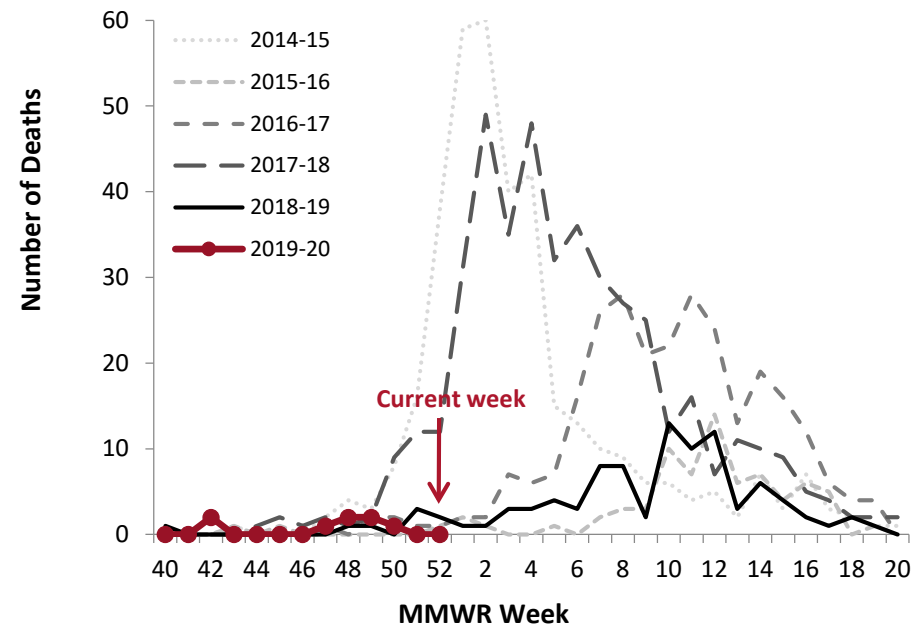


Median age (years) at time of admission
50.0

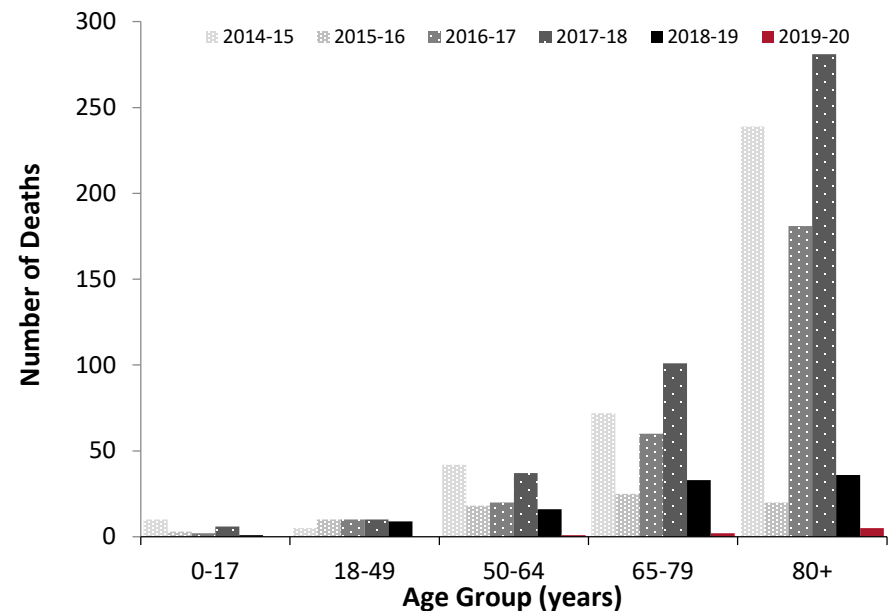
Influenza-Associated Death Surveillance

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	8 (to date)	0 (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	81.5 (to date)

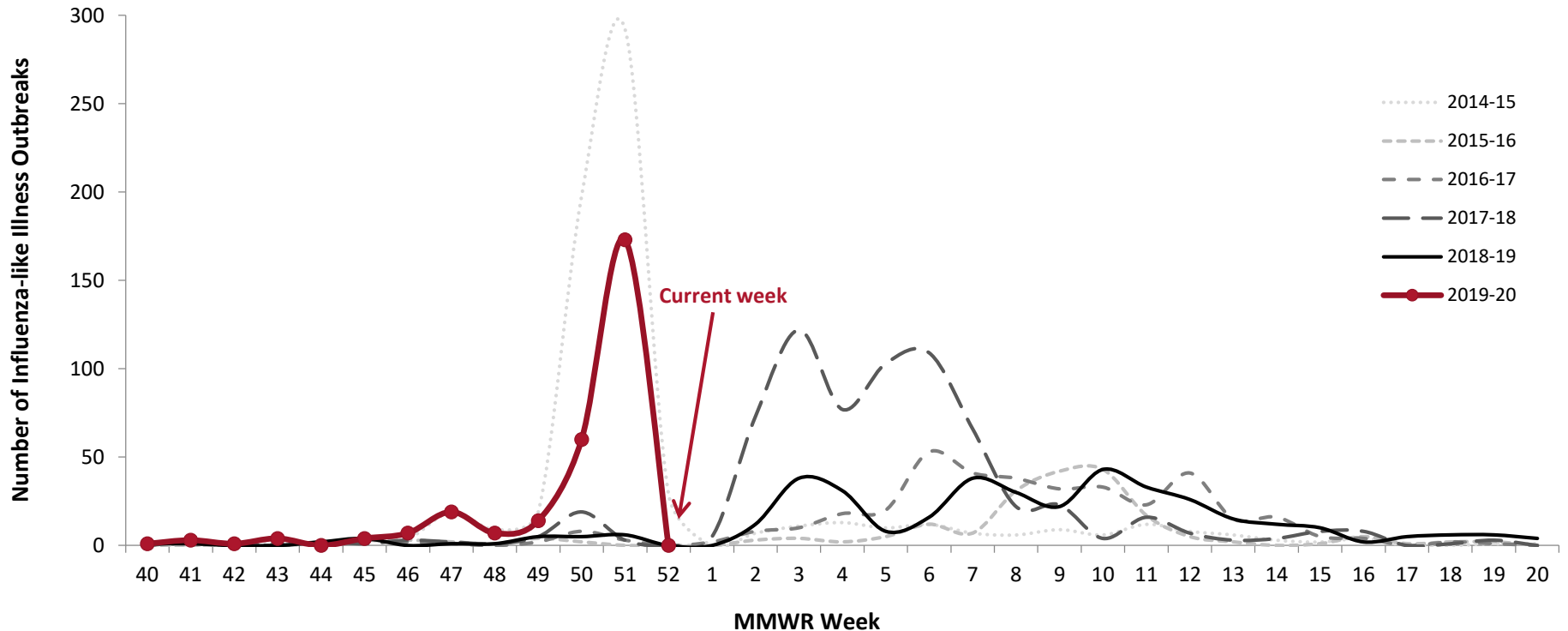
*Influenza Surveillance Network

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

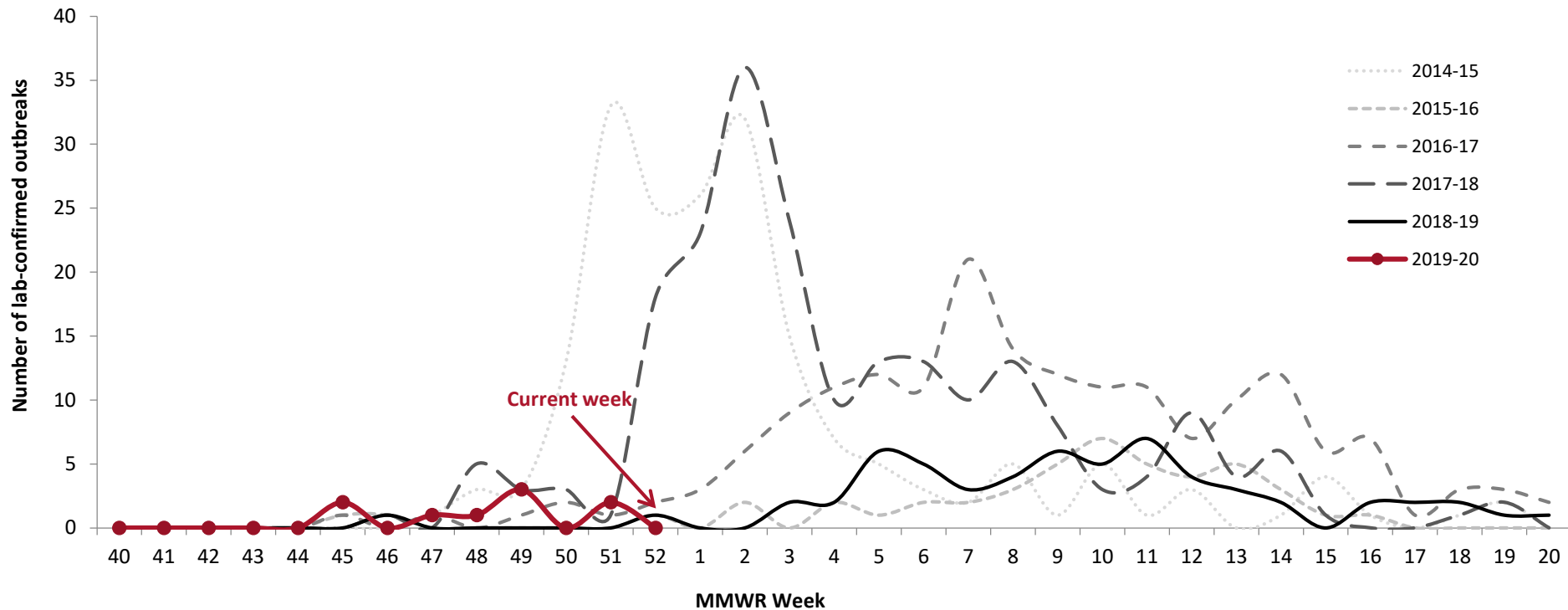


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
0	173	299

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

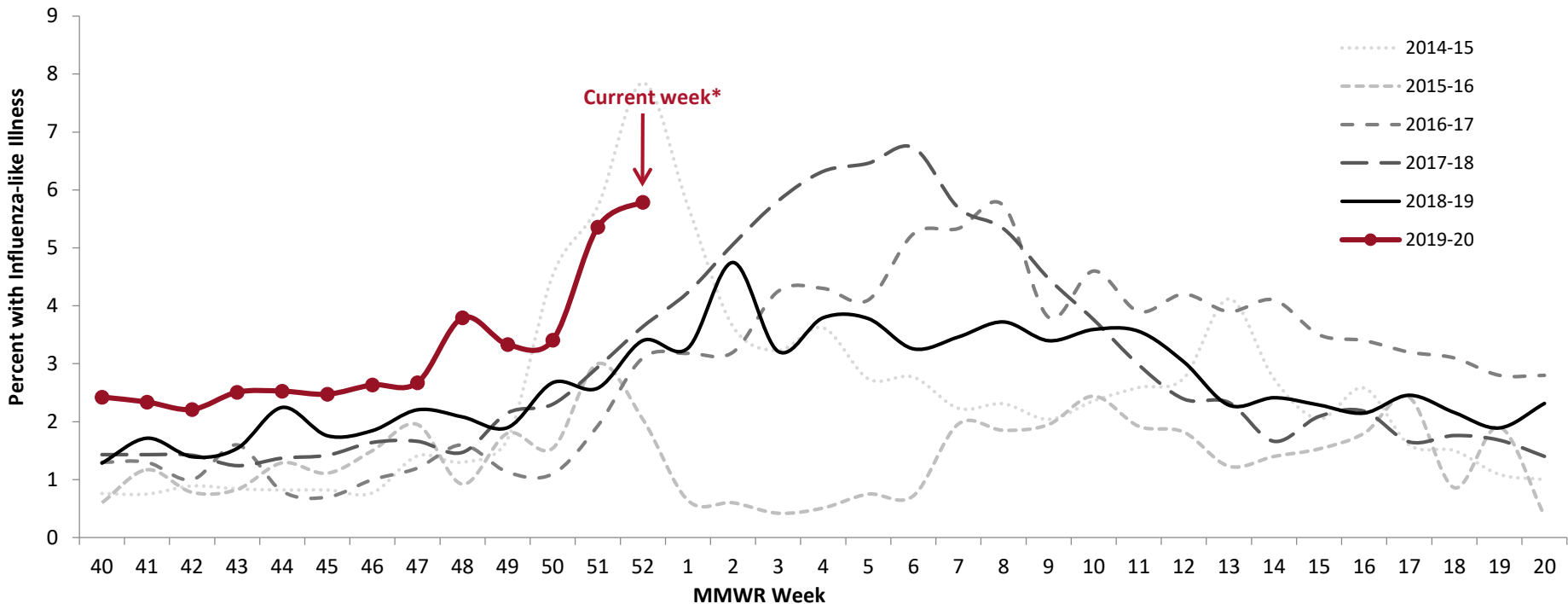


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
0	2	9

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)



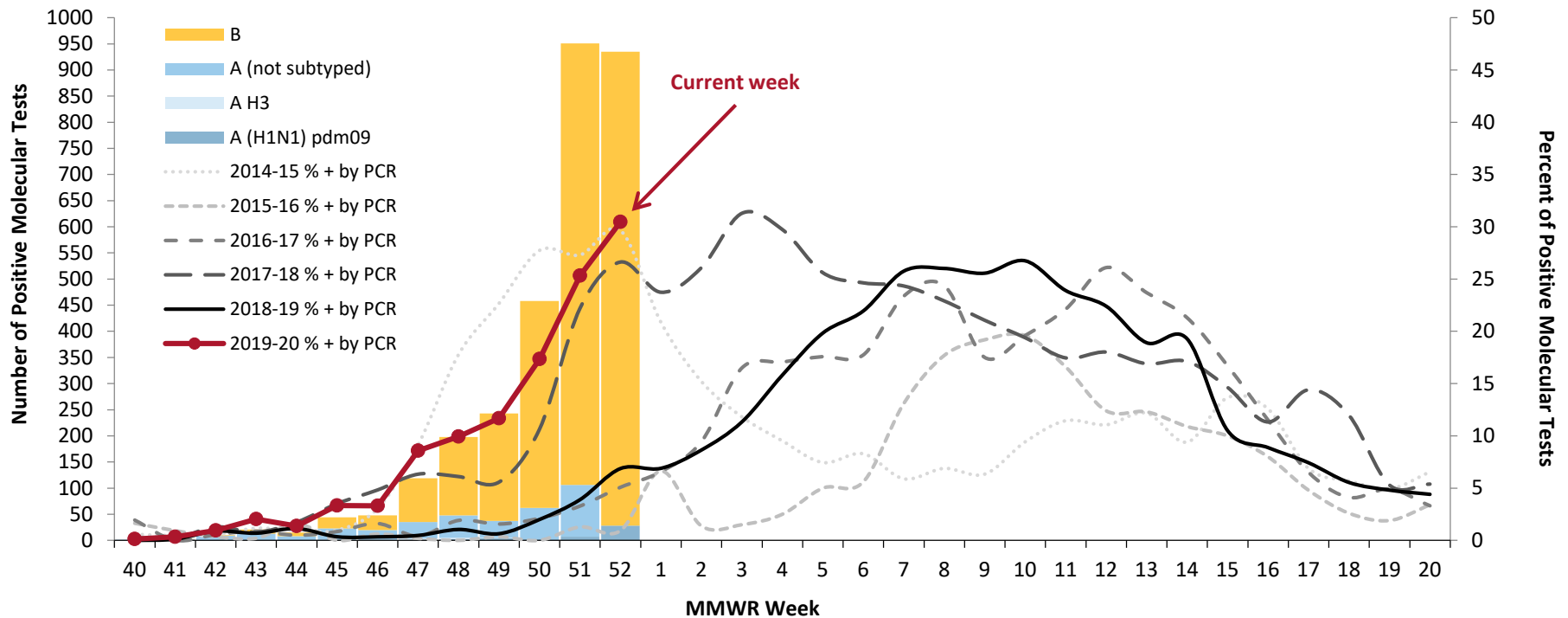
% of outpatients with ILI this week	% of outpatients with ILI last week
5.8%	5.4%

* 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

30.5%

% molecular tests positive last week

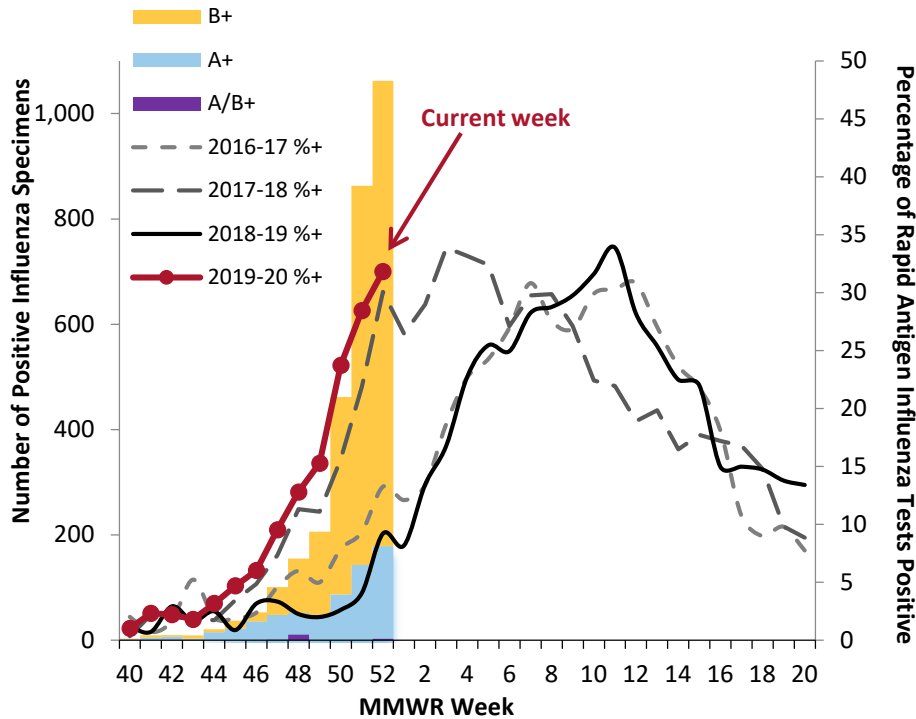
25.3%

* 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

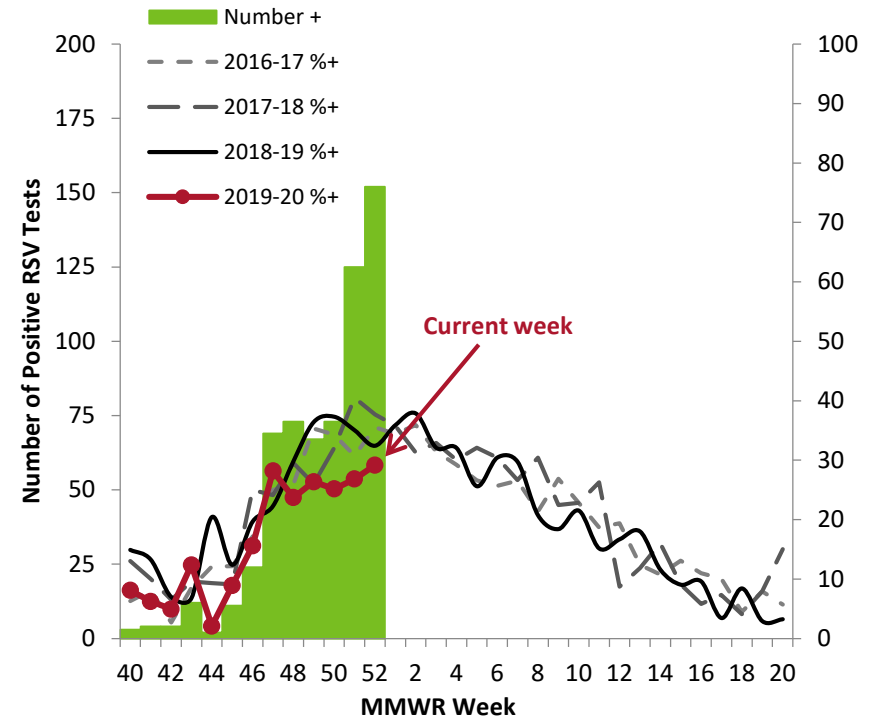
Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Central	32%
Metro	33%
Northeast	27%
Northwest	35%
South Central	16%
Southeast	34%
Southwest	33%
West Central	---
State (overall)	32%

MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week

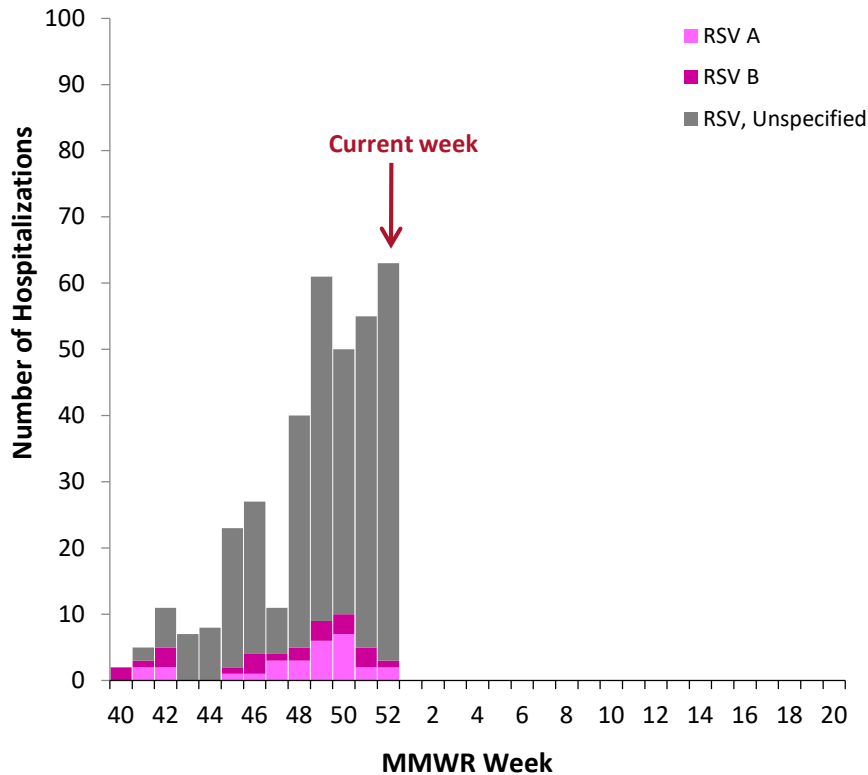


Region	% rapid antigen RSV tests + (current week)
Central	29%
Metro	25%
Northeast	28%
Northwest	14%
South Central	43%
Southeast	47%
Southwest	28%
West Central	67%
State (overall)	29%

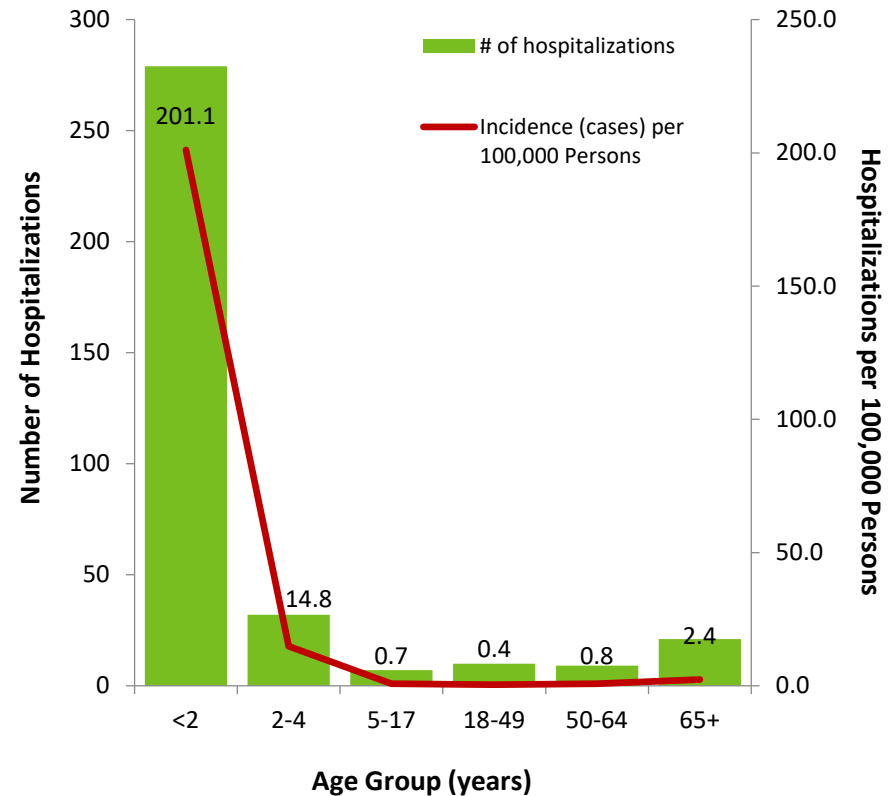
Hospitalized RSV Surveillance

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

63

Hospitalizations last week

55

Total hospitalizations

358

Median age at time of admission

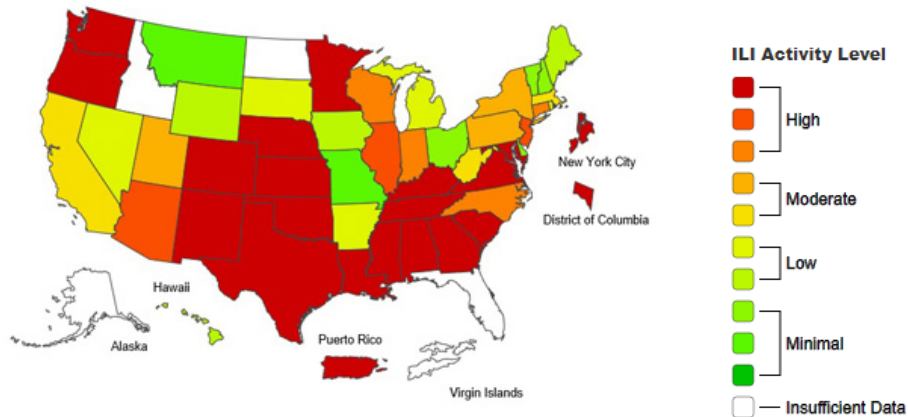
7 months

Weekly U.S. Influenza Surveillance Report

2019-2020 Influenza Season Week 51, ending December 21, 2019

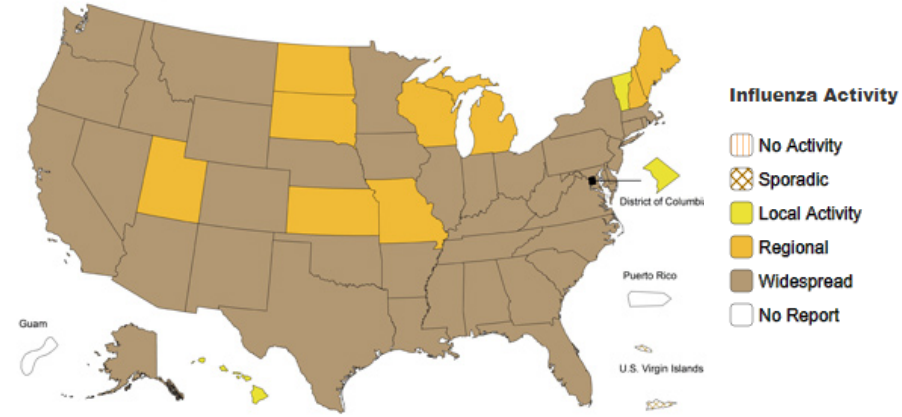
Seasonal influenza activity in the United States continues to increase and has been elevated for seven weeks.

Influenza-Like Illness (ILI) Activity: Outpatient Illness



The number of jurisdictions experiencing high ILI activity increased to 28 this week compared to 21 last week.

Geographic Spread of Influenza



The number of jurisdictions reporting regional or widespread activity stayed the same as last week at 48.

Key Messages from CDC

- The 2019-2020 season is underway; all regions of the country are seeing elevated levels of flu-like illness.
- Activity is being caused mostly by influenza B/Victoria viruses, which is unusual for this time of year. A(H1N1) viruses are the next most common and are increasing in proportion relative to other influenza viruses in some regions.
- CDC estimates that so far this season there have been at least 4.6 million flu illnesses, 39,000 hospitalizations and 2,100 deaths from flu.
- It's not too late to get vaccinated. Flu vaccination is always the best way to prevent flu and its potentially serious complications.
- 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.