



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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MI's Current Influenza Activity Level:
 Local

Updates of Interest:
 Egg farm hit in [Nebraska's](#) first H5N2 event; in eastward jump, H5N8 surfaces in [Indiana](#); signs of [airborne](#) H5N2 found.

Influenza Surveillance Report for the Week Ending May 2, 2015

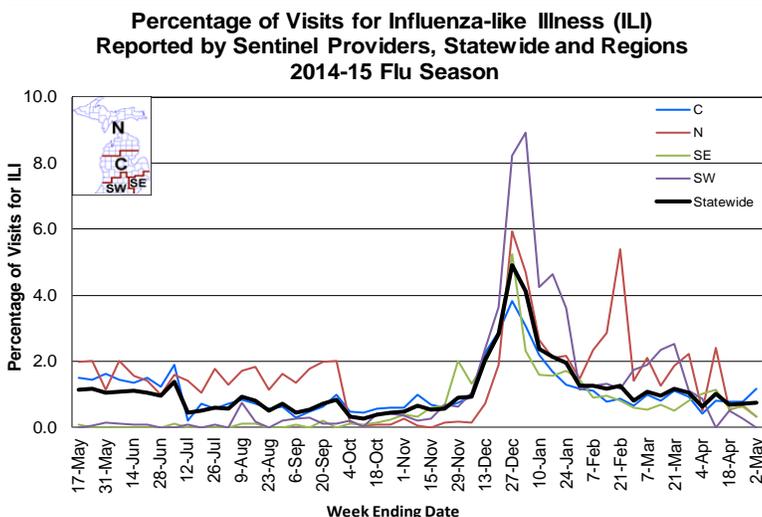
Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, aggregate reports increased slightly while individual reports decreased slightly. Aggregate reports are similar to and individual reports are higher 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 remained the same and respiratory complaints decreased slightly. Levels of constitutional complaints were slightly higher while respiratory complaints were slightly lower than levels seen during the same time period last year.

- 7 constitutional alerts (6C, 1N)
- 6 respiratory alerts (1SE, 1SW, 4C)

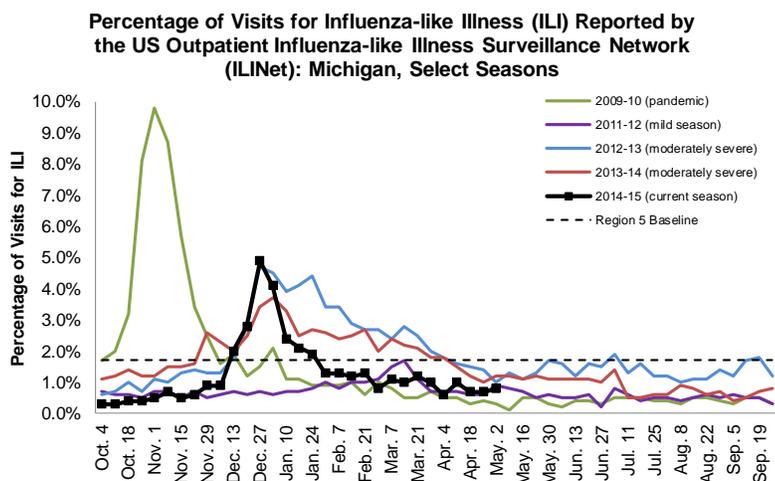


Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 0.8% overall; this is below the regional baseline (1.7%). A total of 70 patient visits due to ILI were reported out of 9,175 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (30 total):

- C (11)
- N (5)
- SE (11)
- SW (3)



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 DeVita at devitas1@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, starting on October 1, 2014 and ending April 30, 2015, for Clinton, Eaton, Genesee, and Ingham counties. There were 6 influenza-related hospitalizations reported (accumulated total since Oct. 1: 88 children, 374 adults).

Based on these counts, there have been 45.6 pediatric influenza hospitalizations per 100,000 population and 54.6 adult influenza hospitalizations per 100,000 population within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 7 hospitals (C,SE,SW) reported. Results 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 2014-15 Flu Hospitalizations to Date
0-4 years	0	31 (1N, 21C, 4SE, 5SW)
5-17 years	0	33 (28C, 5SE)
18-49 years	1 (SE)	67 (2N, 12C, 49SE, 4SW)
50-64 years	0	128 (3N, 14C, 97SE, 14SW)
65 years & older	2 (SE)	524 (20N, 19C, 430SE, 55SW)
Total	3 (SE)	783 (26N, 94C, 585SE, 78SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported no new positive influenza results. A total of 552 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are reported 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				1	1		
Influenza A/H3	113	33	97	247	490	15* (3 A/Texas/50/2012-like**, 12 A/Switzerland/9715293/2013-like)	0 / 146
Influenza B	18	6	17	18	59	59 (44 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†]], 12 B/Victoria lineage, 3 inconclusive)	
Influenza A, unsubtypeable	1			1	2		

*Specimens antigenically characterized by CDC; **A/Texas/50/2012 (H3N2) virus is the H3N2 component of the 2014-15 Northern Hemisphere flu vaccine, A/Switzerland/9715293/2013-like is an antigenic variant of the current vaccine virus; [†]B/Massachusetts/02/2012 virus is the B/Yamagata component of the 2014-15 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 10 sentinel clinical labs (3SE,2SW,5C) reported influenza results. Two labs (SE,C) reported low or sporadic influenza A activity. Seven labs (SE,SW,C) reported ongoing influenza B activity but with a further declining trend observed, and five labs (SE,SW,C) reported only influenza B activity. Two labs (SE,SW) reported low or slightly elevated Parainfluenza activity. Five labs (SE,SW,C) reported ongoing RSV activity with an overall trend of steady or further declining activity. Two labs (SE,SW) reported low Adenovirus activity. Two labs (SE,SW) reported ongoing hMPV activity. Most testing volumes continue to drop but with several sites still in the high range.

Influenza Congregate Settings Outbreaks

There were 3 new respiratory facility outbreaks reported (1 confirmed flu B, 1 confirmed flu, and 1 unknown etiology/no testing). There have been a total of 150 respiratory facility outbreaks reported to MDHHS for the 2014-15 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
Adult Care Facility		1	2		3
Long-Term Care / Assisted Living Facility	28	12	34	36	110
K-12 School	1		2		3
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Correctional Facility				1	1
Total	45	13	42	50	150

Influenza-associated Pediatric Mortality

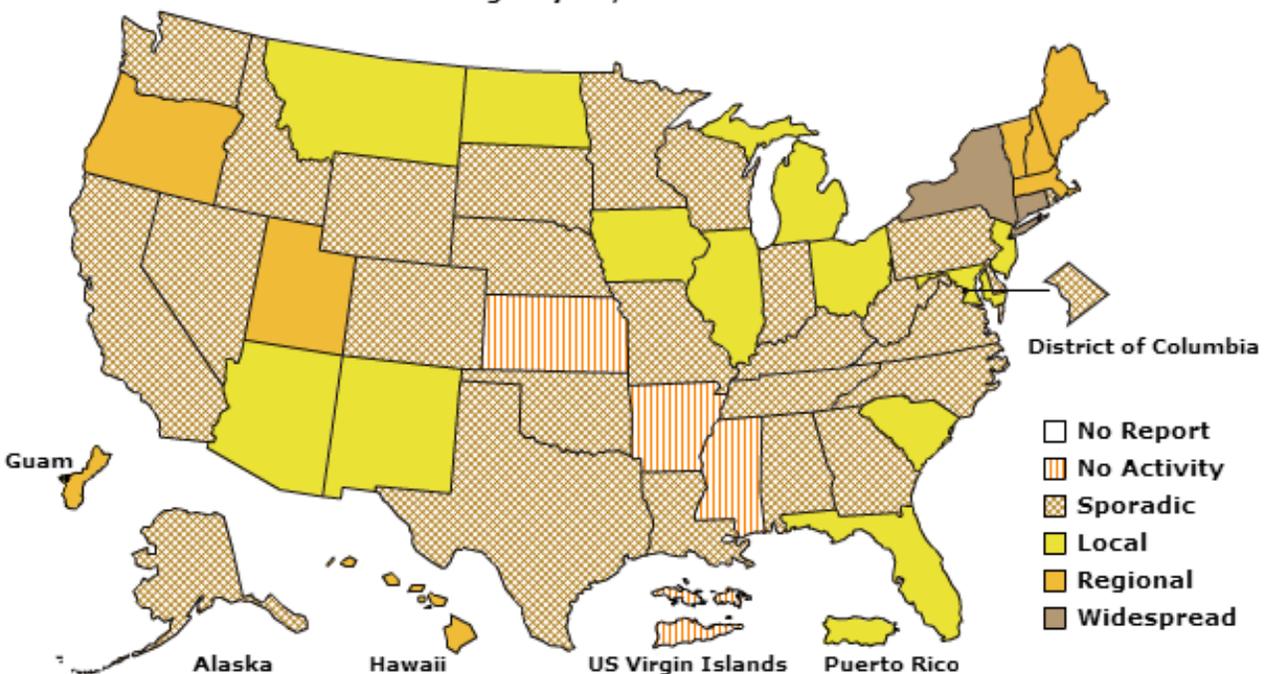
No new influenza-associated pediatric deaths were reported to MDHHS. Two influenza-associated pediatric deaths (1SE, 1SW) have been reported to MDHHS for the 2014-15 season.

National: Influenza activity continued to decrease in the United States, with 1.4% of outpatient visits due to influenza-like illness. Influenza B viruses were 91% of all positive flu specimens reported. The Midwest region saw the highest percentage of respiratory specimens positive for flu at 11.6%. Three influenza-associated pediatric deaths were reported, bringing the 2014-15 total to 136. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

International: Influenza activity declined further in the Northern Hemisphere with mainly influenza B viruses circulating and was low in most regions globally. Summary information is available online at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

A Weekly Influenza Surveillance Report Prepared by the Influenza Division Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending May 02, 2015- Week 17





AVIAN INFLUENZA NEWS IN NORTH AMERICA

- USDA: Birds affected more than [32 million](#)
- [Signs of airborne H5N2 found; Iowa reports more outbreaks](#)
 - H5N2 virus has been found in air samples collected in, near infected Minnesota poultry barns
 - Supports suspicion that H5N2 may go airborne for short distances
- [Change in pattern of H5N2 spread raises questions](#)
- [Egg farm hit in Nebraska's first H5N2 event](#)
- [In eastward jump, H5N8 surfaces in Indiana](#)
 - Backyard flock in northeastern Whitley County
 - 77 birds, including ducks, geese, chickens, and turkeys
 - Previously, H5N8 virus had been found only in the Pacific migratory bird flyway
- [Tracing the bird flu outbreak in North American poultry flocks](#)
- CDC: [H5 information for specific groups](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [Preexisting immunity, more than aging, influences influenza vaccine responses](#)
 - Pre vaccination titers were best predictor of postvaccination antibody levels, irrespective of age
- *Emerging Infectious Diseases*: [Swine influenza A\(H3N2\) virus infection in immunocompromised man, Italy, 2014](#)
- *Emerging Infectious Diseases*: [Influenza A\(H5N6\) virus reassortant, Southern China, 2014](#)
 - Avian H5N6 viruses caused bird outbreaks in Laos and China last year, reassortants of wild duck H5N1 and swine H6N6 viruses
- [What is the added benefit of oropharyngeal swabs compared to nasal swabs alone for respiratory virus detection in hospitalized children aged <10 years?](#)
 - Addition of OP swab compared to NP swab alone increased detection of each respiratory virus by <10%
- [Investigation of an outbreak of variant influenza A\(H3N2\) virus associated with an agricultural fair - Ohio, August 2012](#)
- [Wind-mediated spread of low-pathogenic avian influenza virus into the environment during outbreaks at commercial poultry farms](#)

OTHER INFLUENZA-RELATED NEWS

- [Deadly dog flu detected in Houston area](#)
- [Avian influenza strikes more farms in Israel and Taiwan, plus wild Mexican birds](#)
- [H1N1 spread in India sparks 3-fold rise in flu vaccine use in 3 months](#)
- [Belize bird flu losses mount, 600,000 birds destroyed so far](#)

CDC FLU VACCINE RESOURCES

- [Flu Vaccination Digital Ambassador initiative flourishes in 2nd year](#)
- [Flu Vaccination Digital Ambassadors create flu prevention dialogue through multi-day Facebook forums](#)
- [CDC'S #VaxWithMe selfie social media campaign: the viral spread of flu \(messages\)](#)
- [FluVaxView Interactive!](#)
 - View national and state-level influenza vaccination coverage estimates for pregnant women using interactive maps, trend lines, charts, and tables **NEW!**

MDHHS FALL IMMUNIZATION CONFERENCES

The dates and locations of the 2015 MDHHS Fall Regional Immunization Conferences are now [posted](#). This year's conferences will be held at:

-Marquette (Oct. 13)	-Flint (Nov. 6)
-Gaylord (Oct. 15)	-Kalamazoo (Nov. 17)
-Lansing (Nov. 3)	-Dearborn (Nov. 19)
-Grand Rapids (Nov. 5)	-Troy (Nov. 20)

More information on the Immunization Conferences can be found at www.michigan.gov/immunize -> Health Care Professionals/Providers -> Provider Education Resources.

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 DeVita at devitas1@michigan.gov.

MDHHS Contributors

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