

Weekly Influenza & Respiratory Illness Activity Report

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

Week Ending March 28, 2020 | WEEK 13

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 March 28, 2020 (Week 13), surveillance indicators showed local geographic spread of influenza (based on CDC's Activity Estimates Definitions).

Since the start of the influenza season, 3 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/)

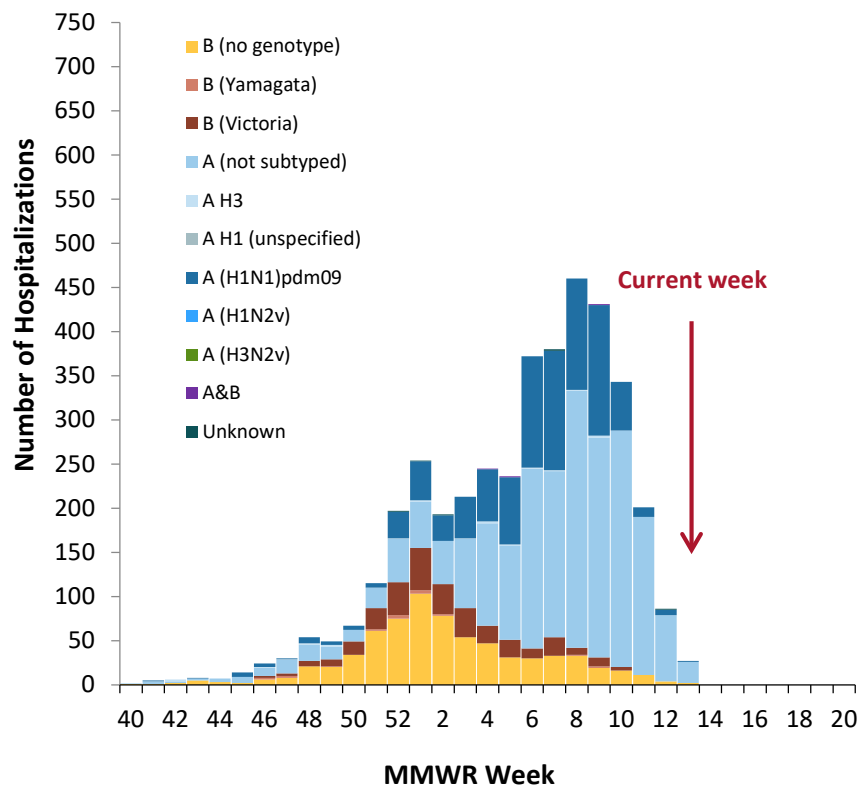
North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

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

Hospitalized Influenza Surveillance

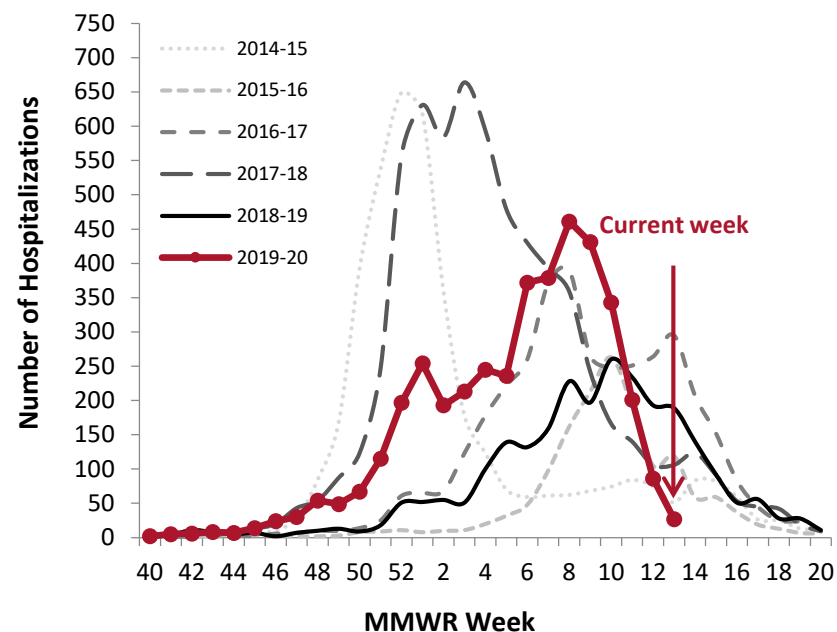
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. **Due 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) |
|----------------------------|----------------------------|----------------------------------|
| 27 | 86 | 4,019 |

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

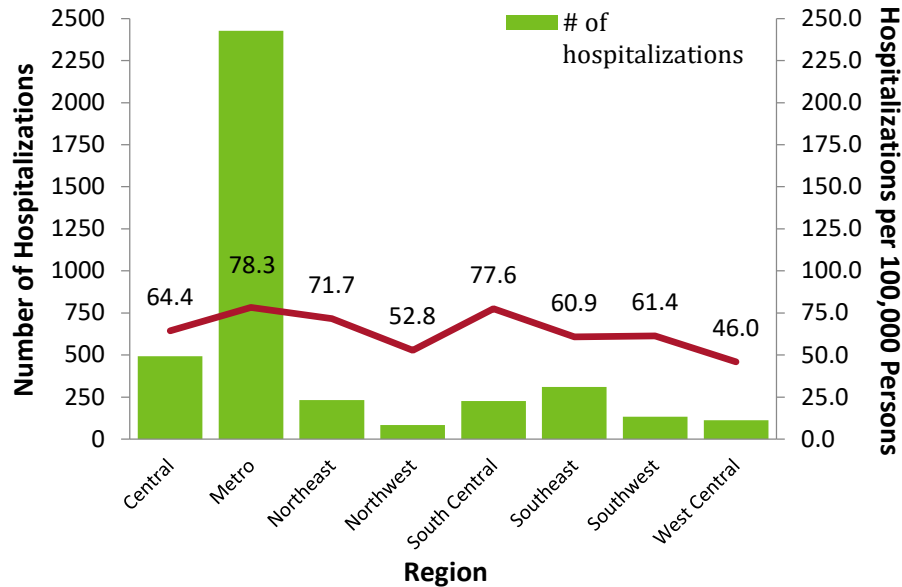


| Season | Total hospitalizations (historic) |
|------------------|-----------------------------------|
| 2014-2015 | 4,081 |
| 2015-2016 | 1,538 |
| 2016-2017 | 3,695 |
| 2017-2018 | 6,446 |
| 2018-2019 | 2,543 |
| 2019-2020 | 4,019 (to date) |

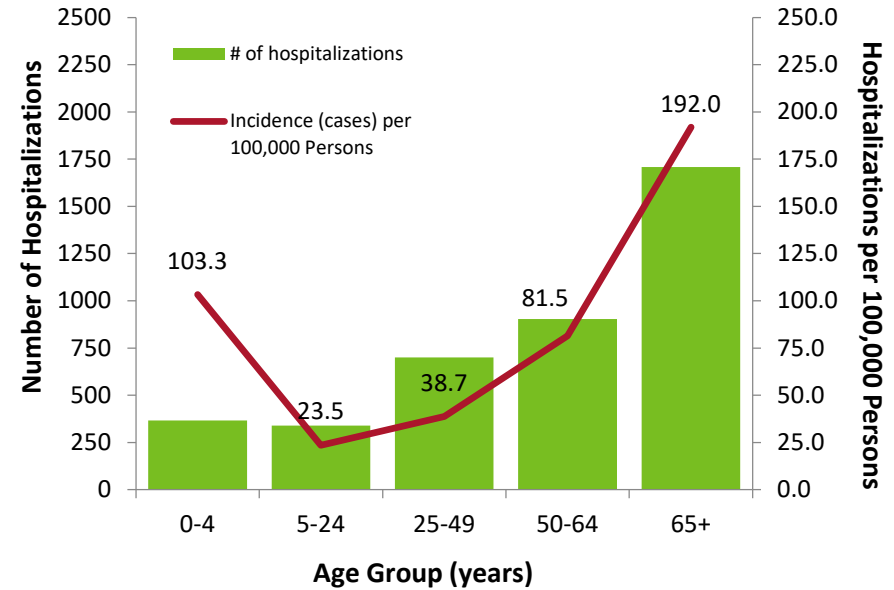
*Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota
September 29, 2019 – March 28, 2020



Number of Influenza Hospitalizations and Incidence by Age, Minnesota
September 29, 2019 – March 28, 2020



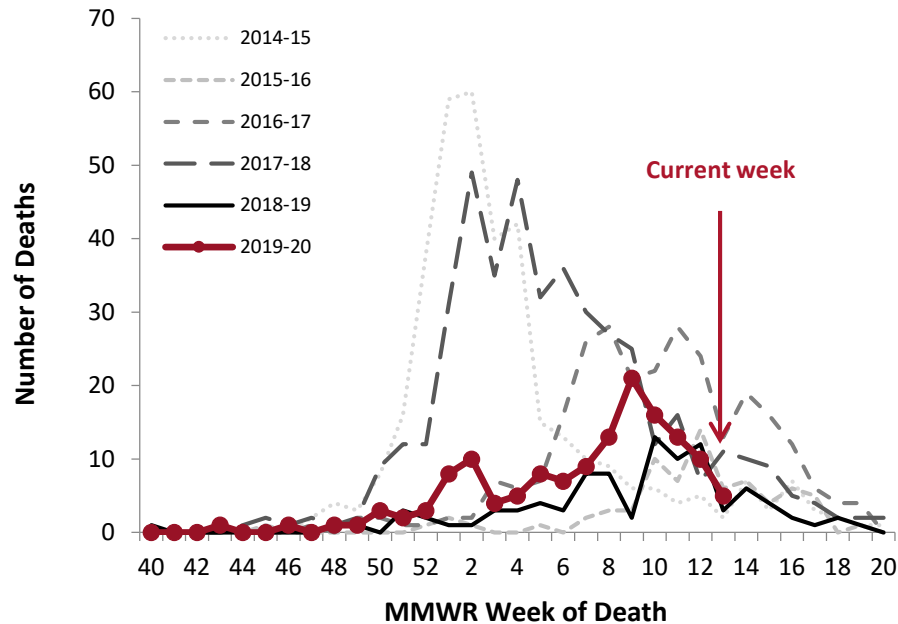
| Region | Hospitalizations this week | Total (to date) |
|---------------|----------------------------|-----------------|
| Central | 4 (15%) | 493 (12%) |
| Metro | 11 (41%) | 2,427 (60%) |
| Northeast | 5 (19%) | 233 (6%) |
| Northwest | 0 (0%) | 84 (2%) |
| South Central | 3 (11%) | 227 (6%) |
| Southeast | 3 (11%) | 310 (8%) |
| Southwest | 0 (1%) | 133 (3%) |
| West Central | 1 (4%) | 112 (3%) |

| Median age (years) at time of admission |
|-----------------------------------------|
| 60.0 |

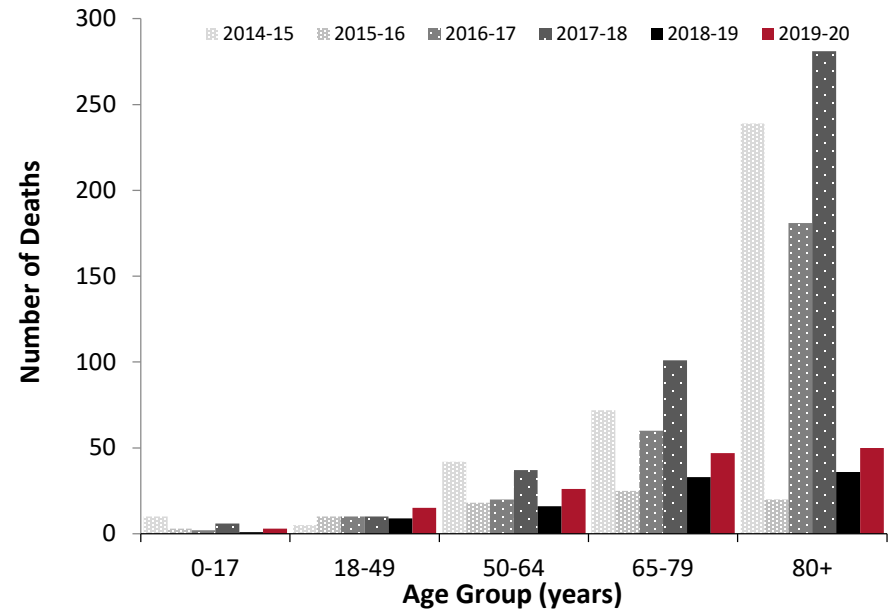
Influenza-Associated Death Surveillance

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 | 141 (to date) | 3 (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) |

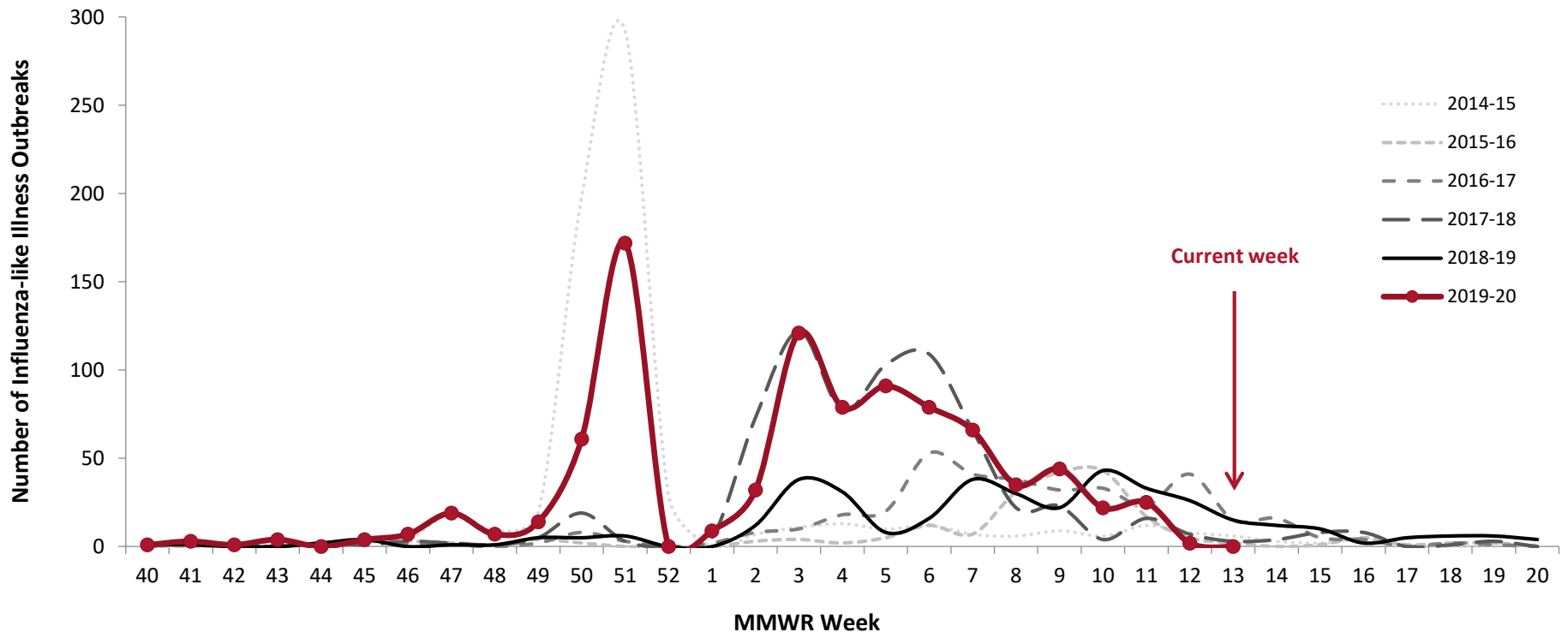
*Influenza Surveillance Network

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

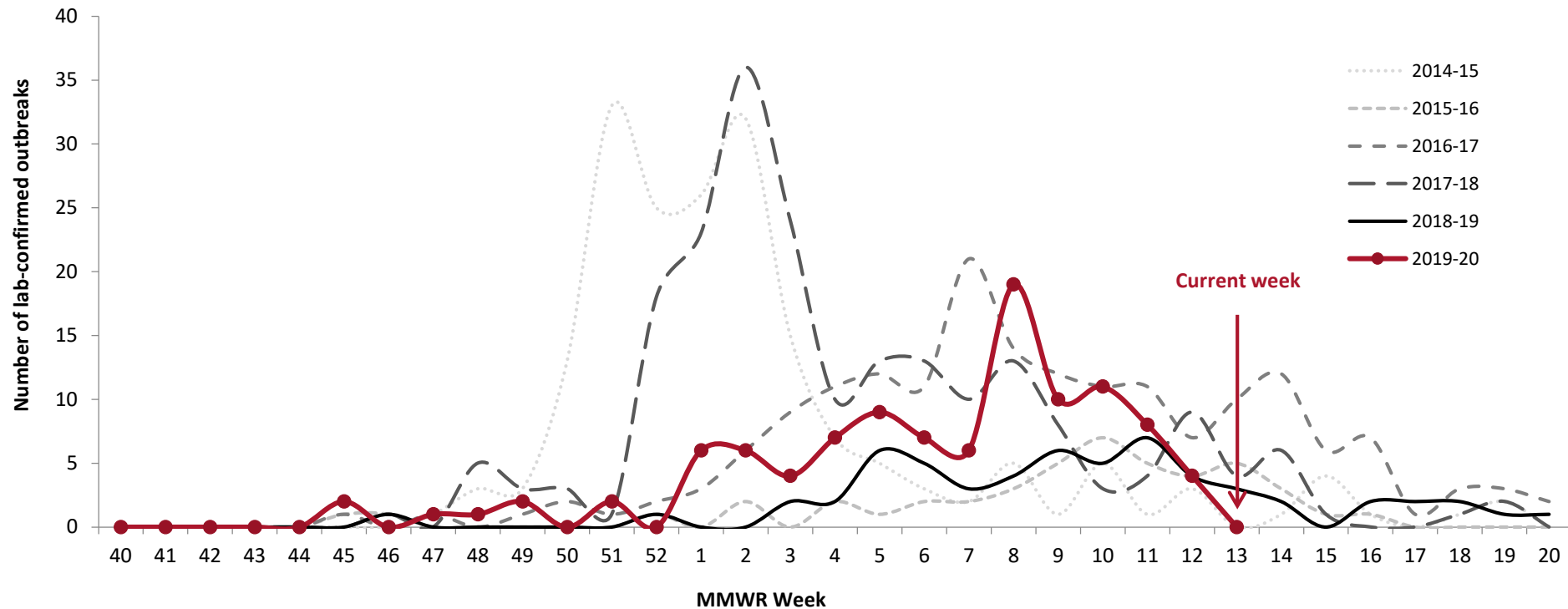


| New school outbreaks this week | New school outbreaks last week | Total this season (to date) |
|--------------------------------|--------------------------------|-----------------------------|
| 0 | 2 | 921 |

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

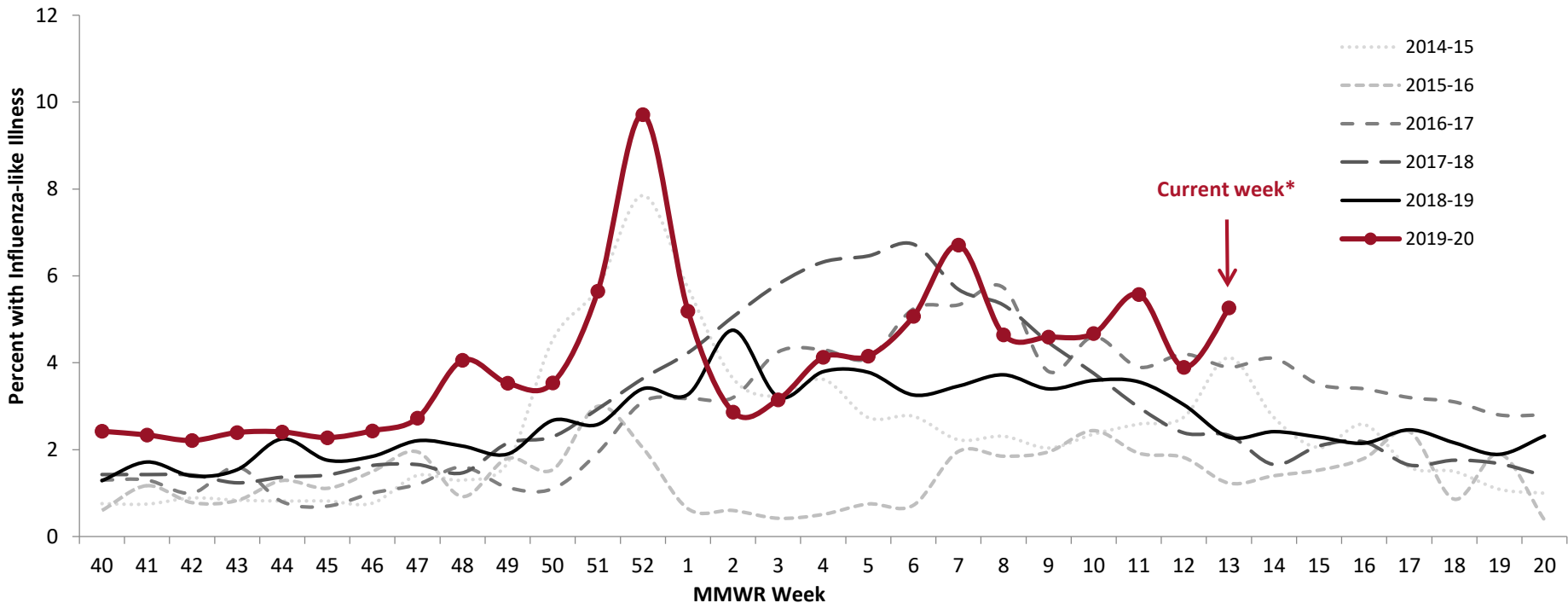


| New LTC outbreaks this week | New LTC outbreaks last week | Total this season (to date) |
|-----------------------------|-----------------------------|-----------------------------|
| 0 | 4 | 109 |

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)



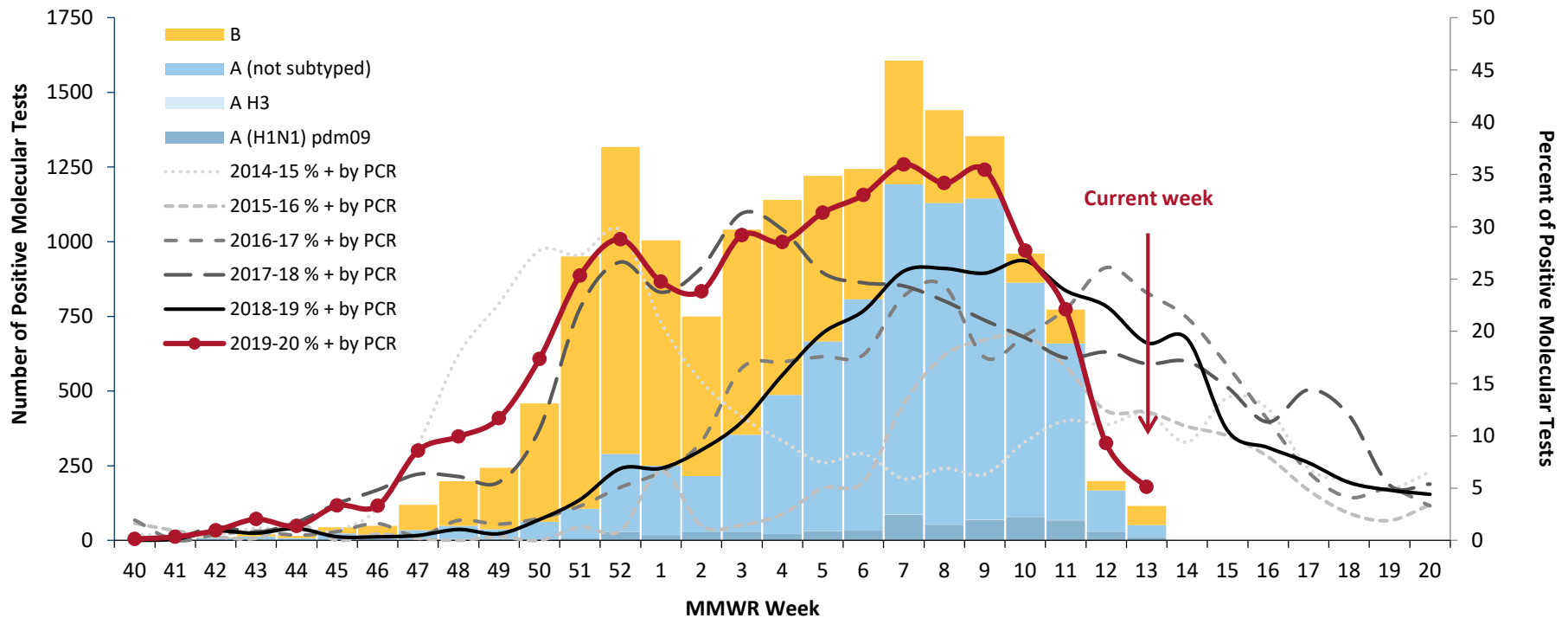
| % of outpatients with ILI this week | % of outpatients with ILI last week |
|-------------------------------------|-------------------------------------|
| 5.3% | 3.9% |

* 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



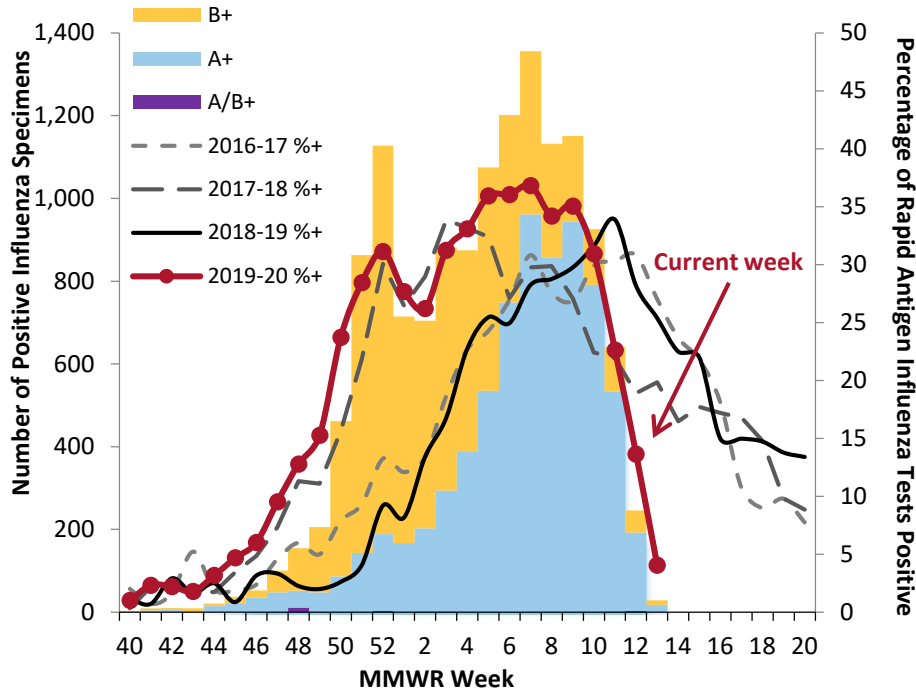
| % molecular tests positive this week | % molecular tests positive last week |
|--------------------------------------|--------------------------------------|
| 5.1% | 9.3% |

* 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

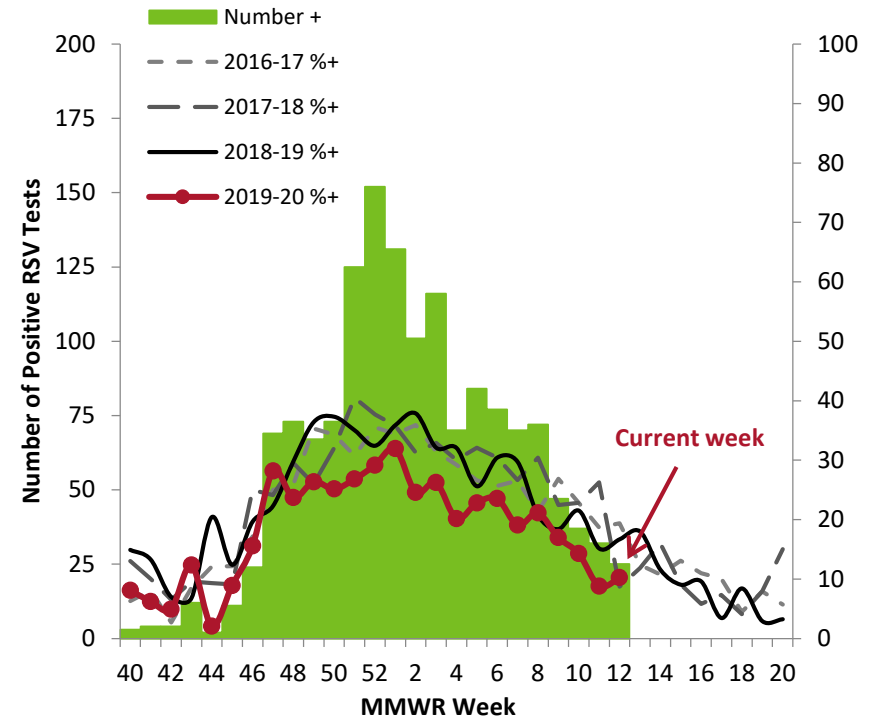
Specimens Positive by Influenza Rapid Antigen Test, by Week



| Region | % rapid antigen influenza tests + (current week) |
|-----------------|--------------------------------------------------|
| Central | 11% |
| Metro | 14% |
| Northeast | 12% |
| Northwest | 16% |
| South Central | 16% |
| Southeast | 19% |
| Southwest | 17% |
| West Central | 19% |
| State (overall) | 14% |

MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week

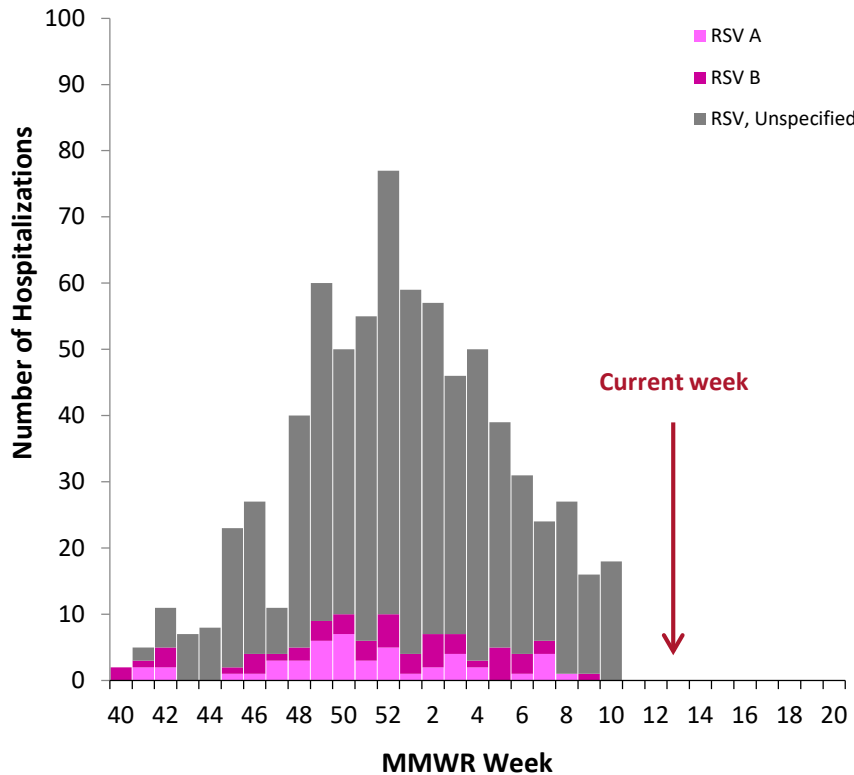


| Region | % rapid antigen RSV tests + (current week) |
|-----------------|--------------------------------------------|
| Central | 8% |
| Metro | 35% |
| Northeast | 8% |
| Northwest | 0% |
| South Central | 0% |
| Southeast | 8% |
| Southwest | 10% |
| West Central | 0% |
| State (overall) | 10% |

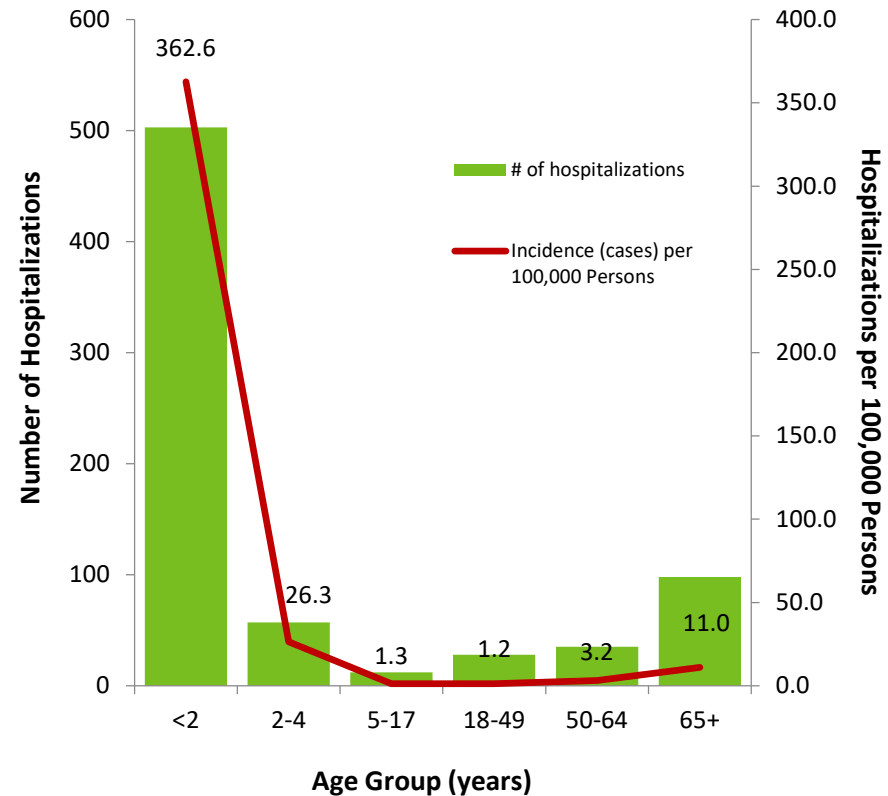
Hospitalized RSV Surveillance

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

n/a

Hospitalizations last week

n/a

Total hospitalizations

733

Median age at time of admission

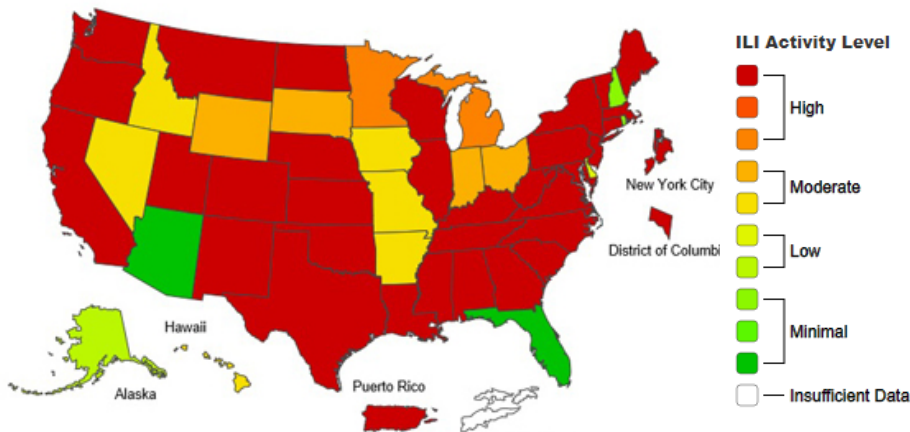
9 months

Weekly U.S. Influenza Surveillance Report

2019-2020 Influenza Season Week 10, ending March 7, 2020

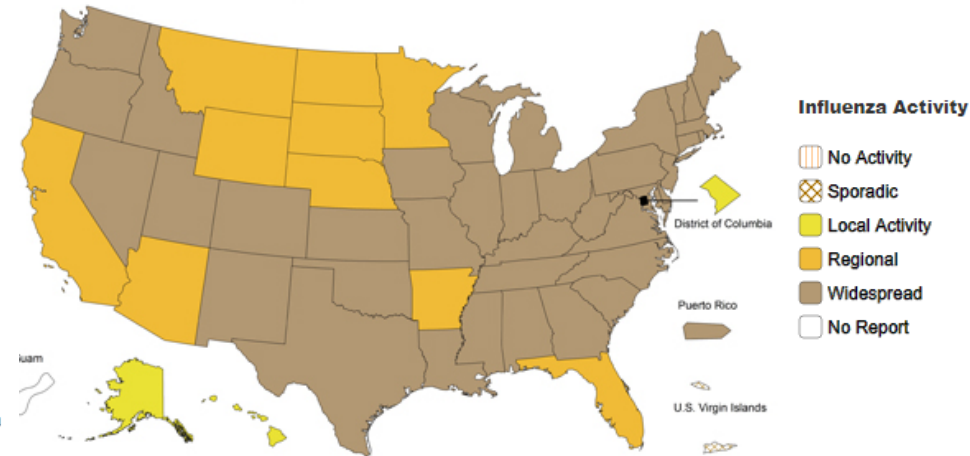
Note: The COVID-19 outbreak unfolding in the United States may affect healthcare seeking behavior which in turn would impact data from ILINet. Influenza severity indicators remain moderate to low overall, but hospitalization rates differ by age group, with high rates among children and young adults.

Influenza-Like Illness (ILI) Activity: Outpatient Illness



The number of jurisdictions experiencing high ILI activity decreased from 40 last week to 37 this week.

Geographic Spread of Influenza



The number of jurisdictions reporting regional or widespread influenza activity decreased from 50 last week to 49 this week.

Key Messages from CDC

- Nationally, the percent of laboratory specimens testing positive for influenza at clinical laboratories continued to decrease while ILI activity continued to increase. More people are seeking care for respiratory illness due to the ongoing COVID-19 pandemic.
- Nationally, influenza A(H1N1)pdm09 viruses are the most commonly reported influenza viruses this season. Previously, influenza B/Victoria viruses predominated nationally.
- Laboratory confirmed influenza-associated hospitalization rates for the U.S. population overall are higher than most recent seasons and rates for children 0-4 years and adults 18-49 years are the highest CDC has on record for these age groups, surpassing rates reported during the 2009 H1N1 pandemic. Hospitalization rates for school-aged children (5-17 years) are higher than any recent regular season but remain lower than rates experienced by this age group during the pandemic.
- Pneumonia and influenza mortality levels have been low, but 155 influenza-associated deaths in children have been reported so far this season. This number is higher than recorded at the same time 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 39 million flu illnesses, 400,000 hospitalizations and 24,000 deaths from flu.