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 31, 2016 | WEEK 52

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 December 31, 2016 (Week 52), surveillance indicators showed regional geographic spread of influenza.

Since the start of the influenza season, 0 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/

MDH Minnesota Department *of* Health

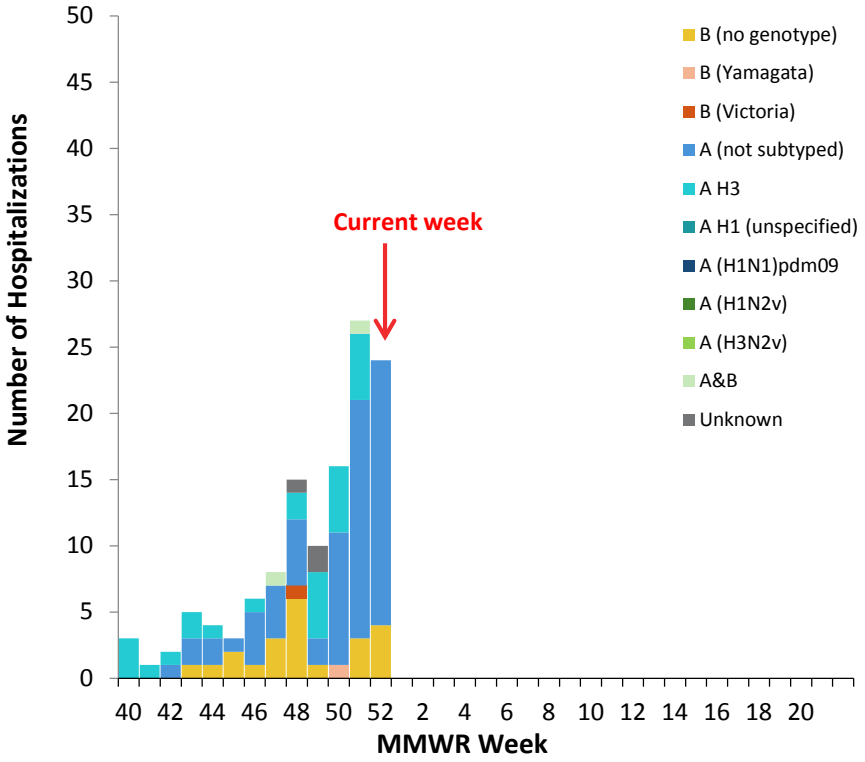
Minnesota Department of Health
651-201-5414 or 1-877-676-5414
www.health.state.mn.us

1/5/2017

Hospitalized Influenza Surveillance

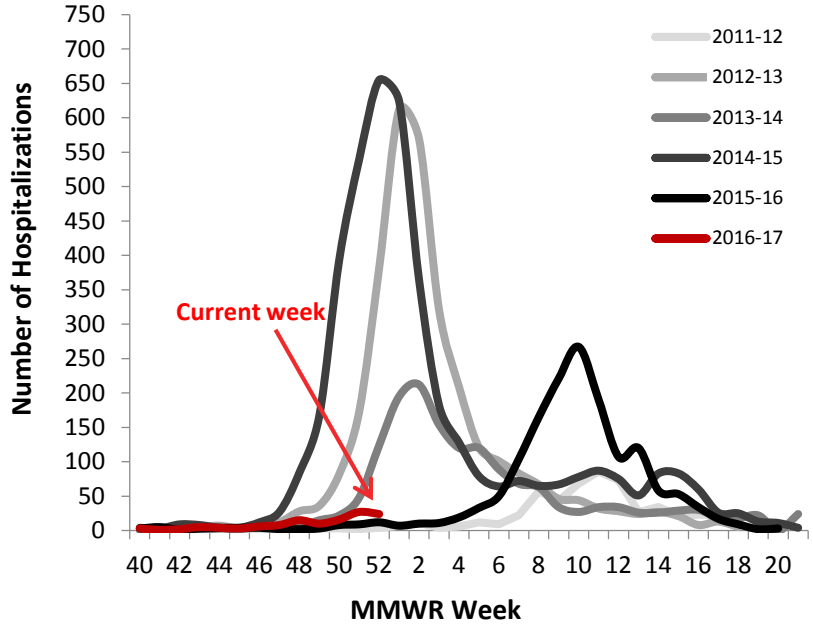
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. **Due 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)
24	27	124

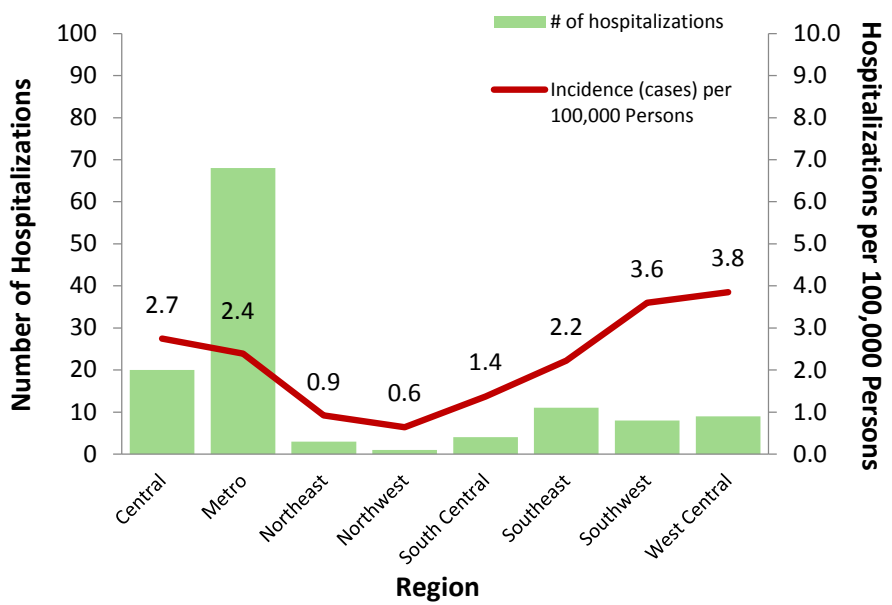
Hospitalized Influenza Cases by Season, Minnesota (FluSurv-NET*)



Season	Total hospitalizations (historic)
2011-2012	556
2012-2013	3,068
2013-2014	1,540
2014-2015	4,138
2015-2016	1,541
2016-2017	**124 (to date)**

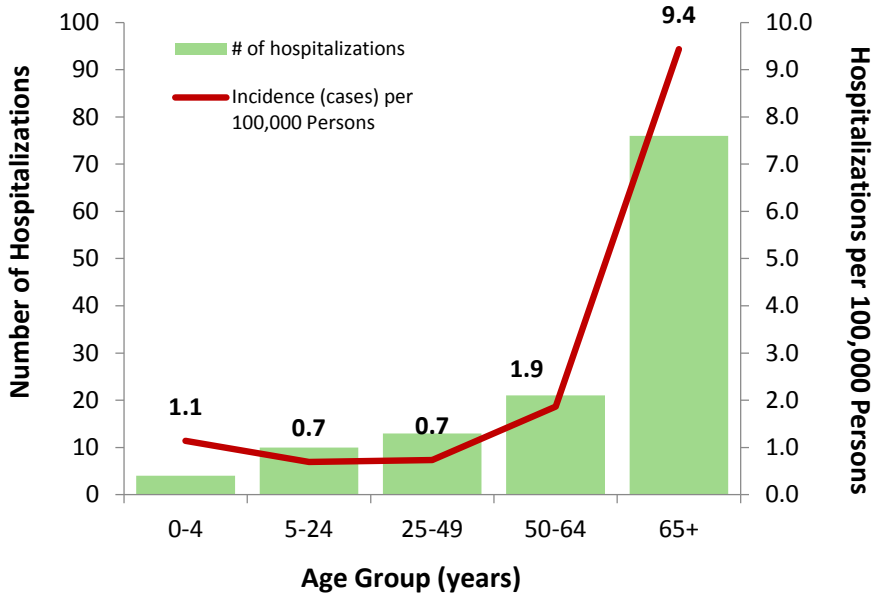
*Influenza Surveillance Network

Number of Influenza Hospitalizations and Incidence by Region, Minnesota October 2, 2016 – December 31, 2016



Region	Hospitalizations this week	Total (to date)
Central	5 (21%)	20 (16%)
Metro	14 (58%)	68 (55%)
Northeast	0 (0%)	3 (2%)
Northwest	1 (4%)	1 (1%)
South Central	1 (4%)	4 (3%)
Southeast	0 (0%)	11 (9%)
Southwest	0 (0%)	8 (6%)
West Central	3 (13%)	9 (7%)

Number of Influenza Hospitalizations and Incidence by Age, Minnesota October 2, 2016 – December 31, 2016



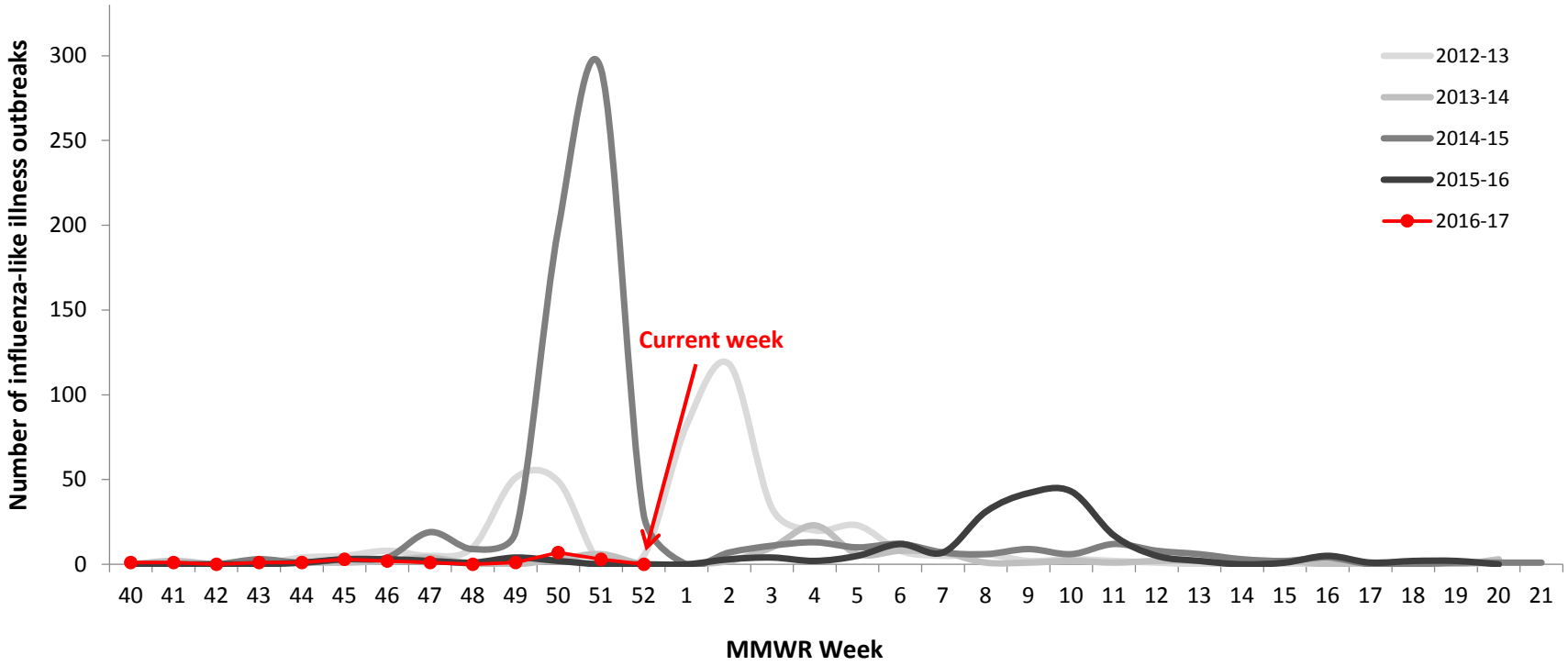
Median age (years) at time of admission
70.5

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

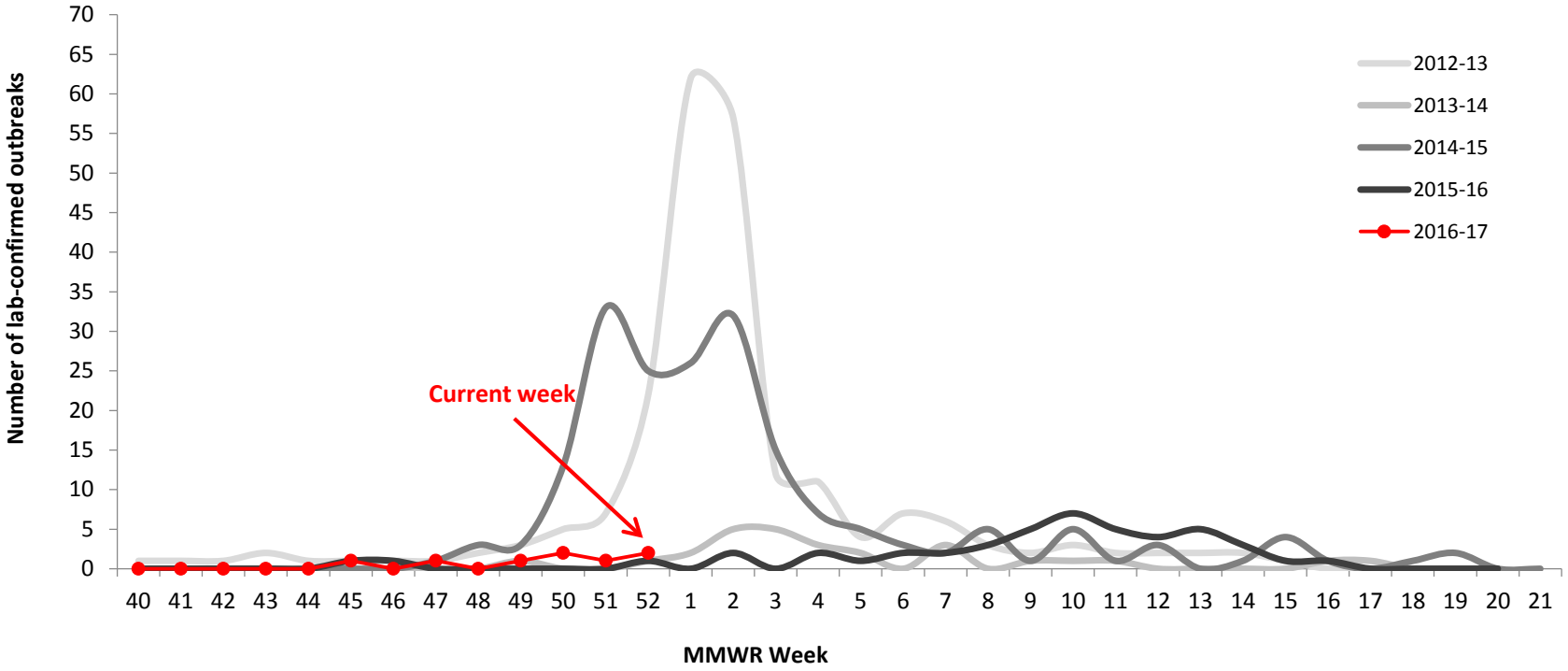


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
0	3	21

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

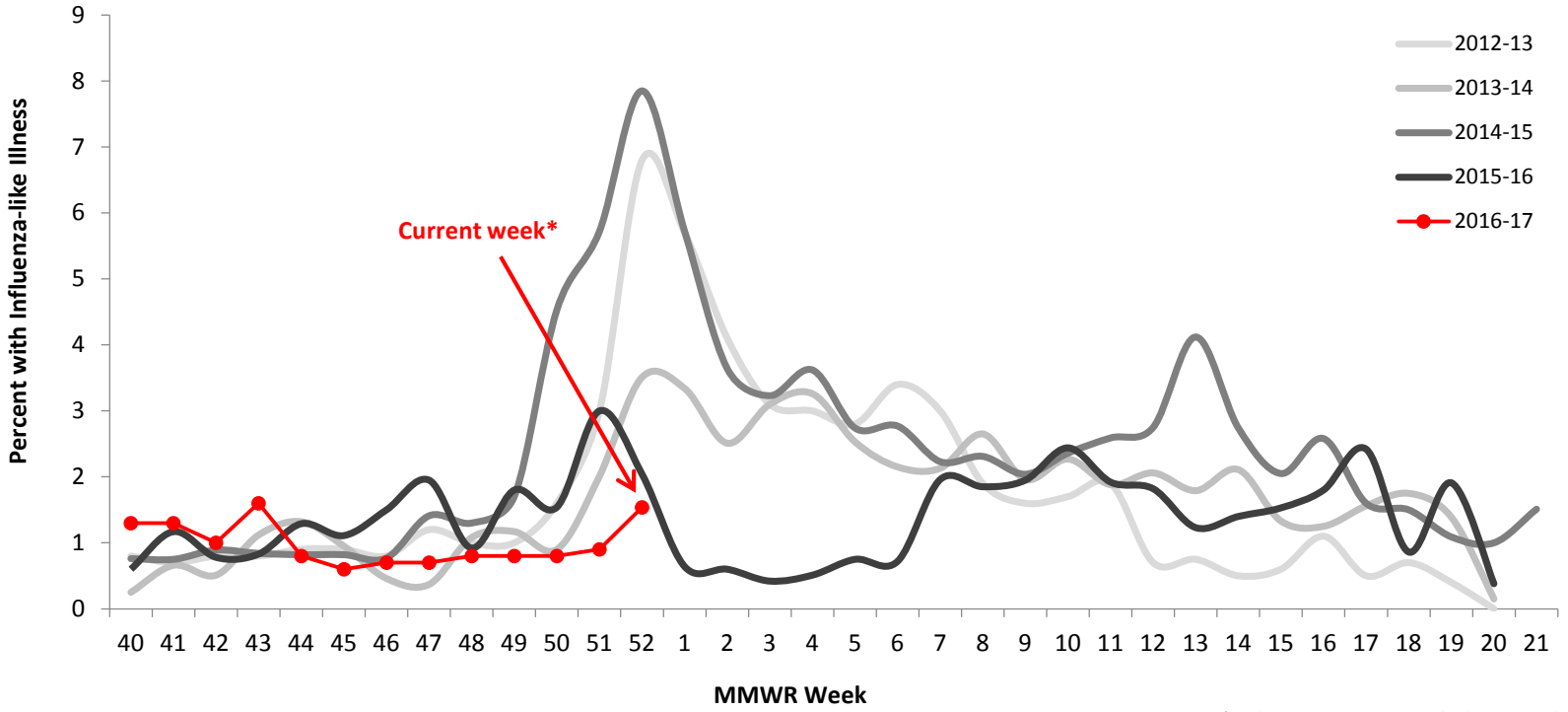


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
2	1	8

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)



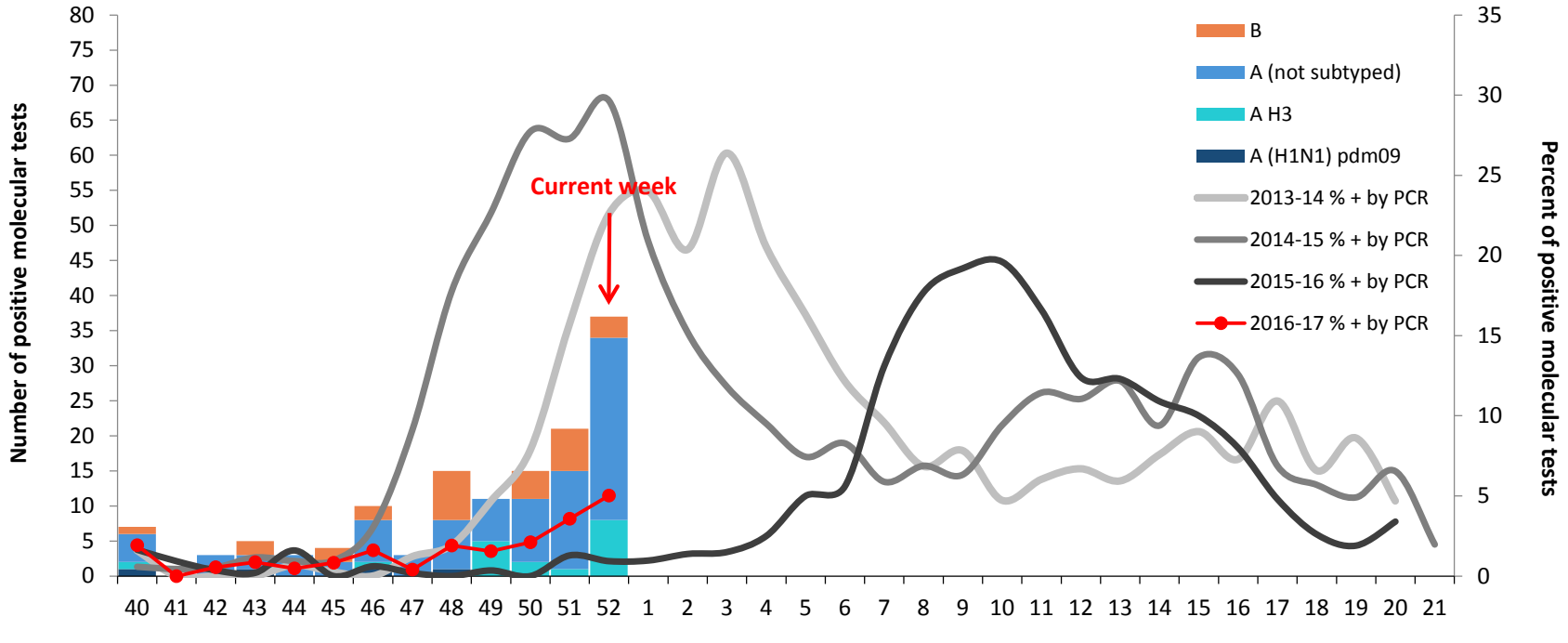
% of outpatients with ILI this week	% of outpatients with ILI last week
1.54%	0.8%

*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

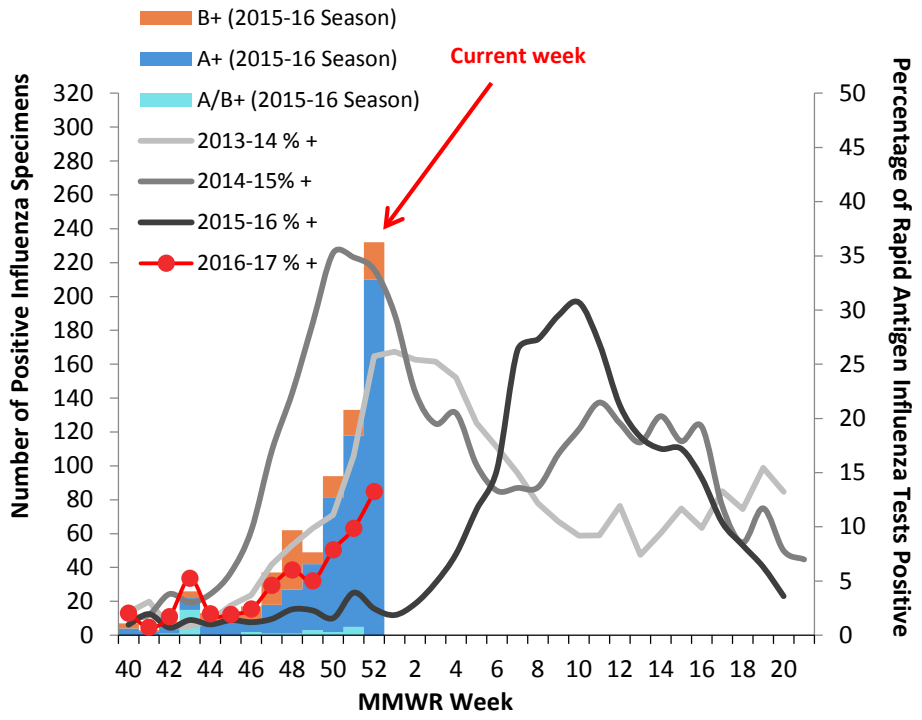


% molecular tests positive this week	% molecular tests positive last week
5.0%	3.6%

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

MLS Laboratories – Influenza Testing

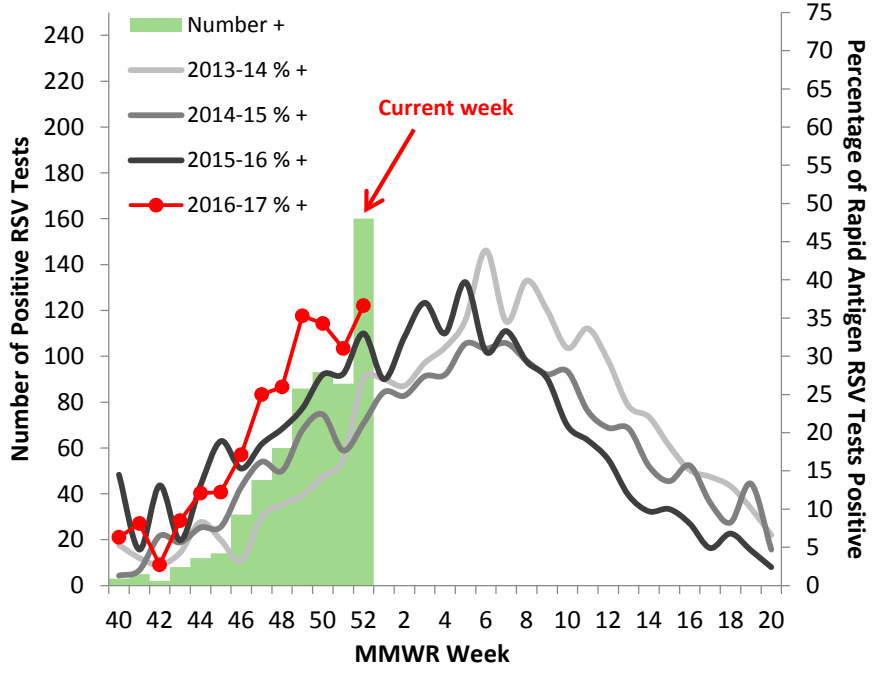
Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Northeast	9%
South Central	8%
Southwest	16%
Southeast	0%
Metro	11%
Central	19%
West Central	15%
Northwest	16%
State (overall)	13%

MLS Laboratories – RSV Testing

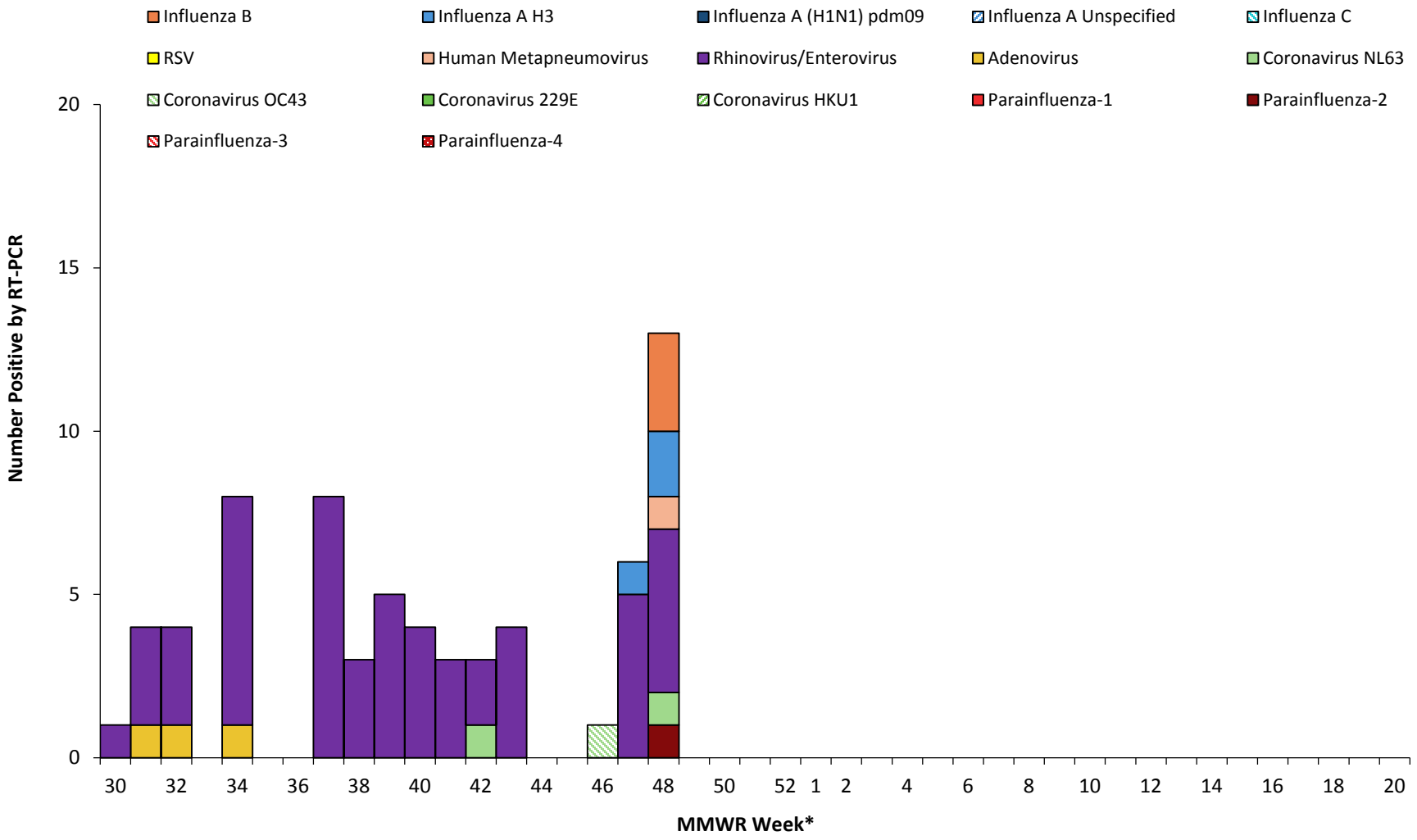
Specimens Positive by RSV Rapid Antigen Test, by Week



Region	% rapid antigen RSV tests + (current week)
Northeast	24%
South Central	55%
Southwest	50%
Southeast	35%
Metro	37%
Central	30%
West Central	43%
Northwest	22%
State (overall)	37%

Minnesota Influenza Incidence Surveillance Project (MIISP)

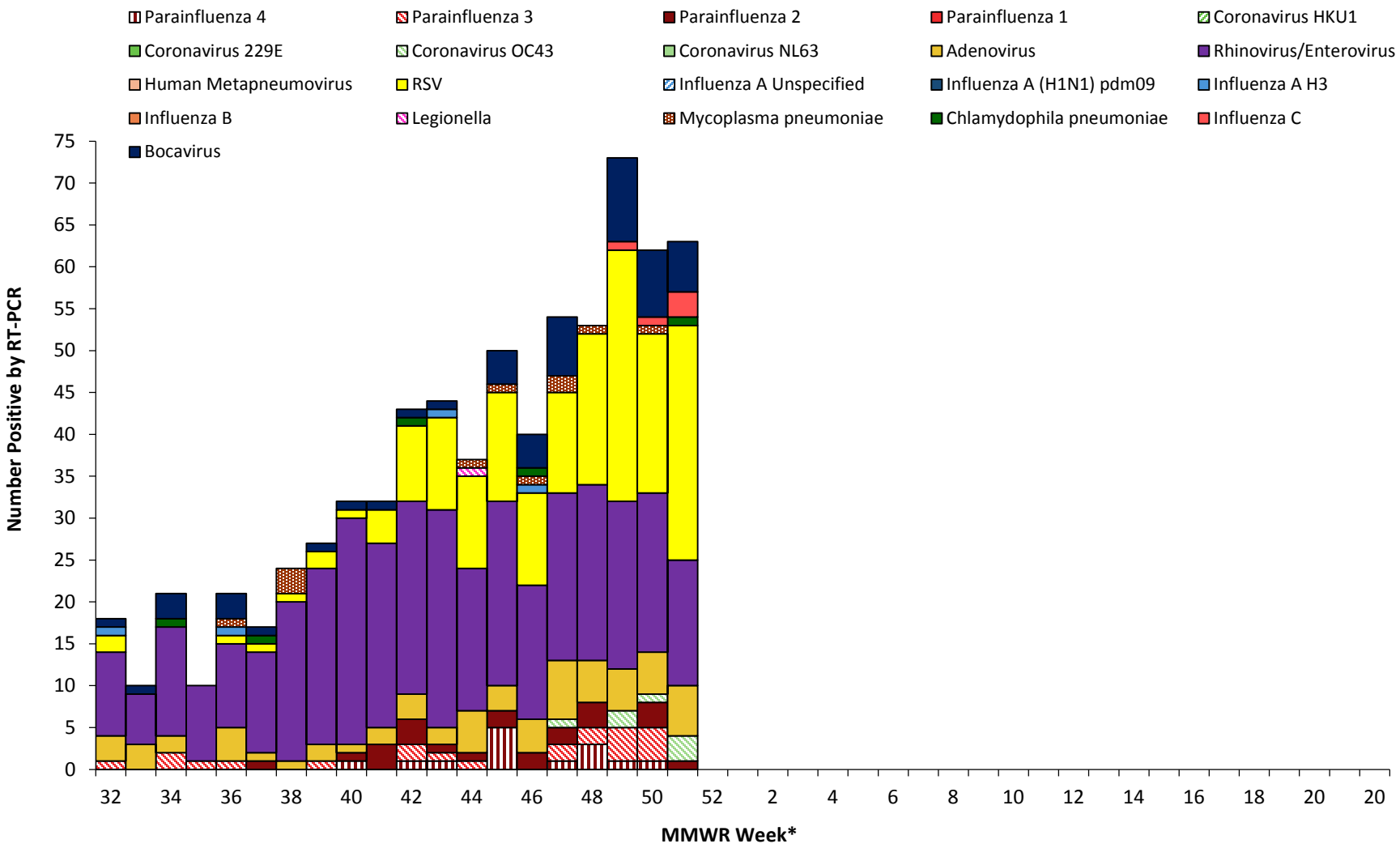
Positive Respiratory Pathogens by PCR, by MMWR Week



*Indicates current week-data may be delayed by 2 or more weeks

Severe Acute Respiratory Surveillance (SARI) - Inpatients

Positive Respiratory Pathogens by PCR, by MMWR Week



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Weekly U.S. Influenza Surveillance Report

2016-2017 Influenza Season Week 51 ending December 24, 2016

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

Viral Surveillance: The most frequently identified influenza virus subtype reported by public health laboratories during week 51 was influenza A (H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories increased.

Novel Influenza A Virus: One human infection with a novel influenza A virus was reported.

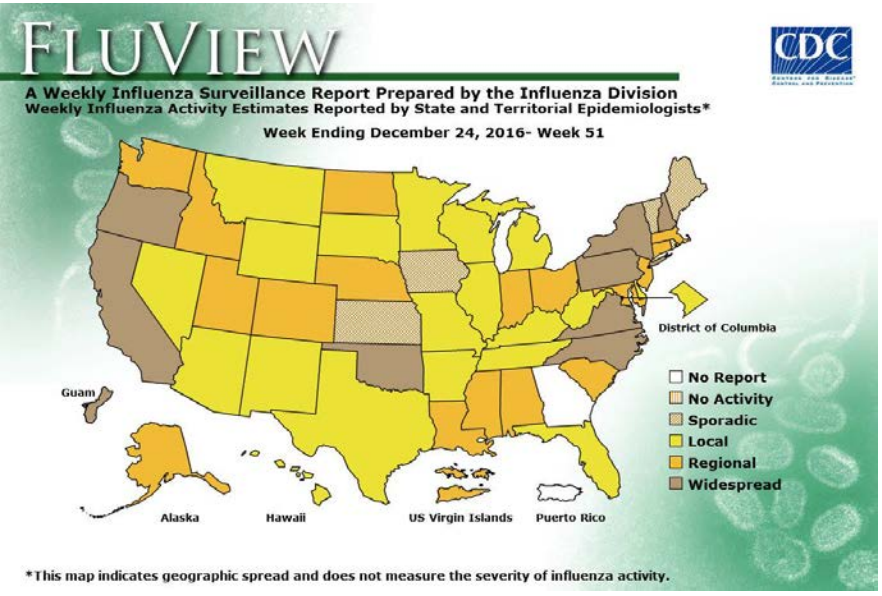
Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.

Influenza-associated Pediatric Deaths: No influenza-associated pediatric deaths were reported.

Influenza-associated Hospitalizations: A cumulative rate for the season of 3.1 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 2.9%, which is above the national baseline of 2.2%. Nine regions reported ILI at or above their region-specific baseline levels. Four states, New York City and Puerto Rico experienced high ILI activity; five states experienced moderate ILI activity; seven states experienced low ILI activity; 34 states experienced minimal ILI activity, and the District of Columbia had insufficient data.

Geographic Spread of Influenza: The geographic spread of influenza in Guam and eight states was reported as widespread, the U.S. Virgin Islands and 17 states reported regional activity, the District of Columbia and 19 states reported local activity, five states reported sporadic activity, and Puerto Rico and one state did not report.



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2016-17 Influenza Season Week 51 ending Dec 24, 2016