

# 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 9, 2019 | WEEK 10**

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 9, 2019 (Week 10), 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 (<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/](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/)

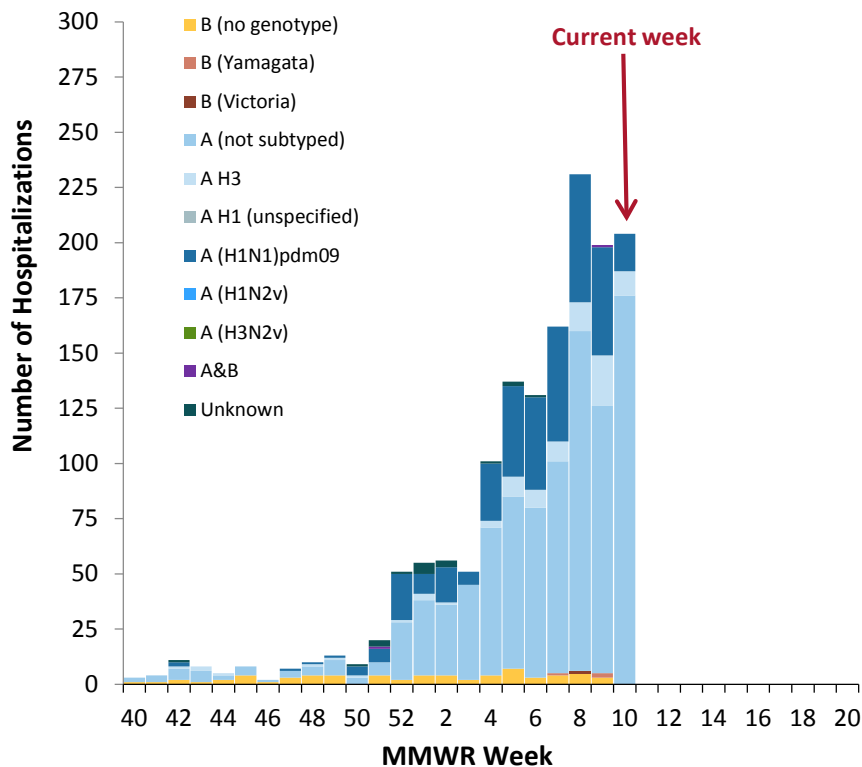
North Dakota: [Reported Seasonal Influenza Activity in North Dakota \(http://www.ndflu.com/default.aspx\)](http://www.ndflu.com/default.aspx)

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

204

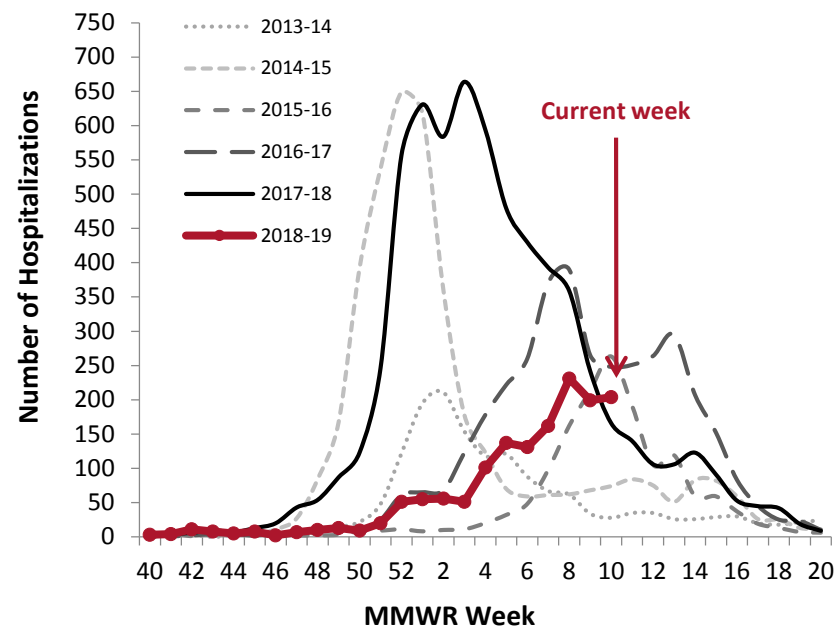
Hospitalizations  
last week

199

Total hospitalizations  
(to date)

1,478

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

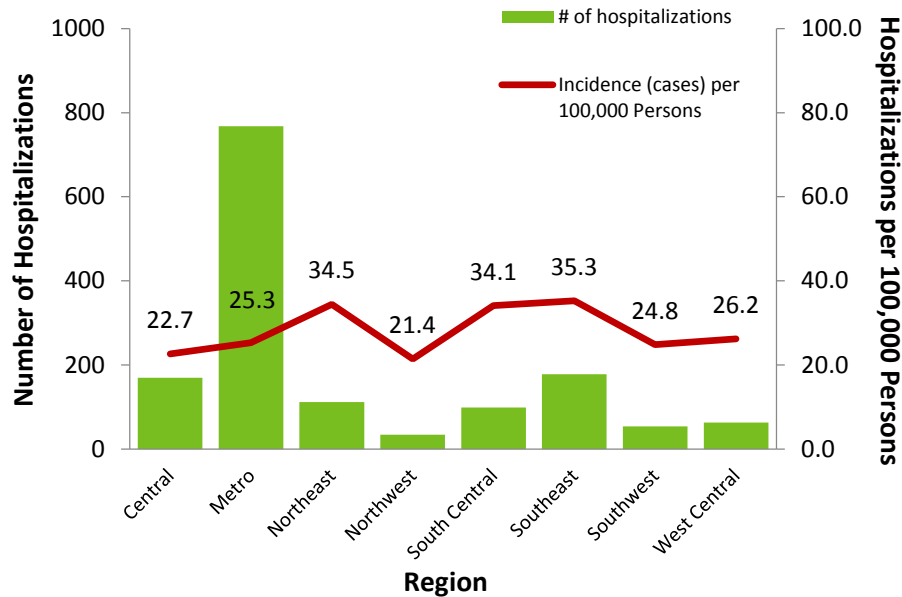


Season	Total hospitalizations (historic)
2013-2014	1,578
2014-2015	4,081
2015-2016	1,538
2016-2017	3,695
2017-2018	6,446
<b>2018-2019</b>	<b>1,478 (to date)</b>

\*Influenza Surveillance Network

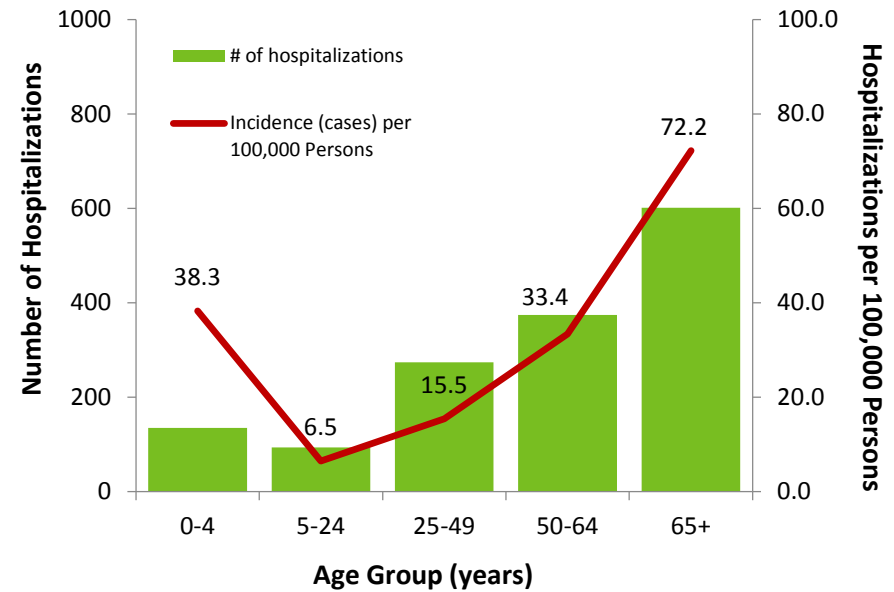
# Hospitalized Influenza Surveillance (continued)

## Number of Influenza Hospitalizations and Incidence by Region, Minnesota September 30, 2018 – March 9, 2019



Region	Hospitalizations this week	Total (to date)
Central	21 (10%)	170 (12%)
Metro	123 (60%)	768 (52%)
Northeast	13 (6%)	112 (8%)
Northwest	0 (0%)	34 (2%)
South Central	17 (8%)	99 (7%)
Southeast	17 (8%)	178 (12%)
Southwest	1 (0.5%)	54 (4%)
West Central	12 (6%)	63 (4%)

## Number of Influenza Hospitalizations and Incidence by Age, Minnesota September 30, 2018 – March 9, 2019

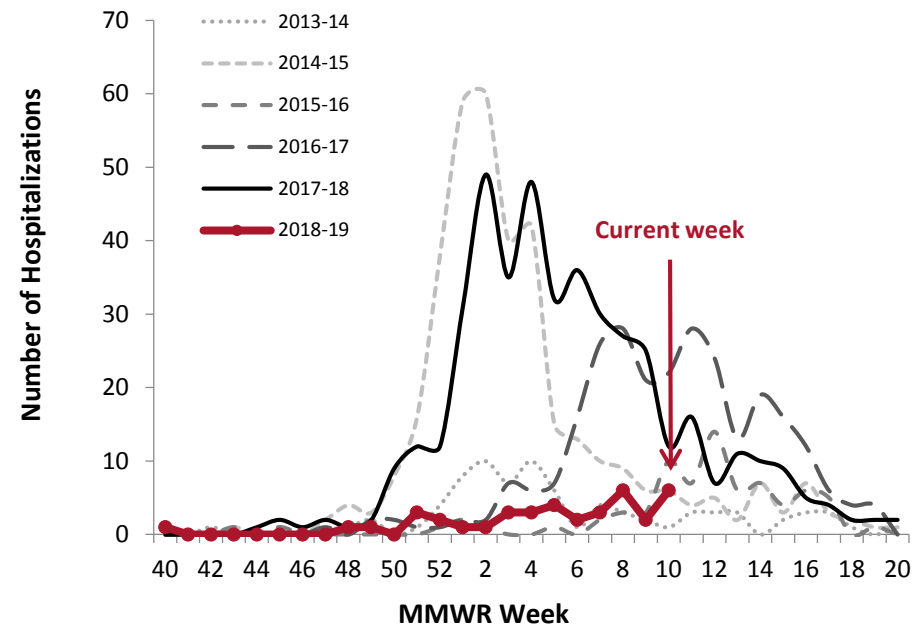


Median age (years) at time of admission
60.0

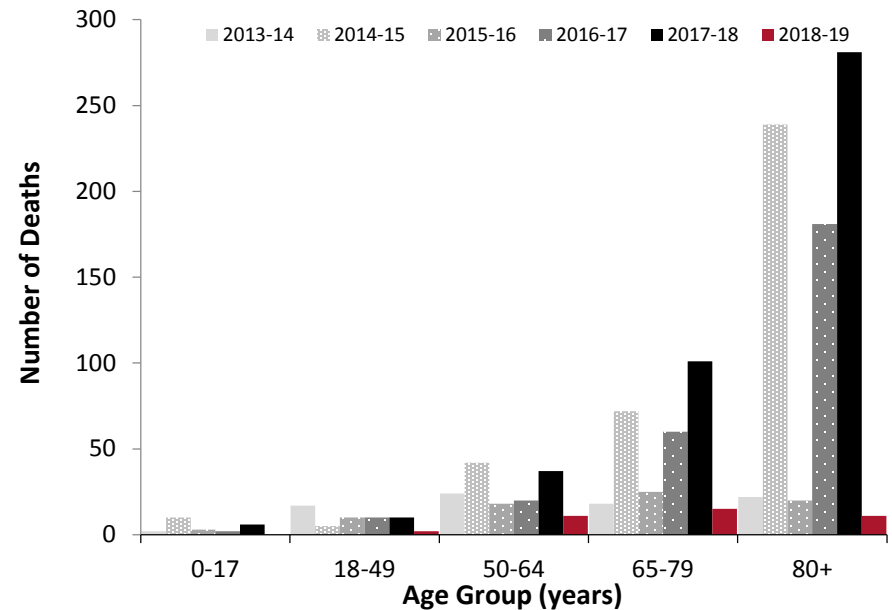
# Influenza-Associated Death Surveillance

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)
2013-2014	83	2
2014-2015	368	10
2015-2016	76	3
2016-2017	273	2
2017-2018	435	5
<b>2018-2019</b>	<b>39 (to date)</b>	<b>0 (to date)</b>

Season	Median age (years) at time of death
2013-2014	63
2014-2015	85
2015-2016	68
2016-2017	86
2017-2018	85
<b>2018-2019</b>	<b>72.0 (to date)</b>

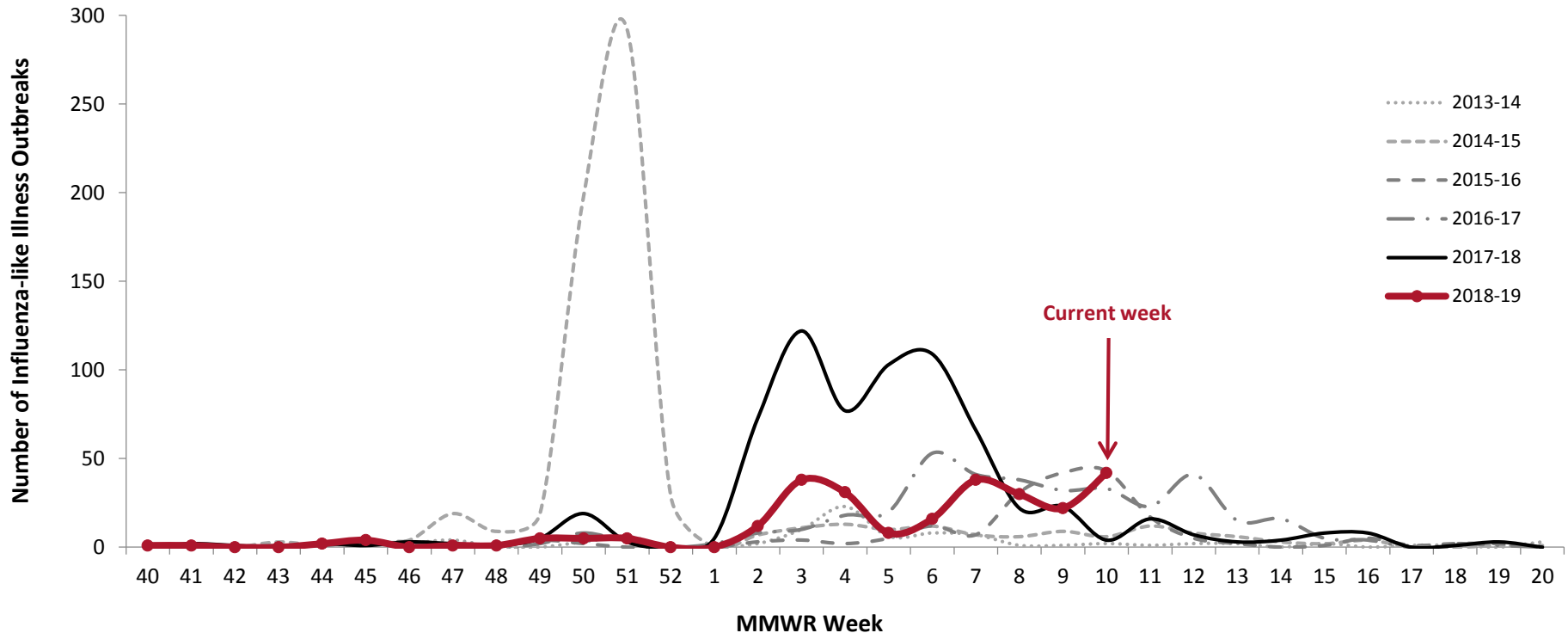
\*Influenza Surveillance Network

# 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

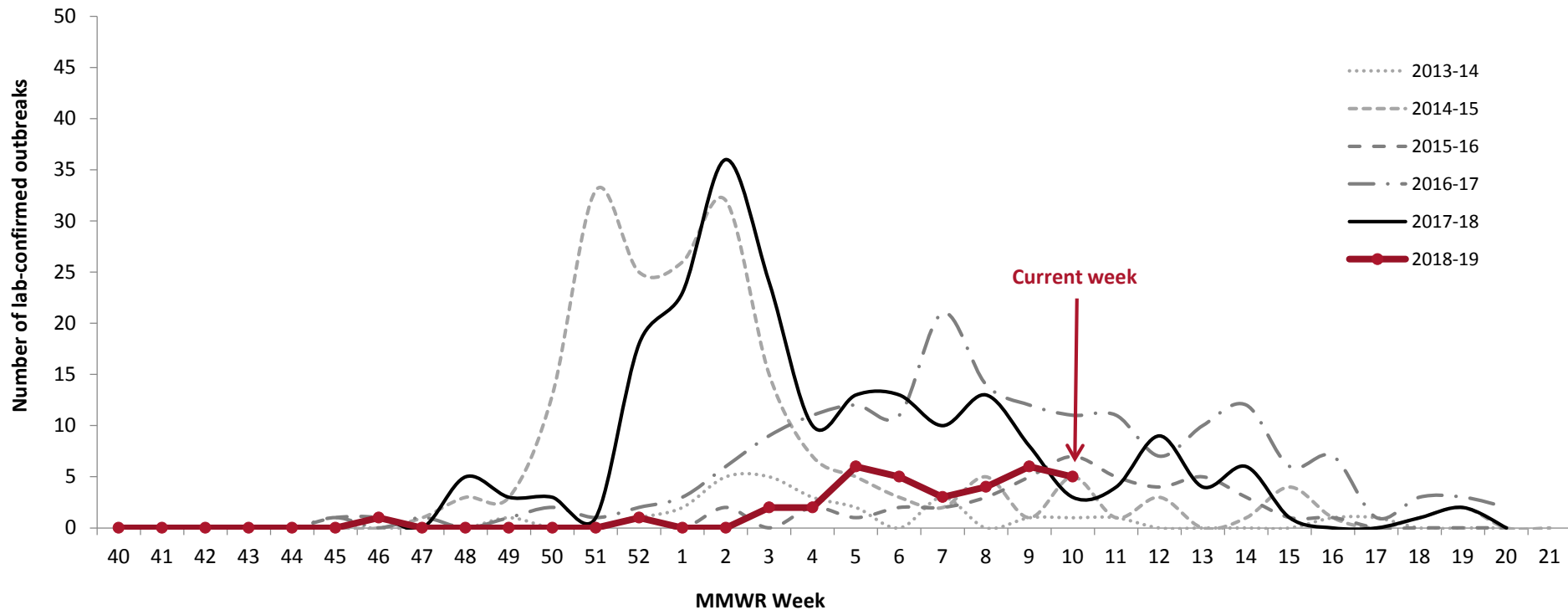


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
42	29	263

## 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

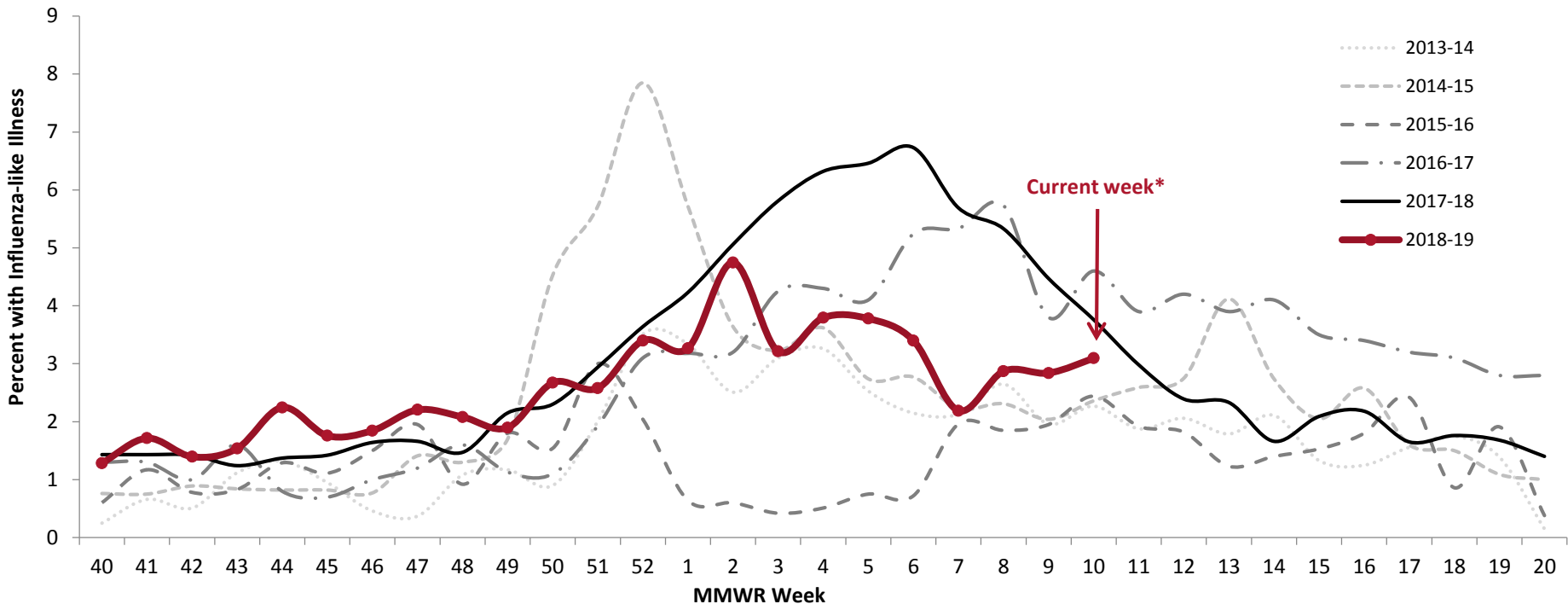


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
5	6	35

# 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)



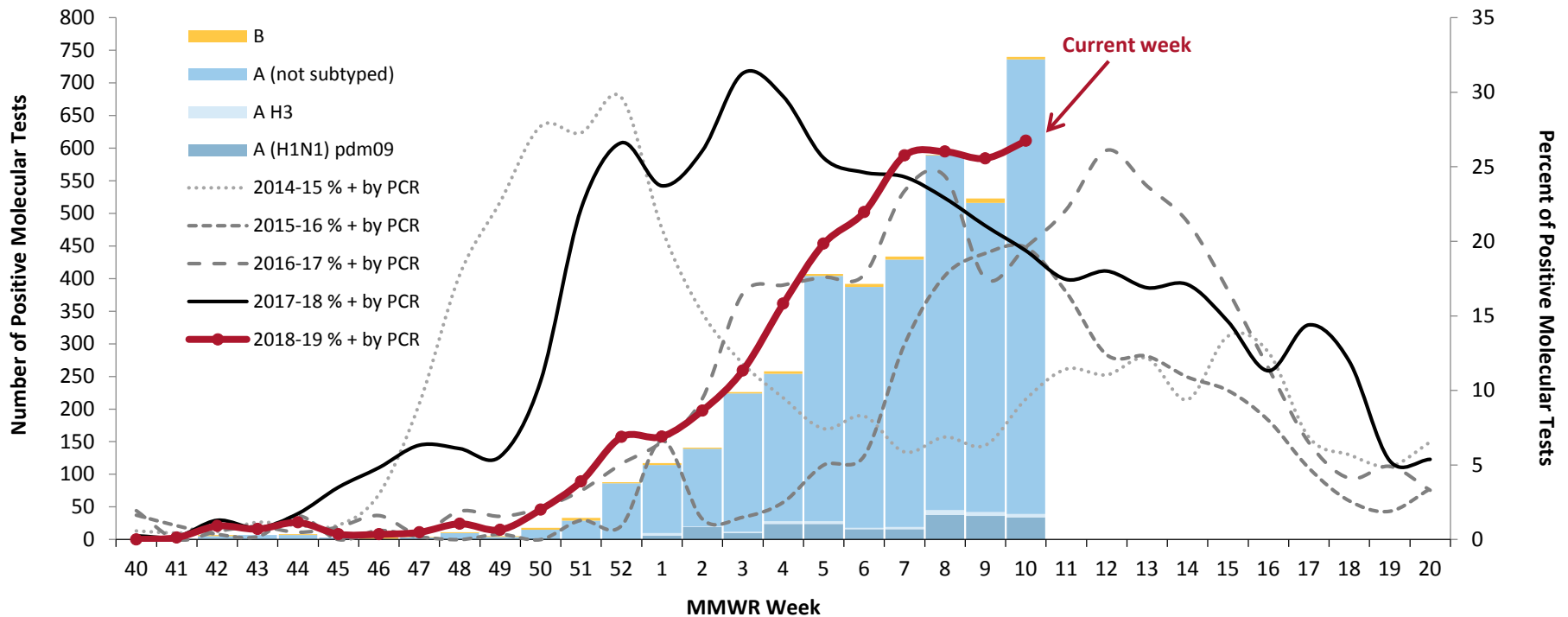
% of outpatients with ILI this week	% of outpatients with ILI last week
3.1%	2.8%

\* 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**

26.7%

**% molecular tests positive last week**

25.6%

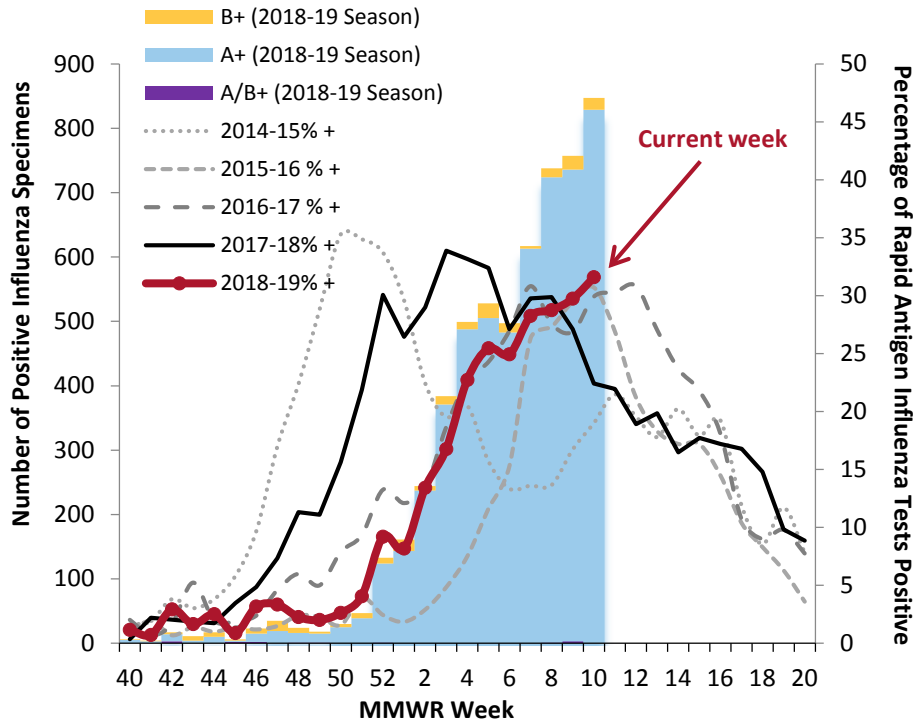
\* Beginning in 2016-17, laboratories report results for rapid molecular influenza tests in addition to RT-PCR results



# Laboratory Surveillance (continued)

## MLS Laboratories – Influenza Testing

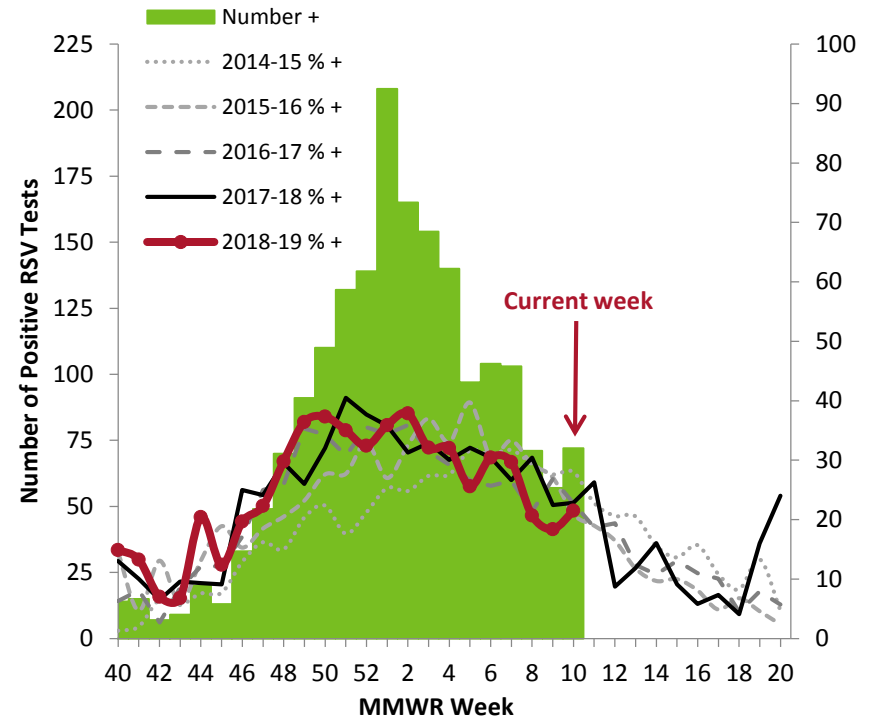
### Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Northeast	35%
South Central	27%
Southwest	26%
Southeast	42%
Metro	31%
Central	29%
West Central	29%
Northwest	71%
State (overall)	32%

## MLS Laboratories – RSV Testing

### Specimens Positive by RSV Rapid Antigen Test, by Week

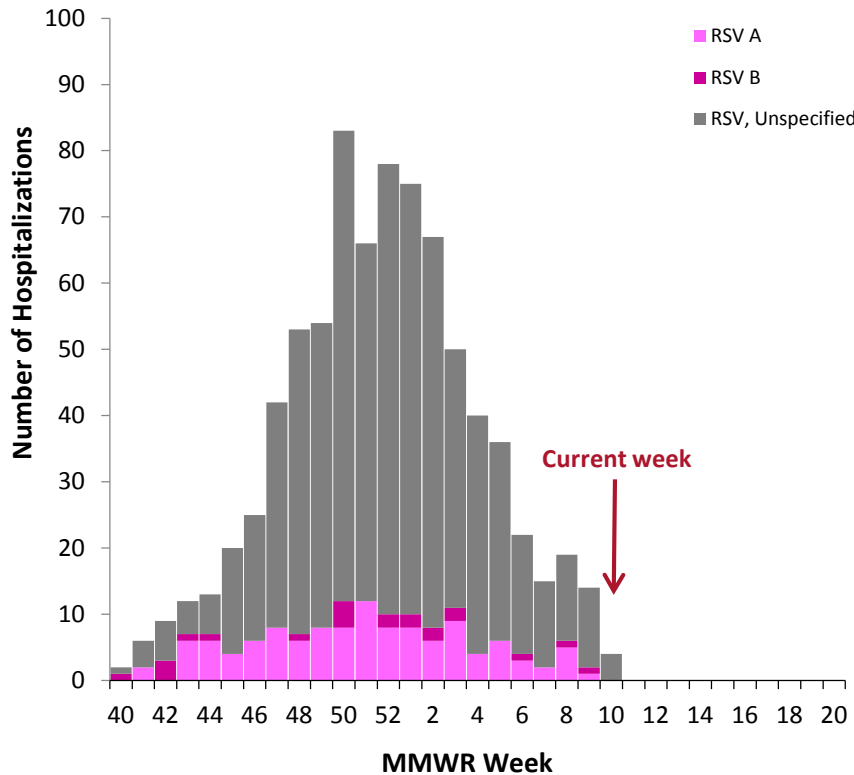


Region	% rapid antigen RSV tests + (current week)
Northeast	20%
South Central	53%
Southwest	5%
Southeast	18%
Metro	17%
Central	26%
West Central	26%
Northwest	44%
State (overall)	21%

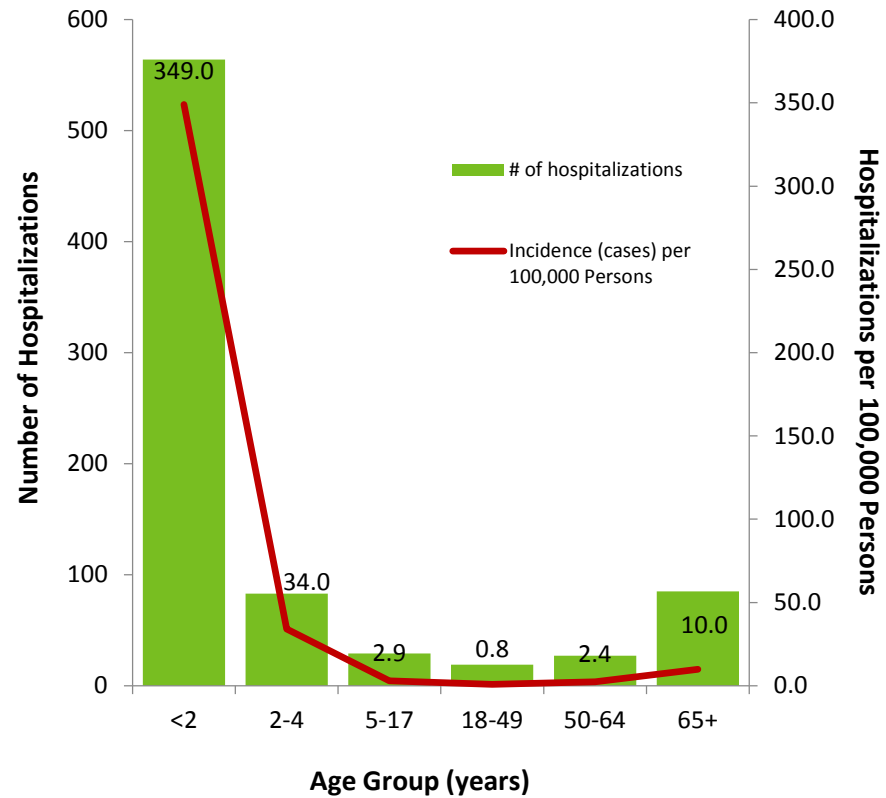
# Hospitalized RSV Surveillance

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

4

Hospitalizations last week

14

Total hospitalizations

807

Median age at time of admission

10 months

# Weekly U.S. Influenza Surveillance Report

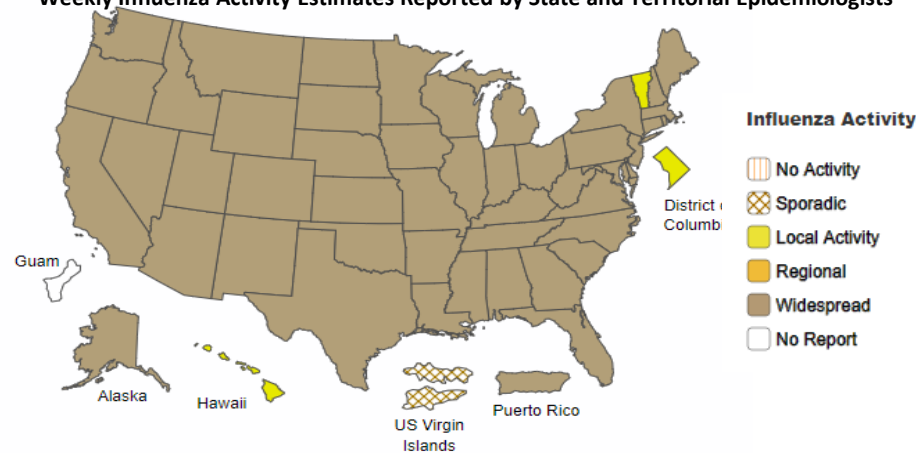
2018-2019 Influenza Season Week 9 ending March 2, 2019

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

Influenza activity remains elevated in the United States.

- **Viral Surveillance** :The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories increased slightly. Nationally, during week 9, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses in HHS Regions 2, 4, 6, 7 and 8.
- **Influenza-like Illness Surveillance**: The proportion of outpatient visits for influenza-like illness (ILI) decreased slightly to 4.7%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above their region-specific baseline level.
  - **ILI State Activity Indicator Map**: 32 states experienced high ILI activity; Puerto Rico and seven states experienced moderate ILI activity; New York City, the District of Columbia and eight states experienced low ILI activity; three states experienced minimal ILI activity; and the U.S. Virgin Islands had insufficient data.
- **Geographic Spread of Influenza**: The geographic spread of influenza in Puerto Rico and 48 states was reported as widespread; the District of Columbia and two states reported local activity; the U.S. Virgin Islands reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations** A cumulative rate of 36.6 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (107.7 hospitalizations per 100,000 population).
- **Pneumonia and Influenza Mortality**: The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- **Influenza-associated Pediatric Deaths**: Nine influenza-associated pediatric deaths were reported to CDC during week 9. Eight deaths occurred during the 2018-2019 season and one death occurred during the 2015-2016 season.

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



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

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

