



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories

Michigan Department
of Community Health



Rick Snyder, Governor
Nick Lyon, Director

Co-Editors: Stefanie DeVita, RN, MPH devitas1@michigan.gov
Bethany Reimink, MPH reiminkb@michigan.gov

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MI's Current Influenza

Activity Level:

Local

Updates of Interest:

USDA confirms highly pathogenic H5N2 avian influenza on 3rd [Minnesota](#) turkey farm; USDA at work on poultry [vaccine](#) for H5N8, H5N2.

Influenza Surveillance Report for the Week Ending March 21, 2015

Michigan Disease Surveillance System

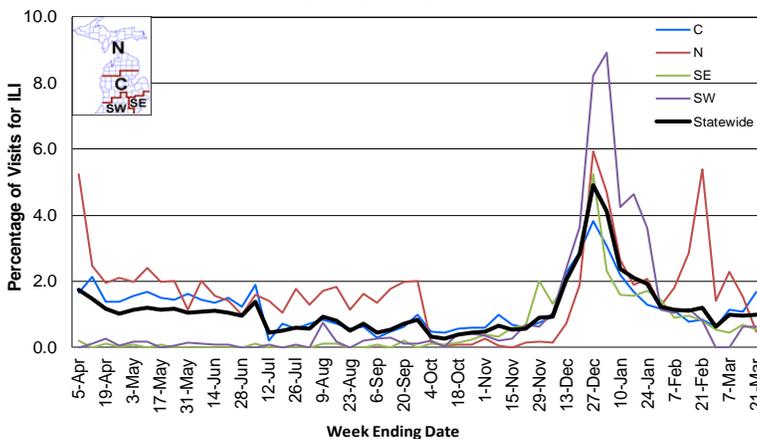
MDSS influenza data indicated that compared to levels from the previous week, both individual reports and aggregate reports increased. Individual reports are higher than levels seen during the same time period last year while aggregate reports are lower compared to the same time period last year.

Emergency Department Surveillance

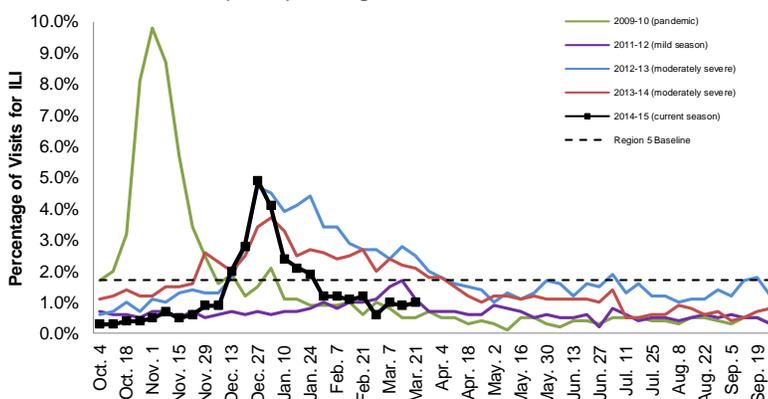
Compared to levels from the week prior, emergency department visits from constitutional complaints and respiratory complaints both increased slightly. Levels of constitutional and respiratory complaints were higher than levels compared to the same time period last year.

- 5 constitutional alerts (2SW, 3C)
- 4 respiratory alerts (1SW, 3C)

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



Percentage of Visits for Influenza-like Illness (ILI) Reported by
the US Outpatient Influenza-like Illness Surveillance Network
(ILINet): Michigan, Select Seasons



Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.0% overall; this is below the regional baseline (1.7%). A total of 79 patient visits due to ILI were reported out of 7,891 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (30 total):

- C (10)
- N (4)
- SE (13)
- SW (3)

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 13 influenza-related hospitalizations reported (accumulated total since Oct. 1: 79 children, 327 adults).

Based on these counts, there have been 40.9 pediatric influenza hospitalizations per 100,000 population and 47.8 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, 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	0	29 (21C, 4SE, 4SW)
5-17 years	1 (SE)	26 (24C, 2SE)
18-49 years	2 (1C, 1SE)	59 (1N, 11C, 45SE, 2SW)
50-64 years	4 (SE)	103 (10C, 81SE, 12SW)
65 years & older	13 (1N, 9SE, 3SW)	476 (11N, 17C, 396SE, 52SW)
Total	20 (1N, 1C, 15SE, 3SW)	693 (12N, 83C, 528SE, 70SW)

Laboratory Surveillance

MDCH Bureau of Laboratories reported 12 new positive influenza results: 8 A/H3 and 6 influenza B. A total of 526 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	112	33	97	241	483	15* (3 A/Texas/50/2012-like**, 12 A/Switzerland/9715293/2013-like)	0 / 136
Influenza B	7	6	17	10	40	35 (34 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†]], 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; [†]B/Massachusetts/02/2012 virus is the B/Yamagata component of the 2014-15 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 12 sentinel clinical labs (3SE,2SW,6C,1N) reported influenza results. Nine labs (SE,SW,C) reported low or sporadic influenza A activity. Nine labs (SE,SW,C) reported predominate influenza B activity, with levels remaining highest in the SE and SW regions where two labs reported only influenza B activity. One site (N) reported no influenza A or B activity. Five labs (SE,SW,C) reported low Parainfluenza activity. Eleven labs (SE,SW,C,N) reported ongoing RSV activity, with most in the low to moderate range, but a few sites (SE) showed additional increases. Five labs (SE,SW,C) reported Adenovirus activity. Six labs (SE,SW,C) reported ongoing or slightly increasing hMPV activity. Overall testing volumes continued to drop or remain steady, but a few sites showed small increases in testing volumes and multiple sites remained in the high volume range.

Influenza Congregate Settings Outbreaks

There were 2 respiratory facility outbreaks reported (1 confirmed flu A and 1 confirmed RSV). There have been a total of 143 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	26	11	33	35	105
K-12 School	1		1		2
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Total	43	12	40	48	143

Influenza-associated Pediatric Mortality

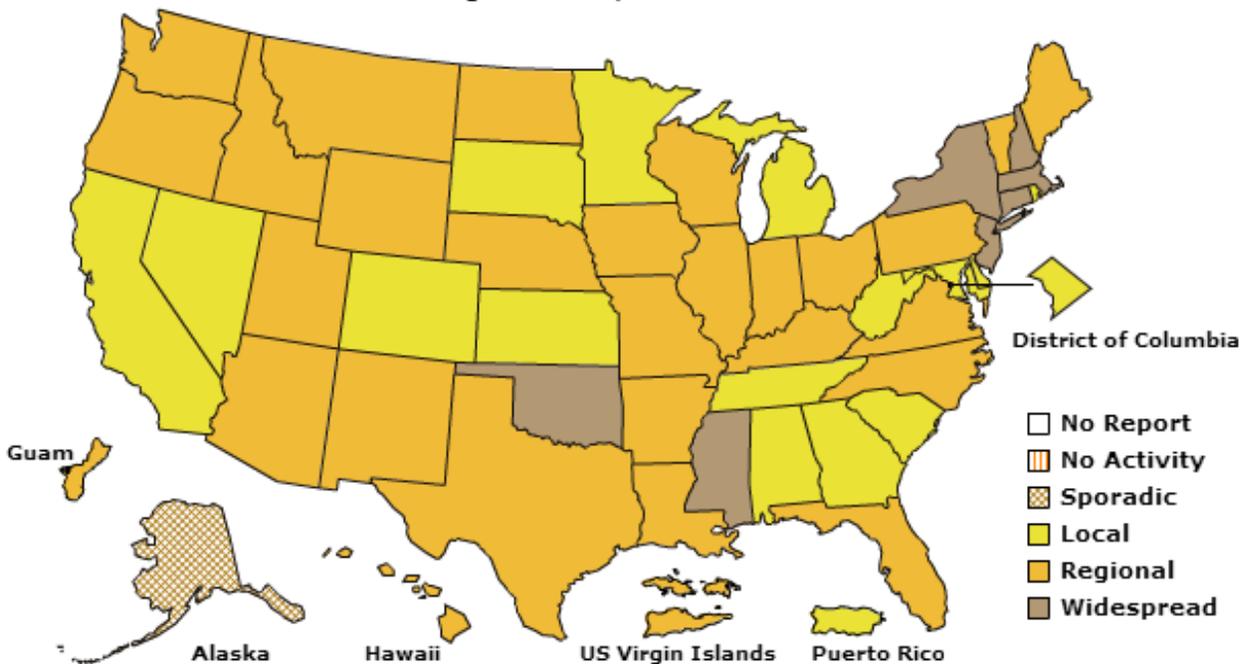
No new influenza-associated pediatric deaths were reported to MDCH. One influenza-associated pediatric death (1SE) has been reported to MDCH for the 2014-15 season.

National: Influenza activity continued to decrease but remained elevated in the United States, with 2.2% of outpatient visits due to influenza-like illness. The proportion of influenza B viruses continued to increase; 75% of positive flu specimens reported were influenza B viruses. Nine influenza-associated pediatric deaths were reported, bringing the 2014-15 total to 116. Additional information is in the weekly FluView reports available online at: www.cdc.gov/flu/weekly/.

International: Influenza activity remained elevated in the Northern Hemisphere with influenza A(H3N2) viruses predominating. Some countries in Asia, Europe, and North Africa reported high levels of activity associated with influenza A(H1N1)pdm09 viruses. 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 March 21, 2015- Week 11





AVIAN INFLUENZA NEWS IN THE U.S.

- [USDA at work on poultry vaccine for H5N8, H5N2](#)
- [H5N2 virus found in Wyoming wild bird](#)
- [Minnesota responds to avian influenza](#)
- [Dispersal of H9N2 influenza A viruses between East Asia and North America by wild birds](#)
 - Wild bird samples from western Alaska screened for flu A viruses
 - 2 H9N2 isolates identified, nearly identical with viruses from China and South Korea
- [Poultry producers warned as bird flu kills captive falcon in Montana](#)
- [Low-path avian flu on Kansas poultry farm](#)
- [Michigan agricultural officials issue bird flu warning](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [Deaths averted by influenza vaccination in the U.S. during the 2005-06 through 2013-14 seasons](#)
 - Estimated 40,127 deaths averted by flu vaccination
 - Most deaths averted during the 2012-13 season
 - Of all flu-associated deaths averted, 89% were in people ≥65 years
- [Does influenza vaccination modify influenza disease severity? Data on older adults hospitalized with influenza during the 2012-13 season in the U.S.](#)
 - Adults aged 50-64 years, but not other age groups, who were vaccinated against flu had shorter ICU lengths of stay compared to those unvaccinated
- [Wild bird surveillance around outbreaks of highly pathogenic avian influenza A\(H5N8\) virus in the Netherlands, 2014, within the context of global flyways](#)
 - Study supports that recent H5N8 viruses found in Europe, Asia, and North America have common origin and have spread via wild birds
- [Two DNA aptamers against avian influenza H9N2 virus prevent viral infection in cells](#)
- [Antiviral treatment among older adults hospitalized with influenza, 2006-2012](#)
 - Antiviral use was low
 - Severity of disease, presence of a high-risk condition, and symptom duration were not associated with antiviral use

MDCH IMMUNIZATION PINK BOOK COURSE

MDCH will host the CDC Epidemiology and Prevention of Vaccine-Preventable Diseases Course (a.k.a. Pink Book Course) on June 16-17, 2015 at the Lansing Center. The course is for health care professionals who want to learn more about immunization and vaccine-preventable diseases. Online registration for this class opens next week, Monday April 6. For more info on the Pink Book Course, go to michigan.gov/immunize, click on Health Care Professionals/Providers, and it is listed under Provider Education Resources.

NATIONAL INFANT IMMUNIZATION WEEK

This year, [National Infant Immunization Week](#) (NIIW) is April 18-25. This is an annual observance to promote the benefits of childhood immunizations and improve the health of children aged 2 years and younger. Check out the NIIW [website](#) where you will find promotional materials and educational resources free for use.



AVIAN INFLUENZA A(H5N1)

- [H5N1 hits Romania](#)
- [Egypt has 10 new H5N1 cases, Indonesia 2](#)
- [China reports 4th H5N1 avian influenza case](#)

OTHER INFLUENZA-RELATED NEWS

- [Rare genetic mutations may make influenza life-threatening for some](#)
- [Hong Kong sees 23 additional flu deaths last week as flu season winds down](#)

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.

MDCH Contributors

Bureau of Epidemiology – S. Bidol, MPH, S. DeVita, RN, MPH, S. Eckel, MPH, F. Mamou, MPH, B. Reimink, MPH
Bureau of Labs – B. Robeson, MT, V. Vavricka, MS