

Weekly Influenza & Respiratory Illness Activity Report

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

Week Ending May 18, 2019 | WEEK 20

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 May 18, 2019 (Week 20), surveillance indicators showed local geographic spread of influenza (based on CDC's Activity Estimates Definitions).

Since the start of the influenza season, one pediatric influenza-related death has 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/)

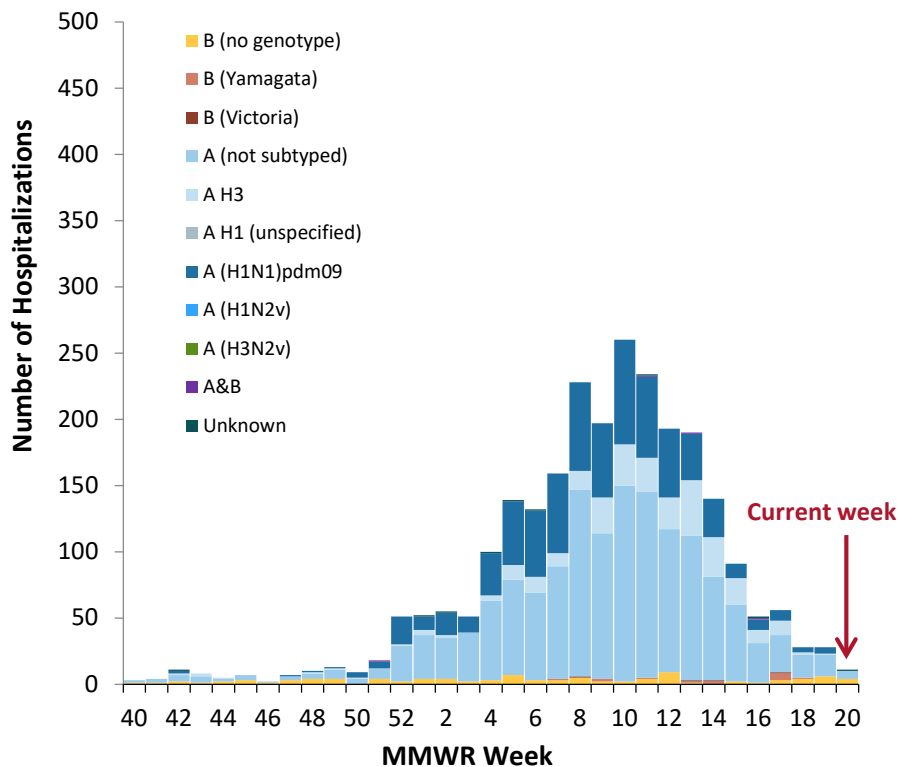
North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(http://www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

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

Hospitalized Influenza Surveillance

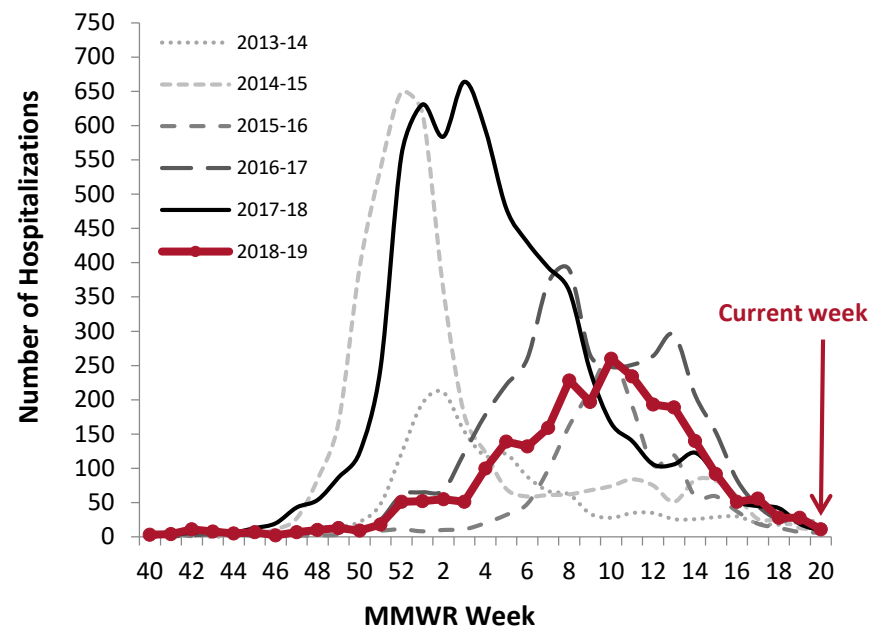
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. **Due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

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



Hospitalizations this week	Hospitalizations last week	Total hospitalizations (to date)
11	28	2,543

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

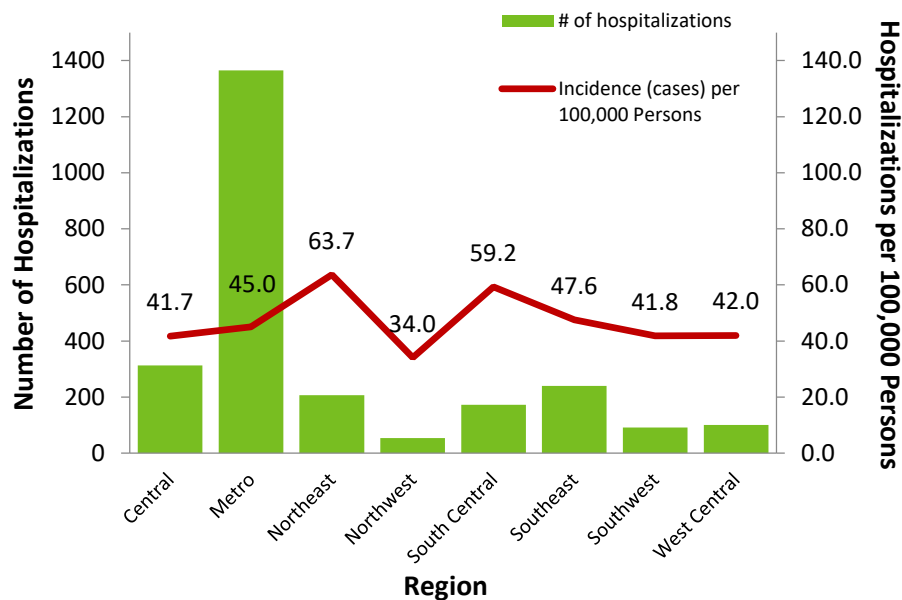


Season	Total hospitalizations (historic)
2013-2014	1,578
2014-2015	4,081
2015-2016	1,538
2016-2017	3,695
2017-2018	6,446
2018-2019	2,543 (to date)

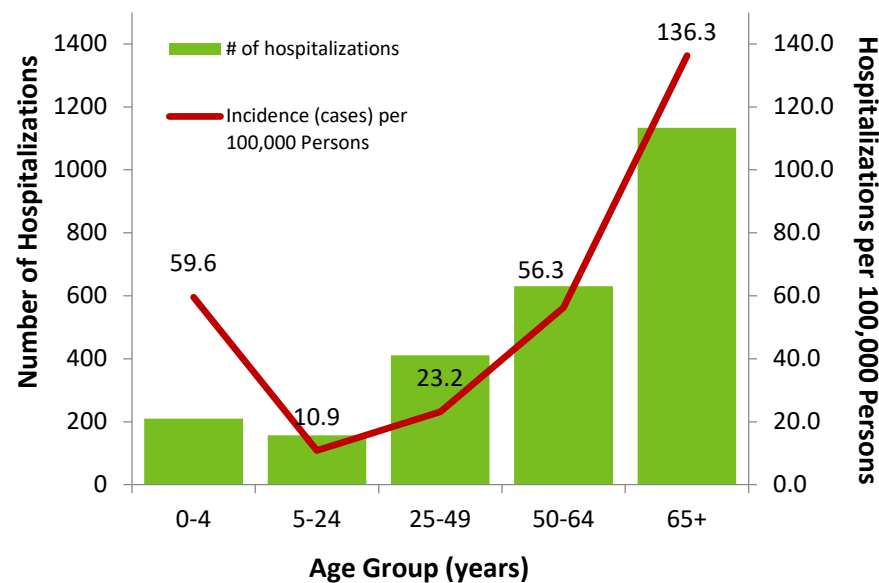
*Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota September 30, 2018 – May 18, 2019



Number of Influenza Hospitalizations and Incidence by Age, Minnesota September 30, 2018 – May 18, 2019



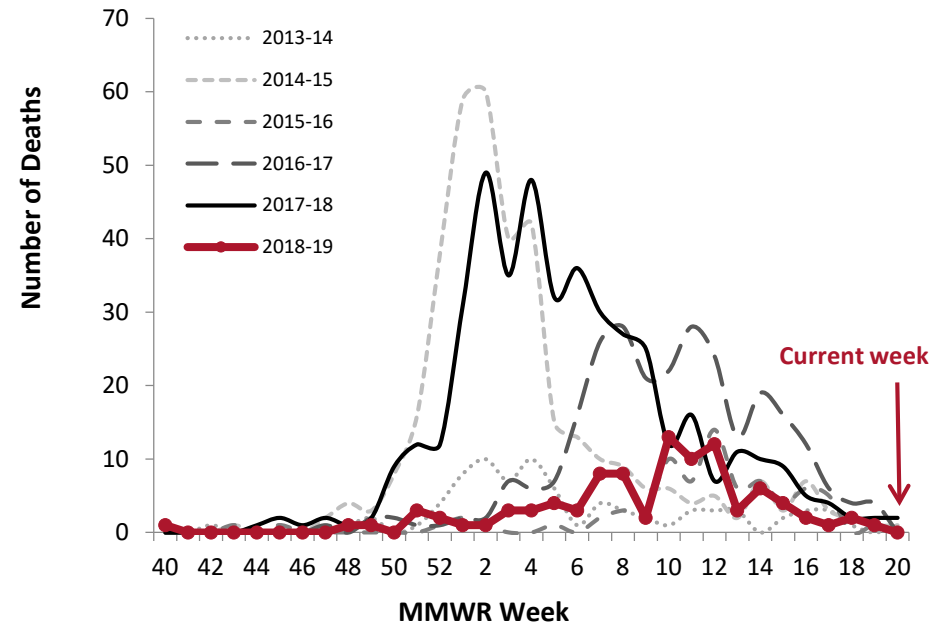
Region	Hospitalizations this week	Total (to date)
Central	1 (9%)	313 (12%)
Metro	6 (55%)	1,365 (54%)
Northeast	0 (0%)	207 (8%)
Northwest	0 (0%)	54 (2%)
South Central	1 (9%)	172 (7%)
Southeast	0 (0%)	240 (9%)
Southwest	3 (27%)	91 (4%)
West Central	0 (0%)	101 (4%)

Median age (years) at time of admission
62.0

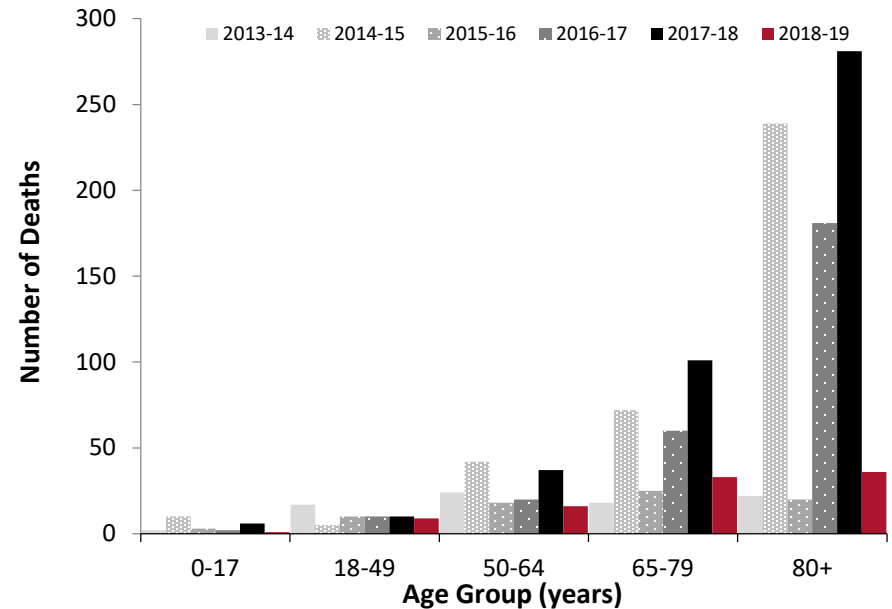
Influenza-Associated Death Surveillance

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)
2013-2014	83	2
2014-2015	368	10
2015-2016	76	3
2016-2017	273	2
2017-2018	440	6
2018-2019	95 (to date)	1 (to date)

Season	Median age (years) at time of death
2013-2014	63
2014-2015	85
2015-2016	68
2016-2017	86
2017-2018	85
2018-2019	75.0 (to date)

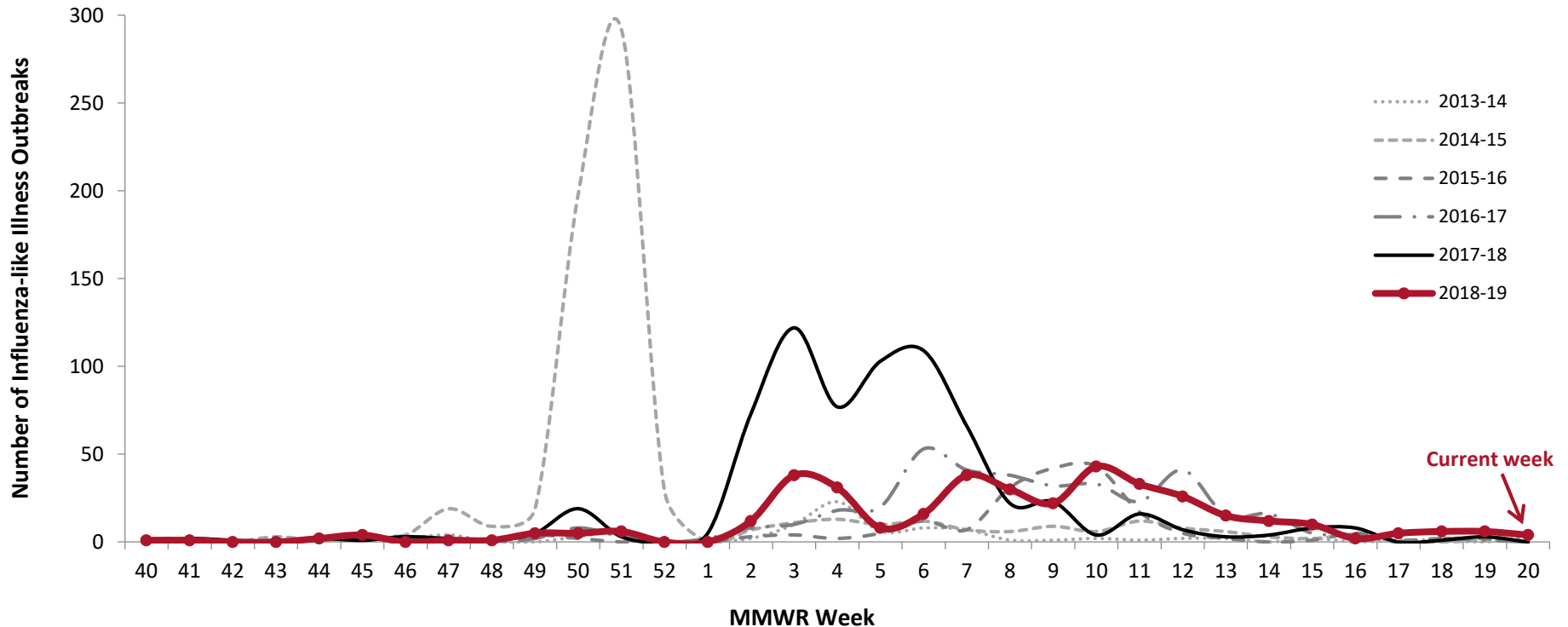
*Influenza Surveillance Network

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

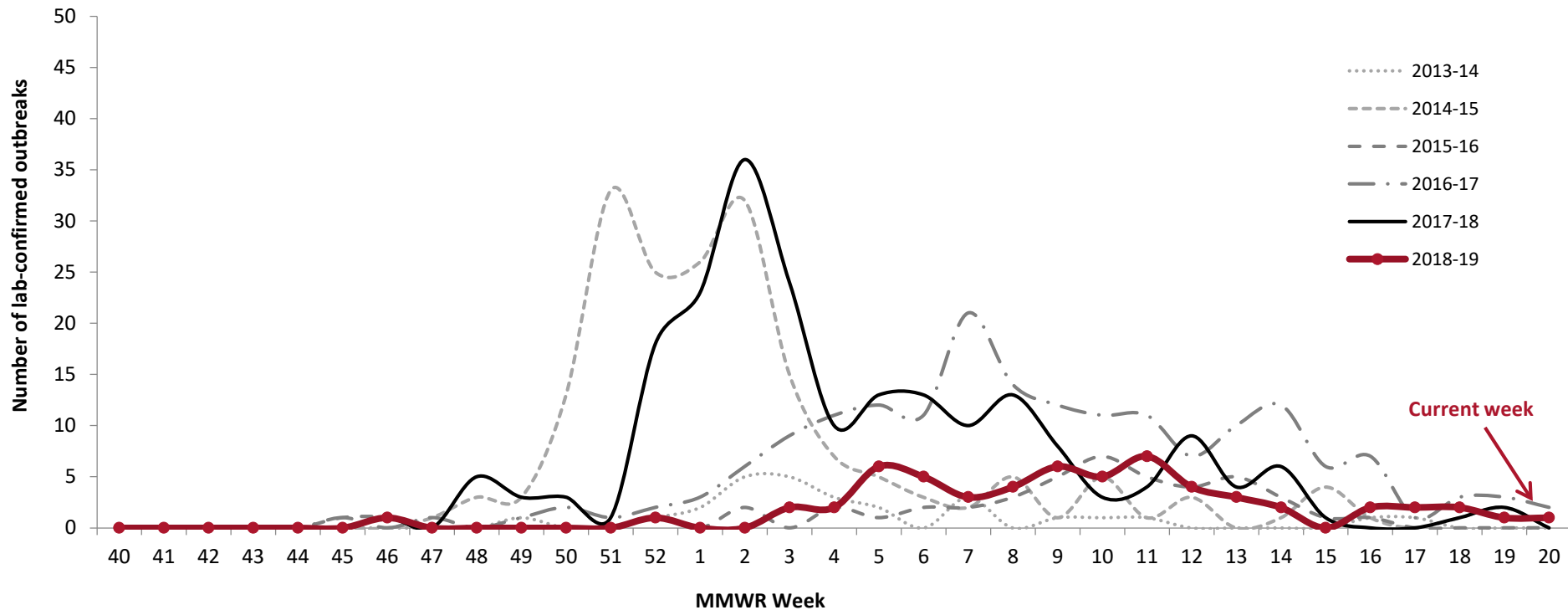


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
4	5	381

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

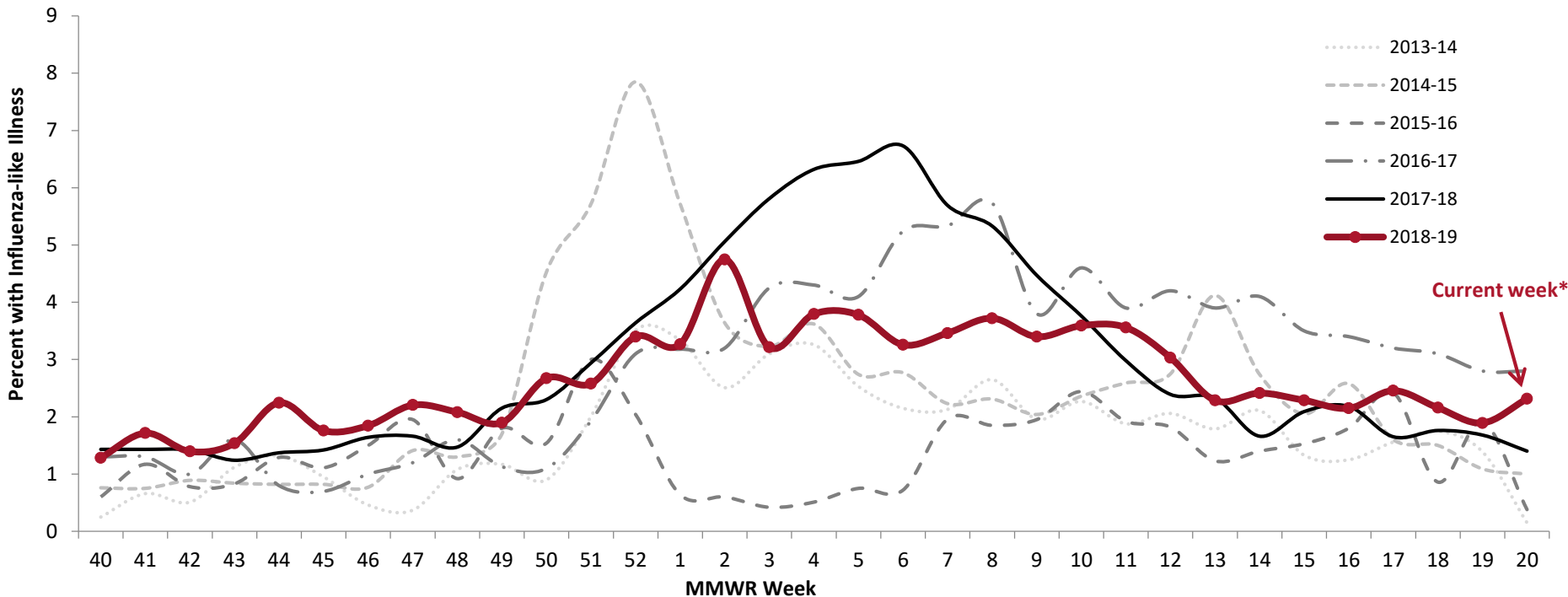


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
1	1	60

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)



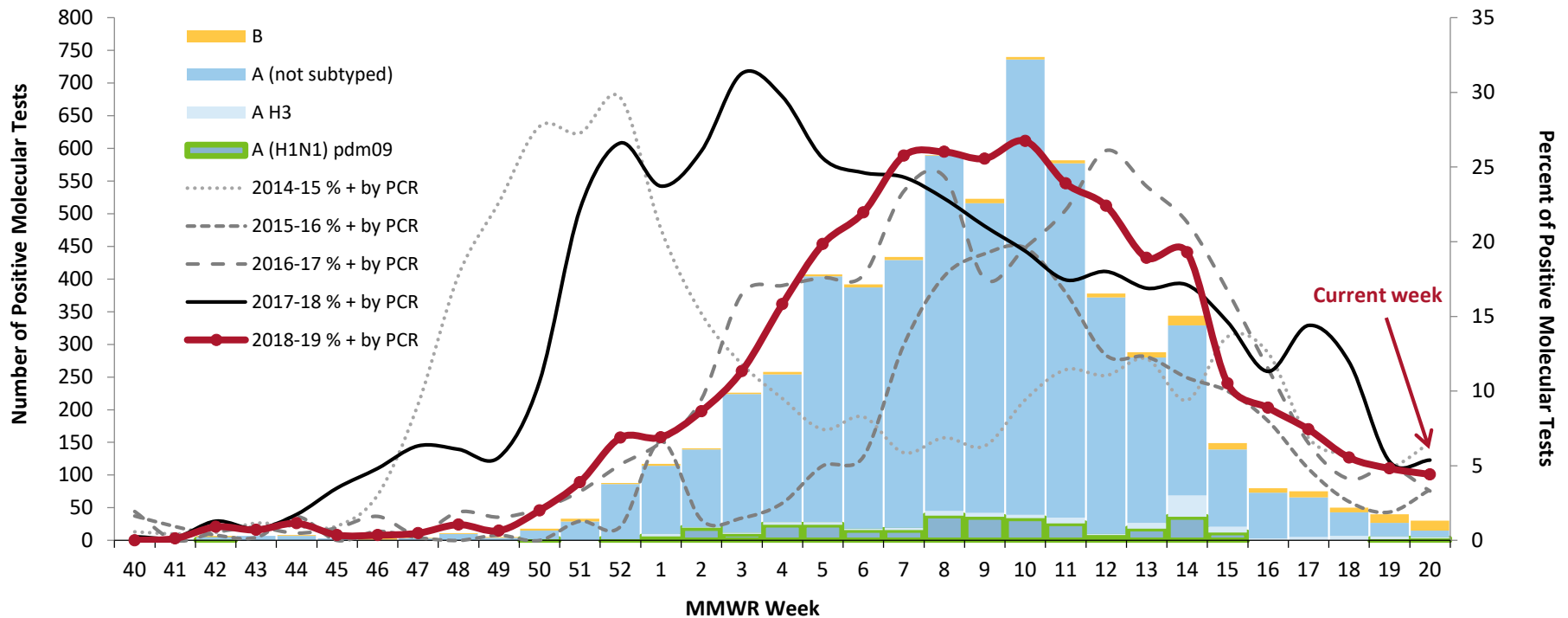
% of outpatients with ILI this week	% of outpatients with ILI last week
2.3%	1.9%

* 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



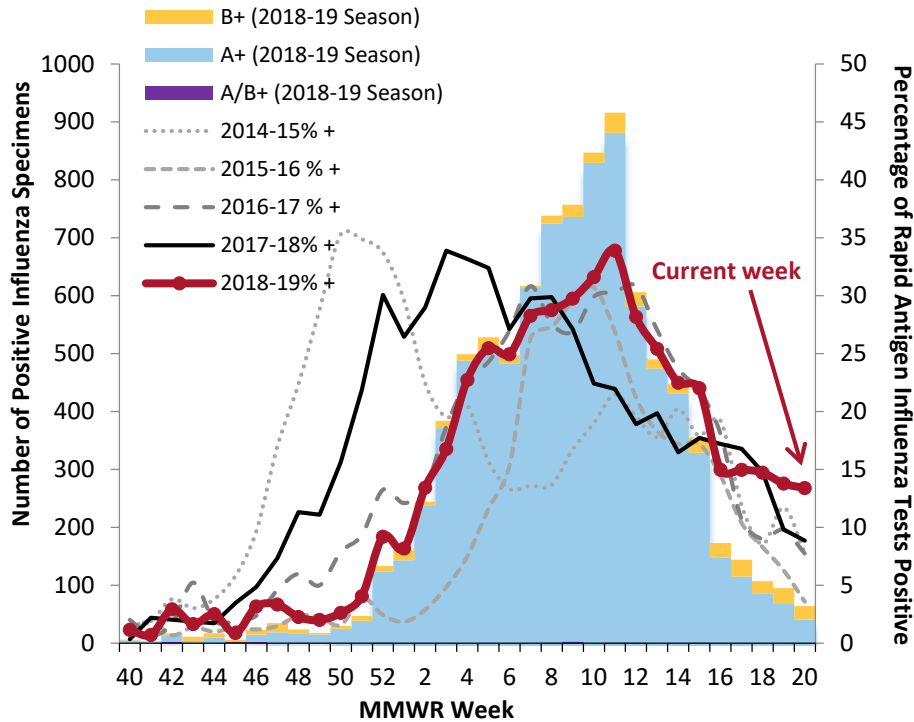
% molecular tests positive this week	% molecular tests positive last week
4.4%	4.8%

* 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

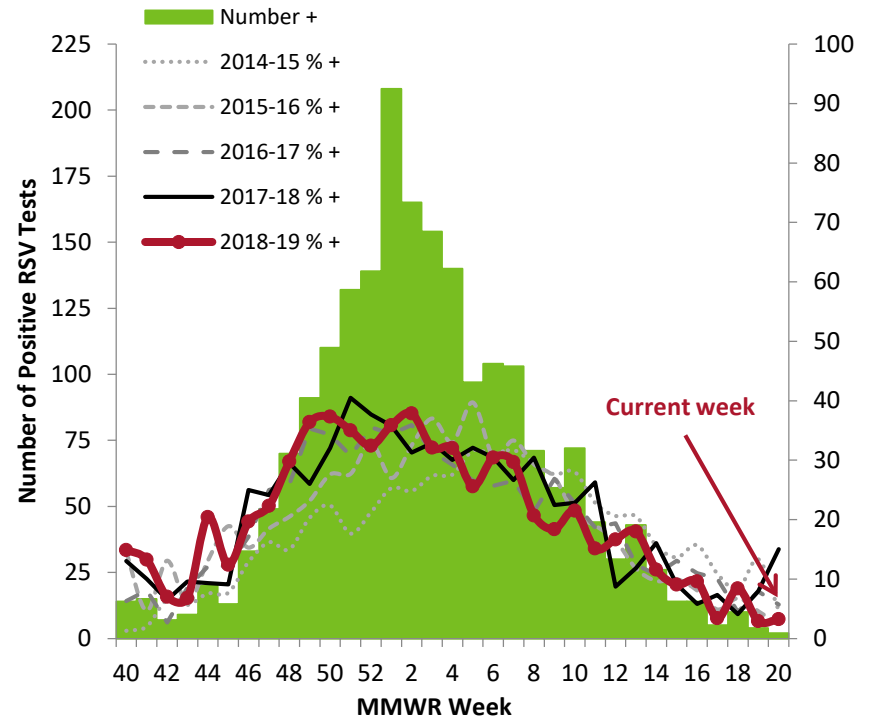
Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Northeast	17%
South Central	8%
Southwest	0%
Southeast	22%
Metro	15%
Central	7%
West Central	0%
Northwest	0%
State (overall)	13%

MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week

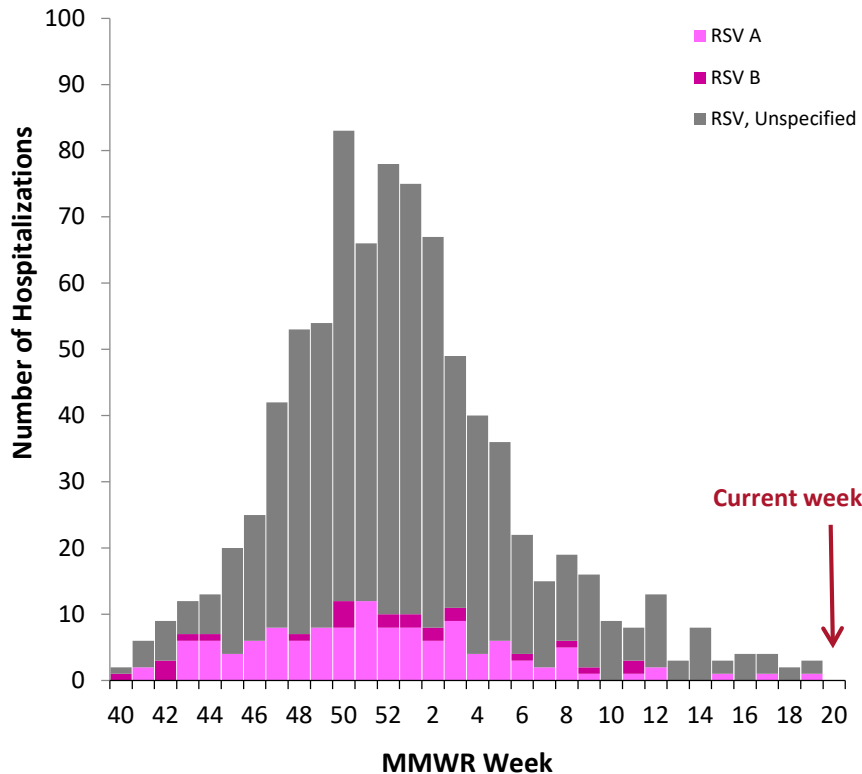


Region	% rapid antigen RSV tests + (current week)
Northeast	0%
South Central	0%
Southwest	20%
Southeast	0%
Metro	6%
Central	0%
West Central	0%
Northwest	---
State (overall)	3%

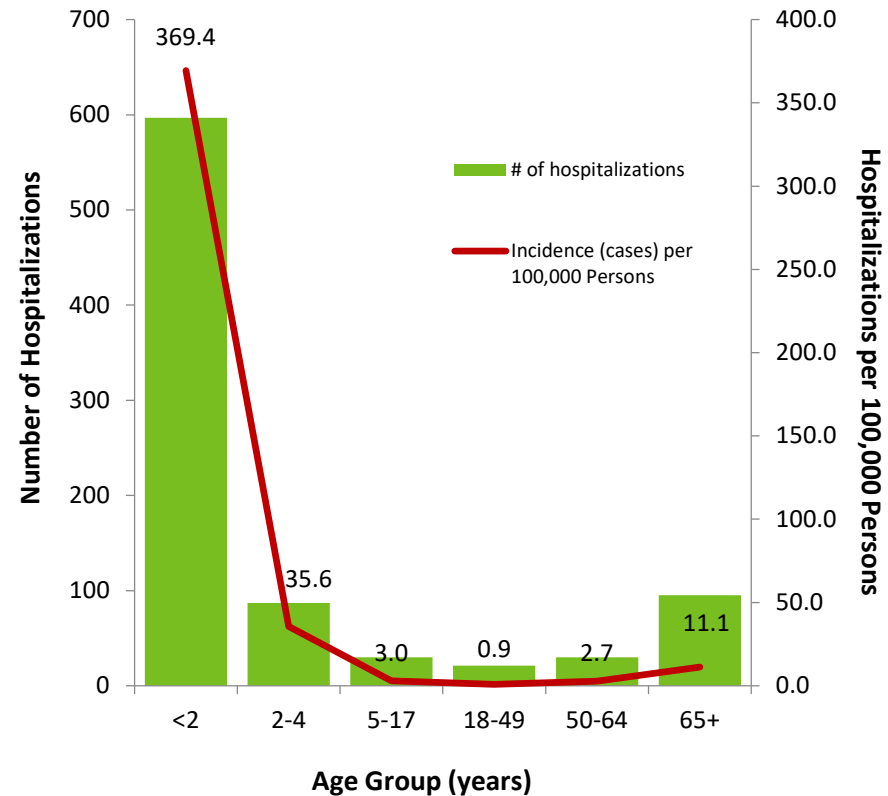
Hospitalized RSV Surveillance

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

0

Hospitalizations last week

3

Total hospitalizations

859

Median age at time of admission

10 months

Weekly U.S. Influenza Surveillance Report

2018-2019 Influenza Season Week 19 ending May 11, 2019

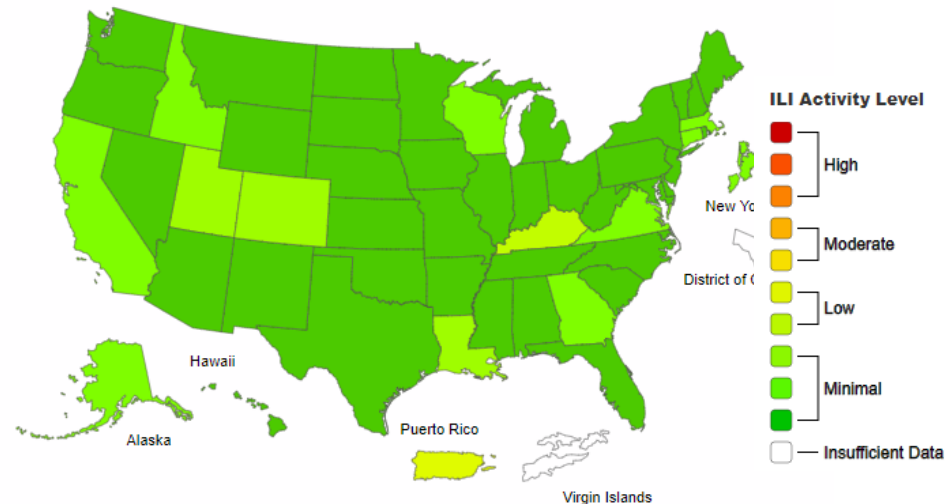
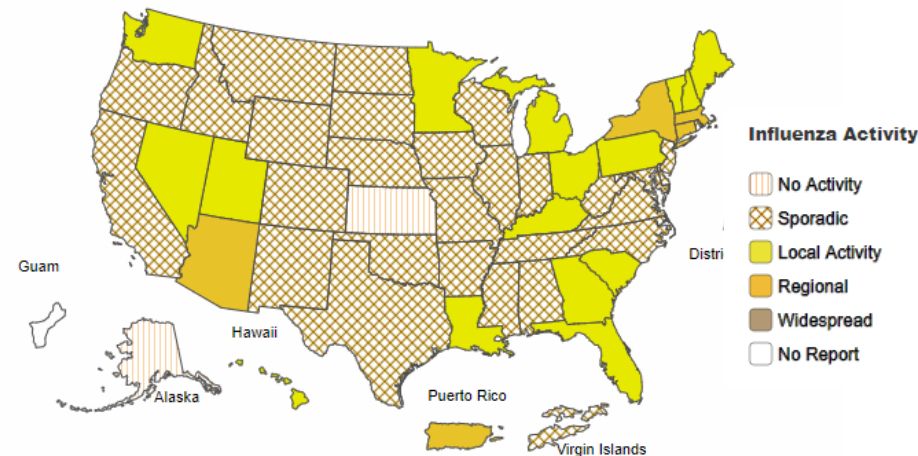
[CDC National Influenza Surveillance \(http://www.cdc.gov/flu/weekly/\)](http://www.cdc.gov/flu/weekly/)

Influenza activity continues to decrease in the United States.

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories decreased. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses nationally.
 - **Antiviral Resistance:** The vast majority of influenza viruses tested (>99%) show susceptibility to oseltamivir and peramivir. All influenza viruses tested showed susceptibility to zanamivir.
- **Influenza-like Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) decreased to 1.5%, which is below the national baseline of 2.2%. All regions reported ILI below their region-specific baseline level.
 - **ILI State Activity Indicator Map:** Puerto Rico and one state experienced low ILI activity; and New York City and 49 states experienced minimal ILI activity; and the District of Columbia and the U.S. Virgin Islands had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in Puerto Rico and four states was reported as regional; 16 states reported local activity; the District of Columbia, the U.S. Virgin Islands and 28 states reported sporadic activity; two states reported no activity; and Guam did not report.
- **Influenza-associated Hospitalizations** A cumulative rate of 65.7 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (221.8 hospitalizations per 100,000 population).
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- **Influenza-associated Pediatric Deaths:** Three influenza-associated pediatric deaths were reported to CDC during week 19.

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet



*This map indicates geographic spread and does not measure the severity of influenza activity.