



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories

Michigan Department
of Community Health



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February 4, 2015
Vol. 12; No. 3

**MI's Current Influenza
Activity Level:**
Widespread

Updates of Interest:

2nd case of H7N9 confirmed in Canada is husband of 1st case; 1 case of H1N1 variant virus (H1N1v) from Minnesota reported in [FluView](#), had swine contact.

Influenza Surveillance Report for the Week Ending January 24, 2015

Michigan Disease Surveillance System

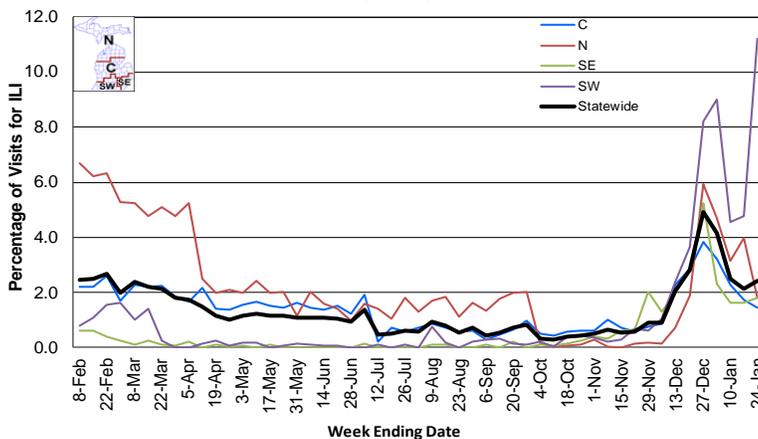
MDSS influenza data indicated that compared to levels from the previous week, aggregate reports and individual reports both decreased. Aggregate reports are lower and individual reports are higher than levels seen during the same time period last year.

Emergency Department Surveillance

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

- 4 constitutional alerts (2C,2N)
- 2 respiratory alerts (1C,1N)

**Percentage of Visits for Influenza-like Illness (ILI)
Reported by Sentinel Providers, Statewide and Regions
2014-15 Flu Season**



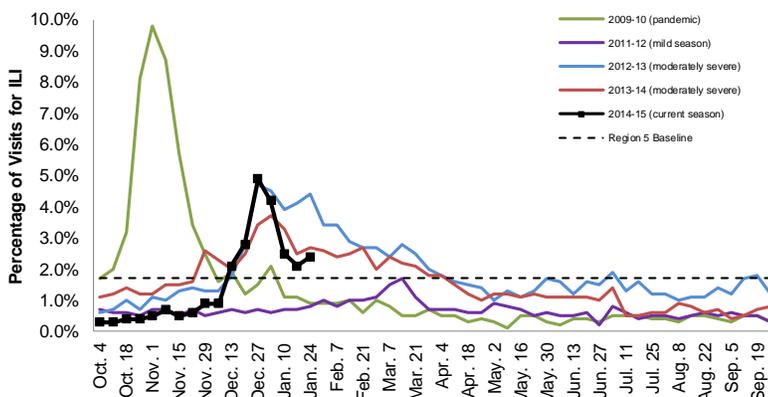
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 2.4% overall; this is above the regional baseline (1.7%). A total of 181 patient visits due to ILI were reported out of 7,485 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (27 total):

- C (11)
- N (3)
- SE (9)
- SW (4)

**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 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 15 influenza-related hospitalizations reported (accumulated total since Oct. 1: 64 children, 254 adults).

Based on these counts, there have been 33.2 pediatric influenza hospitalizations per 100,000 population and 37.1 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. Ten hospitals (SE,SW,C) 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	20 (14C, 3SE, 3SW)
5-17 years	0	25 (24C, 1SE)
18-49 years	2 (SE)	49 (8C, 40SE, 1SW)
50-64 years	4 (3SE, 1SW)	71 (8C, 56SE, 7SW)
65 years & older	18 (17SE, 1SW)	377 (15C, 325SE, 37SW)
Total	24 (22SE, 2SW)	542 (69C, 425SE, 48SW)

**The increase in hospitalizations from last week's MIFF is partially attributed to the addition of 4 new sentinel hospitals.*

Laboratory Surveillance

MDCH Bureau of Laboratories reported 38 new positive influenza results: 37 A/H3 and 1 influenza B. A total of 429 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	104	28	91	183	406	8* (3 A/Texas/50/2012-like**, 5 A/Switzerland/9715293/2013-like)	0 / 34
Influenza B	3		13	4	20	27 (26 B/Yamagata lineage, 1 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.*

In addition, 11 sentinel clinical labs (3SE,2SW,5C,1N) reported influenza results. Ten labs (SE,SW,C,N) reported influenza A activity with an overall downward trend with most sites dropping to the moderate range or just below. Seven labs (SE,SW,C,N) reported low or slightly increasing influenza B activity. Two labs (SE) reported low Parainfluenza activity. Ten labs (SE,SW,C,N) reported steady or increasing RSV activity, with substantial increases seen at one site in the SE region. Three labs (SE,C) reported Adenovirus activity. Three labs (SE,SW) reported low hMPV activity. Nearly all testing volumes continue further downward but with more than half of the sites still in the high range.

Influenza Congregate Settings Outbreaks

There were 5 respiratory facility outbreaks (2 confirmed flu A and 3 unknown etiology/no testing) reported. There have been a total of 122 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	22	8	27	29	86
K-12 School	1		1		2
Daycare				1	1
Unknown / Investigation Pending	16		4	8	28
Healthcare Facility				2	2
Total	39	9	34	40	122

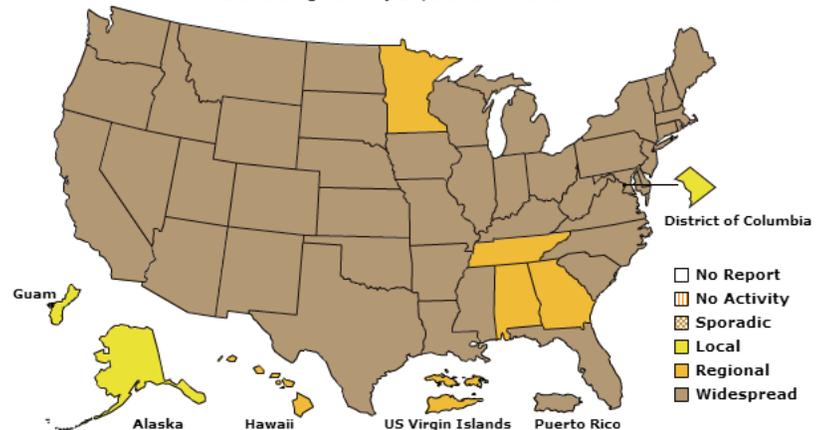
Influenza-associated Pediatric Mortality

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 remained elevated in the United States, with 4.4% of outpatient visits due to influenza-like illness. Five influenza-associated pediatric deaths were reported, bringing the 2014-15 total to 61. Additional information is in the weekly FluView reports available online at: www.cdc.gov/flu/weekly/.

International: Influenza activity was high in the Northern Hemisphere with influenza A(H3N2) viruses predominating so far. 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 January 24, 2015- Week 3



FluBytes



INFLUENZA ACTIVITY THROUGHOUT THE U.S.

- CDC: [Call-to-action letter on antiviral use for influenza](#), [Medical office telephone evaluation of patients with possible flu](#)
- [Ohio reports decrease in flu hospitalizations](#)
- [3 more child flu deaths in Wisconsin](#)
- [58 Oklahomans have died from flu this season](#)

AVIAN INFLUENZA A(H5N1)

- [Egypt 2015 H5N1 confirmed case list](#)

AVIAN INFLUENZA A(H7N9)

- [Second H7N9 case confirmed in B.C.; husband of first patient](#)
- WHO: [H7N9 in Canada](#) (Feb. 1)
- [Two human cases of H7N9 in Guangdong](#)
 - 56-year male and 9-month female

OTHER AVIAN INFLUENZA NEWS

- *MMWR*: [Outbreaks of avian influenza A\(H5N2\), \(H5N8\), and \(H5N1\) among birds - U.S., December 2014-January 2015](#)
 - 14 high pathogenic H5 detections in 5 northwestern states (CA, ID, OR, UT, WA)
 - [CDC guidance on avian flu prophylaxis](#)
 - [CDC guidance on novel flu testing, processing](#)
- [Nevada becomes 6th state to report bird flu](#)
- [Low severity bird flu case at U.K. farm](#)
- [Avian flu findings reported in 6 far-flung nations](#)
- [S. Korea confirms avian flu in dog at affected farm](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [Oseltamivir treatment for influenza in adults: a meta-analysis of randomized controlled trials](#)
 - Shorter time to symptom alleviation, reduced risk of complications and hospital admission
- [Association of oseltamivir treatment with virus shedding, illness, and household transmission of influenza viruses](#)
 - Initiation within 24 hours associated with shorter duration of self-reported illness
 - Did not find association with duration of viral shedding or risk of household transmission
- [Adiposity and influenza associated respiratory mortality: a cohort study](#)
 - Obesity aggravates effect of seasonal flu on respiratory mortality
- [Clinical efficacy study of Flublok® quadrivalent compares Flublok to traditional egg-based flu vaccine](#)

OTHER INFLUENZA-RELATED NEWS

- [CDC Seasonal Flu Doses Distributed](#): ~147.6 million doses in U.S. as of January 23, 2015
- [New biologic approach may protect against any influenza strain](#)

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.

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