



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



Editor: Stefanie Cole, RN, MPH ColeS4@michigan.gov January 27, 2016 Vol. 13; No. 2

Influenza Surveillance Report for the Week Ending January 16, 2016

MI's Influenza Activity Level:
Local

Updates of Interest:

- An [article](#) was recently published modeling school closure policies and their effect on mitigating influenza epidemics and pandemics.

Michigan Disease Surveillance System

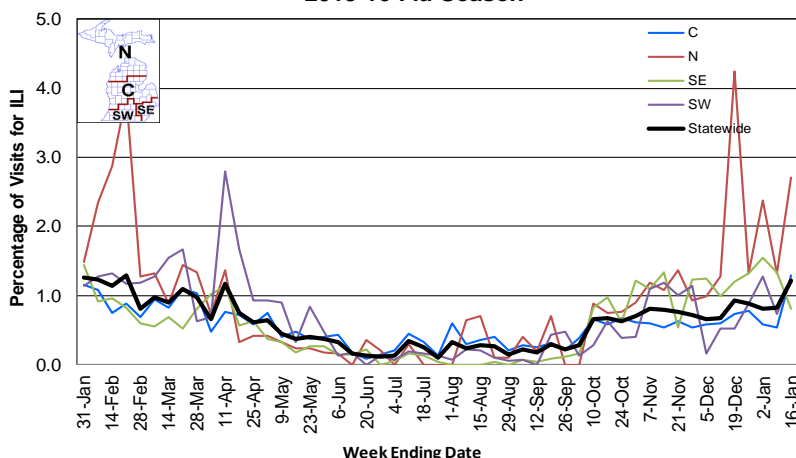
MDSS influenza data indicated that compared to levels from the previous week, aggregate reports had increased while individual reports had decreased. Aggregate and individual reports were both lower than levels seen during the same time period last year.

Emergency Department Surveillance

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

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

Percentage of Visits for Influenza-like Illness (ILI) Reported by Sentinel Providers, Statewide and Regions 2015-16 Flu Season



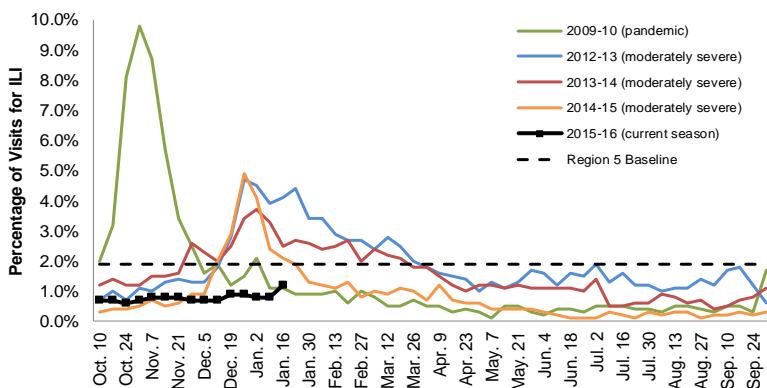
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.2% overall; this is below the regional baseline (1.9%). A total of 134 patient visits due to ILI were reported out of 11,046 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (28 total):

- C (10)
- N (3)
- SE (10)
- SW (5)

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 3 pediatric and 3 adult hospitalizations reported within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 14 hospitals (N, C, 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	0	3 (SE)
5-17 years	0	0
18-49 years	5 (1C, 4SE)	11 (1N, 1C, 9SE)
50-64 years	1 (SE)	4 (SE)
65 years & older	2 (SE)	10 (9SE, 1SW)
Total	8 (1C, 7SE)	28 (1N, 1C, 25SE, 1SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 3 new positive influenza results: 2 2009 A/H1N1pdm and 1 A/H3. A total of 61 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	3	1	31	6	41	2* (2 A/California/07/2009-like (H1N1)pdm09**)	1 / 35
Influenza A/H3	5		8	3	16	2* (2 A/Switzerland/9715293/2013-like†)	0 / 6
Influenza B	1		1		2	2 (2 B/Yamagata lineage)	
A / unsubtypeable				2	2		
RSV			2		2		

*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.

In addition, 13 sentinel clinical labs (4SE,2SW,6C,1N) reported influenza results. Six labs (SE,SW) reported influenza A activity with increases in the SE region. Two labs (SE) reported sporadic influenza B activity. Four labs (SE,SW,C) reported low or slightly increased Parainfluenza activity. Eleven labs (SE,SW,C,N) reported low to moderate RSV activity with an overall steady elevation. Five labs (SE,SW,C) reported low or gradually increasing Adenovirus activity. Four labs (SE,SW,C) reported low or gradually increasing hMPV activity. Most testing volumes remain in the moderate to upper-moderate range.

Influenza Congregate Settings Outbreaks

There was one new respiratory facility outbreak (unknown etiology) reported. There have been a total of 3 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	0	1	0	1	2
Long-term Care / Assisted Living Facility	1	0	0	0	1
Total	1	1	0	1	3

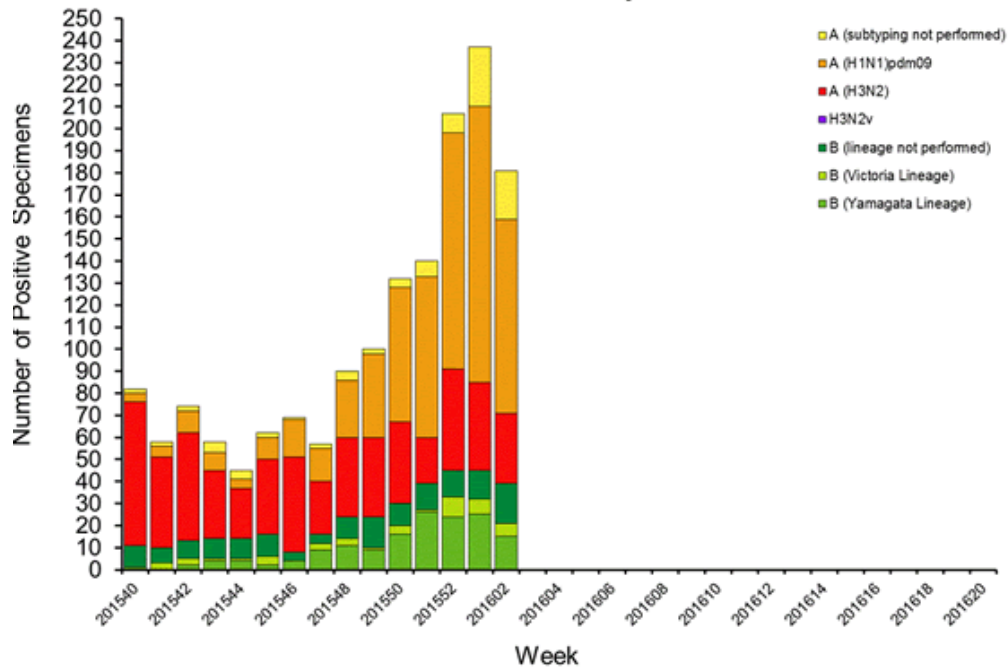
Influenza-associated Pediatric Mortality

No influenza-associated pediatric deaths have been reported to MDHHS for the 2015-16 season.

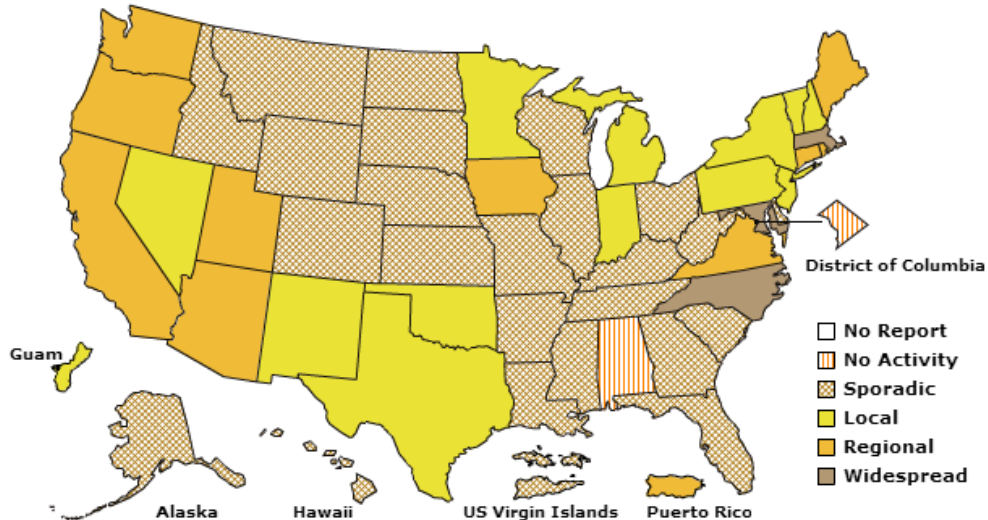
National: In the United States, flu activity increased slightly with 2.1% of outpatient visits due to influenza-like illness, which was at the national baseline of 2.1%. Six of 10 regions reported ILI at or above region-specific baselines. No new influenza-associated pediatric deaths were reported, for a total of 7 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

International: High levels of flu activity were reported from some countries in Western Asia. Increasing flu activity was reported in northern America, northern and eastern Europe, and northern/temperate Asia. Most detected flu viruses were influenza A(H1N1)pdm09. More information is available at: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, 2015-2016 Season



A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*
Week Ending January 16, 2016- Week 2





U.S. SEASONAL INFLUENZA NEWS

- [12-year-old Washington girl dies from flu](#)
- [1st Utah influenza death of 2015-16 flu season reported](#)

AVIAN INFLUENZA NEWS IN NORTH AMERICA

- [Over 400,000 birds euthanized after Indiana avian influenza outbreak](#)
- [USDA issues updates to highly pathogenic avian influenza fall plan](#)
- Any reports of sick or dead birds should be forwarded immediately to the proper agency:
 - For domestic poultry, contact MDARD:
 - M-F 8AM-5PM, 1-800-292-3939
 - After hours/weekends, 517-373-0440
 - For wildlife (die-off of waterfowl, gulls, or shorebirds), contact DNR:
 - M-F 8AM-5PM, 517-336-5030
 - After hours/weekends, 1-800-292-7800

AVIAN INFLUENZA INTERNATIONAL NEWS

- [Chinese swan farm hit by avian H5N6 flu](#)
- [Human infection with avian influenza A\(H5N6\) virus – China](#)
- [H5N1 outbreak found on Indian state poultry farm](#)
- [Twelve more H5N1 outbreaks found in Cote d'Ivoire](#)
- [China confirms H7N9 case in Hunan province; Nigeria reports 6 H5N1 outbreaks while Cote d'Ivoire confirms 1](#)
- [WHO reports earlier H5N1, H9N2 cases in Bangladesh](#)
- *Emerging Infectious Diseases*: [Highly pathogenic avian influenza A\(H5N8\) viruses reintroduced into South Korea by migratory waterfowl, 2014-2015](#)
 - HPAI H5N8 viruses isolated from migratory waterfowl during fall 2014 – winter 2015, recurrence after initial introduction in winter 2014
 - Reappeared viruses phylogenetically distinct from isolates circulating in poultry farms
- [Nigeria reports 11 new H5N1 avian flu outbreaks in poultry](#)
- [China reports H5N1 outbreak involving 35,000 poultry](#)
- [Bird flu virus detected in Taipei pigeon](#)
- *Emerging Infectious Diseases*: [Avian influenza A\(H5N1\) virus in Egypt](#)
- [FAO, MOFA to fight in eradicating avian influenza in Ghana](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [Model-based comprehensive analysis of school closure policies for mitigating influenza epidemics and pandemics](#)
 - Optimal implementations generally require short closures of one week
- *PNAS*: [H1N1 influenza virus induces narcolepsy-like sleep disruption and targets sleep-wake regulatory neurons in mice](#)
- *PNAS*: [Molecular requirements for a pandemic influenza virus: an acid-stable hemagglutinin protein](#)
 - Monitoring hemagglutinin stability expected to enhance pre-pandemic surveillance and control of emerging influenza viruses

OTHER INFLUENZA-RELATED NEWS

- CDC: [145.6 million doses of flu vaccine distributed in U.S.](#)
- [Taiwan records 41 flu-related deaths since last July](#)
- [Schools closed in Kharkiv as Ukraine announces flu epidemic](#)
- [Influenza exceeds epidemic threshold in Russia](#)
- [Influenza hits Syrian refugees in Edmonton](#)
- [Mass media coverage helps slow down disease spread in an epidemic](#)

CDC CHILDHOOD IMMUNIZATION CHAMPION

MDHHS is accepting nominations for the 2016 CDC Childhood Immunization Champion Award! This award recognizes individuals who significantly contribute to public health through their work in childhood immunizations. The 2016 awardees will be announced during National Infant Immunization Week (April 17-23). For more information, including the award criteria and nomination packet, please go [here](#). If you would like to submit a nomination, please email it to Stephanie Sanchez at SanchezS@michigan.gov by February 11.

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
<http://vaccine.healthmap.org/>

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

For questions or to be added to the distribution list, please contact Stefanie Cole at ColeS4@michigan.gov.

MDHHS Contributors

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