

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 27, 2018 | WEEK 4

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 27, 2018 (Week 4), surveillance indicators showed widespread geographic spread of influenza.

Since the start of the influenza season, one pediatric influenza-related death has been reported.

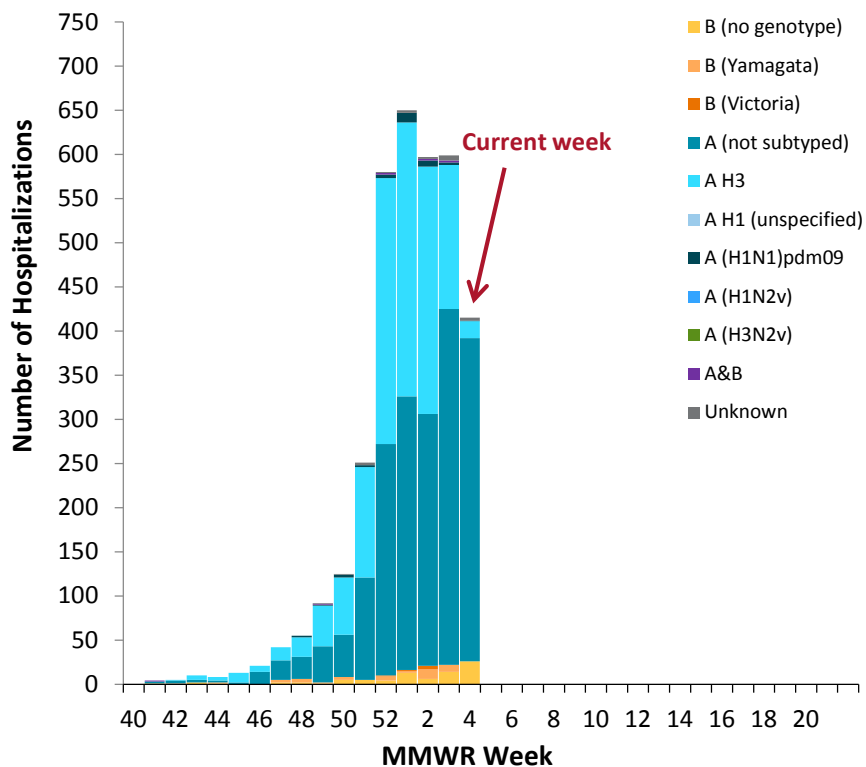
Based on CDC's Activity Estimates Definitions: <http://www.cdc.gov/flu/weekly/overview.htm>

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

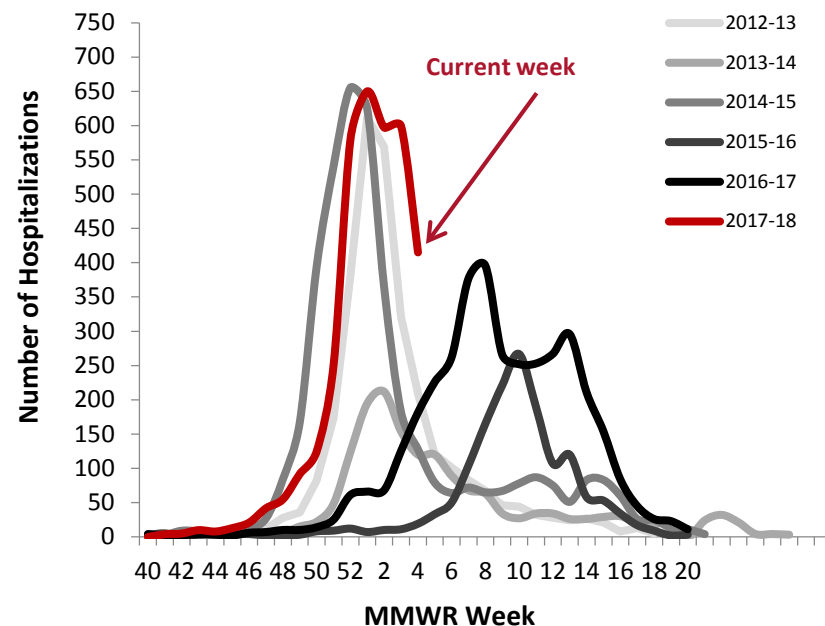
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. **Due 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	Hospitalizations last week	Total hospitalizations (to date)
415	599	3,467

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

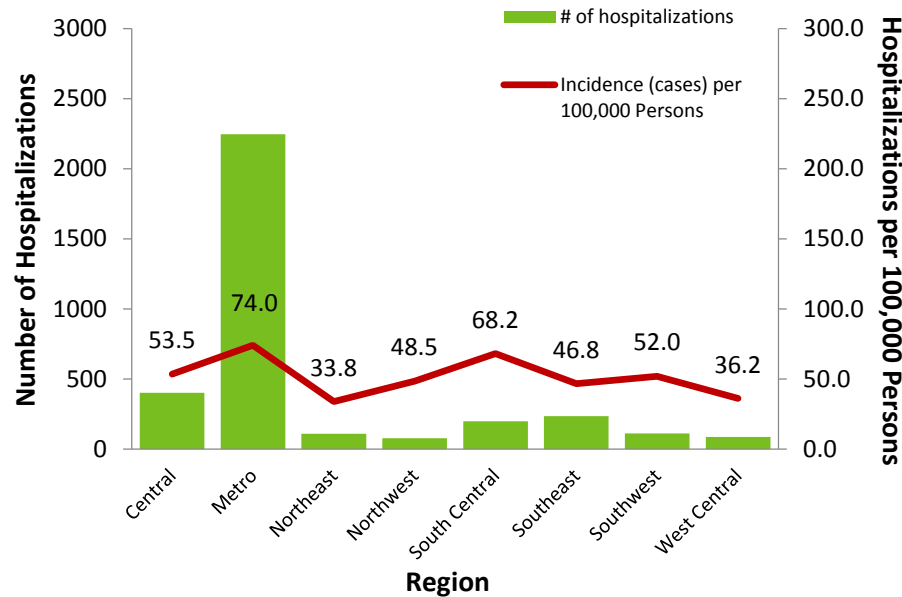


Season	Total hospitalizations (historic)
2012-2013	3,068
2013-2014	1,540
2014-2015	4,138
2015-2016	1,541
2016-2017	3,738
2017-2018	3,467 (to date)

*Influenza Surveillance Network

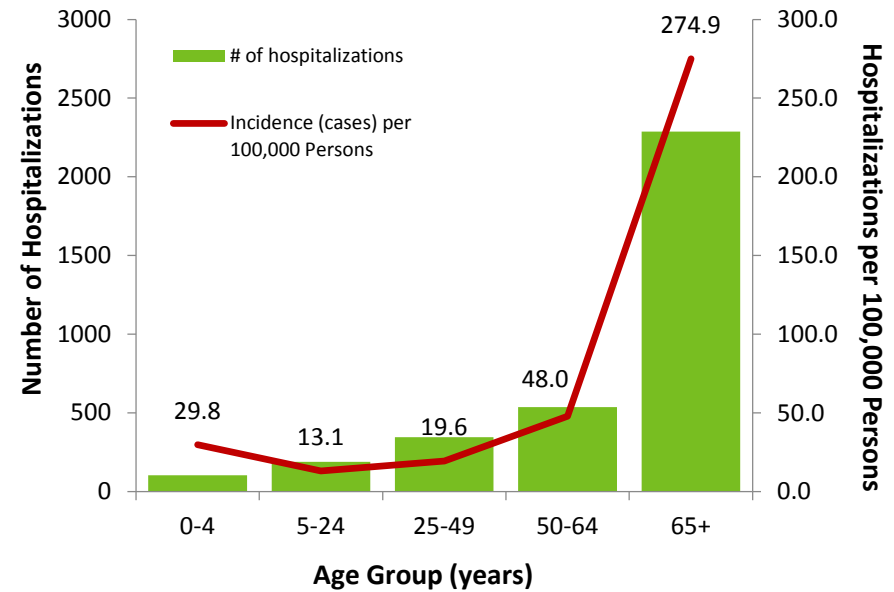
Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota October 1, 2017 – January 27, 2018



Region	Hospitalizations this week	Total (to date)
Central	65 (16%)	401 (12%)
Metro	229 (55%)	2,245 (65%)
Northeast	14 (3%)	110 (3%)
Northwest	15 (4%)	77 (2%)
South Central	41 (10%)	198 (6%)
Southeast	24 (6%)	236 (7%)
Southwest	17 (4%)	113 (3%)
West Central	10 (2%)	87 (3%)

Number of Influenza Hospitalizations and Incidence by Age, Minnesota October 1, 2017 – January 27, 2018



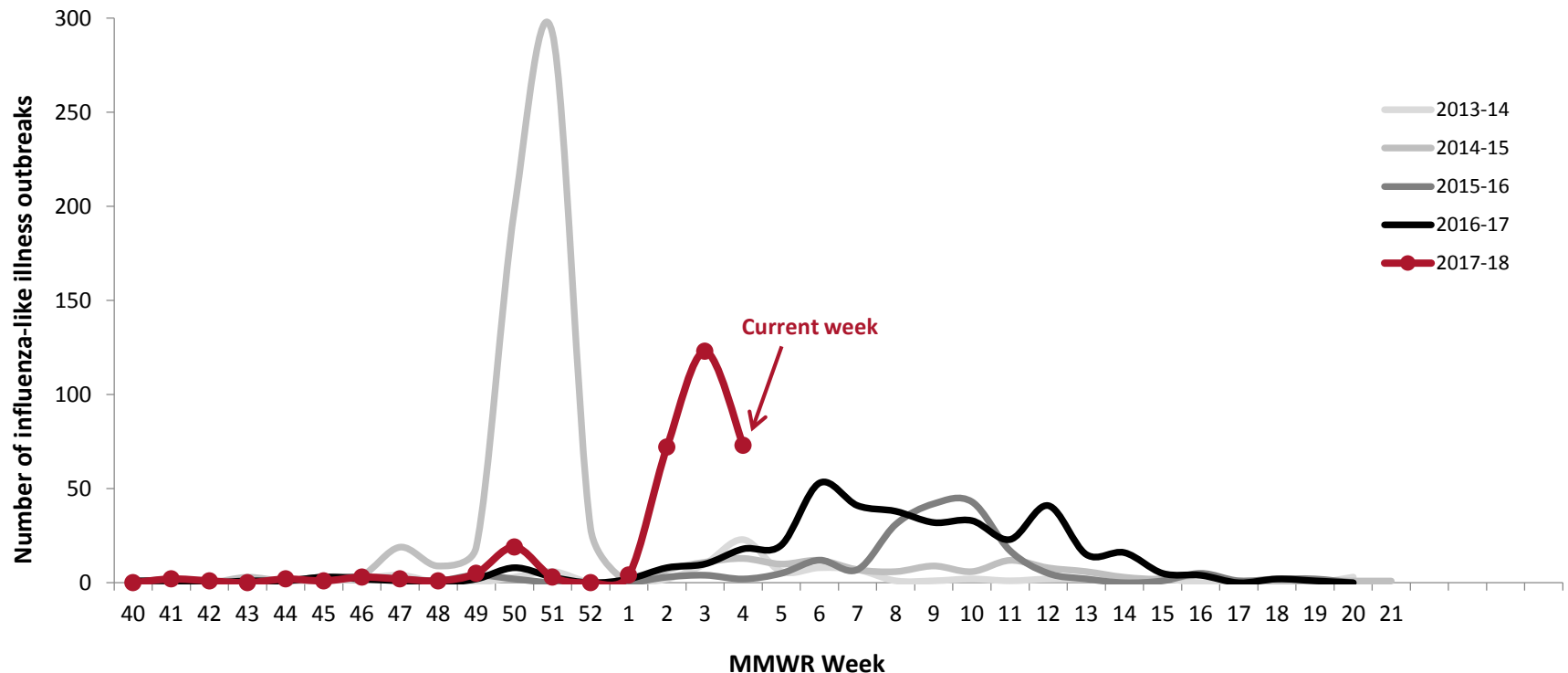
Median age (years) at time of admission
73.0

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

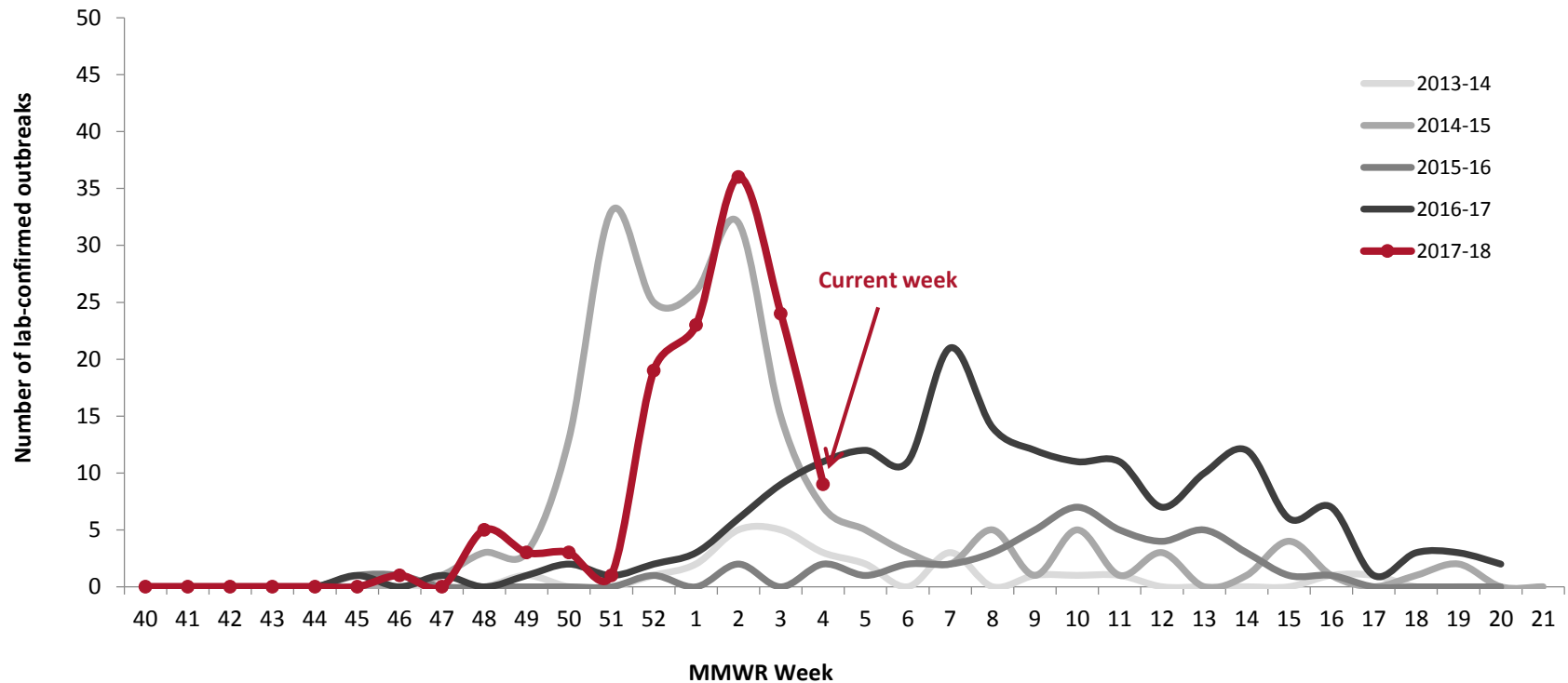


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
73	123	311

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

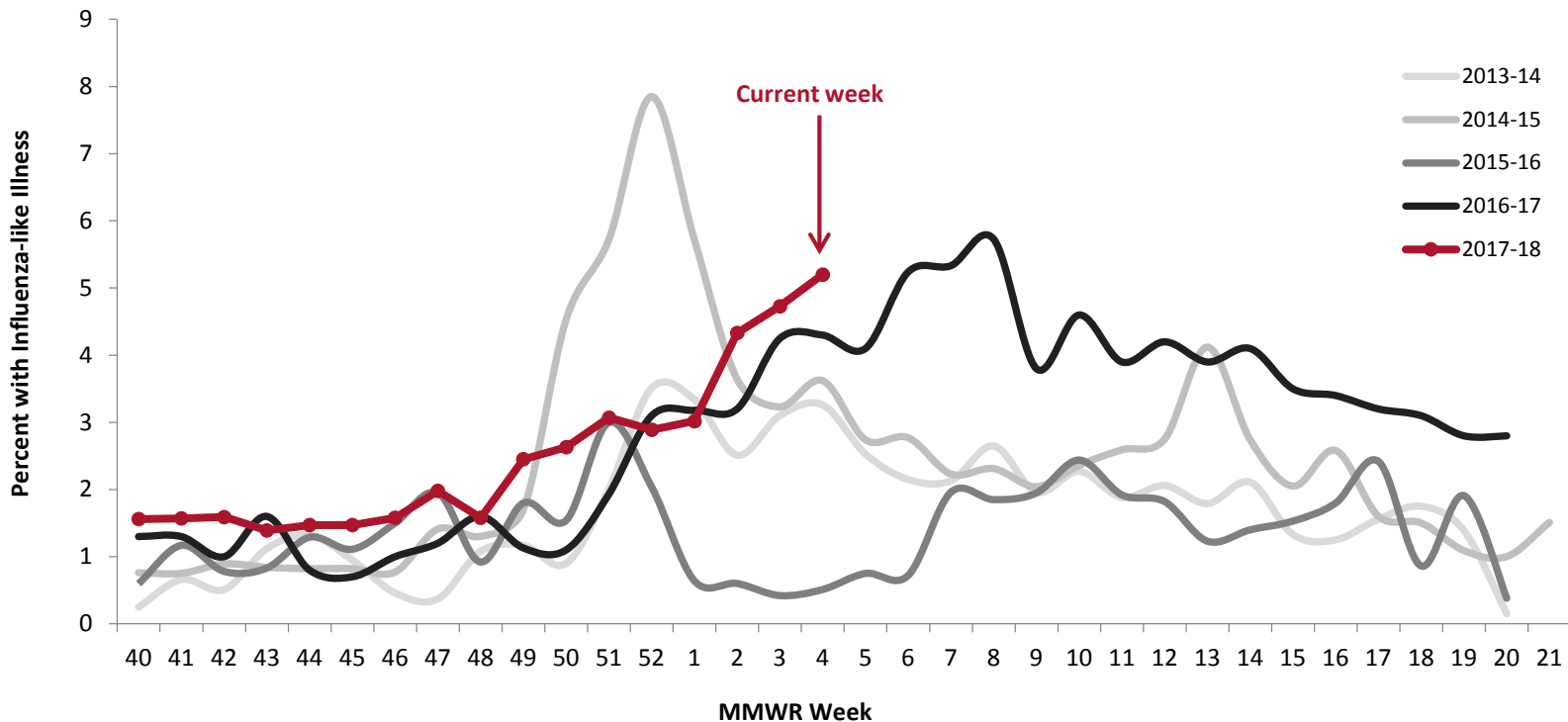


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
9	24	124

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)



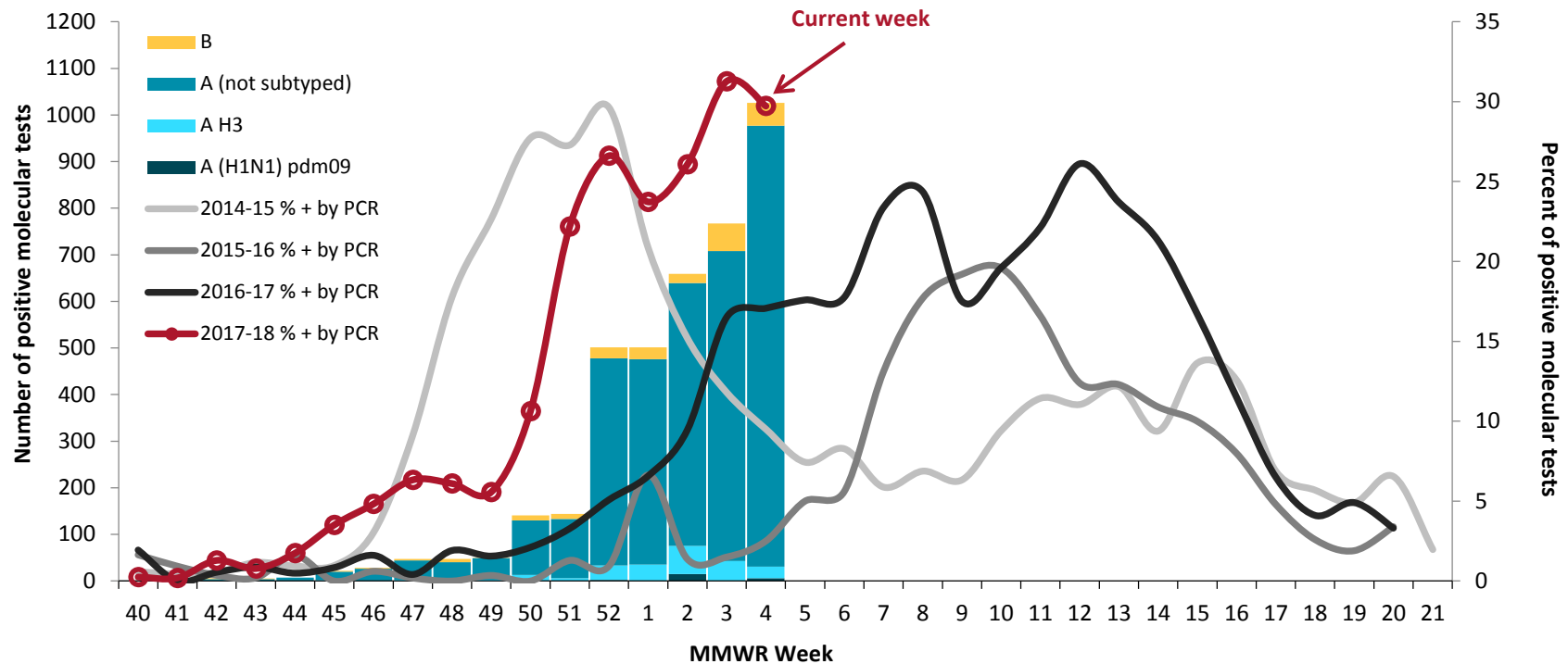
% of outpatients with ILI this week	% of outpatients with ILI last week
5.2%	4.7%

* 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



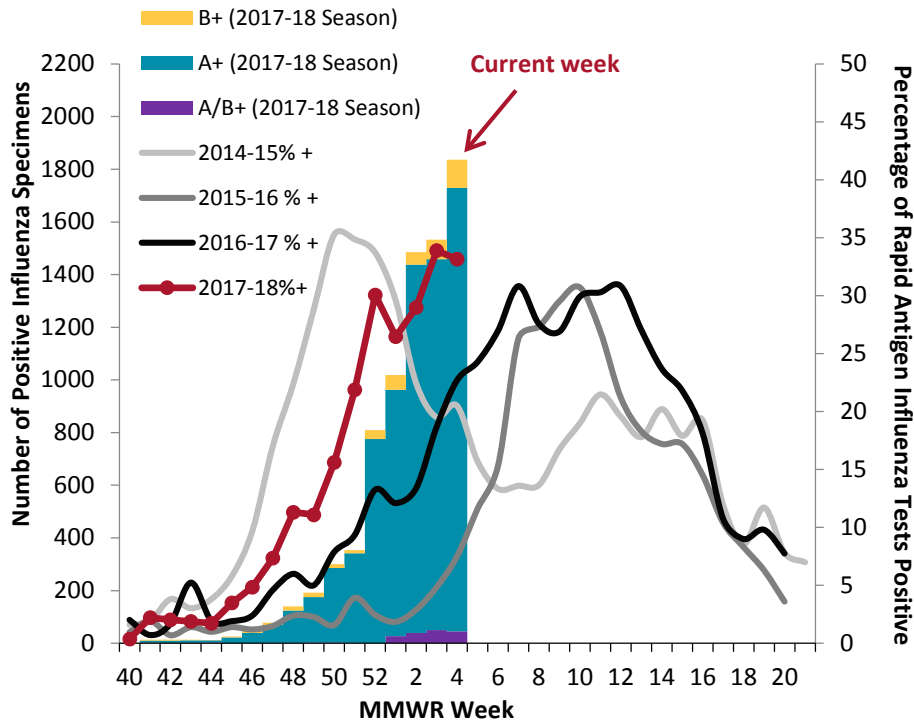
% molecular tests positive this week	% molecular tests positive last week
29.7%	31.3%

* 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

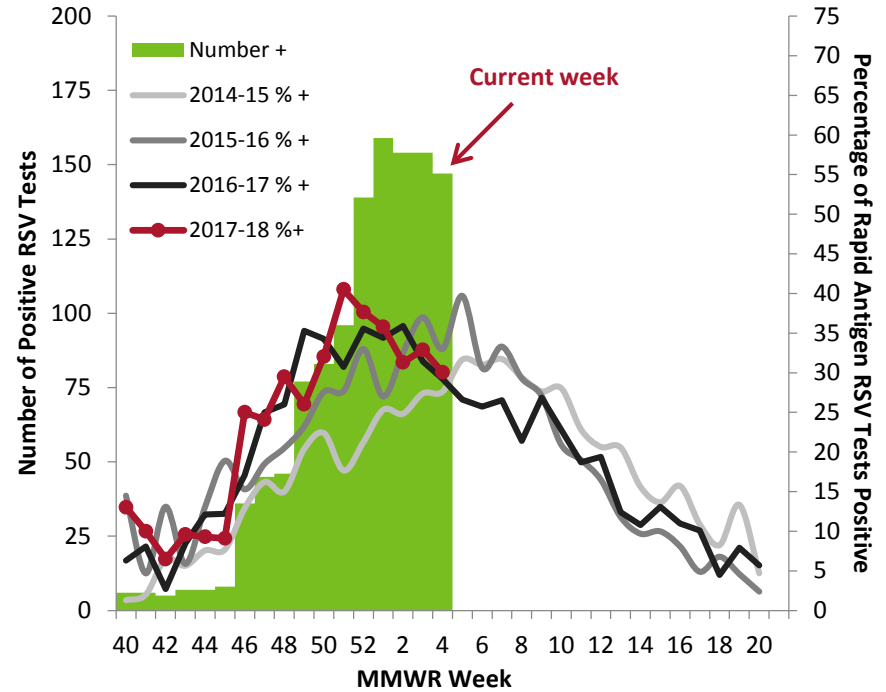
Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Northeast	29%
South Central	31%
Southwest	29%
Southeast	37%
Metro	35%
Central	31%
West Central	28%
Northwest	46%
State (overall)	33%

MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week

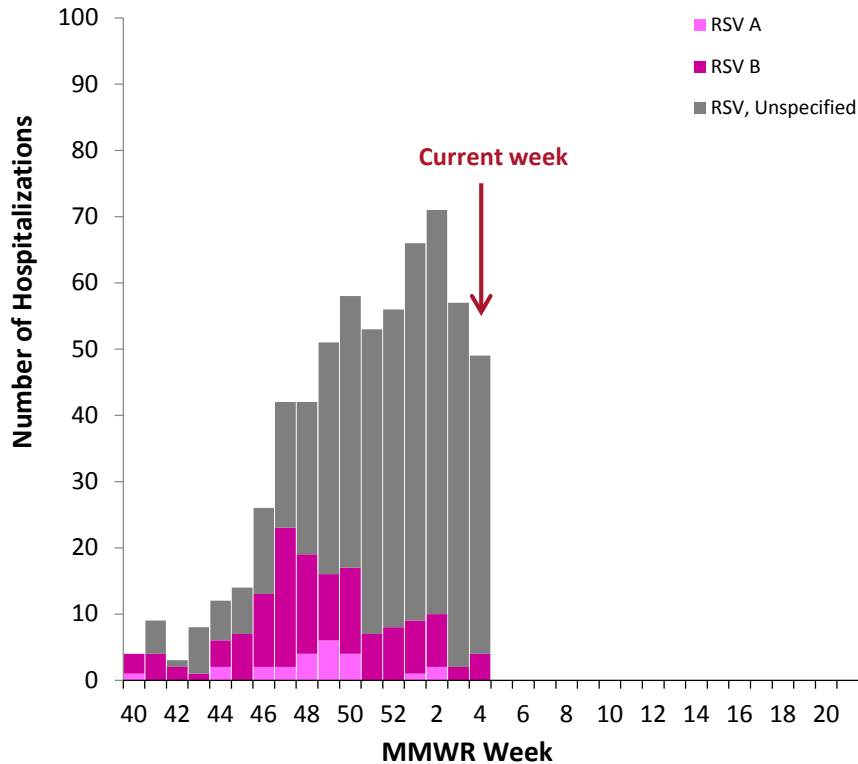


Region	% rapid antigen RSV tests + (current week)
Northeast	29%
South Central	44%
Southwest	49%
Southeast	8%
Metro	26%
Central	37%
West Central	26%
Northwest	29%
State (overall)	30%

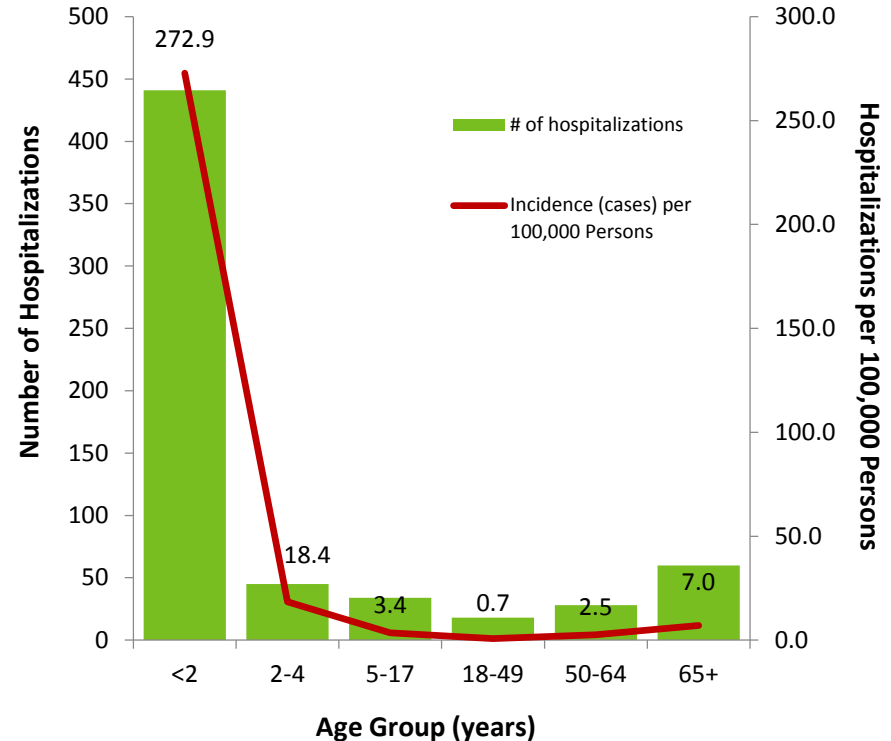
Hospitalized RSV Surveillance

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	Hospitalizations last week	Total hospitalizations (to date)
49	57	626

Median age at time of admission
8.6 months

Weekly U.S. Influenza Surveillance Report

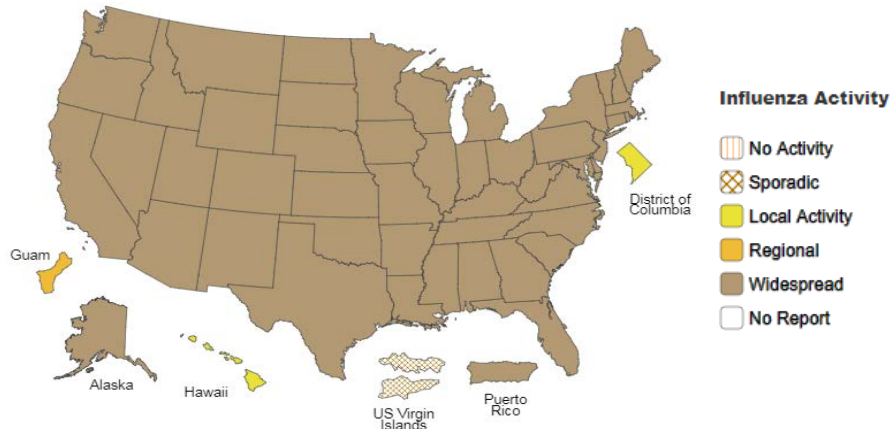
2017-2018 Influenza Season Week 3 ending January 20, 2018

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

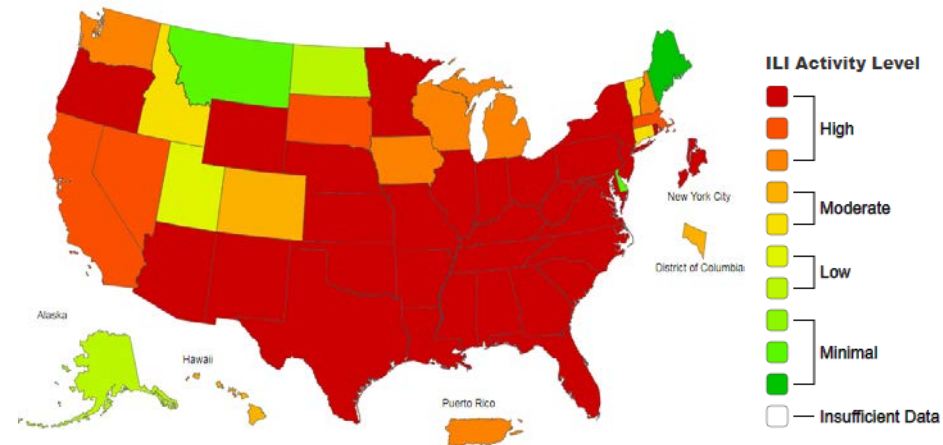
During week 3 (January 14-20, 2018), influenza activity increased in the United States.

- **Viral Surveillance:** The most frequently identified influenza virus subtype reported by public health laboratories during week 3 was influenza A(H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories slightly increased.
- **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:** Seven influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 41.9 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 6.6%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above region-specific baseline levels. New York City, Puerto Rico, and 39 states experienced high ILI activity; the District of Columbia and five states experienced moderate ILI activity; three states experienced low ILI activity; and three states experienced minimal ILI activity.
- **Geographic Spread of Influenza:** The geographic spread of influenza in Puerto Rico and 49 states was reported as widespread; Guam reported regional activity; the District of Columbia and one state reported local activity; and the U.S. Virgin Islands 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.