



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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MI's Current Influenza Activity Level:
 Regional

Updates of Interest:
 Avian influenza H5N2 strikes again in [Iowa, Minnesota](#); [Wisconsin](#) reports H5N2 in turkeys, backyard poultry.

Influenza Surveillance Report for the Week Ending April 11, 2015

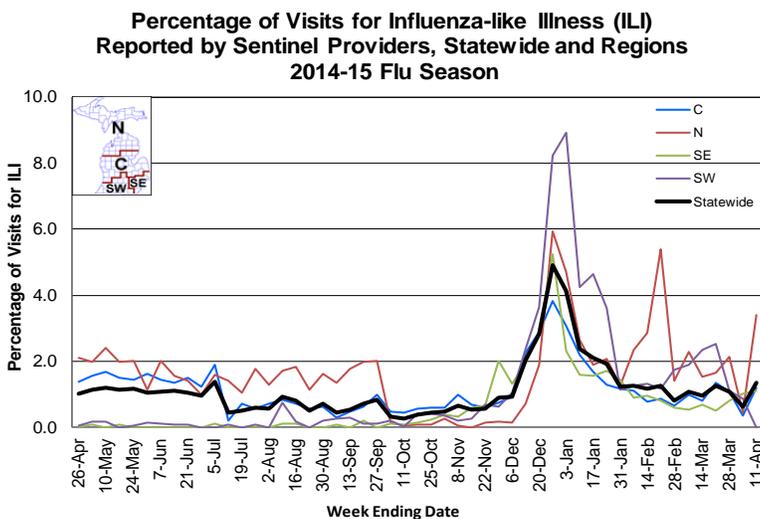
Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, individual reports decreased slightly while aggregate reports decreased considerably. The decrease in aggregate reports is primarily due to school spring breaks. Individual reports are higher than levels seen during the same time period last year while aggregate reports are lower compared to the same time period last year.

Emergency Department Surveillance

Compared to levels from the week prior, emergency department visits from constitutional complaints and respiratory complaints increased. Levels of both constitutional and respiratory complaints were higher than levels compared to the same time period last year.

- 12 constitutional alerts (2SE, 2SW, 6C, 2N)
- 7 respiratory alerts (5C, 2N)

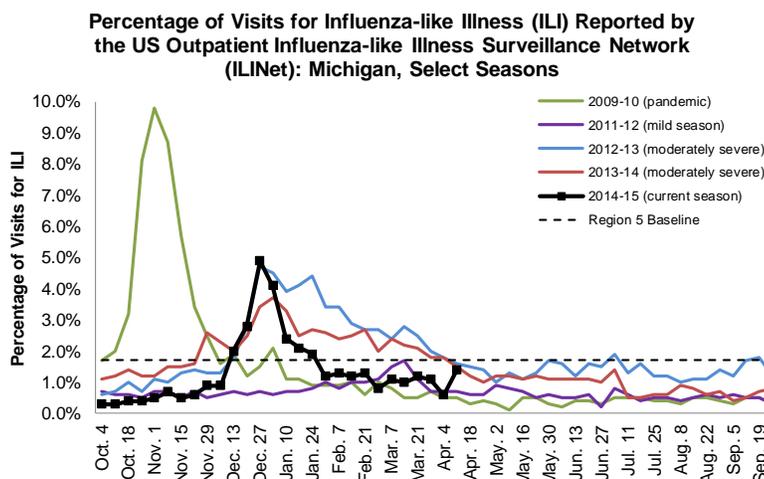


Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.4% overall; this is below the regional baseline (1.7%). A total of 110 patient visits due to ILI were reported out of 8,124 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (29 total):

- C (11)
- N (4)
- SE (12)
- SW (2)



Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDCH 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, for Clinton, Eaton, Genesee, and Ingham counties. There were 14 influenza-related hospitalizations reported (accumulated total since Oct. 1: 86 children, 356 adults).

Based on these counts, there have been 44.6 pediatric influenza hospitalizations per 100,000 population and 52.0 adult influenza hospitalizations per 100,000 population within the catchment area.

The MDCH Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 11 hospitals (N,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	1 (SW)	31 (1N, 21C, 4SE, 5SW)
5-17 years	1 (SE)	32 (28C, 4SE)
18-49 years	2 (1SE, 1SW)	62 (1N, 11C, 47SE, 3SW)
50-64 years	5 (1C, 4SE)	116 (13C, 89SE, 14SW)
65 years & older	7 (6SE, 1SW)	506 (16N, 17C, 418SE, 55SW)
Total	16 (1C, 12SE, 3SW)	747 (18N, 90C, 562SE, 77SW)

Laboratory Surveillance

MDCH Bureau of Laboratories reported 7 new positive influenza results: 7 influenza B. A total of 543 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	246	489	15* (3 A/Texas/50/2012-like**, 12 A/Switzerland/9715293/2013-like)	0 / 146
Influenza B	14	6	17	14	51	51 (41 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†]], 7 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. Six labs (SE,C) reported low or sporadic influenza A activity. All 10 labs (SE,SW,C) reported predominate influenza B activity, with elevated levels continuing and/or further increasing in the SE and SW regions. Four labs (SE,SW,C) reported only influenza B activity. Three labs (SE,SW,C) reported low or slightly increasing Parainfluenza activity. Eight labs (SE,SW,C,N) reported ongoing RSV activity with an overall trend of steady or declining activity, but several sites are still in the elevated range. Three labs (SE,SW,C) reported low Adenovirus activity. Four labs (SE,SW,C) reported ongoing hMPV activity. Testing volumes range from low to continued high levels.

Influenza Congregate Settings Outbreaks

There was 1 new respiratory facility outbreak reported (confirmed flu B). There have been a total of 145 respiratory facility outbreaks reported to MDCH 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	11	33	35	107
K-12 School	1		1		2
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Total	45	12	40	48	145

Influenza-associated Pediatric Mortality

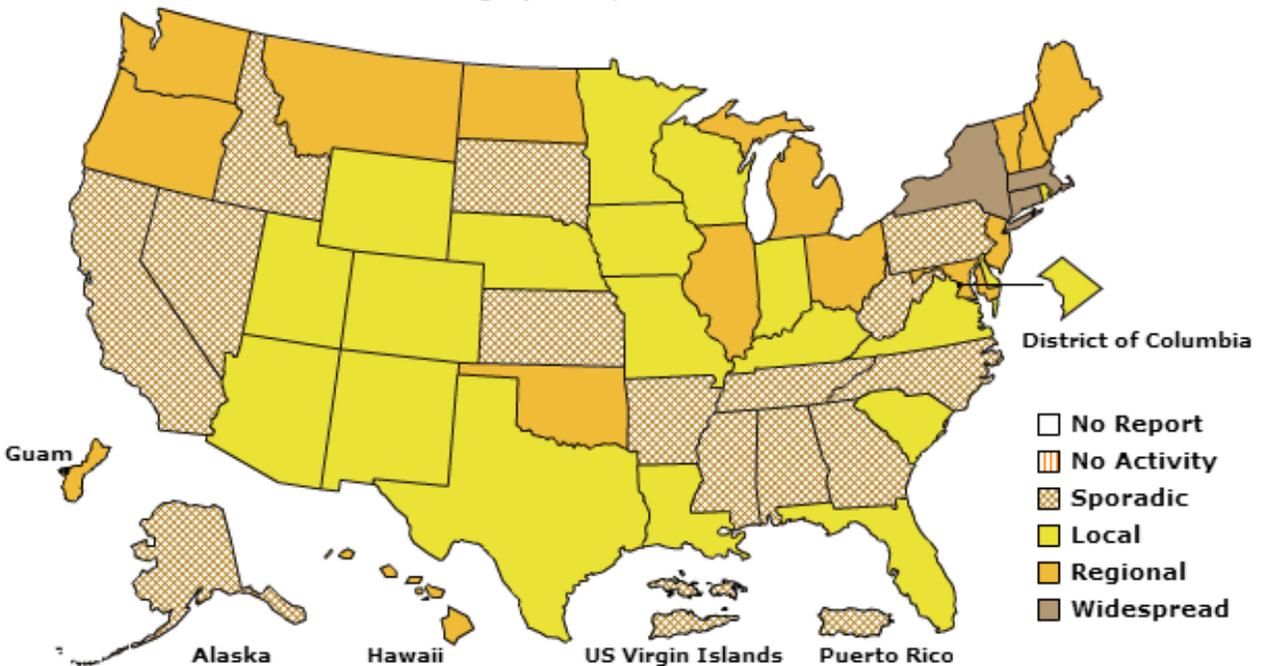
No new influenza-associated pediatric deaths were reported to MDCH. One influenza-associated pediatric death (1SE) has been reported to MDCH for the 2014-15 season.

National: Influenza activity continued to decrease in the United States, with 1.8% of outpatient visits due to influenza-like illness. The proportion of influenza B viruses continued to increase; 87% of positive flu specimens reported were influenza B viruses. No new influenza-associated pediatric deaths were reported, with the 2014-15 total remaining at 125. Additional information is in the weekly FluView reports available online at: www.cdc.gov/flu/weekly/.

International: Influenza activity declined further in the Northern Hemisphere and was low in most regions globally. While influenza A(H3N2) viruses predominated this season in the Northern Hemisphere, the proportions of influenza A(H1N1)pdm09 and B viruses increased during the past few weeks. 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 April 11, 2015- Week 14





NATIONAL INFANT IMMUNIZATION WEEK

It's [National Infant Immunization Week](#) (NIIW)! This is an annual observance to promote the benefits of childhood immunizations and improve the health of children aged 2 years and younger. In accordance with NIIW, CDC has released the names of the 2015 Childhood Immunization Champion Award recipients, an annual award to recognize individuals who make a significant contribution toward improving public health through their work in childhood immunization. The award recipients, including Michigan's, can be viewed [here](#).



AVIAN INFLUENZA NEWS IN THE U.S.

- [H5N2 strikes again in Iowa, Minnesota](#)
- Minnesota Board of Animal Health: [List of Minnesota outbreaks](#) (April 20)
- USDA: [National list of avian flu outbreaks](#) (April 21)
- [H5N2 strikes more Minnesota farms, South Dakota flock](#)
- Minnesota Department of Natural Resources news release: [Wild turkey hunters asked to help with avian influenza surveillance](#)
- [Wisconsin reports H5N2 in turkeys, backyard poultry](#)

AVIAN INFLUENZA A(H5N1)

- [Egypt 2015 H5N1 confirmed case list](#) at 143
- [Egypt's H5N1 case count: what we know today](#)
- [H5N1 kills over 200,000 chickens in Burkina Faso](#)
- WHO: [influenza at the human-animal interface, H5N1 summary as of March 31, 2015](#)

FLU WEBSITES

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

INFLUENZA-RELATED JOURNAL ARTICLES

- *Clinical Infectious Diseases*: [The effect of reactive school closure on community influenza-like illness counts in Michigan during the 2009 H1N1 pandemic](#)
 - 559 Michigan schools were closed during the 2009 H1N1 pandemic
 - School closures were reactive, no statistically significant difference between ILI rates over study period
- [Children with neurological disorders need flu vaccine but don't always get it](#)
- [Estimating influenza attack rates in the United States using a participatory cohort](#)

AVIAN INFLUENZA A(H7N9)

- Global case count since 2013 at [657 cases](#)
- WHO: [Human infection with avian influenza H7N9 - China](#)
- [Transmission potential of influenza A\(H7N9\), China, 2013-2014](#)

OTHER INFLUENZA-RELATED NEWS

- CDC: [GlaxoSmithKline \(GSK\) reports flu vaccine recall](#) (April 16)
 - GSK: [FluLaval quadrivalent prefilled syringes recall](#) (April 14)
 - Routine potency tests found that prefilled syringes may have reduced efficacy, only pertains to prefilled doses administered in early January or later
 - Reduced potency does not pose safety concern for those who received the vaccine
 - Only affects the two influenza B components of the quadrivalent vaccine
 - With declining flu levels, CDC is not recommending revaccination for those immunized with the recalled vaccine
- [FDA warns Flublok maker of overreaching claims](#)
- [First case of H5N6 virus found in wild bird in Hong Kong](#)
- [Mexico reports H7N3 bird flu outbreaks in Puebla, Oaxaca states](#)
- [H5 avian flu confirmed on 2nd farm in Ontario](#)
- [Japan considering intradermal seasonal influenza vaccine](#)

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.

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