

Madison County Communicable Disease Activity: Week 7, ending 2/17/18

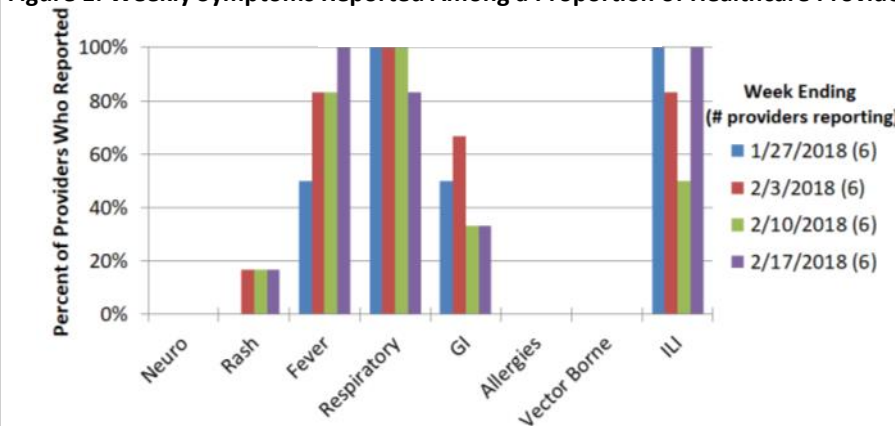
*Information denoted with an asterisk is subjective and provided on a voluntary basis.

COMMUNICABLE DISEASES: Madison County

Communicable Diseases Reported to the Health Department: 8 Chlamydia and 2 new chronic Hepatitis C

Primary Care Providers Reported*: Rashes, fever, respiratory illness, gastrointestinal illness (GI), upper respiratory illness (URI), influenza-like illness (ILI), flu, strep throat, sore throats, bronchitis, and sinus infections (Figure 1).

Figure 1: Weekly Symptoms Reported Among a Proportion of Healthcare Providers



Hospitals Reported:

Rashes, fever, respiratory illness, GI, ILI, flu, and pneumonia

College Health Centers Reported*: No report due to winter break

Syndromic Surveillance in Emergency Department—2/11/18 to 2/17/18: No clusters of illness reported

Medicaid Over-the-Counter (OTC) & Script Medication Alerts—1/28/18 to 2/6/18: Mild/moderate sensitivity for Influenza Agents (Flu antiviral medications) and antacids, and mild sensitivity for 3rd and 4th generation Cephalosporins (antibiotics).



Issue Highlight: Early Estimates for Flu Vaccine Effectiveness (2017-18 season)

Early national data shows most (69%) flu infections were caused by A(H3N2) viruses. Overall, early estimates show this year's flu vaccine to be 36% effective

Figure 2. Early Estimates of Vaccine Effectiveness, 11/2/17—2/3/18

Strain (flu type)	Vaccine Effectiveness (95% Confidence Interval)
H3N2 (Flu A)	25% (13%-36%)
H1N1 pdm09 (Flu A)	67% (54%-76%)
Flu B viruses	42% (25%-56%)
Overall (all flu virus strains & types)	36% (27%-44%)

End-of-season estimates of vaccine effectiveness may be different from early (interim) estimates. Even with current vaccine effectiveness estimates, vaccination can prevent flu illness and reduce the severity of symptoms.

This year there are above average hospitalizations due to flu. The use of antiviral medication is recommended for people at high risk for severe illness and complications from the flu, including older adults, who currently have the highest hospitalization rate this season.

Source: Flannery B, Chung JR, Belongia EA, et al. Interim Estimates of 2017–18 Seasonal Influenza (Flu) Vaccine Effectiveness — United States, February 2018. MMWR Morb Mortal Wkly Rep 2018;67:180–185.

DOI: <http://dx.doi.org/10.15585/mmwr.mm6706a2>

Madison County Disease Surveillance & Risk Report

Madison County Flu Activity: Week 7, ending 2/17/18: **Widespread (remains elevated)**

No Report

No Activity

Sporadic

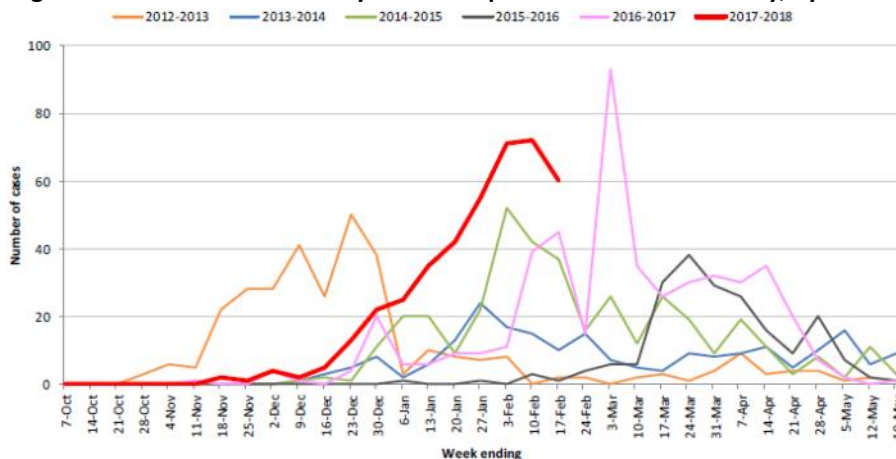
Local

Regional

Widespread

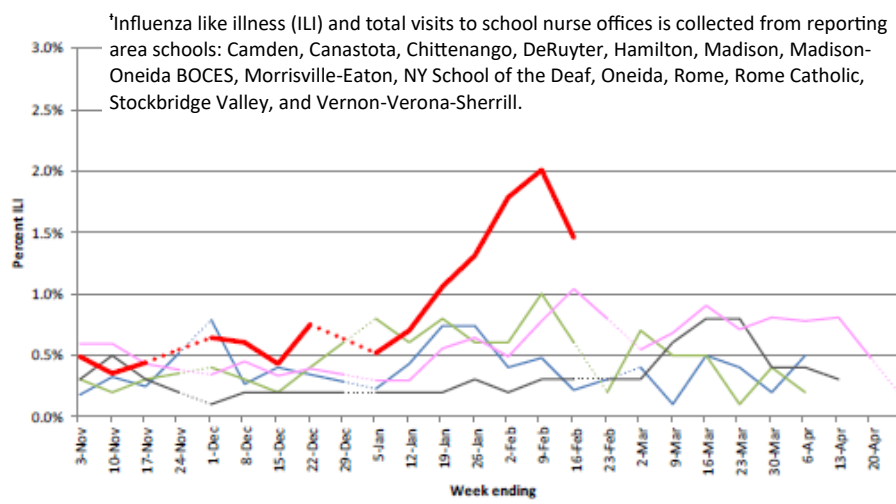
Weekly Lab-confirmed flu: 60 cases (38 flu Type A and 22 flu Type B) were reported; this is a 17% decrease from the previous week (Figure 3).

Figure 3: Positive Flu Laboratory Results Reported to Madison County, by Season



Schools Districts*: 1.5% of children seen by school nurses had symptoms of influenza-like illness; this is a 2% decrease from week 6 (Figure 4).

Figure 4: Proportion of ILI-related School Nurses Visits[†] by Season



College Health Centers*: ILI and flu was reported

Primary Care Providers*: ILI and flu was reported

Flu-Associated Pediatric Deaths: No reports this season to date.

(Flu-associated deaths only in children younger than 18 years old are nationally notifiable.)

Influenza-like or flu-like illness (ILI) includes:

1) a fever greater than 100°F measured with a thermometer AND
(2) a cough AND/OR sore throat in the absence of a known cause other than influenza.

Total Lab Confirmed Flu Reported to Date:

409 (247 Flu Type A-60% & 162 Type B-40%), this is 167% higher than average (153), to date.



Incidence Rate (the number of new flu cases): 81.7 per 100,000 population



Hospitals:

ILI and flu reported

Flu-Related

Hospitalizations: 4

hospitalized patient with lab-confirmed flu were reported in Madison County; this is an increase from the previous week (7). A total of 46 hospitalizations have been reported this season to date.

Madison County Disease Surveillance & Risk Report

New York State Flu Activity: Week 6, ending 2/10/18: **Widespread (remains elevated)**

No Report

No Activity

Sporadic

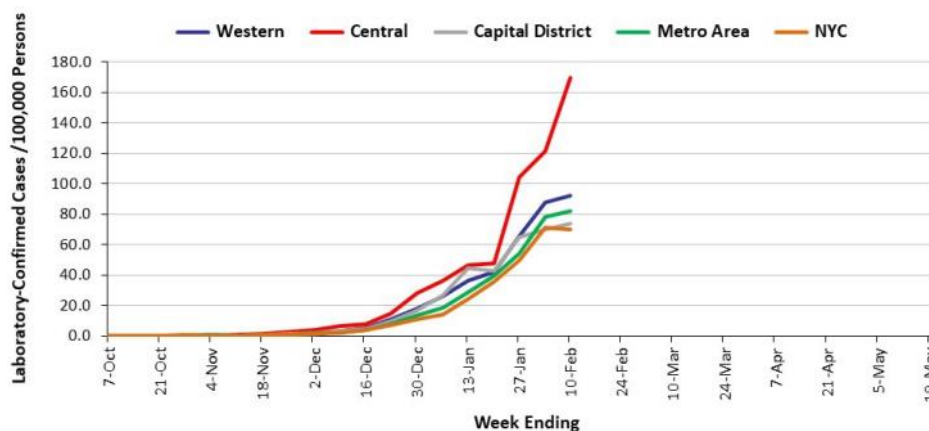
Local

Regional

Widespread

Weekly Lab-Confirmed Flu: 16,804 reports, a 7% increase over last week (Figure 5). Flu was reported in all 62 counties.

Figure 5: Incidence of Positive Flu Lab Results Reported to NYSDOH—By REGION, 2017-18

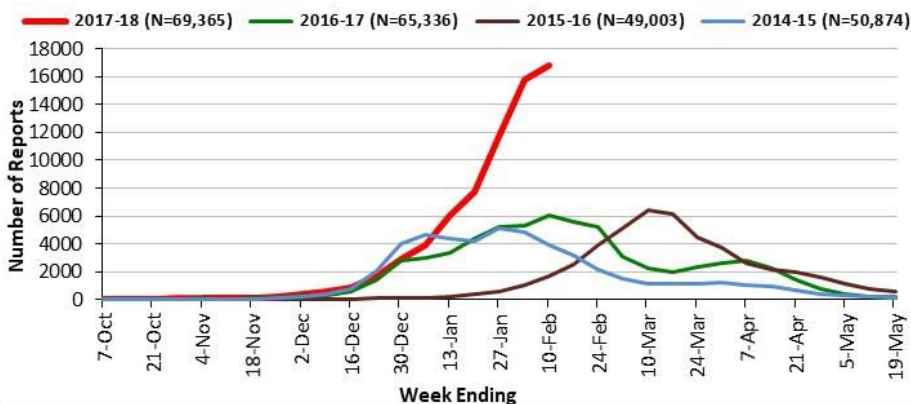


Incidence (the # of new cases) of lab-confirmed flu is calculated based on lab-confirmed influenza cases per 100,000 population.

Incidence ranged from: 16.58-301.51 cases per 100,000 population.

ILInet Healthcare Providers: 11.23% of weekly patient complaints were flu-like illness (ILI); this a slight decrease from the previous week and is above the regional baseline of 3.10% (Figure 6). (ILInet providers report the total number of patients seen and the total number of those with complaints of influenza-like illness (ILI) weekly in an outpatient setting.)

Figure 6: Positive Flu Lab Results Report to NYS, by Season



Flu-Related

Hospitalizations:

2,409 reports, a 3% decrease over last week.



Flu-Associated Pediatric Deaths: Two reports this week. Five deaths were reported this season to-date.

FLU: New York State

Madison County Disease Surveillance & Risk Report

National Flu Activity: Week 6, ending 2/10/18: **Widespread (remains elevated)**

No Report

No Activity

Sporadic

Local

Regional

Widespread

Flu activity **remained elevated** in the U.S.

Geographic Flu Activity Summary (Figure 7):
(Geographic spread of influenza viruses, not a measure of severity.)

- Widespread influenza activity was reported by Puerto Rico and 48 states
- Regional influenza activity was reported by one state
- Local influenza activity was reported by the District of Columbia, Guam and one state
- No influenza activity was reported by the U.S. Virgin Islands.

Flu Activity from ILINet Data (Figure 8):

New York City, the District of Columbia, Puerto Rico and 43 states experienced high activity; two states experienced moderate ILI activity; three states experienced low ILI activity; and two states experienced minimal ILI activity
(This data is based on the percent of outpatient visits in a state due to ILI compared to the average percent of ILI visits during weeks with little or no influenza virus circulation.)

U.S. ILINet Healthcare Providers:

Outpatient illness visits reported through the Network was 7.5%, this percentage is *above* the national baseline of 2.2%. All 10 regions in the U.S. reported flu-like illness *at or above* their region-specific baselines.

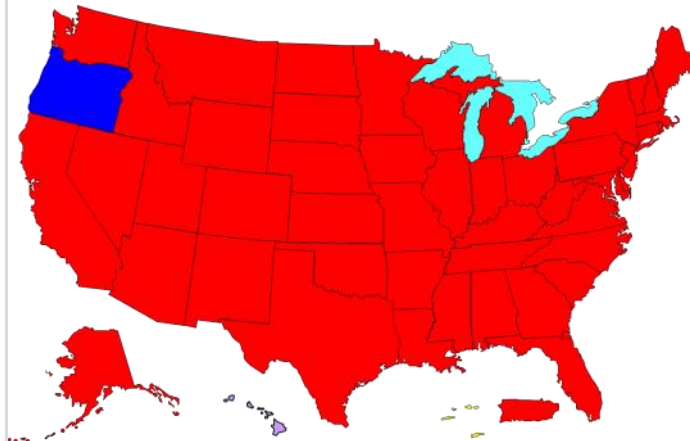
Flu and Pneumonia-Associated Deaths:

9.8% of all deaths reported through the National Center for Health Statistics mortality surveillance data, occurring during week 4 ending 1/27, were attributed to pneumonia and flu; this is *above* the week 4 epidemic threshold of 7.3%.

Flu-Associated Pediatric Deaths:

22 pediatric deaths were reported during week 6. 84 flu-associated pediatric deaths have been reported this season to date.

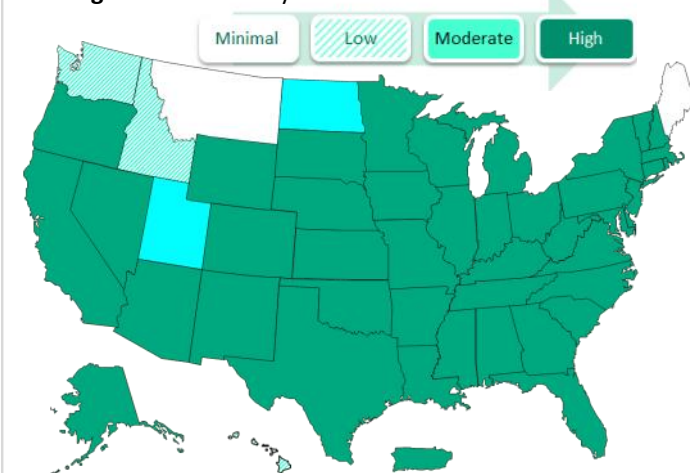
Figure 7: Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists
(This figure does not measure the severity of influenza activity.)



Overall Flu-Related Hospitalization Rate: 67.9 per 100,000 population.

The highest rate of hospitalization was among adults aged ≥65 years (249.9 per 100,000 population).

Figure 8: ILI Activity from ILINet Data



ILI Net Data based on percent of outpatient visits in states due to ILI, more on Fig. 2 at: <http://1.usa.gov/1d3PGTv>

Sources: FluView: Weekly U.S. Influenza and Surveillance Report. Centers for Disease Control and Prevention. <http://1.usa.gov/1eDDFhh>

FLU: United States