



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



Editor: Seth Eckel, MPH

EckelS1@michigan.gov

April 27, 2016 Vol. 13; No. 15

Influenza Surveillance Report for the Week Ending April 16, 2016

MI's Influenza Activity Level:
Regional

Updates of Interest:

Some markers of flu activity held steady, while others showed smaller decreases than in recent weeks.

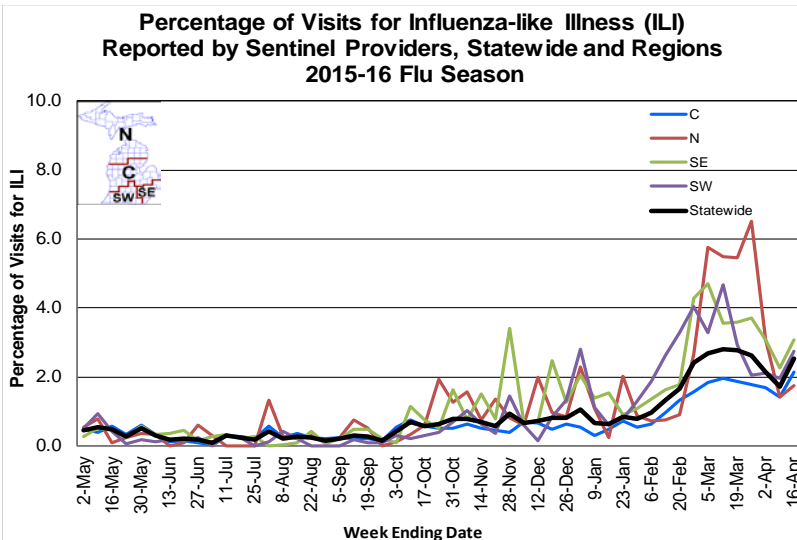
Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, aggregate reports had decreased, while individual reports had increased. Aggregate reports were lower than levels seen during the same time period last year, while individual reports were higher.

Emergency Department Surveillance

Compared to levels from the week prior, emergency department visits from constitutional and respiratory complaints were lower. Levels of constitutional and respiratory complaints were both lower than those recorded during the same time period last year.

- 3 constitutional alerts (2C, 1SW)
- 4 respiratory alerts (1N, 1C, 1SE, 1SW)
- Last MIFF report: 4 constitutional alerts (C), 6 respiratory alerts (5C, 1SW)



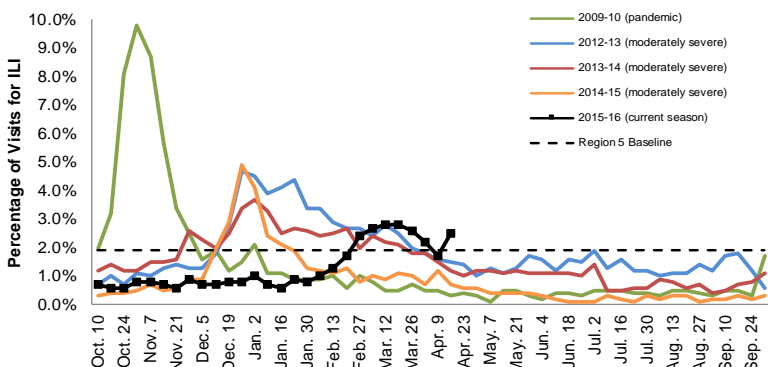
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 2.5% overall; this is above the regional baseline (1.9%). A total of 302 patient visits due to ILI were reported out of 11,979 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (31 total):

- C (8)
- N (4)
- SE (12)
- SW (7)

Percentage of Visits for Influenza-like Illness (ILI) Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet): Michigan, Select Seasons



Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Stefanie Cole (ColeS4@michigan.gov) for more information.

Table of Contents:

Michigan Surveillance.....1-3
National Surveillance.....3
International Surveillance....3

Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases beginning on Oct. 1, 2015, for Clinton, Eaton, Genesee, and Ingham counties. Since Oct. 1, there have been 70 pediatric (36.6 per 100,000 population) and 205 adult (29.8 per 100,000 population) hospitalizations reported within the catchment area. Note: IHSP case classification is an ongoing process and the cumulative totals may change from week to week.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 13 hospitals (C, N, SE, & SW) reported. Results for the 2015-16 flu season are listed in the table below. Additional hospitals are welcome to join; please contact Seth Eckel at eckels1@michigan.gov.

| Age Group | New Flu Hospitalizations Reported | Total 2015-16 Flu Hospitalizations Reported to Date |
|------------------|-----------------------------------|---|
| 0-4 years | 2 (N) | 37 (20N, 8SW, 9SE) |
| 5-17 years | 0 | 24 (12N, 4SW, 8SE) |
| 18-49 years | 1 (SE) | 160 (30N, 3C, 32SW, 95SE) |
| 50-64 years | 7 (1N, 2SW, 4SE) | 218 (28N, 7C, 38SW, 145SE) |
| 65 years & older | 18 (2N, 2C, 1SW, 13SE) | 249 (28N, 9C, 38SW, 174SE) |
| Total | 28 (5N, 2C, 3SW, 18SE) | 688 (118N, 19C, 120SW, 431SE) |

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 3 new positive influenza results: One 2009 A/H1N1pdm and two influenza B. A total of 337 positive influenza results have been reported for the 2015-16 season. Influenza results for the 2015-16 season are in the table below.

| Respiratory Virus | # Positive Respiratory Virus Results by Region | | | | Total | # Specimens Antigenically Characterized | # Tested for Antiviral Resistance |
|----------------------|--|----|----|-----|-------|--|-----------------------------------|
| | C | N | SE | SW | | | # Resistant / Total # Tested |
| 2009 A/H1N1pdm | 59 | 19 | 71 | 105 | 254 | 18* (18 A/California/07/2009-like (H1N1)pdm09**) | 2 / 96 |
| Influenza A/H3 | 13 | 1 | 11 | 15 | 40 | 4* (4 A/Switzerland/9715293/2013-like [†]) | 0 / 20 |
| Influenza B | 6 | 6 | 13 | 13 | 38 | 32 (18 B/Yamagata lineage [2 B/Phuket/3073/2013-like ^{††}], 14 B/Victoria lineage) | |
| A / unsubtypeable | | | | 5 | 5 | | |
| LAIV recovery | | | | 1 | 1 | | |
| RSV | | | 2 | | 2 | | |
| Adenovirus | 2 | | 1 | | 3 | | |
| Parainfluenza type 1 | | | 1 | | 1 | | |

*Specimens antigenically characterized by CDC; **A/California/07/2009-like (H1N1)pdm09 is the H1N1 component of the 2015-16 Northern Hemisphere flu vaccines; [†]A/Switzerland/9715293/2013-like (H3N2) is the H3N2 component of the 2015-16 Northern Hemisphere flu vaccines; ^{††}B/Phuket/3073/2013-like virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 12 sentinel clinical labs (3SE,2SW,6C,1N) reported influenza results. Eleven labs (SE,SW,C,N) reported influenza A positives ranging from low to moderate activity, with all sites showing steady or further declining levels. Eight labs (SE,SW,C, N) reported influenza B activity at overall low levels, except for one site (SE) showing moderate activity. Two labs (SW, C) reported sporadic Parainfluenza activity. Eight labs (SE,SW,C,) reported declining or low RSV activity. Five labs (SE,SW,C) reported Adenovirus activity at low or sporadic levels. Four labs (SE,SW,C) reported ongoing hMPV activity. Most testing volumes are still elevated but continue to trend down.

Influenza Congregate Settings Outbreaks

There was 1 new respiratory facility outbreak reported, which tested positive for influenza. There have been a total of 30 respiratory facility outbreaks reported to MDHHS for the 2015-16 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

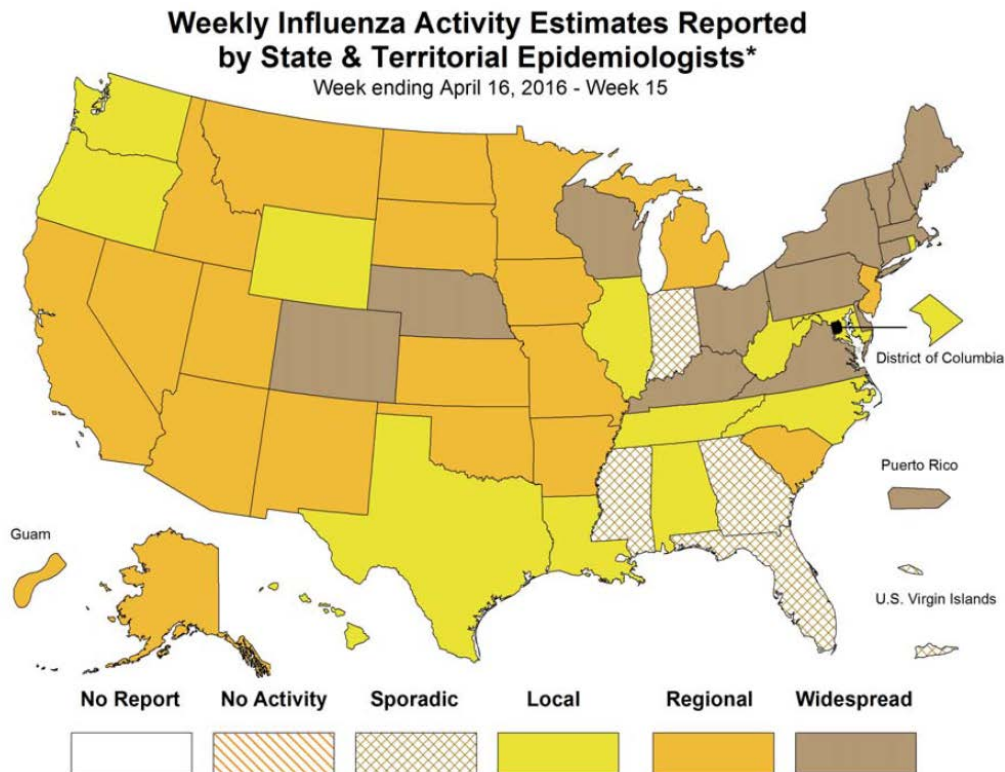
| Facility Type | C | N | SE | SW | Total |
|---|----------|----------|----------|-----------|-----------|
| K-12 School | 1 | 2 | | 3 | 6 |
| Long-term Care / Assisted Living Facility | 8 | 1 | 5 | 7 | 21 |
| Healthcare Facility | | | 1 | | 1 |
| Daycare | | | | 1 | 1 |
| Correctional Facility | | 1 | | | 1 |
| Total | 9 | 4 | 6 | 11 | 30 |

Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. One influenza-associated pediatric death (SE) has been reported to MDHHS for the 2015-16 season.

National: In the United States, flu activity remained at the national baseline of 2.1% of outpatient visits due to influenza-like illness. Five of 10 regions reported ILI at or above region-specific baselines. Six new influenza-associated pediatric deaths were reported, for a total of 56 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

International: In the Northern Hemisphere influenza activity was decreasing, while still elevated in some areas, due in part to an increase of influenza B activity. In the Southern Hemisphere influenza activity was reported to be slightly increasing. More information is available at: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.



For questions or to be added to the distribution list, please contact Seth Eckel at eckels1@michigan.gov.

MDHHS Contributors

Bureau of Epidemiology – S. Bidol, MPH, S. Cole, RN, MPH, S. Eckel, MPH
Bureau of Labs – B. Robeson, MT, V. Vavricka, MS