



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending April 2, 2016

MI's Influenza
Activity Level:
 Widespread

Updates of Interest:

Flu Scan: Kids' deaths continue amid slow decline in US flu activity

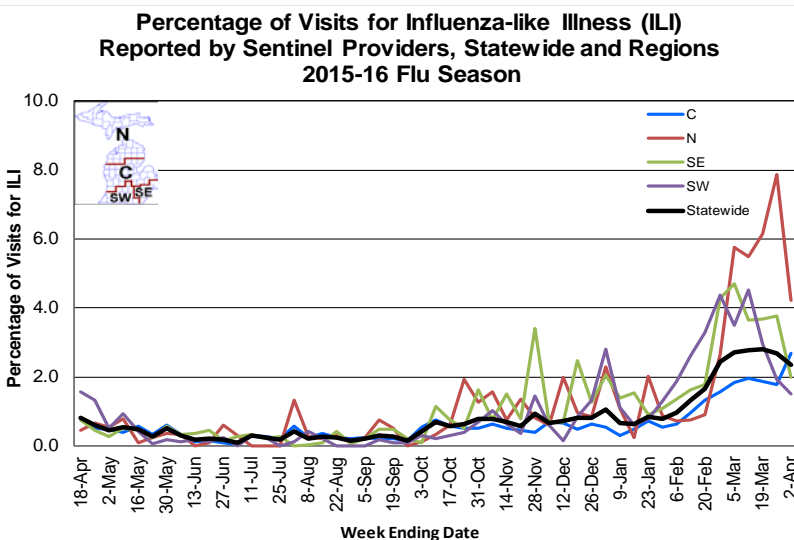
Michigan Disease Surveillance System

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

Emergency Department Surveillance

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

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



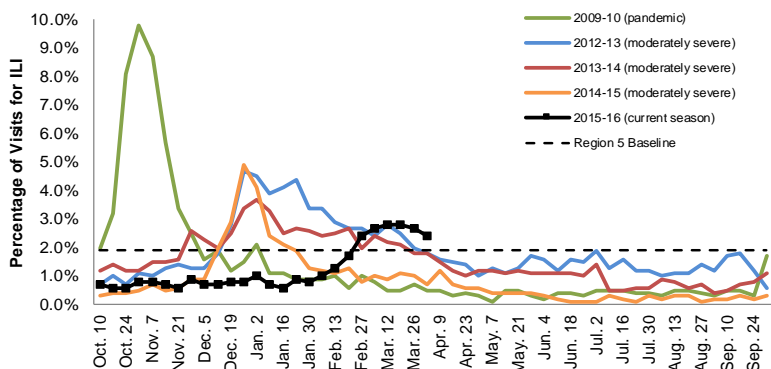
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 2.4% overall; this is above the regional baseline (1.9%). A total of 249 patient visits due to ILI were reported out of 10,567 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (27 total):

- C (8)
- N (3)
- SE (9)
- 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.

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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 59 pediatric (30.9 per 100,000 population) and 191 adult (27.8 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 (1N, 1SE)	35 (18N, 8SW, 9SE)
5-17 years	1 (SE)	23 (11N, 4SW, 8SE)
18-49 years	9 (3N, 2SW, 4SE)	153 (27N, 3C, 31SW, 92SE)
50-64 years	13 (2N, 2C, 9SE)	203 (26N, 7C, 34SW, 136SE)
65 years & older	13 (3N, 3SW, 7SE)	219 (25N, 5C, 36SW, 153SE)
Total	38 (9N, 2C, 5SW, 22SE)	633 (107N, 15C, 113SW, 398SE)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 10 new positive influenza results: 2 influenza B, 2 influenza A/H3 and 6 2009 A/H1N1pdm. A total of 324 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	55	19	70	99	243	18* (18 A/California/07/2009-like (H1N1)pdm09**)	2 / 79
Influenza A/H3	13	1	11	15	40	4* (4 A/Switzerland/9715293/2013-like [†])	0 / 6
Influenza B	5	6	13	12	36	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. All twelve labs (SE,SW,C,N) reported influenza A positives with all regions still showing elevated levels, but with a gradual downward trend continuing. Eight labs (SE,SW,C) reported low to moderate influenza B activity, at overall declining levels but with two sites (C) showing small upticks. Two labs (SE,SW) reported sporadic Parainfluenza activity. Nine labs (SE,SW,C) reported declining or low RSV activity. Four labs (SE,SW,C) reported Adenovirus activity, with overall low levels now observed. Five labs (SE,SW,C) reported low to moderate hMPV activity, with two sites (SE,C) showing small upticks. Most testing volumes are now in the moderate to high range and continuing to trend down.

Influenza Congregate Settings Outbreaks

There was 1 new respiratory facility outbreak reported, which tested positive for influenza A/2009 H1N1pdm. There have been a total of 28 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.

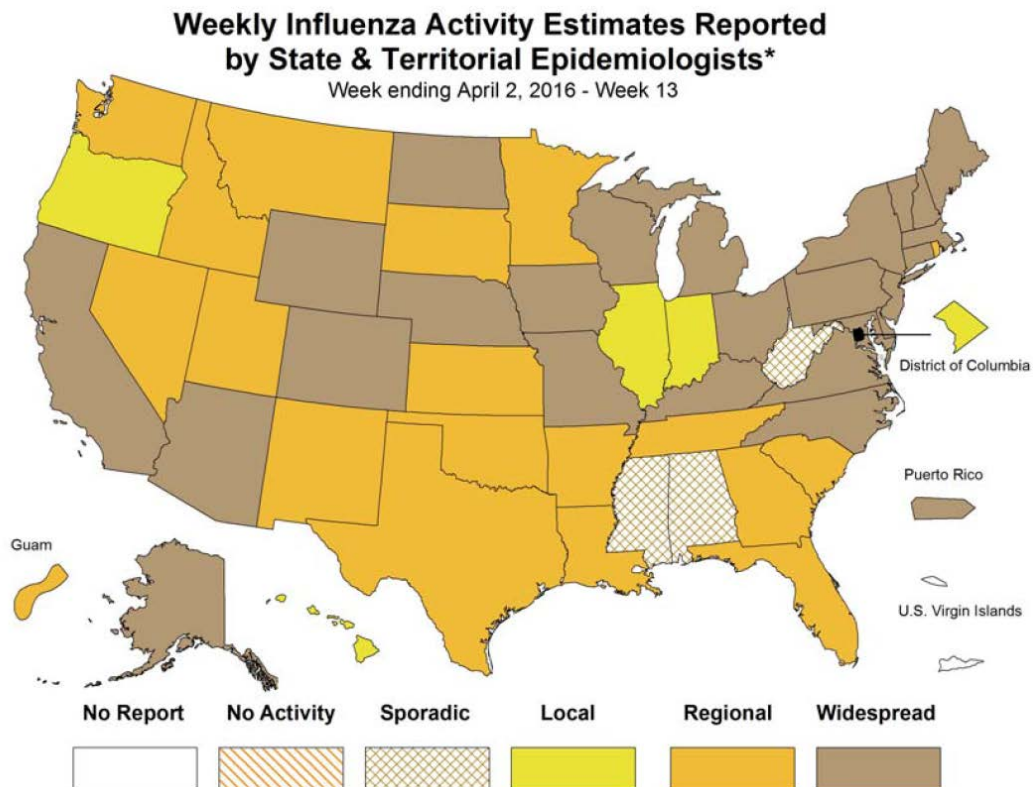
Facility Type	C	N	SE	SW	Total
K-12 School	1	2		3	6
Long-term Care / Assisted Living Facility	7	1	4	7	19
Healthcare Facility			1		1
Daycare				1	1
Correctional Facility		1			1
Total	8	4	5	11	28

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 decreased slightly but remained elevated with 2.4% of outpatient visits due to influenza-like illness, which was above the national baseline of 2.1%. Eight of 10 regions reported ILI at or above region-specific baselines. Seven new influenza-associated pediatric deaths were reported, for a total of 40 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

International: Globally, elevated levels of flu activity continued to be reported in North America, in parts of Europe and in northern temperate Asia. An increase in influenza B activity was reported in northern temperate Asia, southeast Asia, and Europe. 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.

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