Weekly Influenza & Respiratory Illness Activity Report

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

Week Ending February 4, 2017 | WEEK 5

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 February 4, 2017 (Week 5), surveillance indicators showed widespread geographic spread of influenza.

Since the start of the influenza season, 1 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/

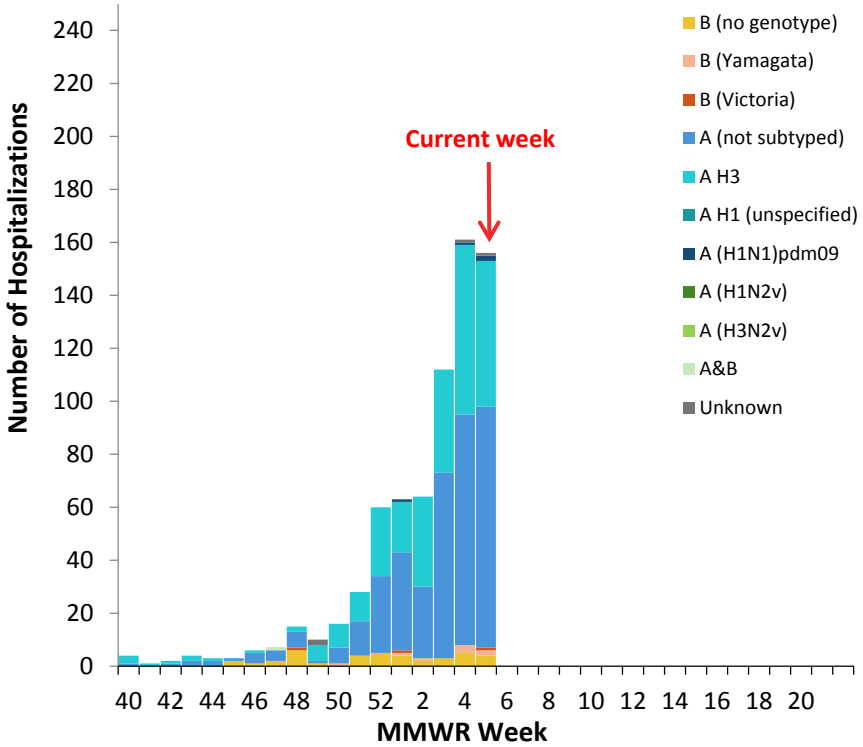
MDH Minnesota Department of Health

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

Hospitalized Influenza Surveillance

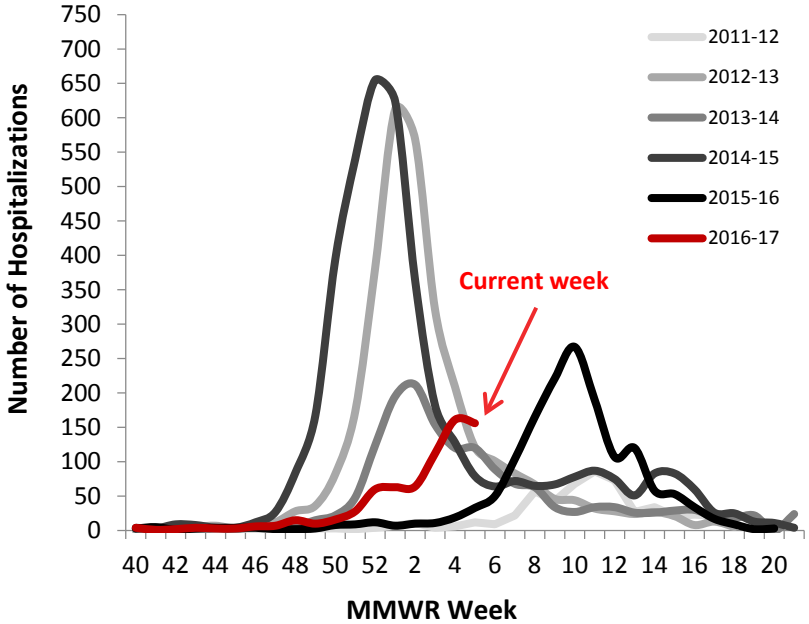
Hospitalized influenza cases are based on disease reports of laboratory-positive influenza (via DFA, IFA, viral culture, EIA, rapid test, paired serological tests or RT-PCR) and specimens from hospitalized patients with acute respiratory illness submitted to MDH-PHL by hospitals and laboratories. **Due 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)
156	161	715

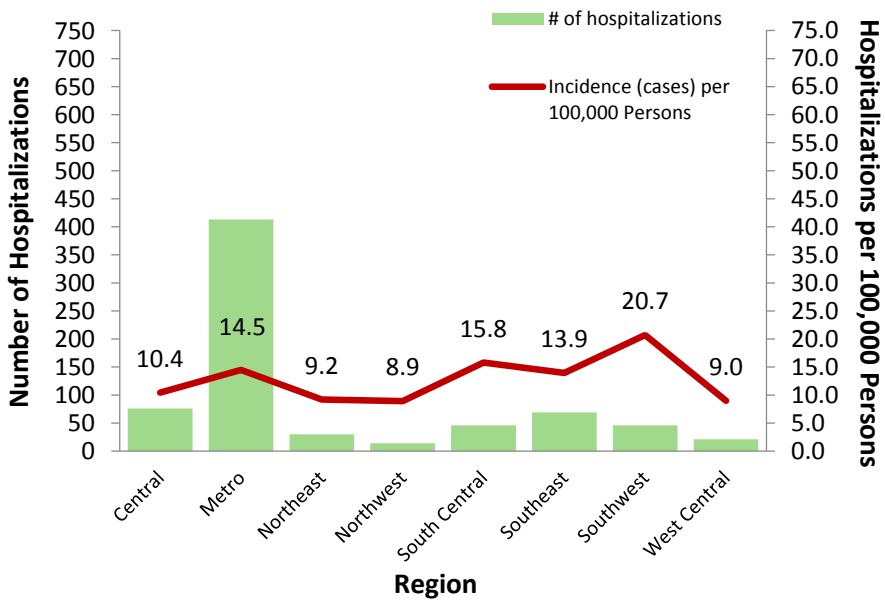
Hospitalized Influenza Cases by Season, Minnesota (FluSurv-NET*)



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	**715 (to date)**

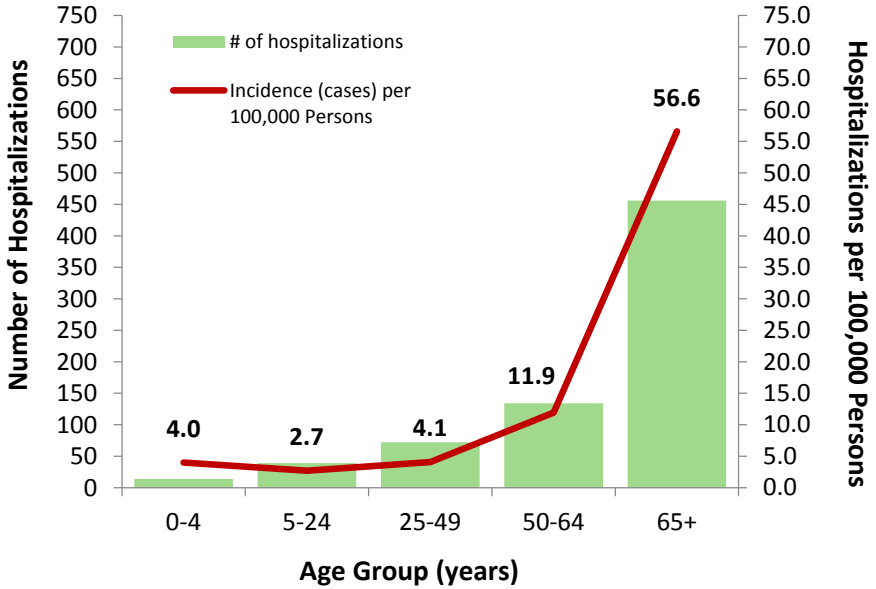
*Influenza Surveillance Network

Number of Influenza Hospitalizations and Incidence by Region, Minnesota October 2, 2016 – February 4, 2017



Region	Hospitalizations this week	Total (to date)
Central	15 (10%)	76 (11%)
Metro	89 (57%)	413 (58%)
Northeast	4 (3%)	30 (4%)
Northwest	3 (2%)	14 (2%)
South Central	16 (10%)	46 (6%)
Southeast	12 (8%)	69 (10%)
Southwest	12 (8%)	46 (6%)
West Central	5 (3%)	21 (3%)

Number of Influenza Hospitalizations and Incidence by Age, Minnesota October 2, 2016 – February 4, 2017



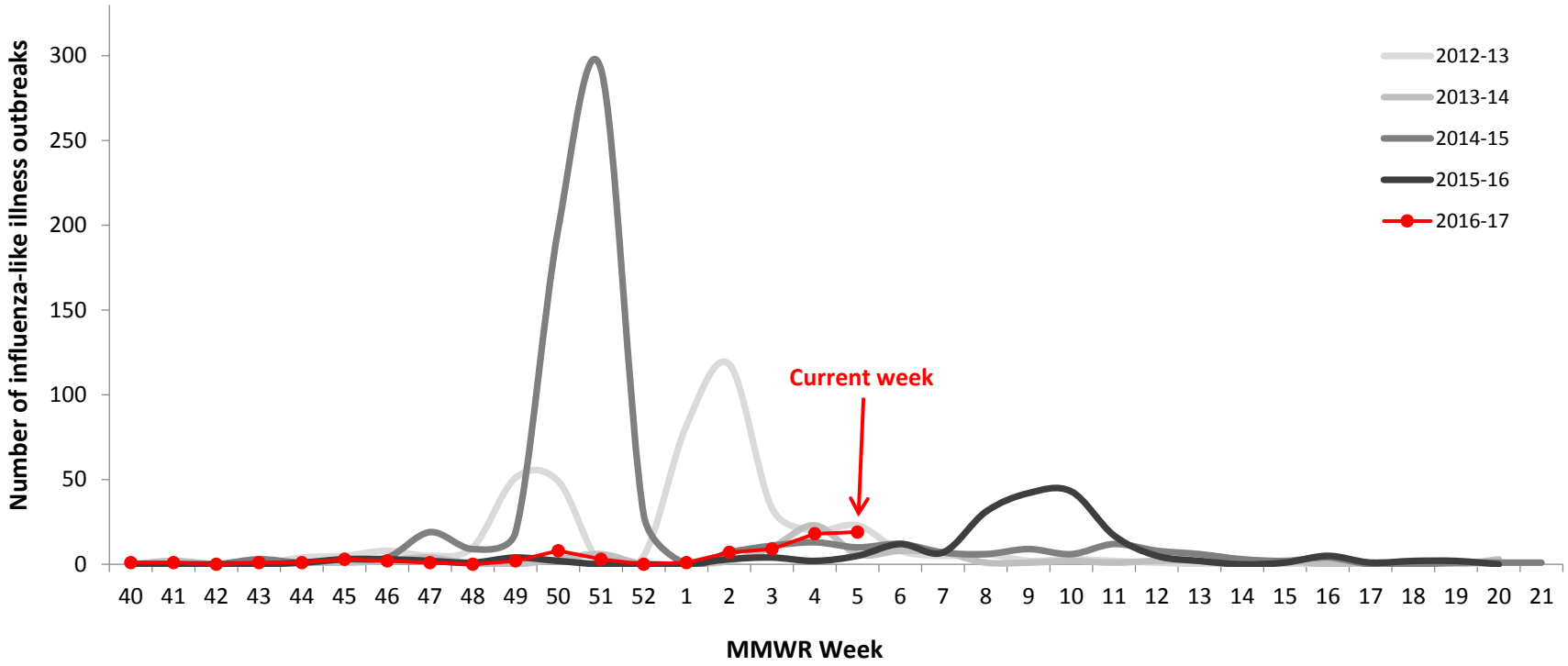
Median age (years) at time of admission
73.0

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

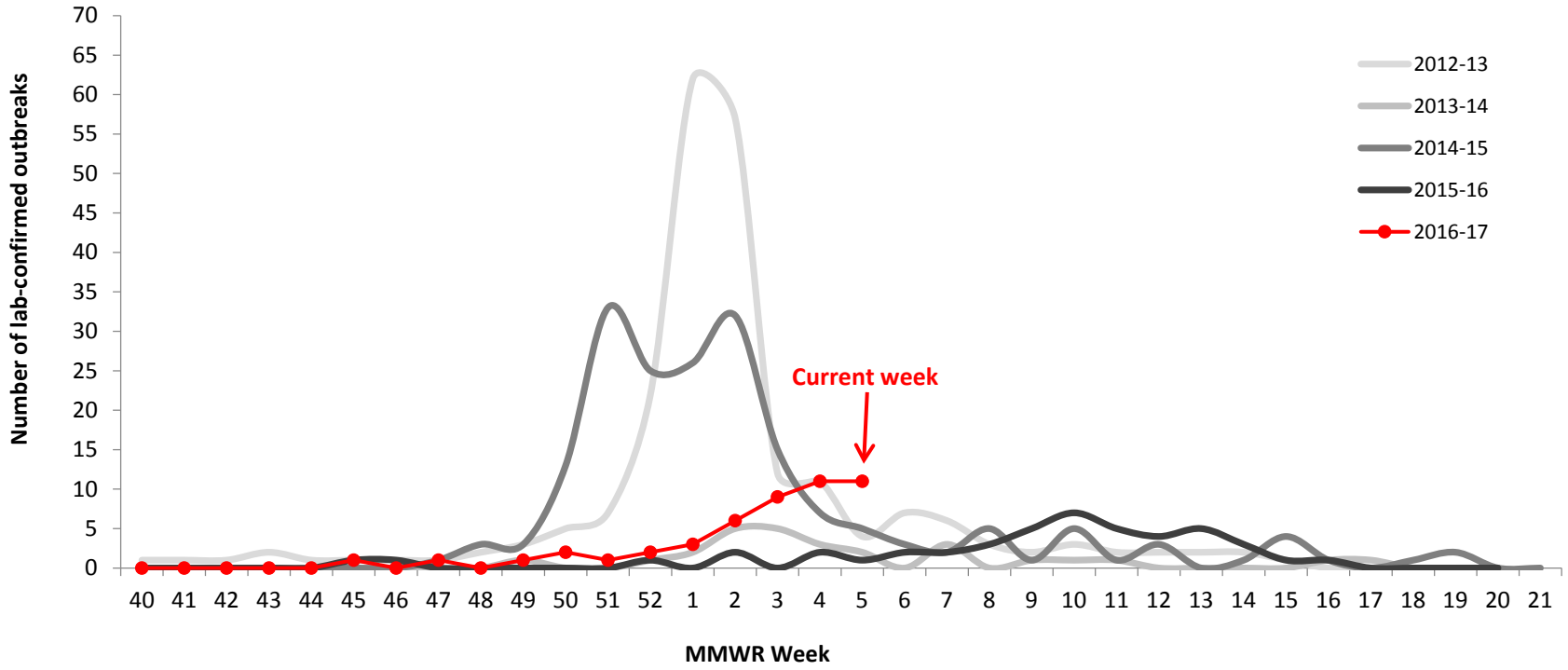


New school outbreaks this week	New school outbreaks last week	Total this season (to date)
19	18	77

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

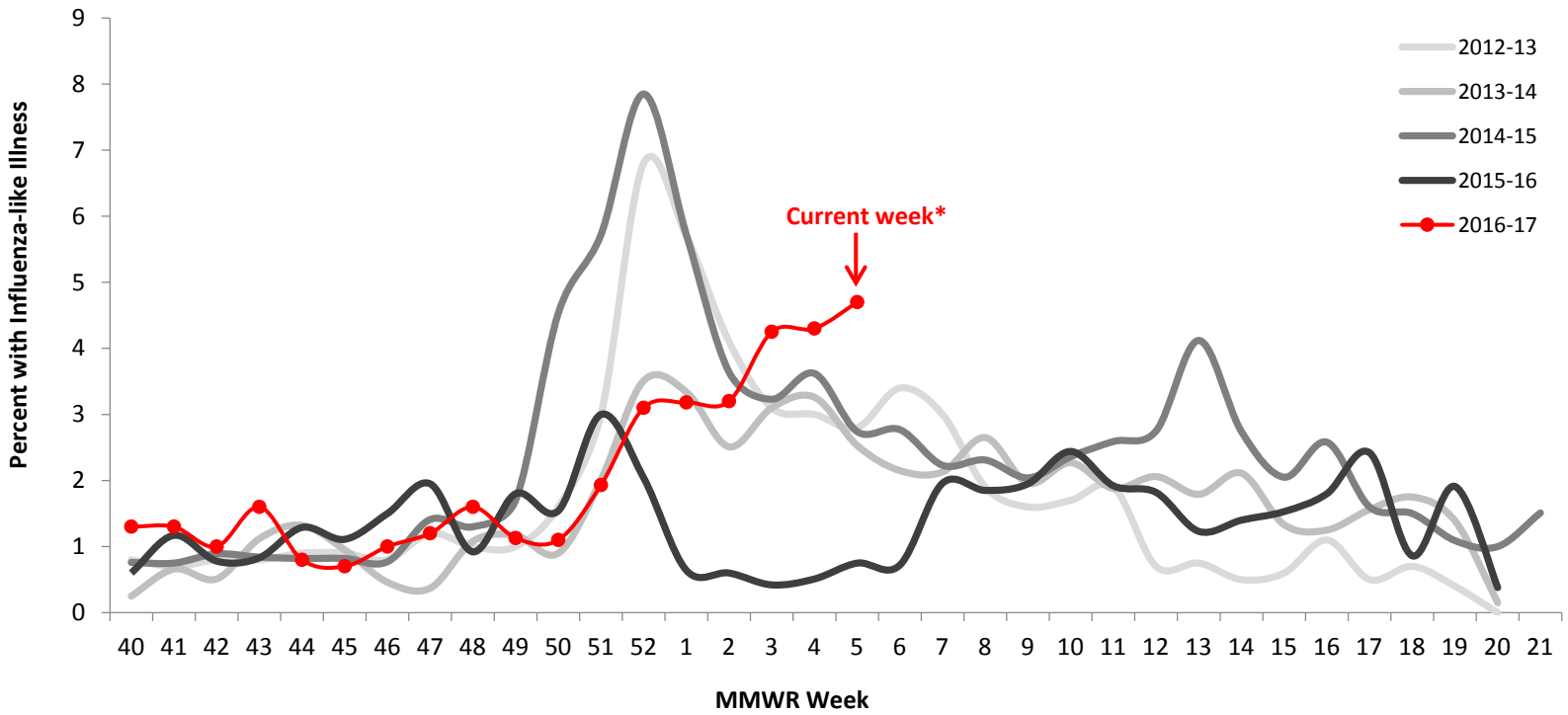


New LTC outbreaks this week	New LTC outbreaks last week	Total this season (to date)
11	11	48

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)



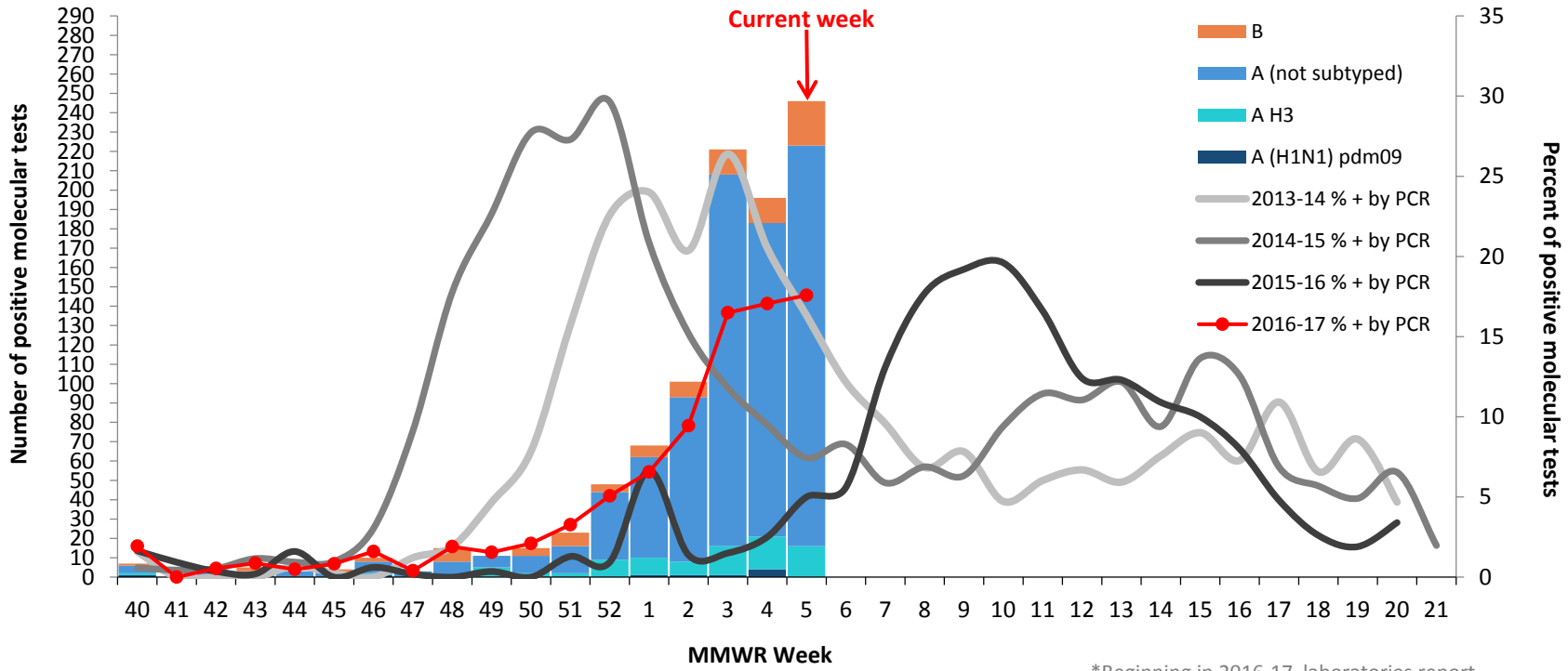
% of outpatients with ILI this week	% of outpatients with ILI last week
4.7%	4.3%

*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

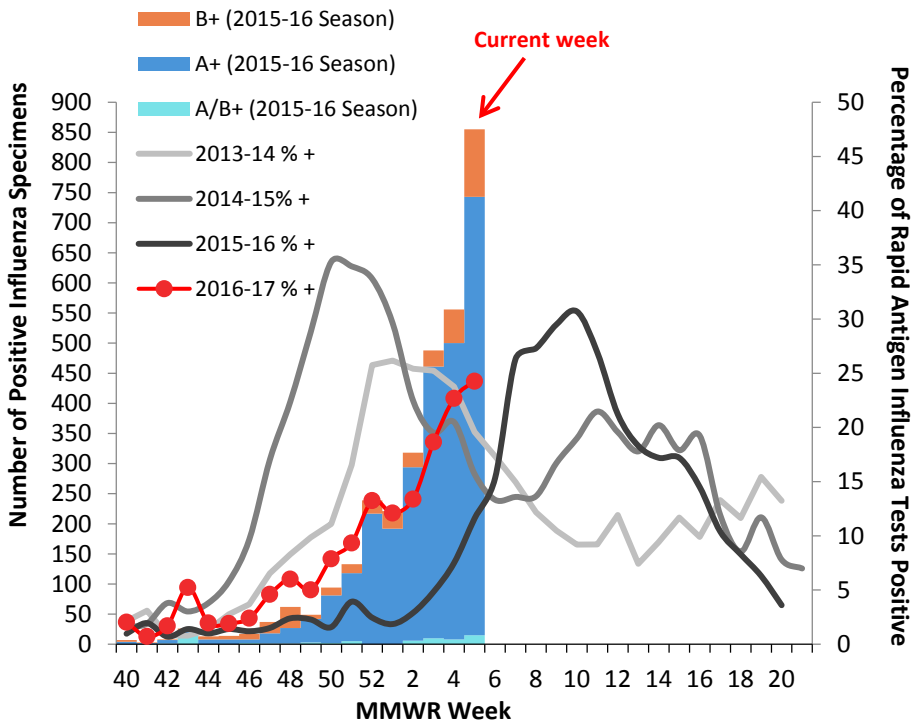


% molecular tests positive this week	% molecular tests positive last week
17.6%	17.1%

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

MLS Laboratories – Influenza Testing

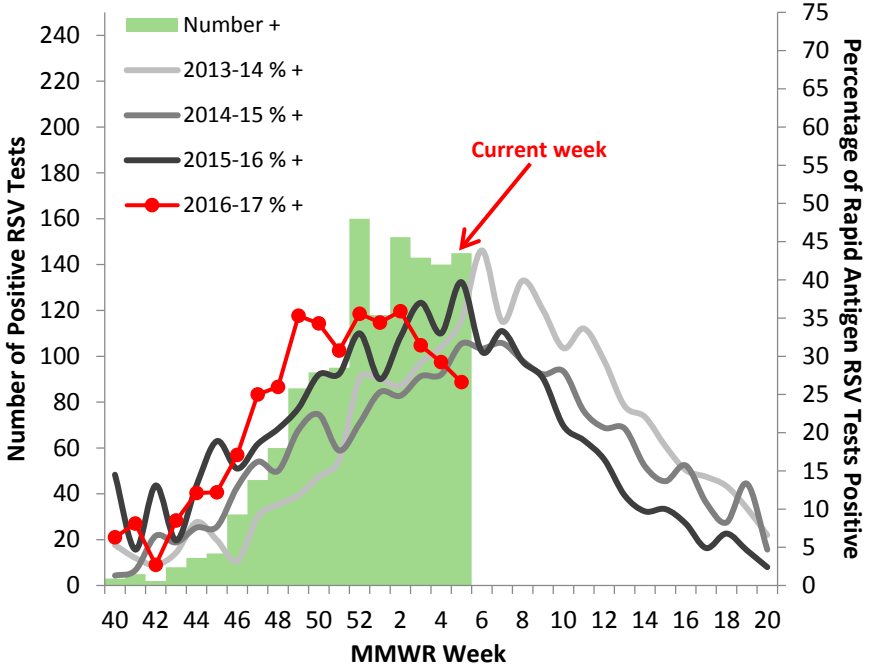
Specimens Positive by Influenza Rapid Antigen Test, by Week



Region	% rapid antigen influenza tests + (current week)
Northeast	16%
South Central	24%
Southwest	23%
Southeast	19%
Metro	28%
Central	20%
West Central	24%
Northwest	23%
State (overall)	24%

MLS Laboratories – RSV Testing

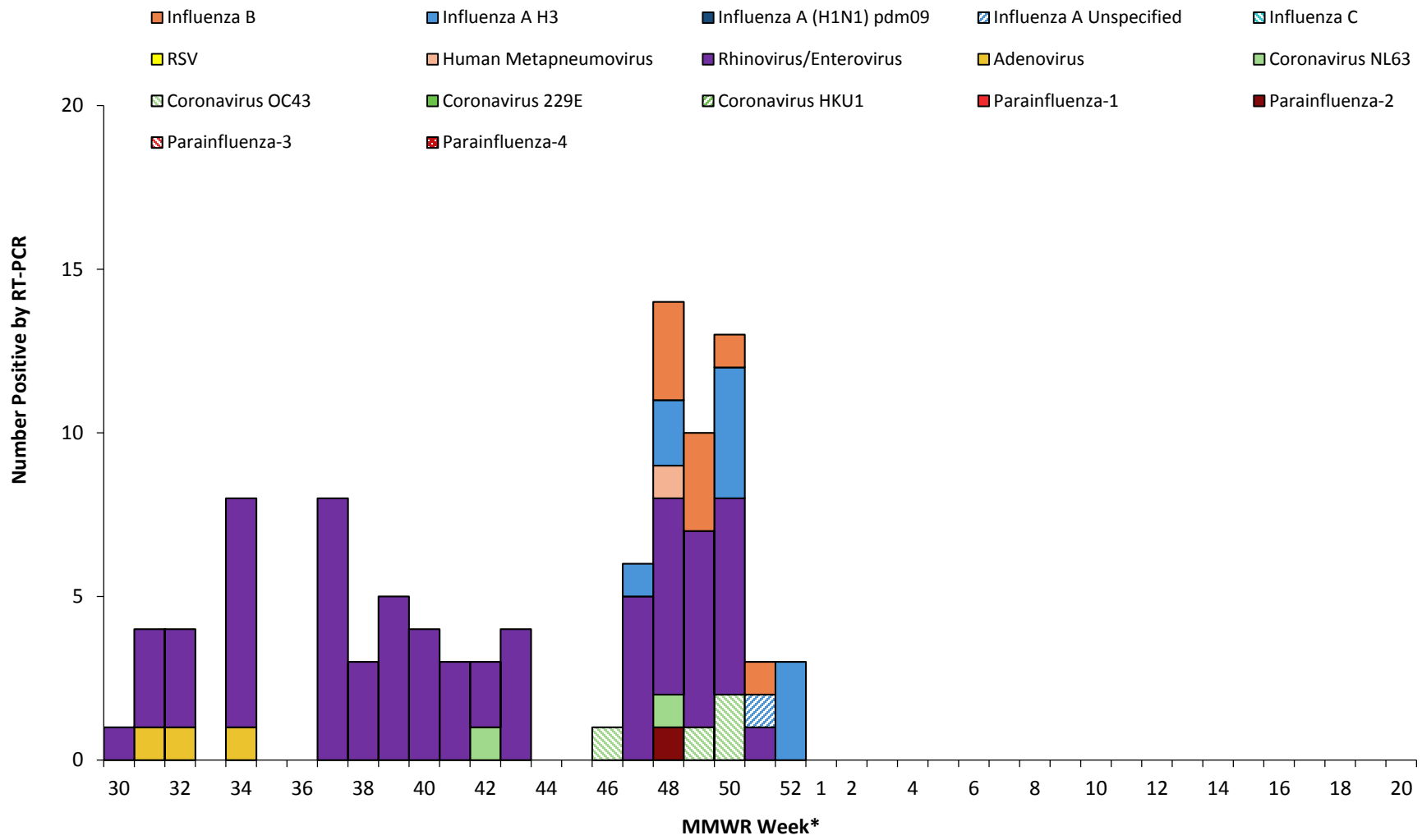
Specimens Positive by RSV Rapid Antigen Test, by Week



Region	% rapid antigen RSV tests + (current week)
Northeast	37%
South Central	30%
Southwest	33%
Southeast	9%
Metro	22%
Central	29%
West Central	30%
Northwest	19%
State (overall)	27%

Minnesota Influenza Incidence Surveillance Project (MIISP)

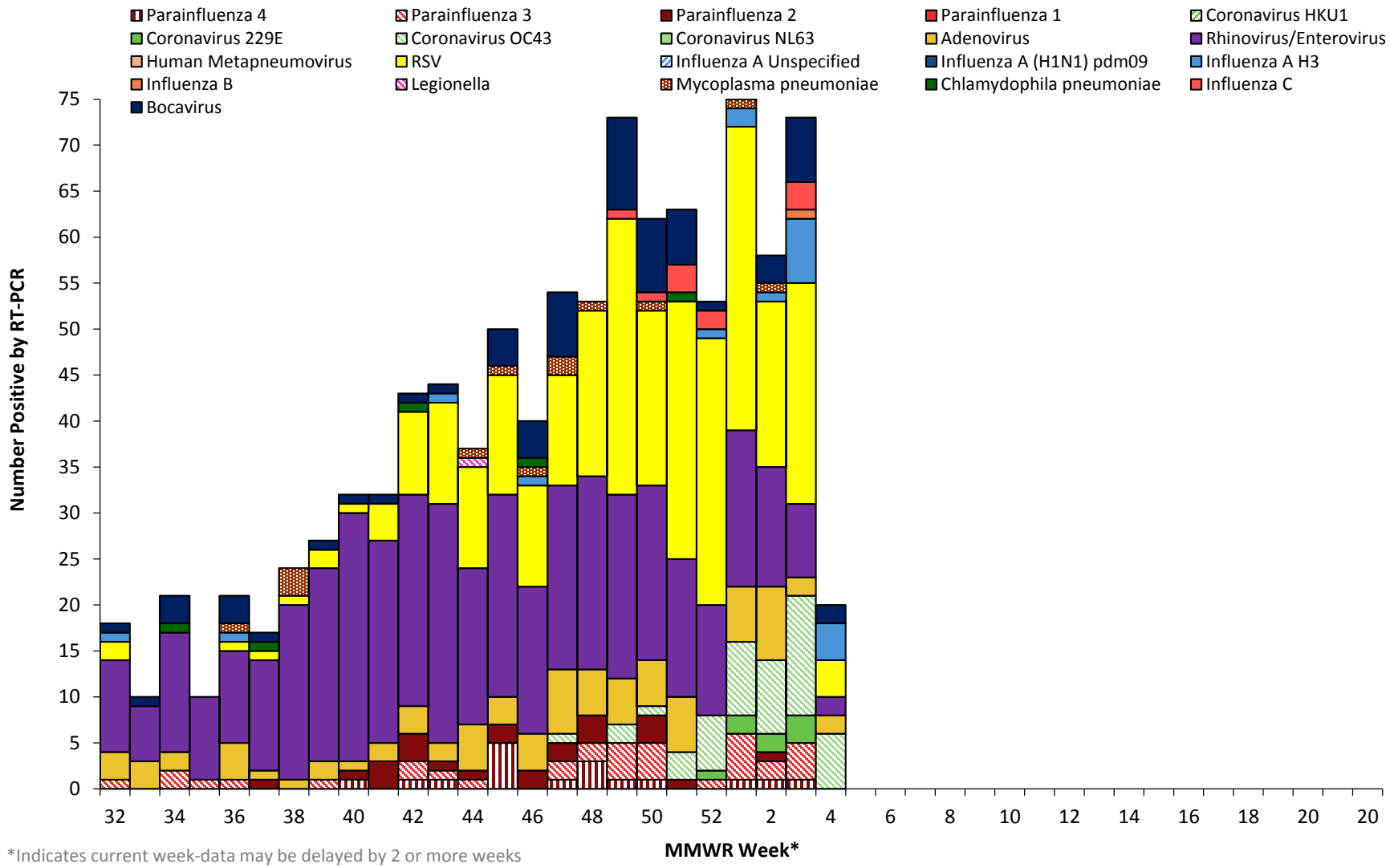
Positive Respiratory Pathogens by PCR, by MMWR Week



*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 4 ending January 28, 2017

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 4 was influenza A (H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories increased.

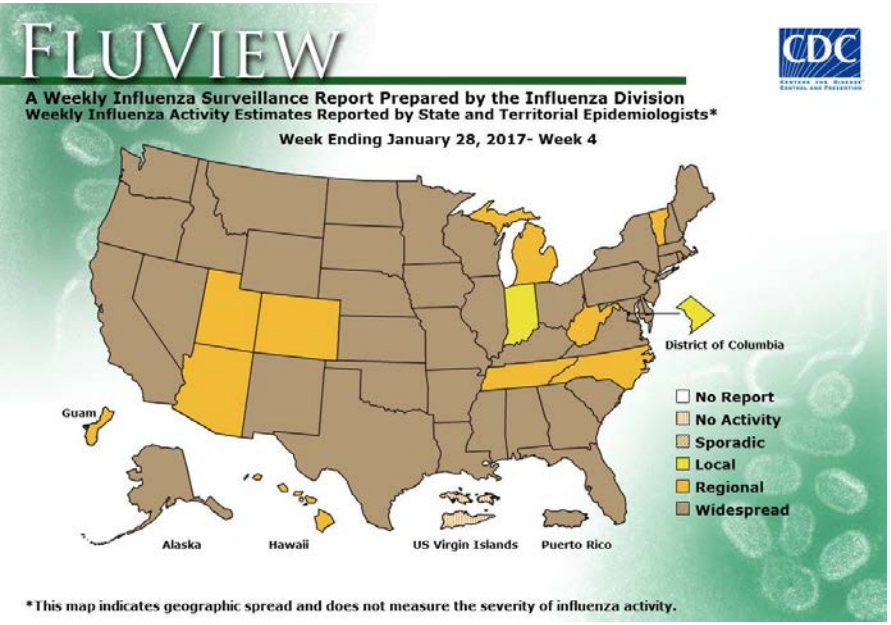
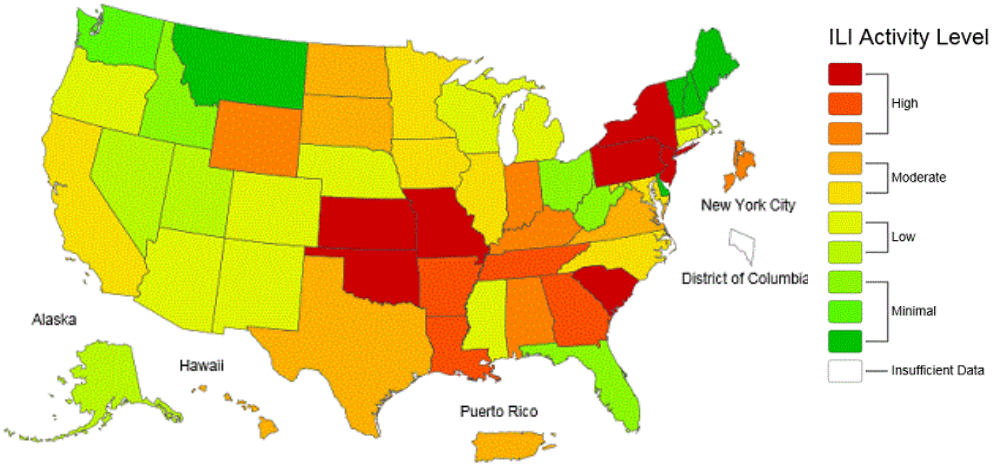
Pneumonia and Influenza Mortality: Due to data processing problems, the National Center for Health Statistics (NCHS) mortality surveillance data for the week ending January 14, 2015 (week 2) will not be published this week.

Influenza-associated Pediatric Deaths: Seven influenza-associated pediatric deaths were reported.

Influenza-associated Hospitalizations: A cumulative rate for the season of 20.3 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 3.9%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above their region-specific baseline levels. New York City and 15 states experienced high ILI activity; Puerto Rico and 11 states experienced moderate ILI activity; 14 states experienced low ILI activity; 10 states experienced minimal ILI activity, and the District of Columbia had insufficient data.

Geographic Spread of Influenza: The geographic spread of influenza in Puerto Rico and 40 states was reported as widespread; Guam and nine states reported regional activity; the District of Columbia and one state reported local activity; and the U.S. Virgin Islands reported no activity.



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2016-2017 Influenza Season Week 4 ending January 28, 2017