

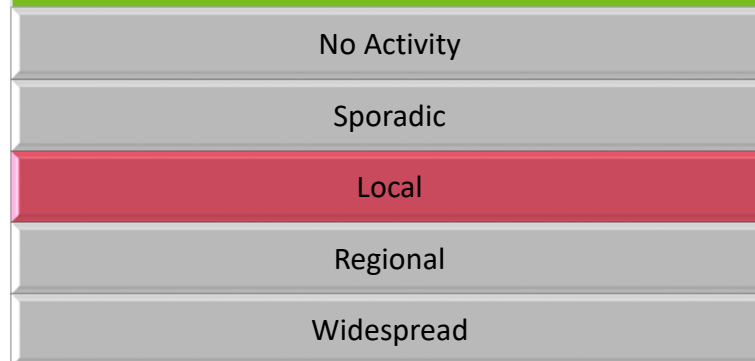
Weekly Influenza & Respiratory Illness Activity Report

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

Week Ending December 2, 2017 | WEEK 48

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

Minnesota Influenza Geographic Spread



During the week ending December 2, 2017 (Week 48), surveillance indicators showed local geographic spread of influenza.

Since the start of the influenza season, no pediatric influenza-related deaths have been reported.

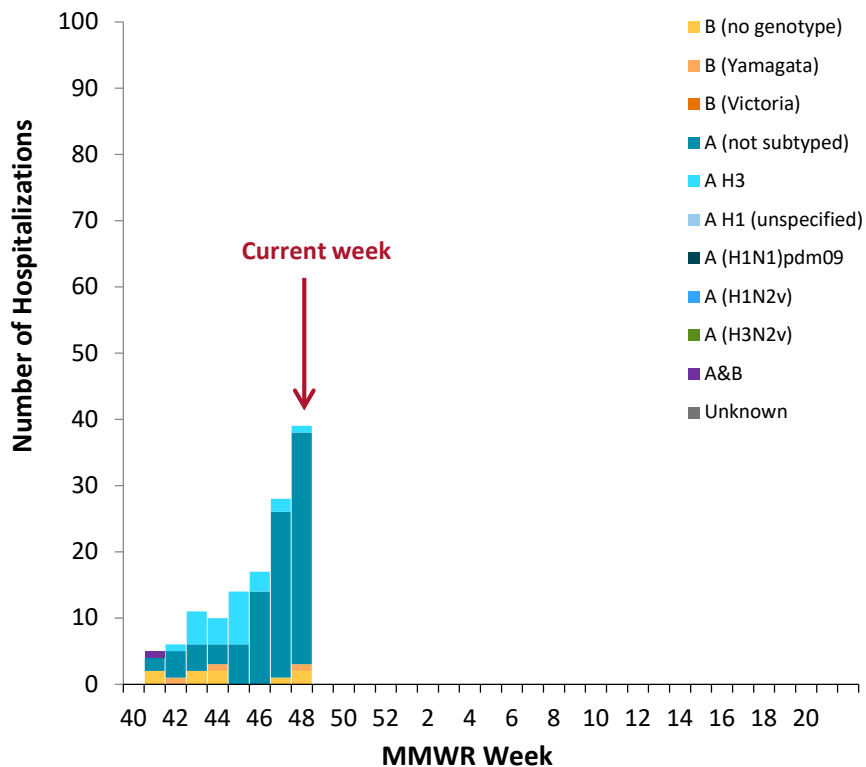
Based on CDC's Activity Estimates Definitions: <http://www.cdc.gov/flu/weekly/overview.htm>

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 <http://www.idph.state.ia.us/IdphArchive/Archive.aspx?channel=FluReports>
Wisconsin <http://www.dhs.wisconsin.gov/communicable/influenza/surveillance.htm>
North Dakota <http://www.ndflu.com/default.aspx>
South Dakota <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

39

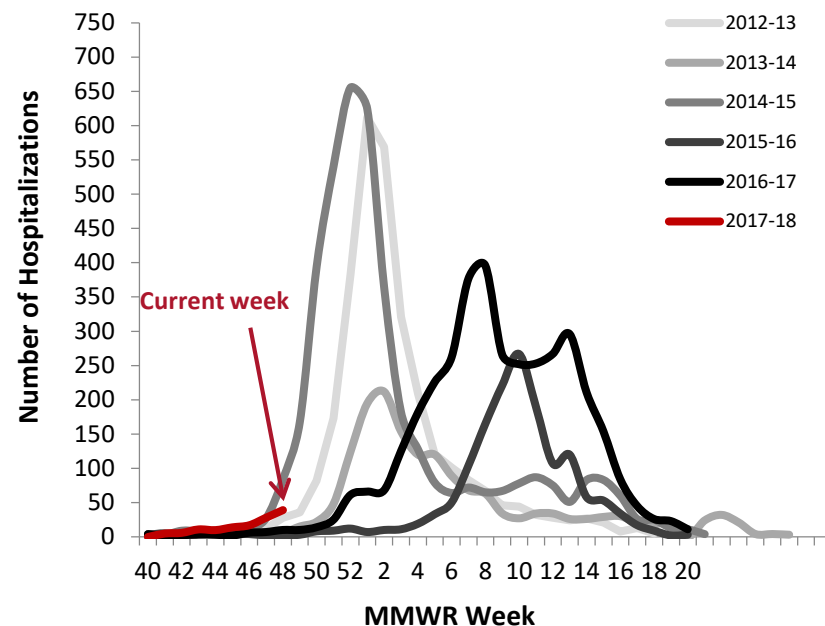
Hospitalizations
last week

28

Total hospitalizations
(to date)

130

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

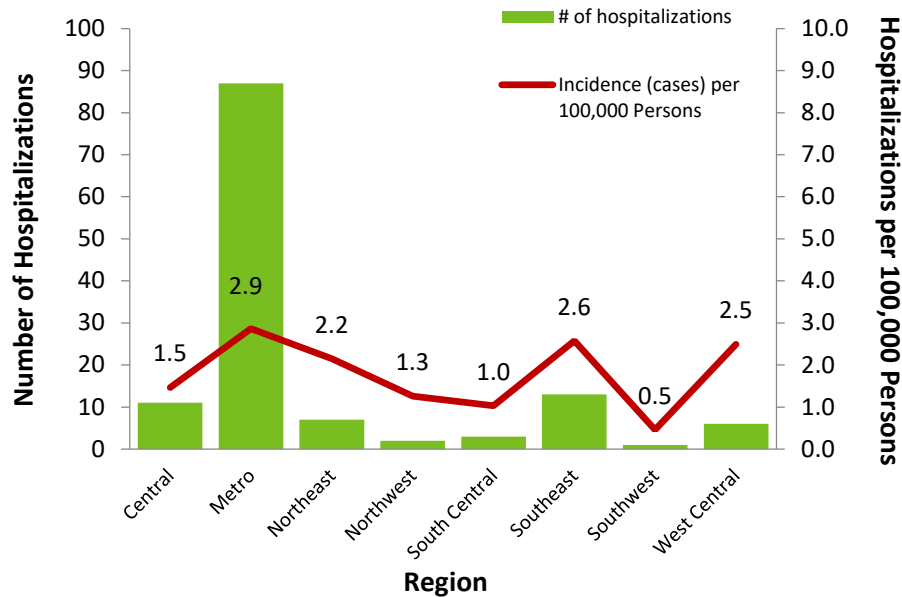


| Season | Total hospitalizations (historic) |
|------------------|-----------------------------------|
| 2012-2013 | 3,068 |
| 2013-2014 | 1,540 |
| 2014-2015 | 4,138 |
| 2015-2016 | 1,541 |
| 2016-2017 | 3,738 |
| 2017-2018 | 130 (to date) |

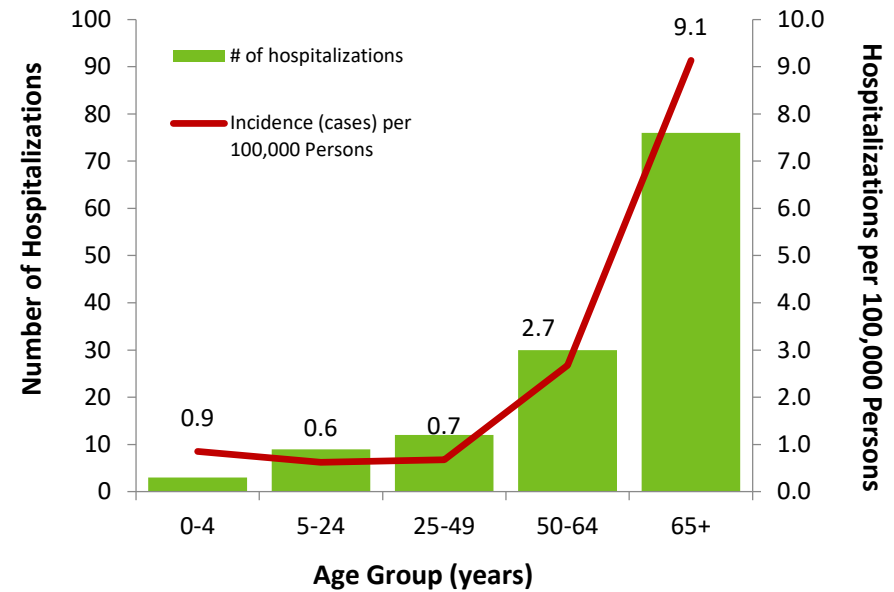
*Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota October 1, 2017 – December 2, 2017



Number of Influenza Hospitalizations and Incidence by Age, Minnesota October 1, 2017 – December 2, 2017



| Region | Hospitalizations this week | Total (to date) |
|---------------|----------------------------|-----------------|
| Central | 3 (8%) | 11 (8%) |
| Metro | 28 (72%) | 87 (67%) |
| Northeast | 3 (8%) | 7 (5%) |
| Northwest | 1 (3%) | 2 (2%) |
| South Central | 0 (0%) | 3 (2%) |
| Southeast | 3 (8%) | 13 (10%) |
| Southwest | 0 (0%) | 1 (1%) |
| West Central | 1 (3%) | 6 (5%) |

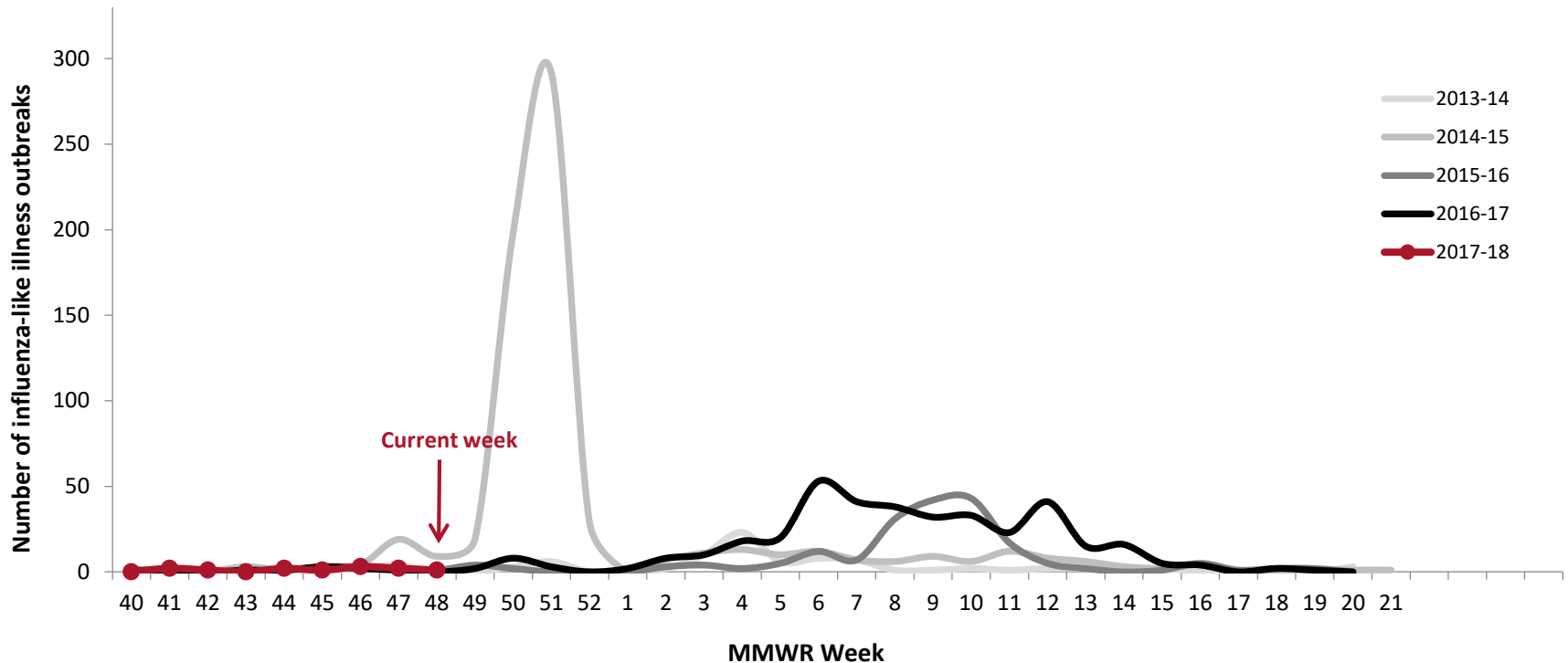
| Median age (years) at time of admission |
|---|
| 69.5 |

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

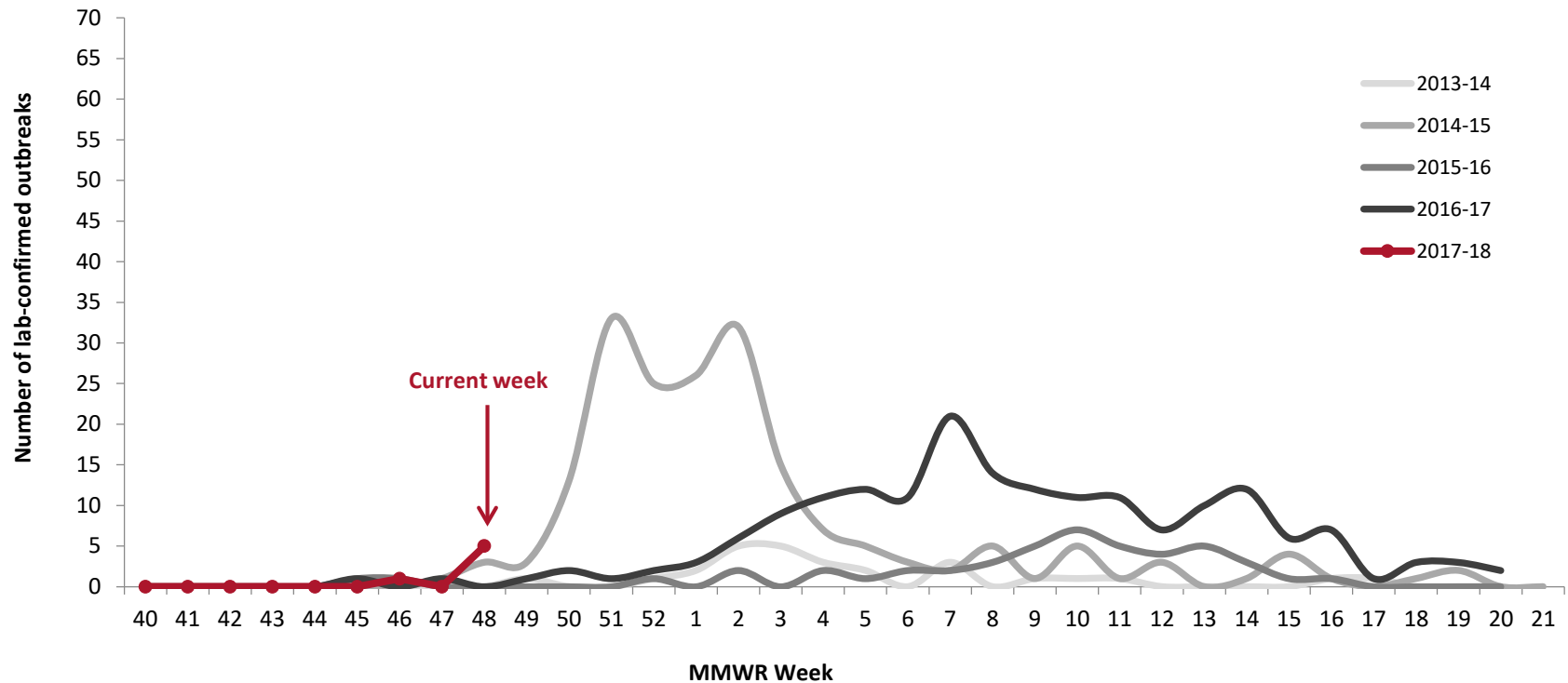


| New school outbreaks this week | New school outbreaks last week | Total this season (to date) |
|--------------------------------|--------------------------------|-----------------------------|
| 1 | 2 | 12 |

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

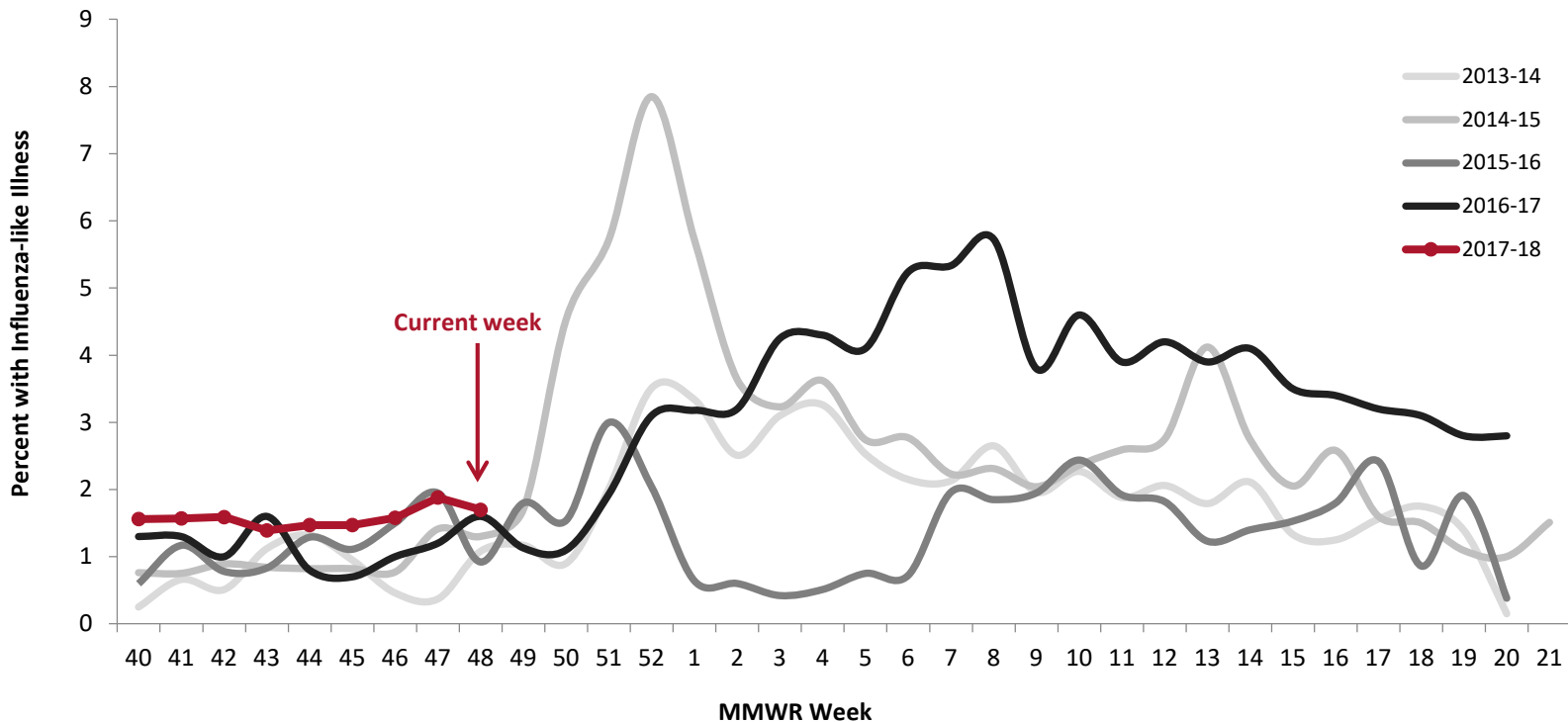


| New LTC outbreaks this week | New LTC outbreaks last week | Total this season (to date) |
|-----------------------------|-----------------------------|-----------------------------|
| 5 | 1 | 6 |

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)



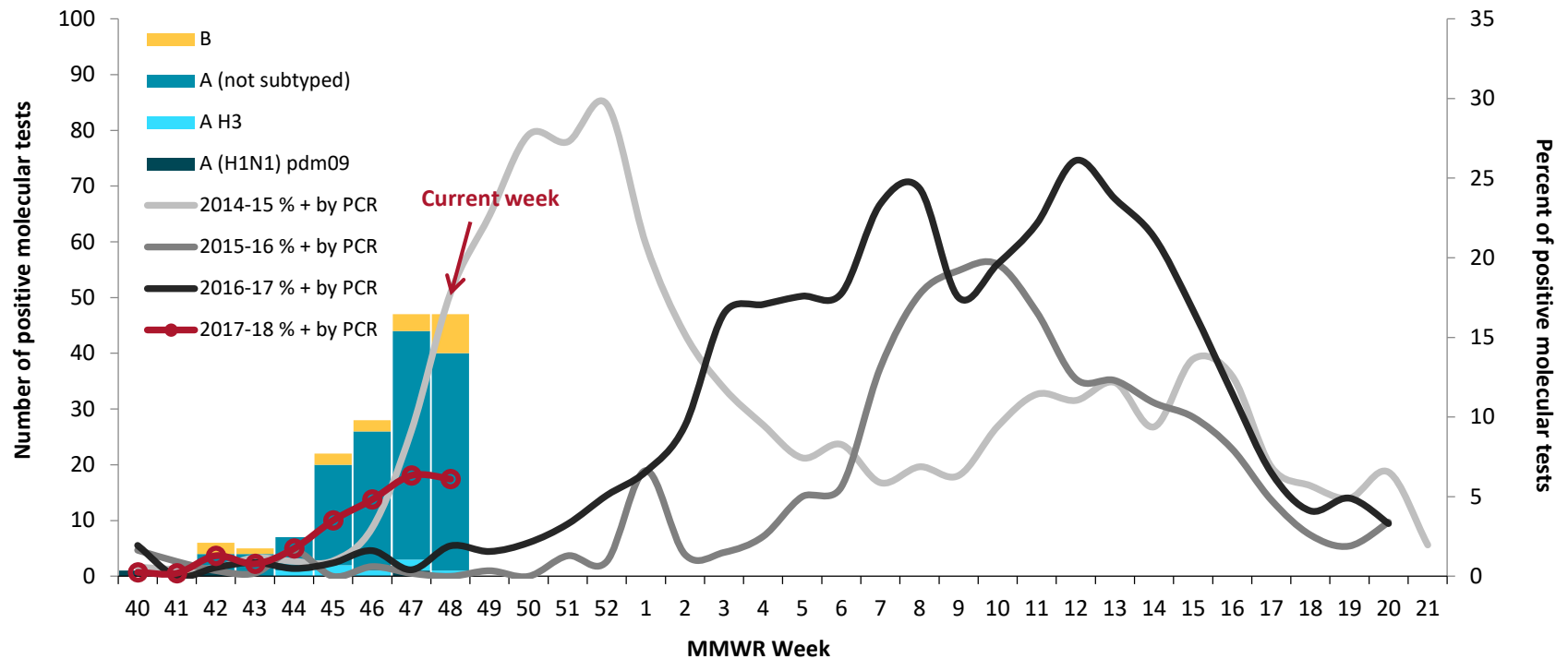
| % of outpatients with ILI this week | % of outpatients with ILI last week |
|-------------------------------------|-------------------------------------|
| 1.7% | 1.9% |

* 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



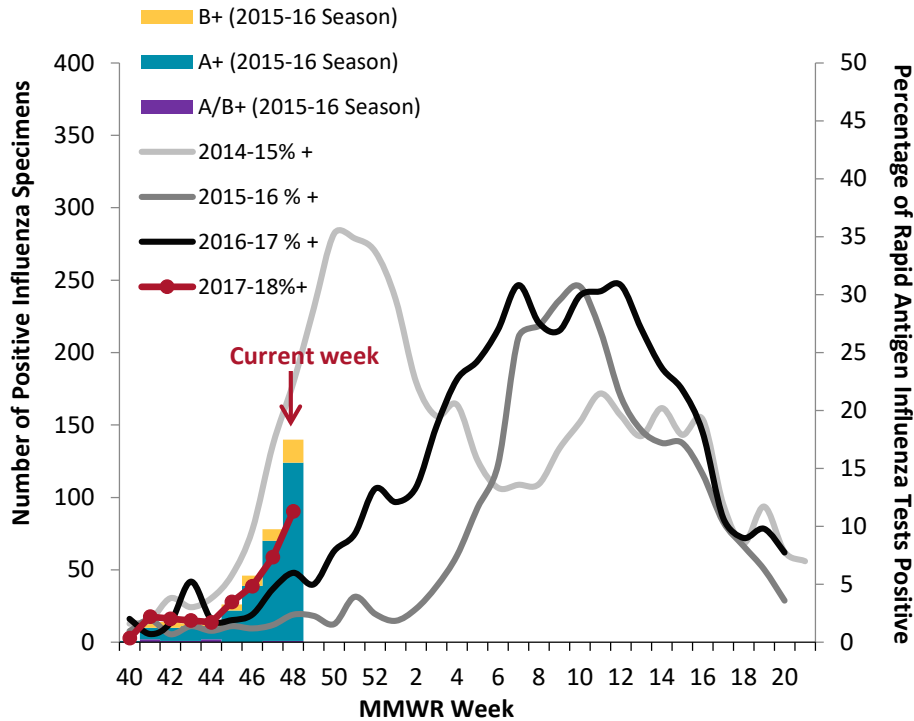
| % molecular tests positive this week | % molecular tests positive last week |
|--------------------------------------|--------------------------------------|
| 6.1% | 6.3% |

* 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

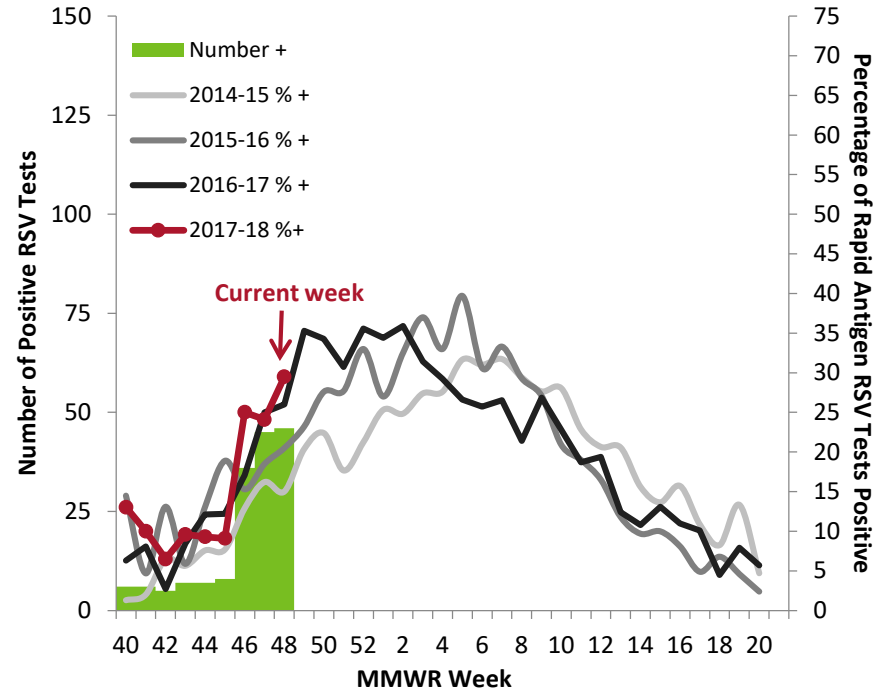
Specimens Positive by Influenza Rapid Antigen Test, by Week



| Region | % rapid antigen influenza tests + (current week) |
|-----------------|--|
| Northeast | 6% |
| South Central | 7% |
| Southwest | 5% |
| Southeast | 10% |
| Metro | 12% |
| Central | 6% |
| West Central | 18% |
| Northwest | 20% |
| State (overall) | 11% |

MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week



| Region | % rapid antigen RSV tests + (current week) |
|-----------------|--|
| Northeast | 33% |
| South Central | 0% |
| Southwest | 25% |
| Southeast | 22% |
| Metro | 34% |
| Central | 26% |
| West Central | 25% |
| Northwest | 0% |
| State (overall) | 29% |

Weekly U.S. Influenza Surveillance Report

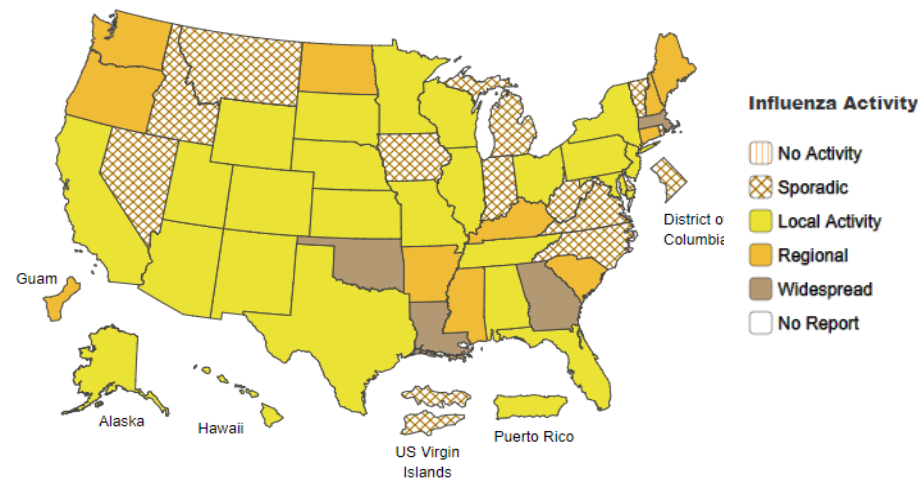
2017-2018 Influenza Season Week 47 ending November 25, 2017

National Influenza Surveillance (CDC): <http://www.cdc.gov/flu/weekly/>

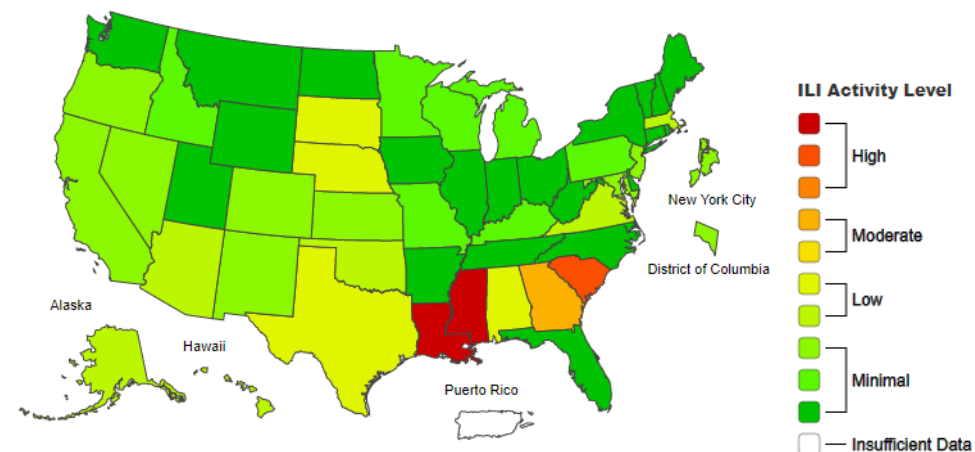
During week 47 (November 19-25, 2017), influenza activity increased in the United States.

- **Viral Surveillance:** The most frequently identified influenza virus type reported by public health laboratories during week 47 was influenza A. The percentage of respiratory specimens testing positive for influenza in clinical laboratories is increasing.
- **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:** No influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 2.0 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.3%, which is above the national baseline of 2.2%. Regions 1, 4, 6 and 7 reported ILI at or above region-specific baseline levels. Three states experienced high ILI activity; one state experienced moderate ILI activity; 10 states experienced low ILI activity; the District of Columbia, New York City and 36 states experienced minimal ILI activity; and Puerto Rico had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in four states was reported as widespread; Guam and 10 states reported regional activity; Puerto Rico and 24 states reported local activity; and the District of Columbia, the U.S. Virgin Islands and 12 states reported sporadic activity.

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.