



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories

Michigan Department
of Community Health



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MI's Current Influenza

Activity Level:

Widespread

Updates of Interest:

H5N8 has been detected in backyard poultry in Oregon, just 3 days after H5N8 and H5N2 viruses were found in wild birds in neighboring Washington; see State of Oregon's news release [here](#).

Influenza Surveillance Report for the Week Ending December 13, 2014

2014-15 Influenza Activity Update and Guidance for Healthcare Providers

Flu activity is increasing across Michigan based on surveillance reports of flu illness, hospitalizations, and emergency department visits. Influenza A(H3N2) viruses are the most common strain circulating this flu season. H3N2-predominant seasons have been associated with more severe illness and mortality, especially among the elderly and young children, than during H1N1- or B-predominant seasons. The CDC is urging influenza vaccination of unvaccinated persons and reminding clinicians about the importance of the use of neuraminidase inhibitor antiviral (AV) medications when indicated for the treatment of influenza illness, as an adjunct to vaccination.

Prompt treatment of people ill with influenza who are high risk, such as those in long-term care facilities (LTCFs), people with underlying conditions, or people with severe illness, with AV drugs will help shorten the duration of illness and mitigate the severity of symptoms and the spread of influenza. The majority of recent hospitalizations due to influenza as detected in MDCH surveillance systems are among those individuals who are 65 years and older. There has been an increase in respiratory illness outbreak reports, notably from LTCFs in Michigan. When influenza is suspected or confirmed in a LTCF, it is recommended that all residents and staff, ill and non-ill, should receive AV treatment immediately, in consultation with the facility Medical Director. CDC has an updated [toolkit](#) for long-term care employers to increase influenza vaccination among healthcare personnel. The toolkit includes guidance documents, educational resources, community best practices, strategies to overcome vaccination barriers, and more.

MDCH has been hearing of some spot shortages of antivirals, likely due to the early seasonal surge in influenza-like illness, but to date there have been no official reports of AV shortages from suppliers ([see recent](#) Tamiflu supply statement by the manufacturer). Facilities are advised to check the status of antiviral availability in their communities in the event of an influenza outbreak.

As a reminder, outbreaks in LTCFs should be reported to your local health department, and prevention and control measures need to be implemented immediately. MDCH encourages reporting of influenza hospitalizations (ICU admissions, severely ill pregnant or postpartum women, patients with unusual and/or severe presentations) of all ages and adult deaths into the Michigan Disease Surveillance System (MDSS) by local health departments and healthcare providers.

Michigan Disease Surveillance System

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

Emergency Department Surveillance

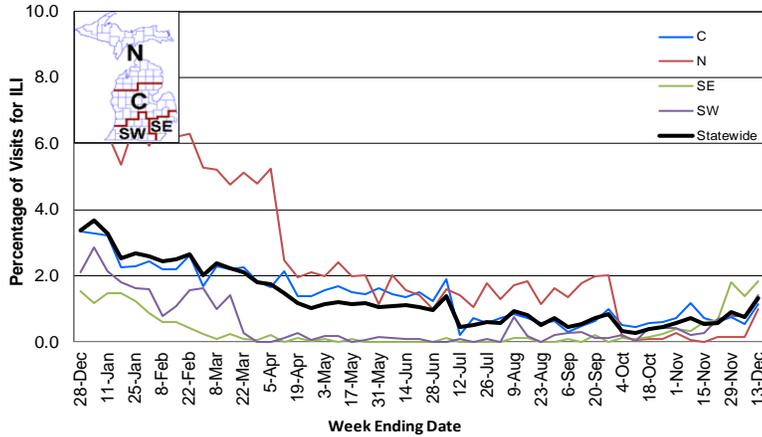
Compared to levels from the week prior, emergency department visits from constitutional complaints increased while respiratory complaints increased slightly. Levels of constitutional complaints were higher and respiratory complaints were slightly higher when compared to the same time period last year.

- 10 constitutional alerts (1SE, 4SW, 4C, 1 Statewide)
- 5 respiratory alerts (1SW, 3C, 1N)

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



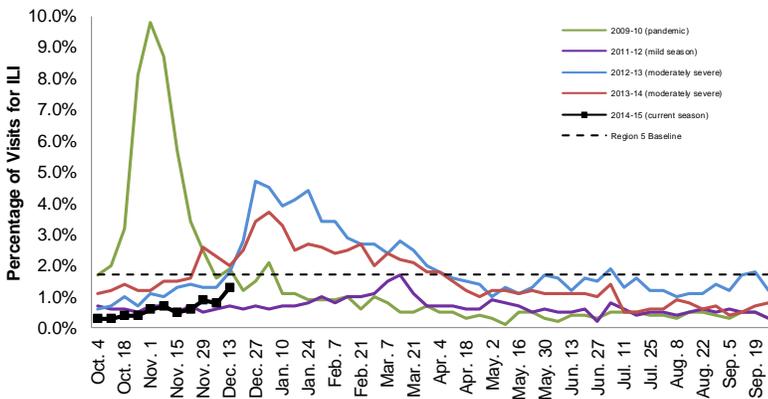
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.3% overall; this is below the regional baseline (1.7%). A total of 161 patient visits due to ILI were reported out of 12,061 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (30 total):

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

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.

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 23 influenza-related hospitalizations reported (accumulated total since Oct. 1: 17 children, 33 adults).

Based on these counts, there have been 8.8 pediatric influenza hospitalizations per 100,000 population and 4.8 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. Six hospitals (SE,SW,C) reported. Results are listed in the table below. **Additional hospitals are welcome to join; please contact Susan Bohm at bohms@michigan.gov.**

Age Group	New Flu Hospitalizations Reported	Total 2014-15 Flu Hospitalizations to Date
0-4 years	2 (C)	3 (C)
5-17 years	4 (C)	9 (C)
18-49 years	3 (1C,2SE)	17 (6C,11SE)
50-64 years	6 (1C,5SE)	14 (2C,12SE)
65 years & older	11 (1C,10SE)	57 (2C,55SE)
Total	26 (9C,17SE)	100 (22C,78SE)

Laboratory Surveillance

MDCH Bureau of Laboratories reported 33 new positive influenza results: 31 A/H3 and 2 influenza B. A total of 132 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	15	14	63	26	118		
Influenza B	2		10	1	13		

In addition, 13 sentinel labs (4SE,2SW,6C,1N) reported influenza results. All 13 labs (SE,SW,C,N) reported influenza A activity, with nearly all sites showing increases. Sites in the SE region continue to show especially strong increases. Six labs (SE,SW,C) reported sporadic or low influenza B activity. Five labs (SE,SW,C) reported low or slightly increasing Parainfluenza activity. Seven labs (SE,SW,C,N) reported low or increasing RSV activity. Three labs (SE,C) reported sporadic to low Adenovirus activity. Two labs (SE,SW) reported sporadic to low hMPV activity. Nearly all testing volumes continue to rise with many sites at very high levels and/or showing sharp increases.

Influenza-associated Pediatric Mortality

No pediatric influenza-associated influenza mortalities have been reported to MDCH for the 2014-15 season.

Influenza Congregate Settings Outbreaks

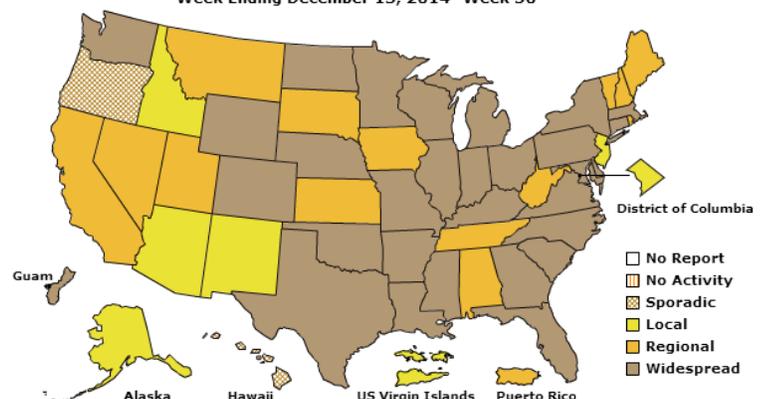
Three respiratory facility outbreaks (2 A [1 with subtype pending] and 1 that tested negative) in long-term care facilities were reported. There have been a total of eight respiratory facility outbreaks reported to MDCH for the 2014-15 season. Respiratory facility outbreaks are listed in the table below.

Facility Type	C	N	SE	SW	Total
Adult Care Facility			2		2
Long-Term Care Facility	1	1	4		6
Total	1	1	6	0	8

National: Influenza activity continued to increase in the United States, with 3.7% of outpatient visits due to influenza-like illness. Four influenza-associated pediatric deaths were reported. Additional information is in the weekly FluView reports available online at: www.cdc.gov/flu/weekly/.

International: Influenza activity increased in the northern hemisphere and in several countries has passed the seasonal threshold. 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 December 13, 2014- Week 50





INFLUENZA ACTIVITY THROUGHOUT THE U.S.

- [U.S. flu activity rises ahead of holiday season](#)
- [Metro Detroit flu season is off to a miserable start](#)
- [Minnesota children's hospitals seeing record number of ER visits](#)
- [Arizona child dies of influenza](#)

MMWR: U.S. FLU ACTIVITY THROUGH 12/6/14

CDC has published an update on influenza activity in the U.S. from September 28 through December 6, 2014 in [MMWR](#). During that time, influenza A/H3N2 viruses were identified most frequently. As of December 6, 68% of H3N2 viruses antigenically characterized did not match the H3N2 component of the 2014-15 flu vaccine. Antiviral medications will be an important adjunct to vaccination this season to reduce the health impact of influenza.

INFLUENZA-RELATED JOURNAL ARTICLES

- [School-located influenza vaccination reduces community risk for infection and influenza-like illness emergency care visits](#)
 - 50% vaccination of 5-17 year-olds reduced their risk of ILI visits by 79% in 2011-12, 71% in 2012-13
 - Greatest indirect effectiveness was among 0-4 year-olds

FluBytes is distributed to MDCH flu partners for informational and communication purposes. Please feel free to distribute widely. Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

AVIAN INFLUENZA A(H5N1)

- [Egyptian woman dies of bird flu, raising deaths to 9 in 2014](#)
- [H5N1 outbreak in India](#)

AVIAN INFLUENZA A(H7N9)

- [China reports seven new human cases of H7N9 avian influenza](#)

OTHER AVIAN INFLUENZA NEWS

- [Oregon reports H5N8 virus in backyard poultry](#)
- [Comparing introduction to Europe of highly pathogenic avian influenza viruses A\(H5N8\) in 2014 and A\(H5N1\) in 2005](#)
- [Officials report H5N8 outbreak in Germany](#)

OTHER INFLUENZA-RELATED NEWS

- [Tamiflu 2014-15 flu season supply](#)
- [CDC Seasonal Flu Doses Distributed](#): ~145.4 million doses in U.S. as of December 5, 2014
- [FDA approves RAPIVAB in acute uncomplicated influenza](#)

FLU WEBSITES

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

For questions or to be added to the distribution list, please contact Stefanie DeVita at devitas1@michigan.gov.

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