

Weekly Influenza & Respiratory Illness Activity Report

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

Summary of the 2018-19 Influenza Season

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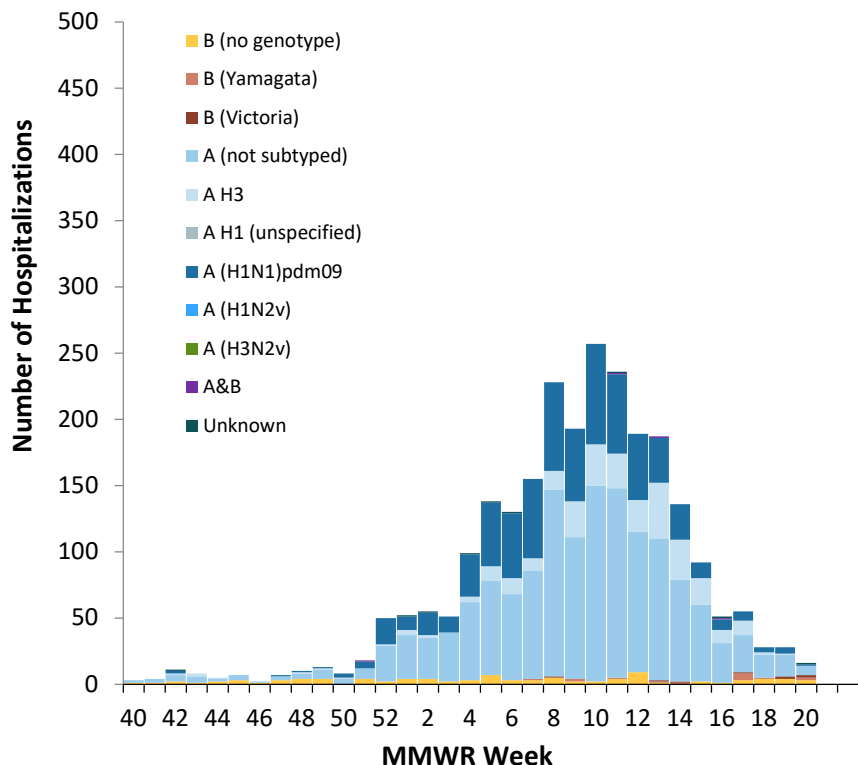
- 2,522 people were hospitalized with laboratory-confirmed influenza
- 2 pediatric influenza-related deaths were confirmed
- 126 influenza-associated deaths were reported
- 60 outbreaks of influenza in long-term care facilities were reported
- 381 outbreaks of ILI in schools were reported

Minnesota Influenza Surveillance: <http://www.health.state.mn.us/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.**

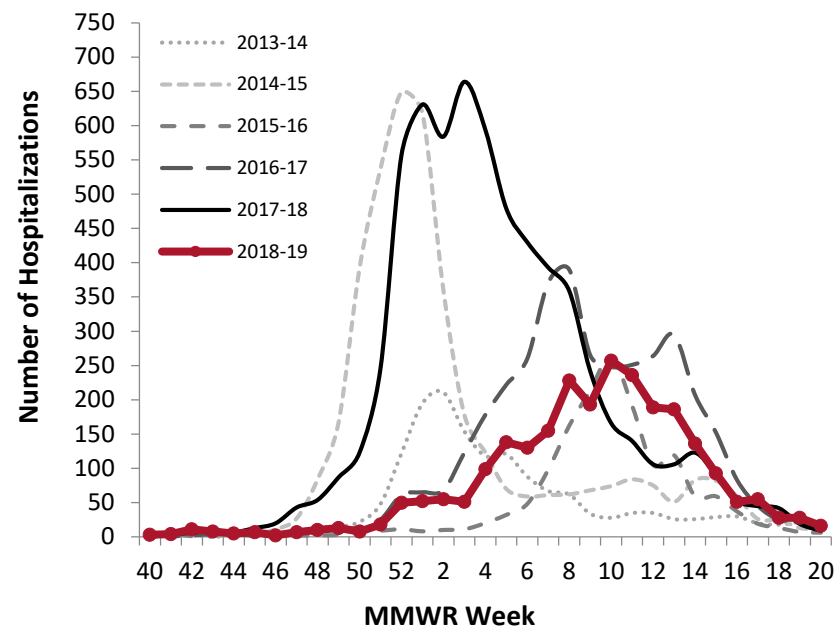
Hospitalized Influenza Cases by Type Minnesota (FluSurv-NET*)



Total hospitalizations

2,522

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

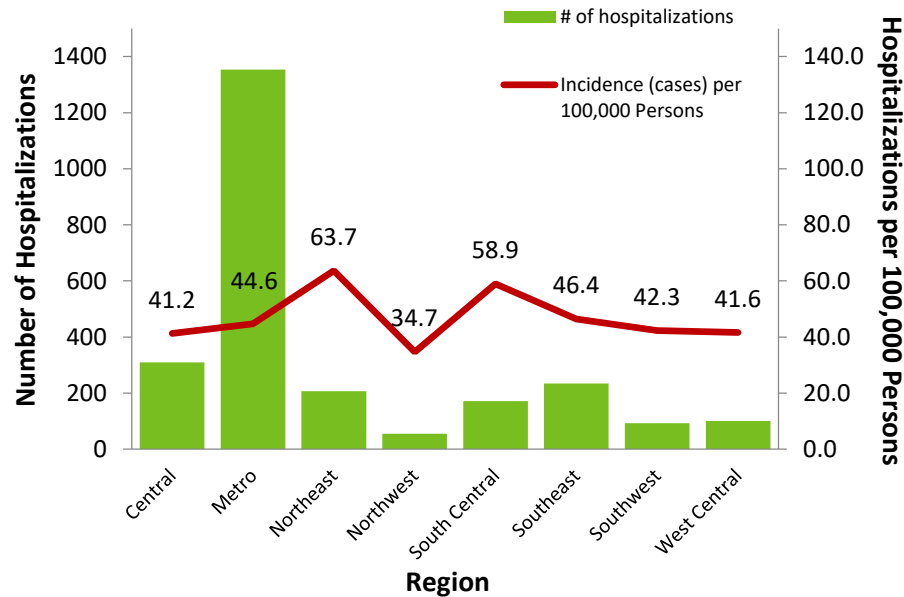


Season	Total hospitalizations (historic)
2013-2014	1,578
2014-2015	4,081
2015-2016	1,538
2016-2017	3,695
2017-2018	6,446
2018-2019	2,522

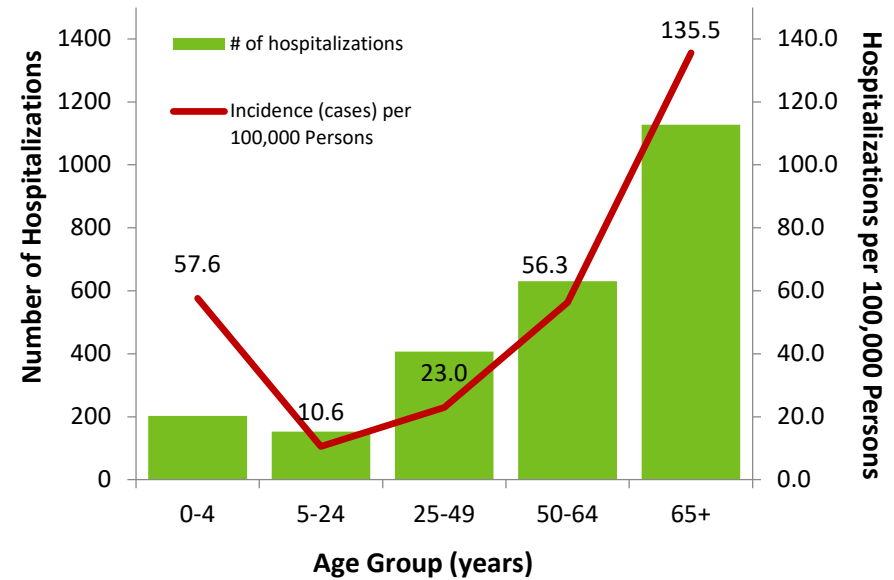
*Influenza Surveillance Network

Hospitalized Influenza Surveillance (continued)

Number of Influenza Hospitalizations and Incidence by Region, Minnesota September 30, 2018 – May 18, 2019



Number of Influenza Hospitalizations and Incidence by Age, Minnesota September 30, 2018 – May 18, 2019



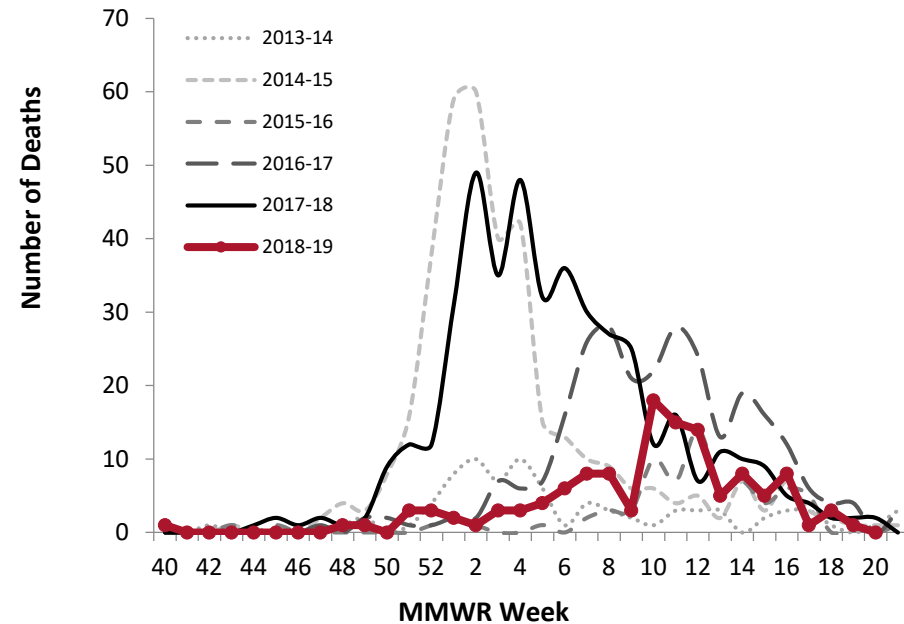
Region	Total
Central	309 (12%)
Metro	1,354 (54%)
Northeast	207 (8%)
Northwest	55 (2%)
South Central	171 (7%)
Southeast	234 (9%)
Southwest	92 (4%)
West Central	100 (4%)

Median age (years) at time of admission
62.0

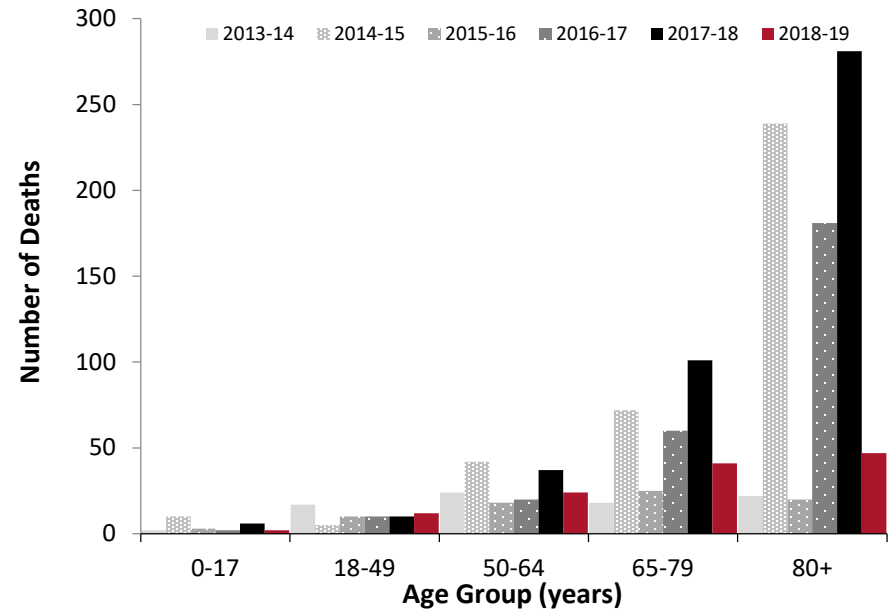
Influenza-Associated Death Surveillance

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	440	6
2018-2019	126	2

Season	Median age (years) at time of death
2013-2014	63
2014-2015	85
2015-2016	68
2016-2017	86
2017-2018	85
2018-2019	74

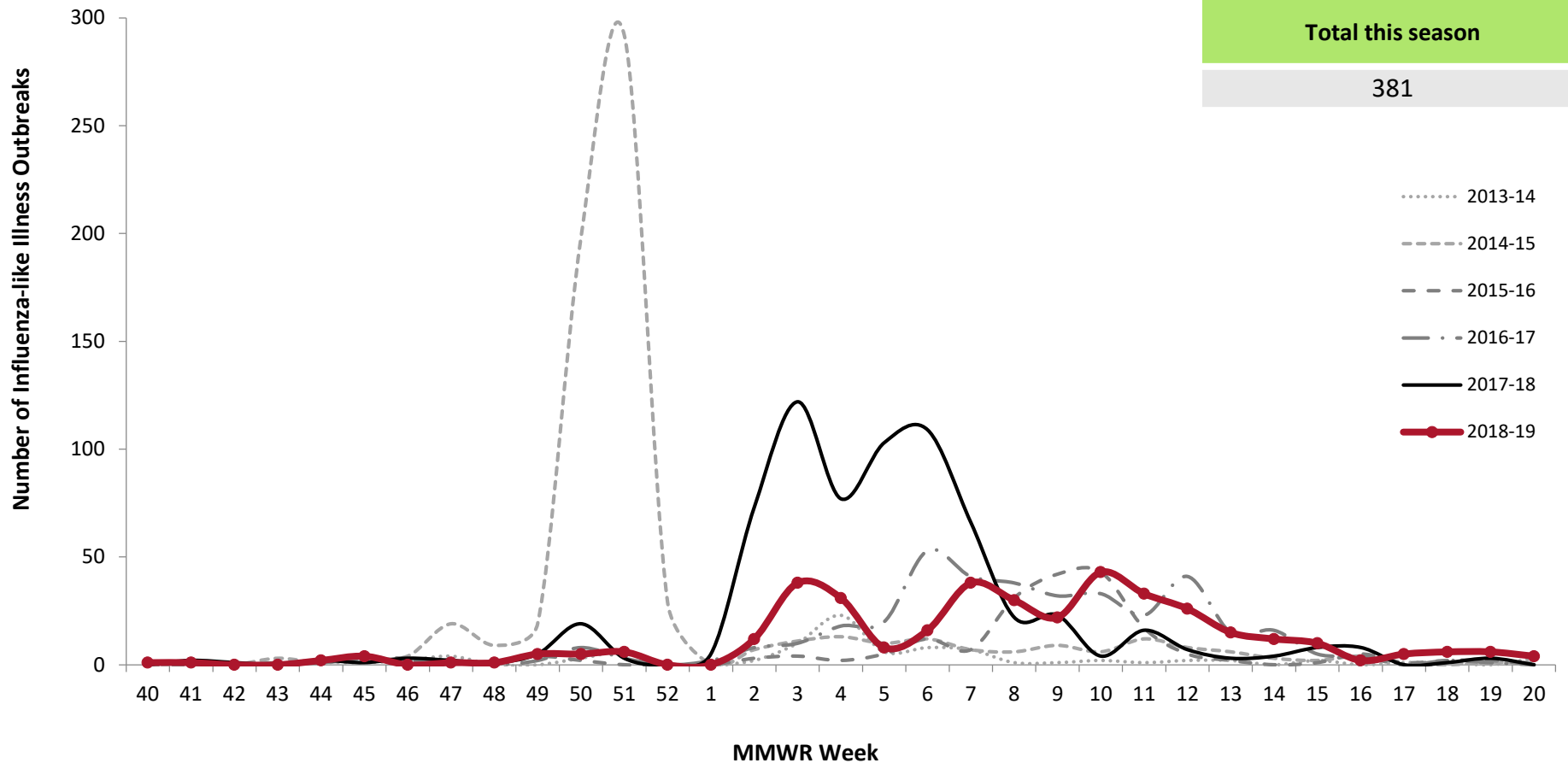
*Influenza Surveillance Network

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.

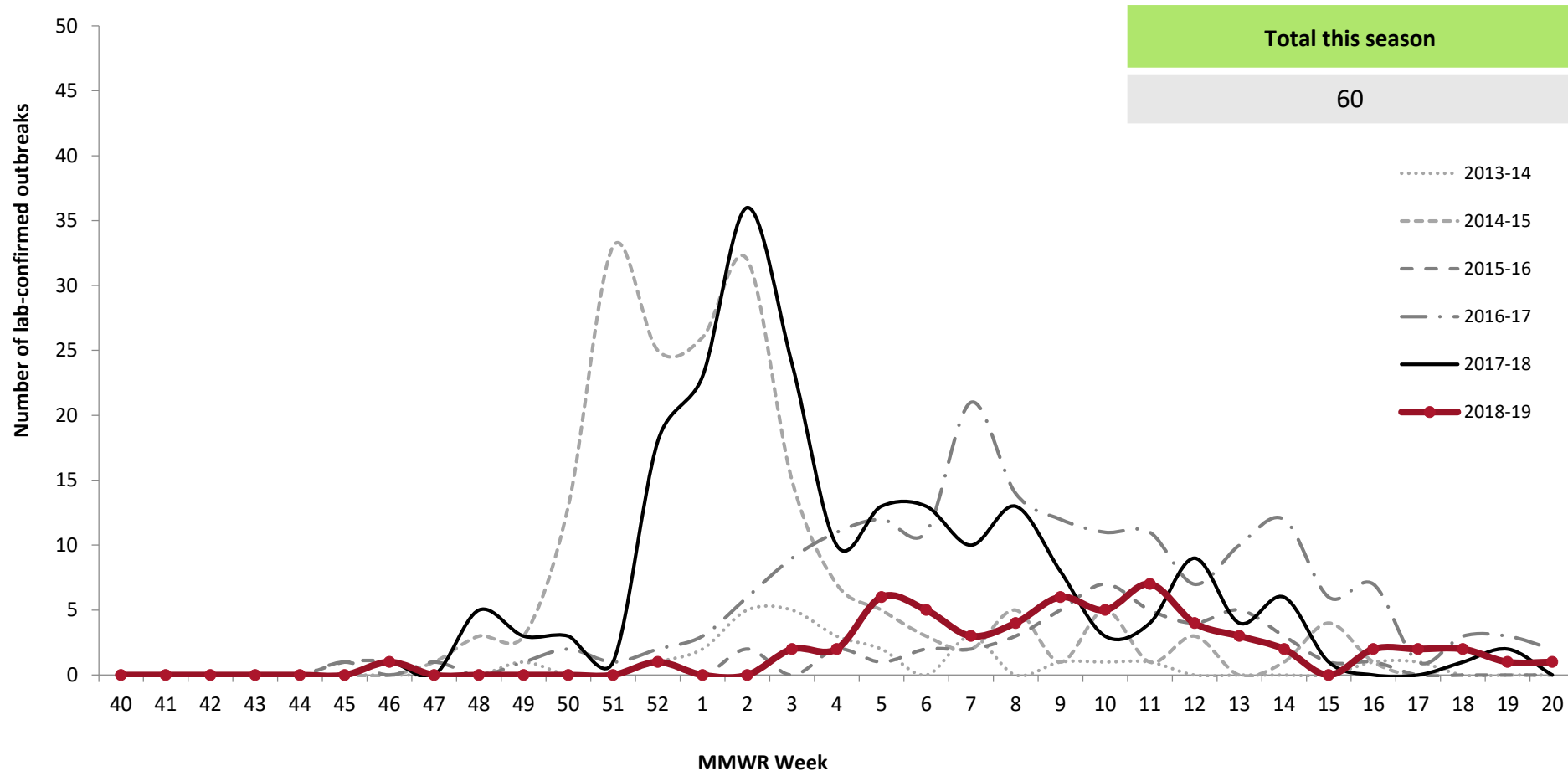
Influenza-like Illness (ILI) in Schools by Season



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.

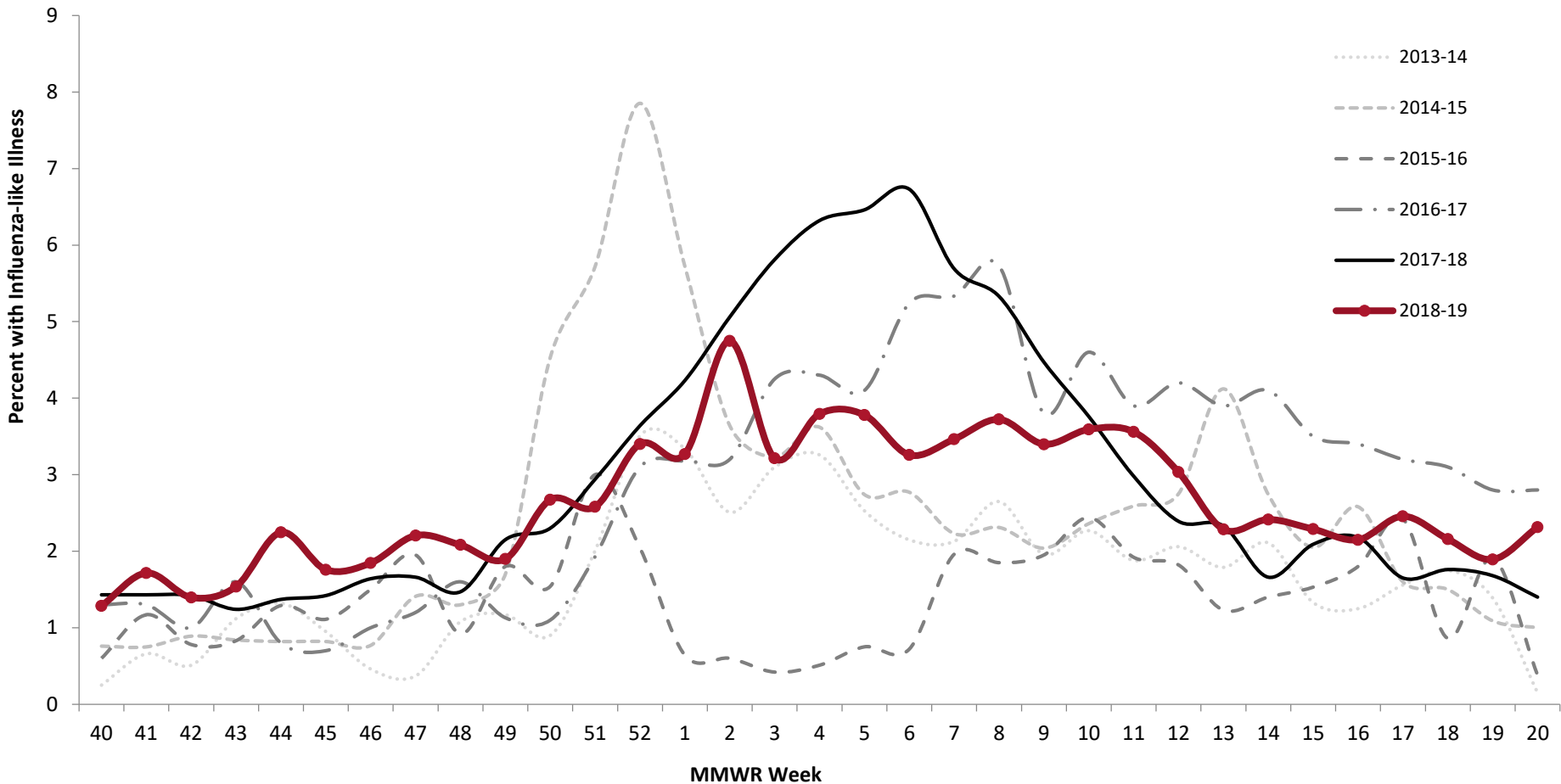
Confirmed Influenza Outbreaks in LTC by Season



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.

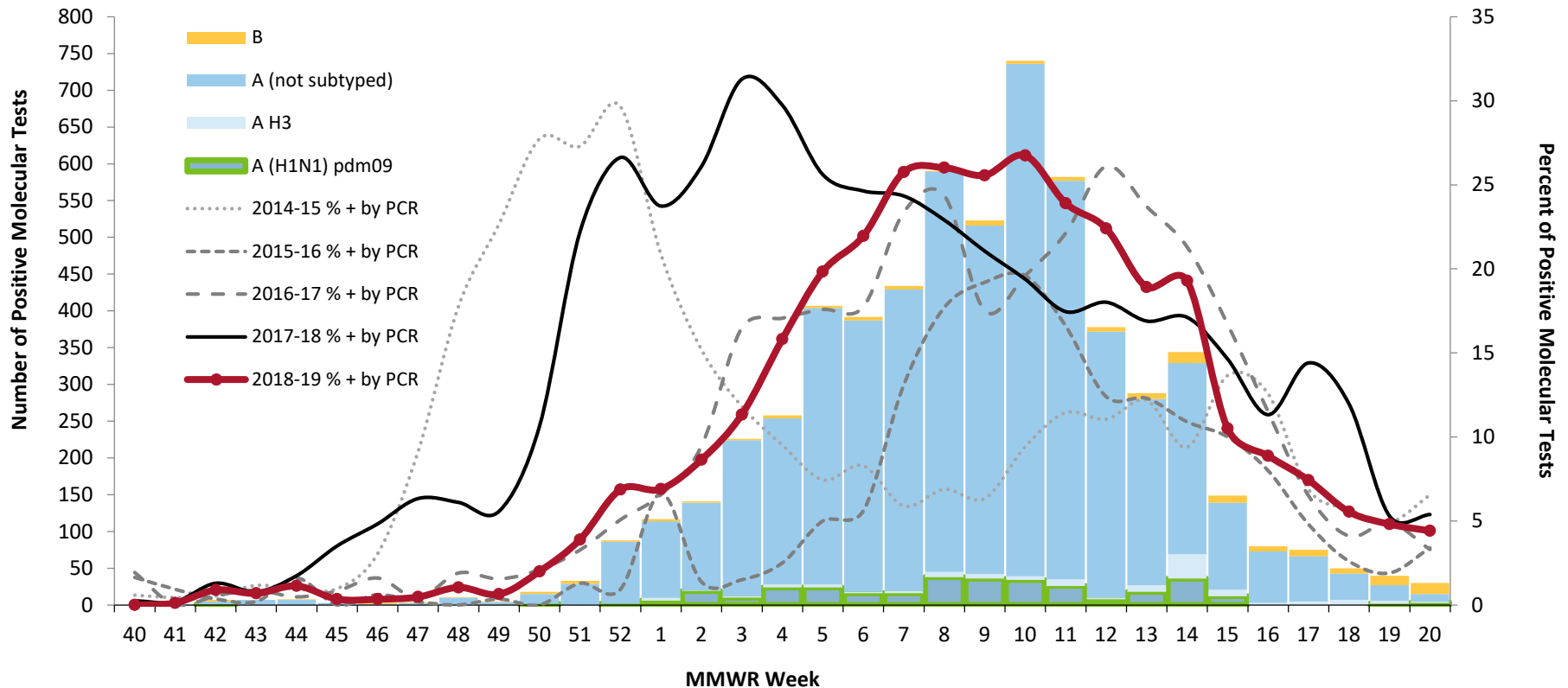
Percentage of Persons Presenting to Outpatient Clinics with Influenza-Like Illness (ILI)



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

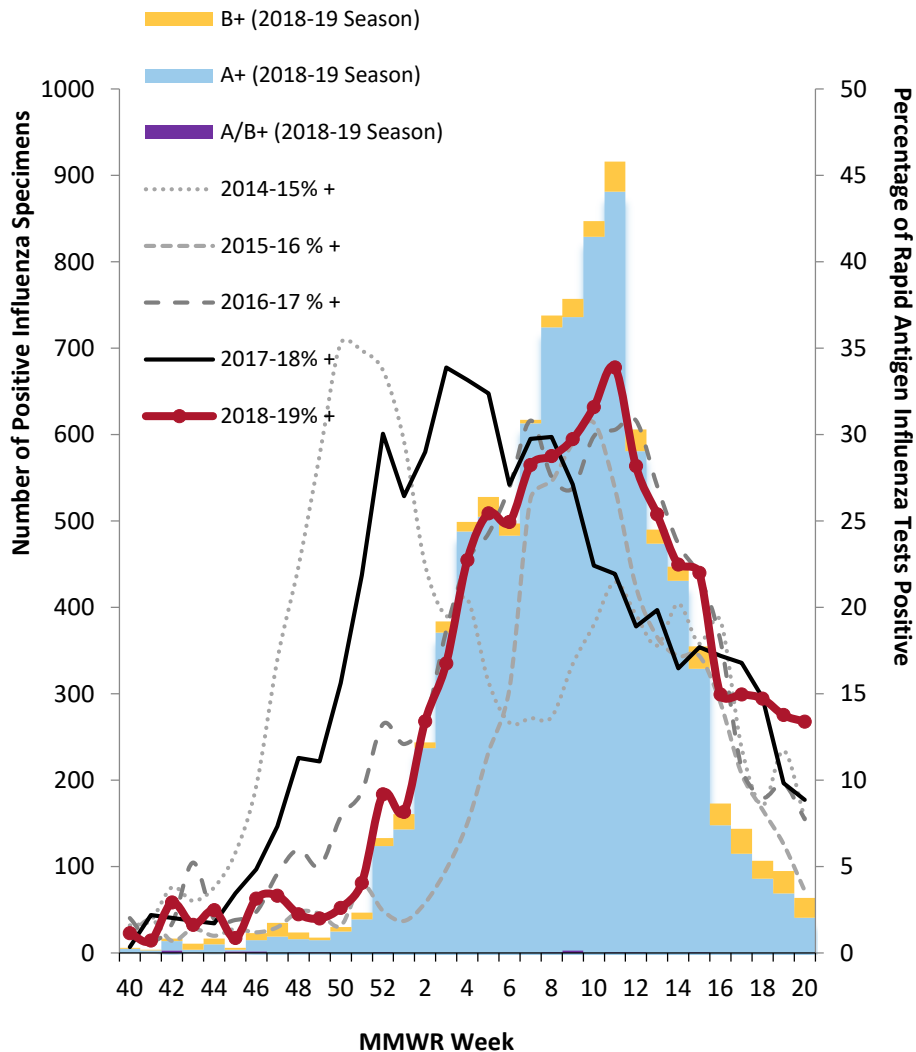


* Beginning in 2016-17, laboratories report results for rapid molecular influenza tests in addition to RT-PCR results

Laboratory Surveillance (continued)

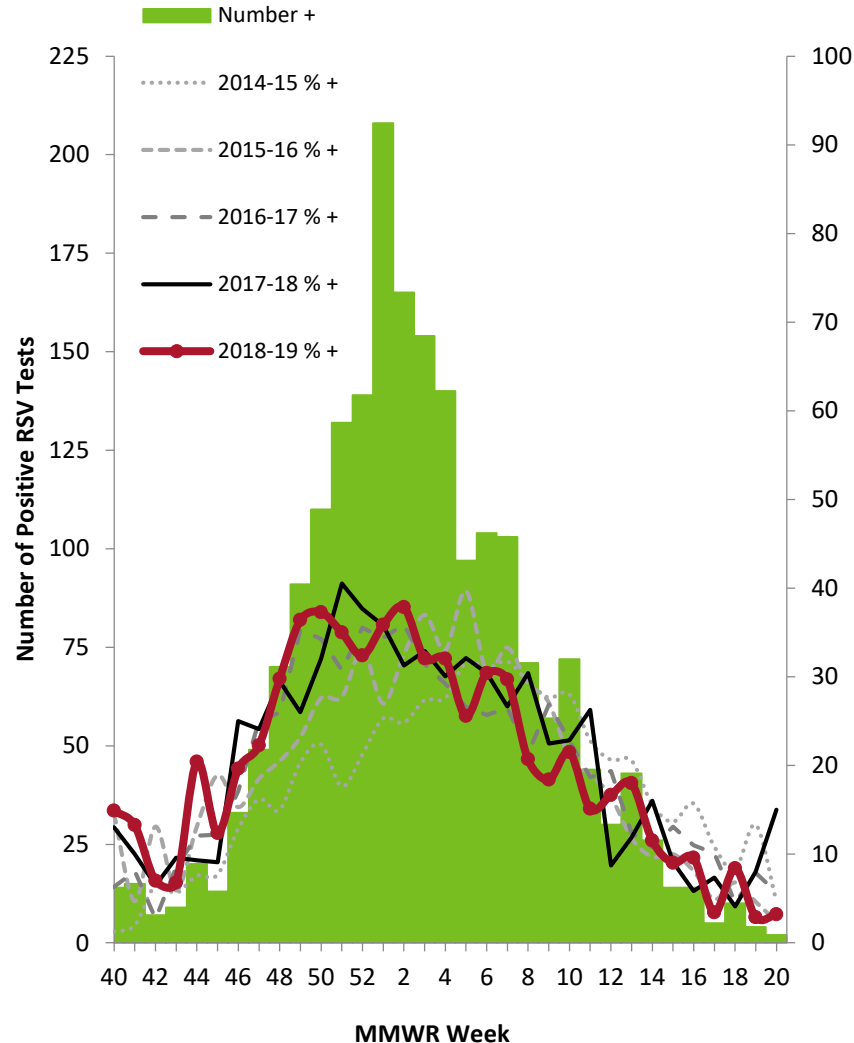
MLS Laboratories – Influenza Testing

Specimens Positive by Influenza Rapid Antigen Test, by Week



MLS Laboratories – RSV Testing

Specimens Positive by RSV Rapid Antigen Test, by Week



Weekly U.S. Influenza Surveillance Report

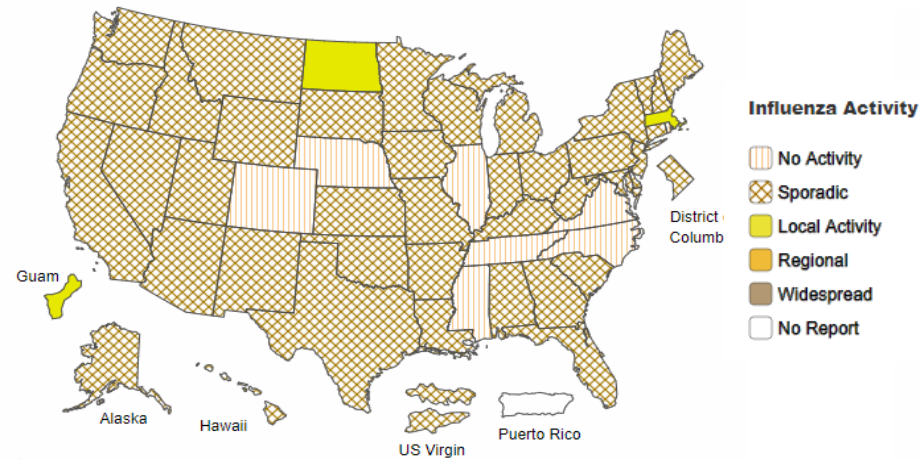
2018-2019 Influenza Season Week 41 ending October 13, 2018

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

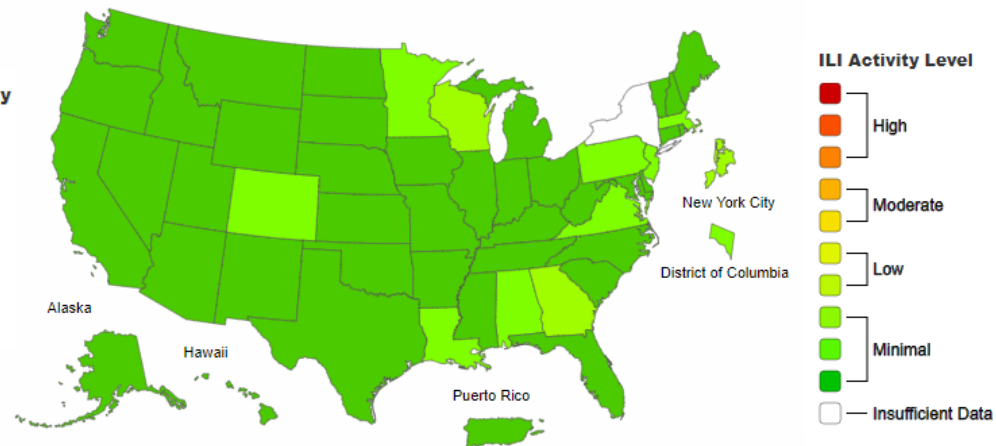
Influenza activity in the United States remains low.

- **Viral Surveillance:** Influenza A viruses have predominated in the United States since the beginning of July. The percentage of respiratory specimens testing positive for influenza in clinical laboratories was low.
 - **Virus Characterization:** The majority of influenza viruses characterized antigenically and genetically are similar to the cell-grown reference viruses representing the 2018–2019 Northern Hemisphere influenza vaccine viruses.
 - **Antiviral Resistance:** All viruses tested since late May show susceptibility to the antiviral drugs oseltamivir, zanamivir, and peramivir.
- **Influenza-like Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) remained low at 1.4%, which is below the national baseline of 2.2%. All regions reported ILI below their region-specific baseline level.
 - **ILI State Activity Indicator Map:** New York City, the District of Columbia, and 49 states experienced minimal ILI activity, and Puerto Rico and one state had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in Guam and two states was reported as local activity; the District of Columbia, the U.S. Virgin Islands and 40 states reported sporadic activity; eight states reported no activity; and Puerto Rico did not report.
- **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:** One influenza-associated pediatric death that occurred during the 2018-2019 season was reported to CDC.

**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.