

Weekly Influenza & Respiratory Illness Activity Report

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

Week Ending January 18, 2020 | WEEK 3

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 January 18, 2020 (Week 3), surveillance indicators showed widespread geographic spread of influenza *(based on CDC's Activity Estimates Definitions)*.

Since the start of the influenza season, 1 pediatric influenza-related death have been reported.

Minnesota Influenza Surveillance (<http://www.health.state.mn.us/divs/idepc/diseases/flu/stats/>)

Weekly U.S. Influenza Surveillance Report (<http://www.cdc.gov/flu/weekly/>)

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

Neighboring states' influenza information:

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

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

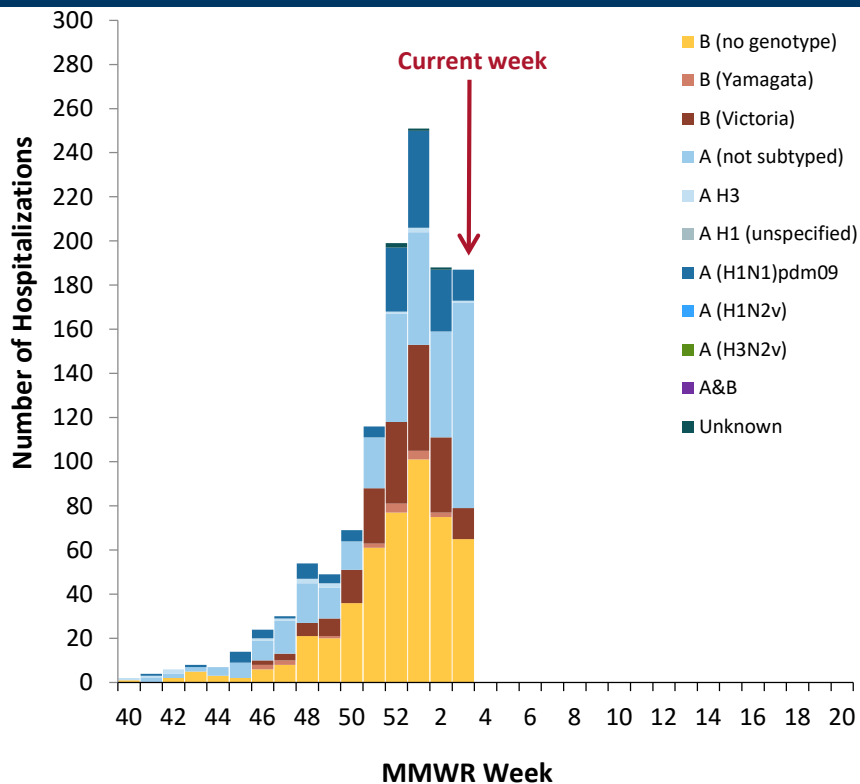
North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(http://www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

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

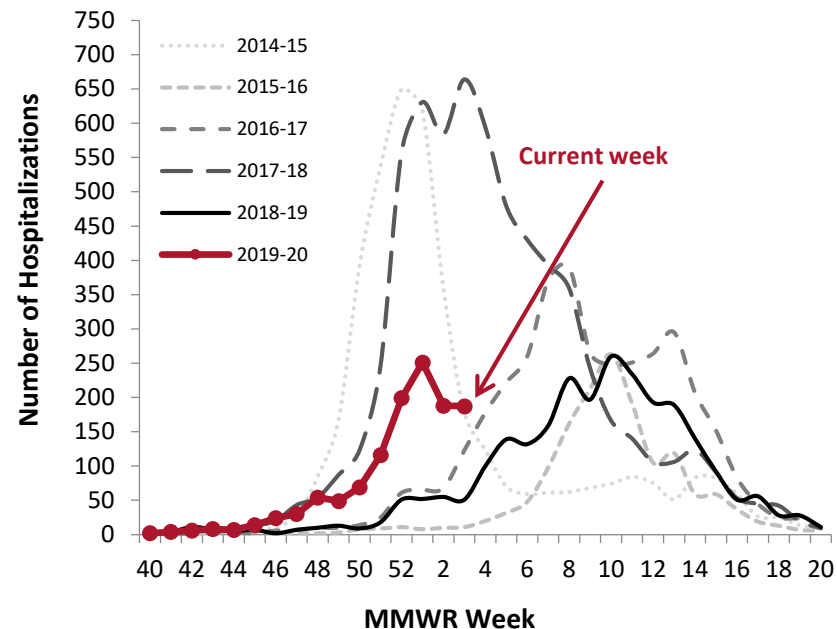
Hospitalized Influenza Surveillance

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*)



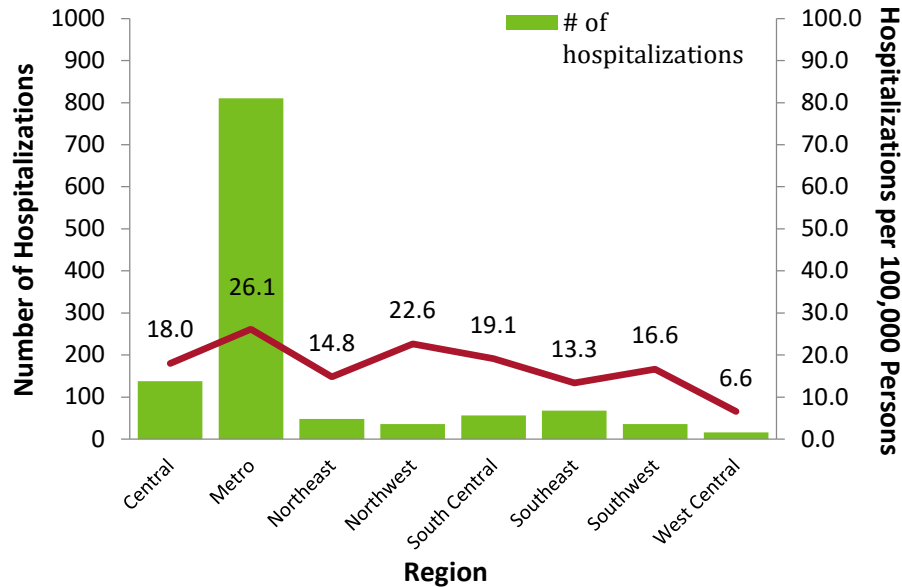
Hospitalizations this week	Hospitalizations last week	Total hospitalizations (to date)
187	188	1,208

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	1,208 (to date)

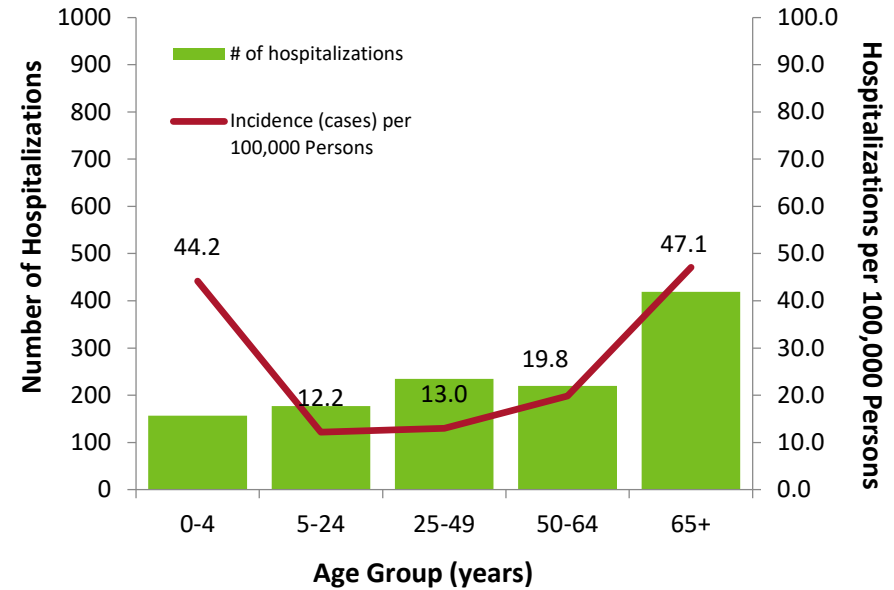
*Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota September 29, 2019 – January 18, 2020



Number of Influenza Hospitalizations and Incidence by Age, Minnesota September 29, 2019 – January 18, 2020



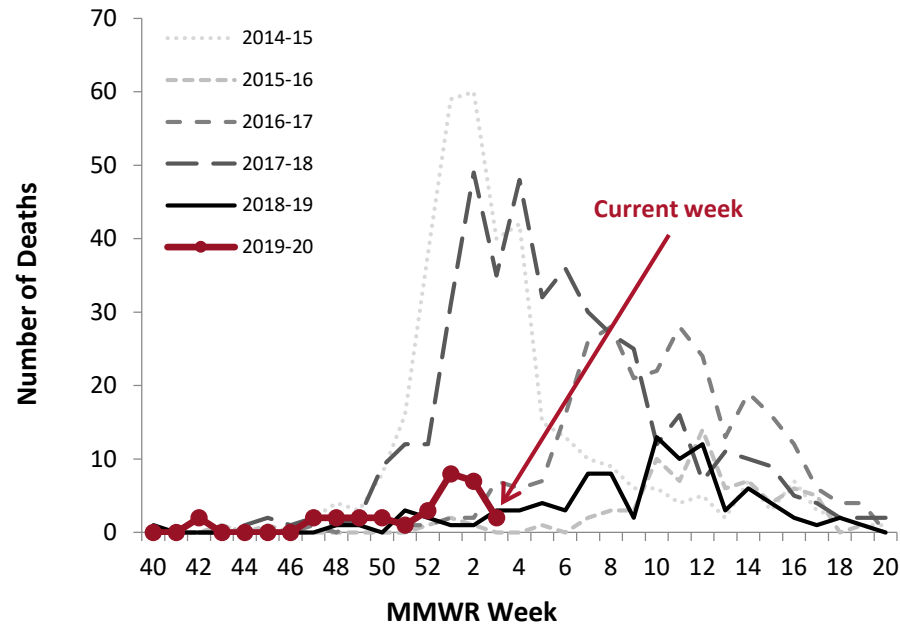
Region	Hospitalizations this week	Total (to date)
Central	17 (9%)	138 (11%)
Metro	111 (59%)	810 (67%)
Northeast	8 (4%)	48 (4%)
Northwest	5 (3%)	36 (3%)
South Central	15 (8%)	56 (5%)
Southeast	19 (10%)	68 (6%)
Southwest	7 (4%)	36 (3%)
West Central	5 (3%)	16 (1%)

Median age (years) at time of admission
52.5

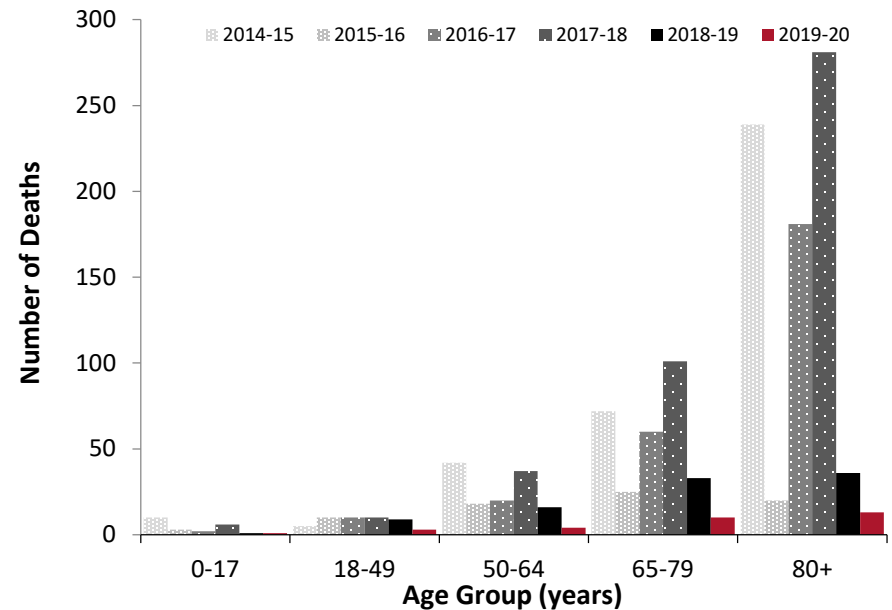
Influenza-Associated Death Surveillance

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	31 (to date)	1 (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	76.0 (to date)

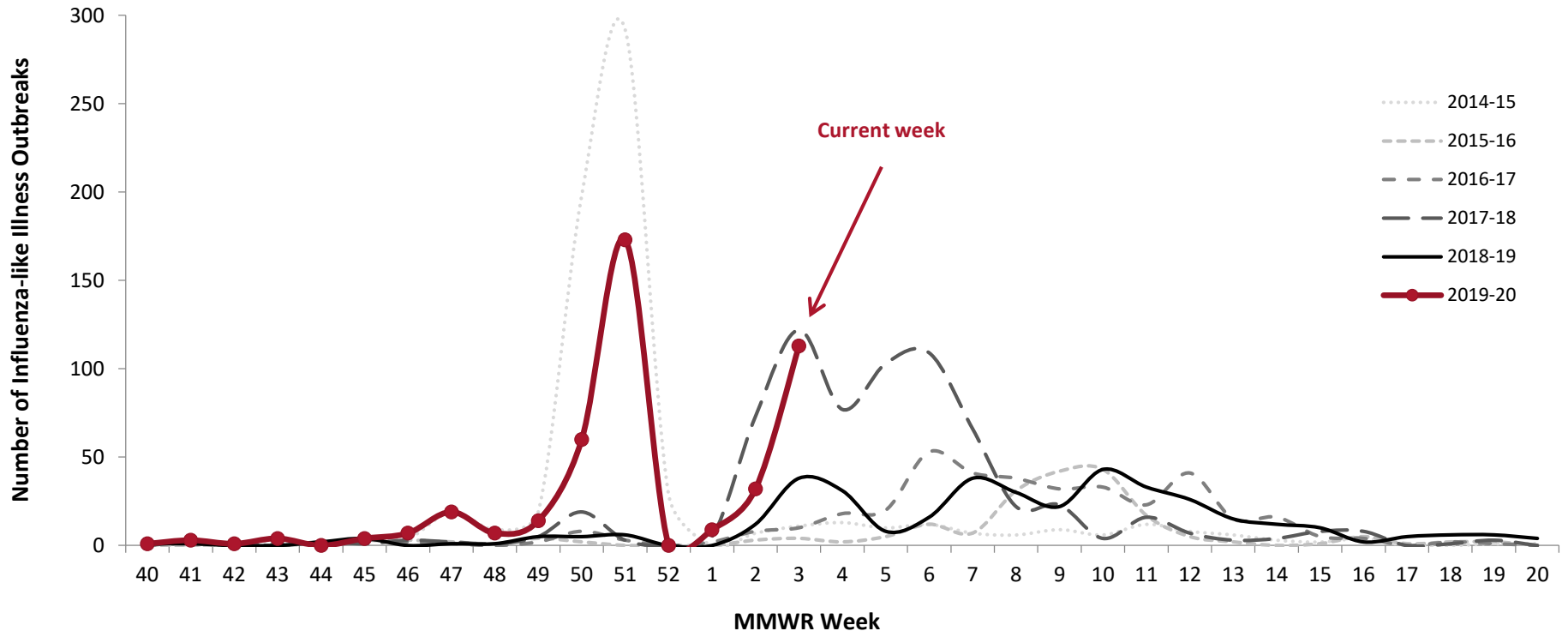
*Influenza Surveillance Network

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

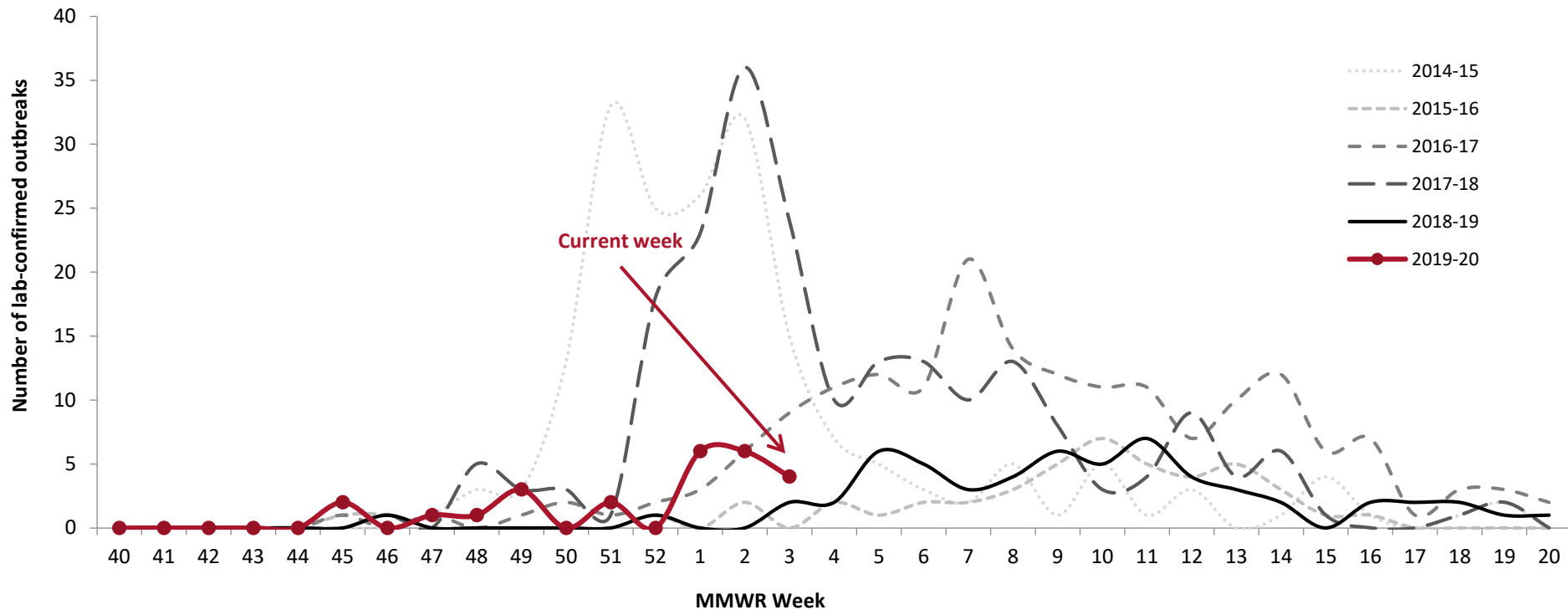


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
113	32	447

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

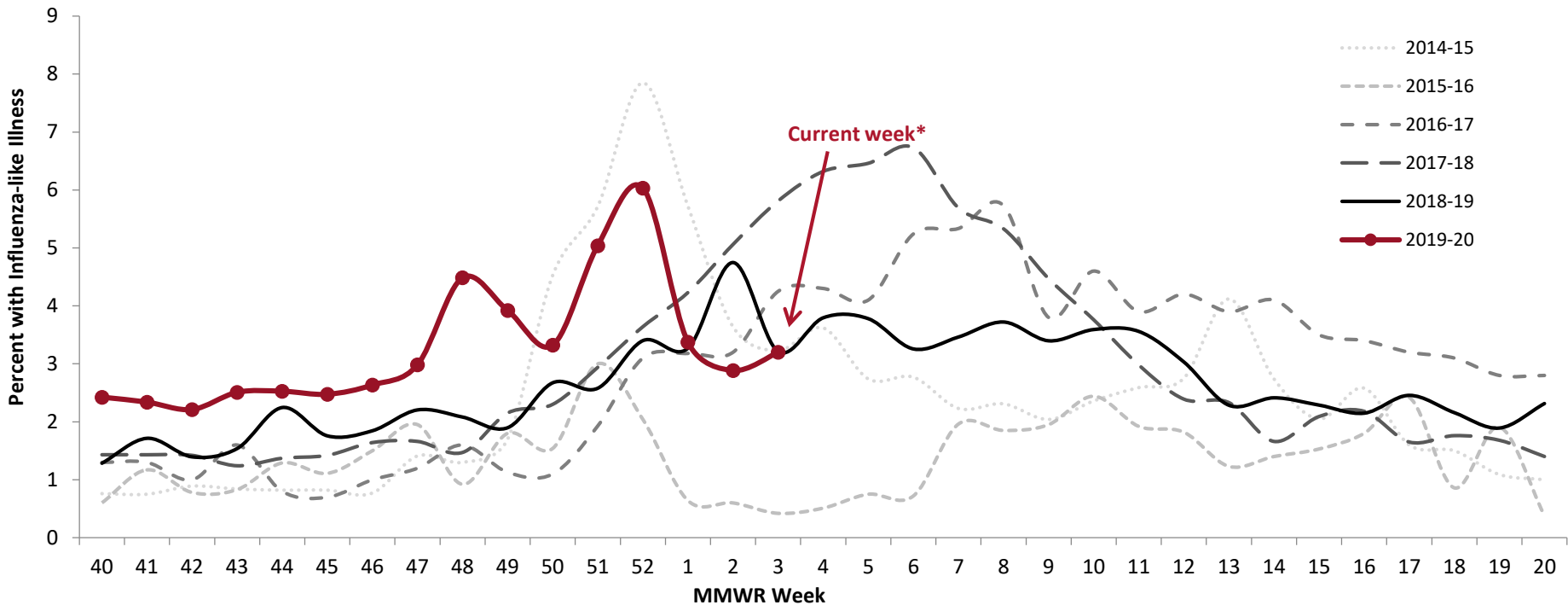


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
4	6	25

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)



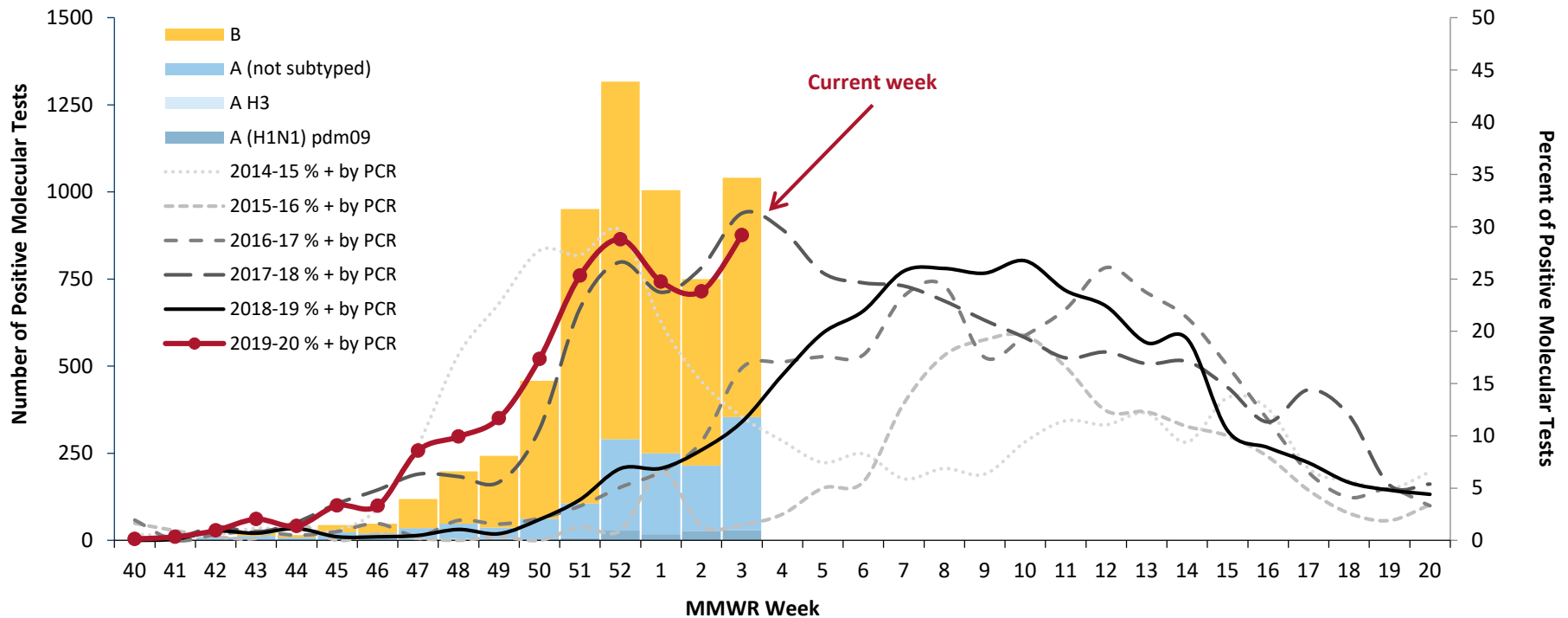
% of outpatients with ILI this week	% of outpatients with ILI last week
3.2%	2.9%

* 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



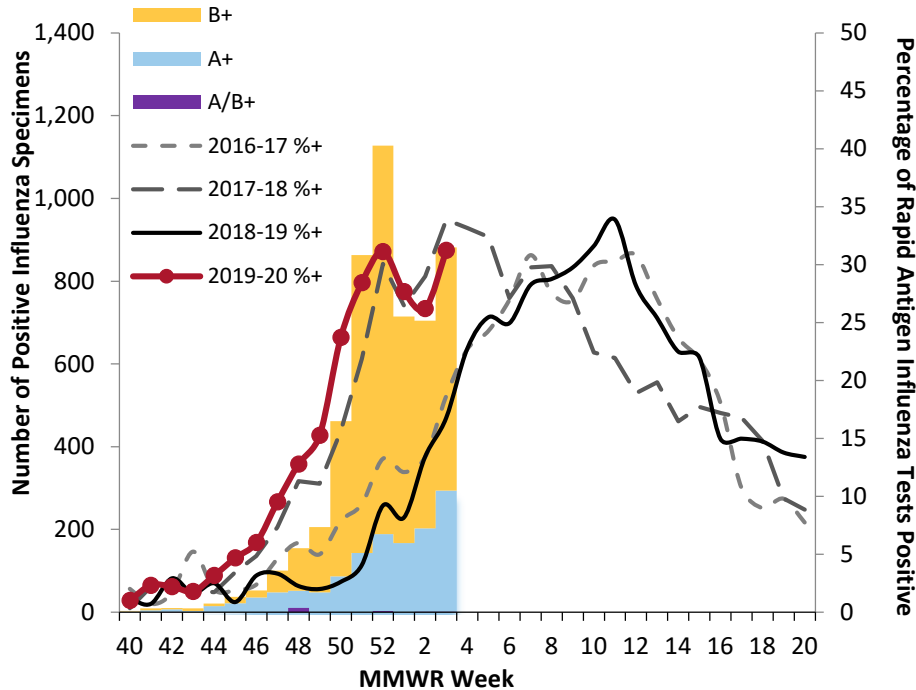
% molecular tests positive this week	% molecular tests positive last week
29.2%	23.8%

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

Laboratory Surveillance (continued)

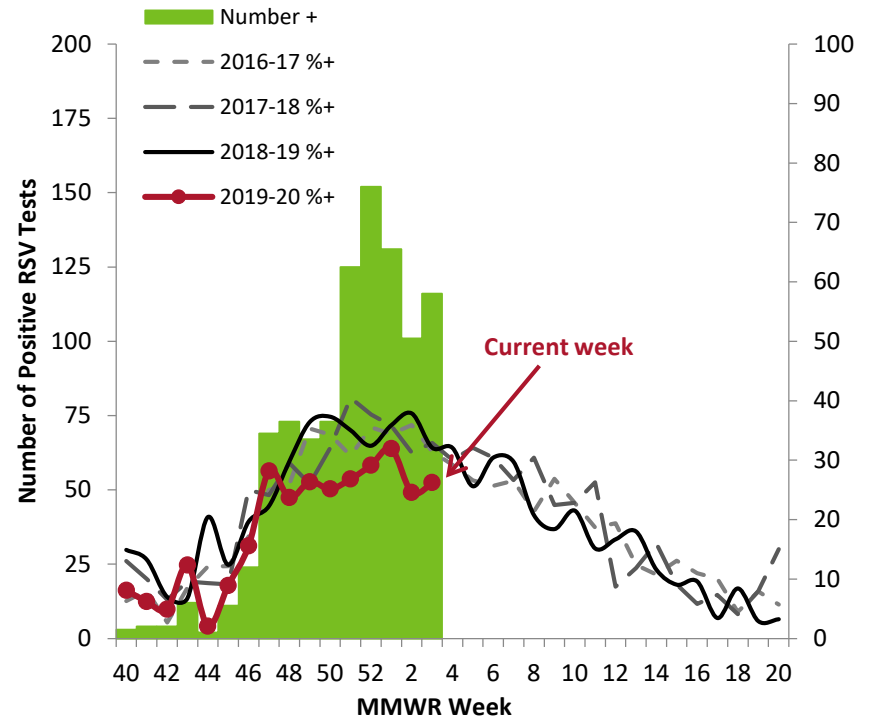
MLS Laboratories – Influenza Testing

Specimens Positive by Influenza Rapid Antigen Test, by Week



MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week



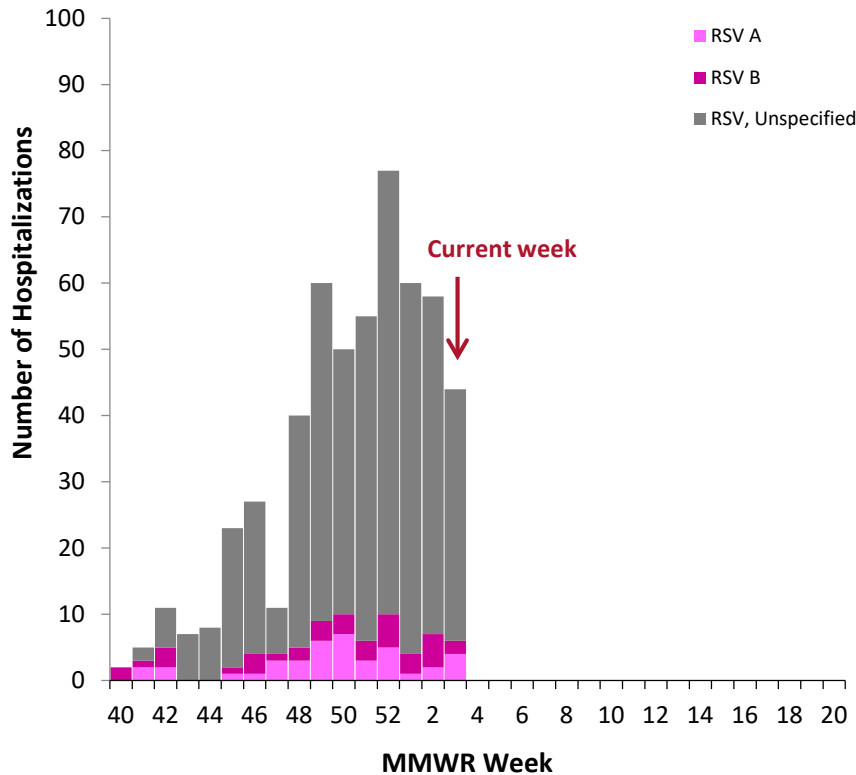
Region	% rapid antigen influenza tests + (current week)
Central	24%
Metro	33%
Northeast	35%
Northwest	34%
South Central	26%
Southeast	35%
Southwest	38%
West Central	27%
State (overall)	31%

Region	% rapid antigen RSV tests + (current week)
Central	35%
Metro	25%
Northeast	17%
Northwest	31%
South Central	33%
Southeast	25%
Southwest	24%
West Central	14%
State (overall)	26%

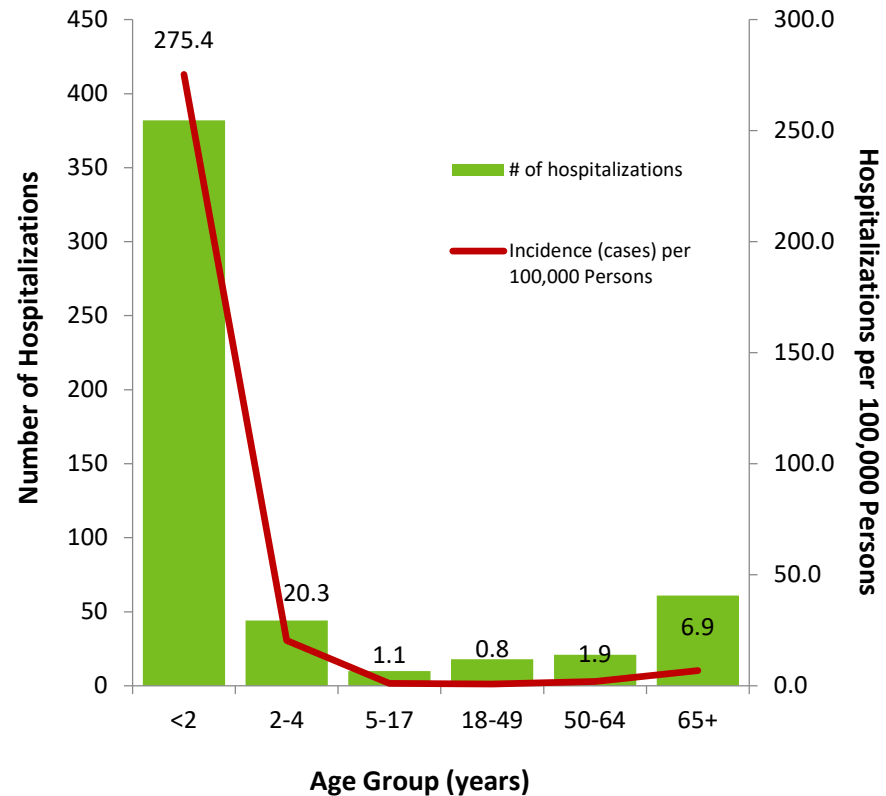
Hospitalized RSV Surveillance

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

44

Hospitalizations last week

58

Total hospitalizations

536

Median age at time of admission

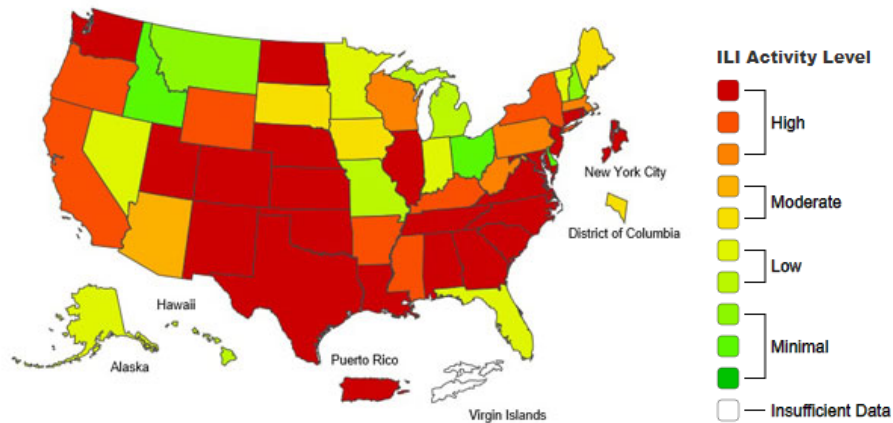
8 months

Weekly U.S. Influenza Surveillance Report

2019-2020 Influenza Season Week 2, ending January 11, 2020

Key indicators that track flu activity declined slightly but remain high. Indicators that track severity (hospitalizations and deaths) are not high at this point in the season.

Influenza-Like Illness (ILI) Activity: Outpatient Illness



The number of jurisdictions experiencing high ILI activity decreased from 36 last week to 34 this week.

Geographic Spread of Influenza



The number of jurisdictions reporting regional or widespread influenza activity remained at 50 this week.

Key Messages from CDC

- Outpatient ILI and laboratory data remain elevated but declined slightly this week. While the overall percent of specimens positive for influenza declined nationally, the percent positive for influenza A viruses increased and some regions are seeing increases in the proportion of influenza A(H1N1)pdm09 viruses compared to other influenza viruses. It is too early to know whether the season has peaked or if flu activity will increase again.
- Levels of outpatient ILI remain elevated; however, hospitalization rates remain similar to what has been seen at this time during recent seasons and mortality, while increasing, has not yet exceeded the epidemic threshold.
- CDC estimates that so far this season there have been at least 13 million flu illnesses, 120,000 hospitalizations and 6,600 deaths from flu.
- Flu vaccine effectiveness estimates are not available yet this season, but 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.