



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Updates of Interest:

USDA confirms highly pathogenic H5N2 avian influenza in Macomb County, [Michigan](#); [MDARD](#) avian flu press release (June 8); Sterling Heights avian flu case is [Michigan's](#) first.

Influenza Surveillance Report for the Week Ending May 30, 2015

Highly Pathogenic Avian Influenza A (H5N2) Detected in Wild Birds in Michigan

- On June 8, 2015, the Michigan Departments of Natural Resources (MDNR) and Agriculture and Rural Development (MDARD) announced the state's first confirmation of the presence of highly pathogenic avian influenza A (HPAI) (H5N2) in free-ranging Canada geese in Sterling Heights, Macomb County.
- HPAI has not been detected in domestic poultry flocks (e.g. commercial, backyard) in Michigan at this time.
- On June 1, 2015, MDARD made the decision to cancel all poultry and waterfowl exhibitions in Michigan for the remainder of the year to prevent the comingling of birds from different locations. This includes, but is not limited to, shows, exhibitions, swap meets, petting zoos at fairs, game bird and waterfowl fair displays, and Miracle of Life exhibits.
- Although Michigan has had previous cases of low pathogenic avian influenza in free-ranging birds, this is the first case of HPAI in free-ranging birds in Michigan.
- To date, no human cases of these recent HPAI H5 viruses have been detected in the United States.
- People should avoid contact with sick or dead birds.
- Although the risk of infection is low for people, some highly pathogenic avian flu viruses can infect people causing mild to severe respiratory illness.
- Direct or close (e.g., within about 6 feet) contact to infected poultry or virus-contaminated environments without wearing personal protective equipment (PPE) may increase the risk of human infection.
- Signs and symptoms of human illness to watch for include fever or feeling feverish, cough, runny nose, sore throat, headache, muscle aches, difficulty breathing, shortness of breath, diarrhea and red, itchy eyes (conjunctivitis).
- It is safe to eat properly handled and cooked poultry in the United States.

Any reports of sick or dying birds should be forwarded immediately to the proper agency:

- For domestic poultry, contact MDARD
 - M-F 8am-5pm at (800) 292-3939 or after hours/weekends at (517) 373-0440
- For wildlife, residents who notice the death loss of 3 or more free-ranging birds should report it to DNR at 517-336-5030

Michigan Disease Surveillance System

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

Emergency Department Surveillance

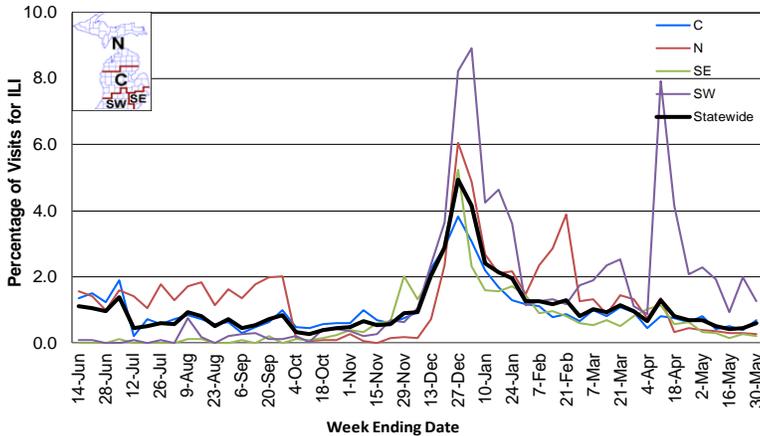
Compared to levels from the week prior, emergency department visits from constitutional complaints increased while respiratory complaints increased slightly. Levels of respiratory complaints are slightly lower while levels of constitutional complaints are similar to levels seen during the same time period last year.

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

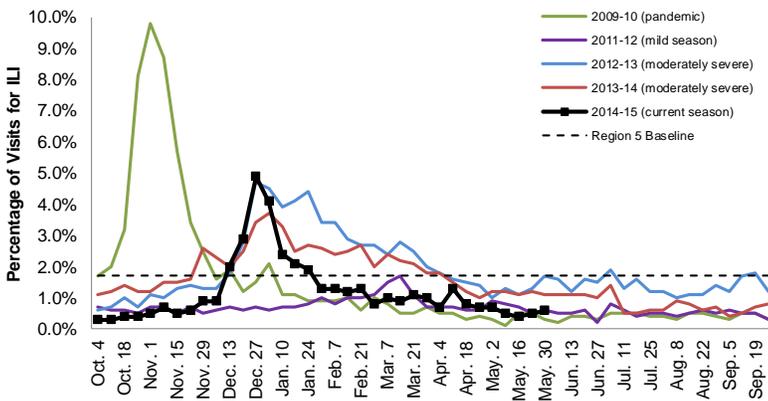
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**Percentage of Visits for Influenza-like Illness (ILI)
Reported by Sentinel Providers, Statewide and Regions
2014-15 Flu Season**



**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 0.6% overall; this is below the regional baseline (1.7%). A total of 42 patient visits due to ILI were reported out of 7,012 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (26 total):

- C (11)
- N (4)
- SE (8)
- 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.

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. The cumulative total during the reporting period was 88 pediatric hospitalizations and 374 adult hospitalizations. Based on these counts, there were 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 9 hospitals (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	0	68 (2N, 12C, 49SE, 5SW)
50-64 years	0	130 (3N, 14C, 99SE, 14SW)
65 years & older	0	529 (20N, 19C, 435SE, 55SW)
Total	0	791 (26N, 94C, 592SE, 79SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 1 new positive influenza result: 1 influenza B. A total of 559 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are 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	20	6	19	21	66	66 (46 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†] , 9* B/Phuket/3073/2013-like ^{††}], 17 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; ^{††}B/Phuket/3073/2013 virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 9 sentinel clinical labs (2SE,2SW,5C) reported influenza results. Three labs (SE,C) reported sporadic influenza A activity. Three labs (SW,C) reported sporadic influenza B activity. One lab (C) reported sporadic Parainfluenza activity. Four labs (SE,SW,C) reported sporadic RSV activity. One lab (C) reported sporadic Adenovirus activity. Two labs (SW,C) reported low or sporadic hMPV activity. Most testing volumes have dropped further in the low to moderate range.

Influenza Congregate Settings Outbreaks

There was one new respiratory facility outbreak reported (confirmed flu B). There have been a total of 151 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	37	111
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	51	151

Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. There have been a total of 3 influenza-associated pediatric deaths (1C, 1SE, 1SW) reported to MDHHS for the 2014-15 season.

National: In the United States, 1.2% of outpatient visits were due to influenza-like illness. One influenza-associated pediatric death was reported, bringing the 2014-15 total to 142. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/. **NOTE:** The May 17-23, 2015 FluView marked the final full influenza surveillance report for the 2014-2015 flu season in the United States. Influenza surveillance in the U.S. will continue through the summer months with condensed reports available at www.cdc.gov/flu/weekly/; though this page will not be updated until publication of the full FluView resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

International: Globally, influenza activity has decreased from its peak in early 2015 to low levels. In the Northern Hemisphere, flu activity continued to decrease and was nearing inter-seasonal levels. In the Southern Hemisphere, flu activity remained at inter-seasonal levels. Summary information is available online at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.



AVIAN INFLUENZA NEWS IN NORTH AMERICA

- USDA: Birds affected more than [47 million](#)
- CDC Health Advisory: [Bird infections with highly-pathogenic avian influenza A \(H5N2\), \(H5N8\), and \(H5N1\) viruses: Recommendations for human health investigations and response](#) (June 2)
- [USDA confirms highly pathogenic H5N2 avian influenza in Macomb County, Michigan](#)
- [Sterling Heights avian flu case is Michigan's first](#)
- [Michigan finds H5N2 in wild geese; Iowa hit again](#)
- [Avian flu hurts poultry shows, Iowa industry](#)
- [First Minnesota farm hit by H5N2 back in operation](#)
- [No out-of-state birds at Illinois exhibitions](#)
- [Cuba suspends U.S. chicken imports over bird flu](#)
- [USDA won't use existing vaccines to fight avian flu, multiple reasons for caution](#)

MMWR: SUMMARY OF 2014-15 FLU SEASON

CDC published a summary of flu activity in the U.S. during 2014-15 in the [June 5 issue](#) of *Morbidity and Mortality Weekly Report*. The report covers surveillance data from September 28, 2014 through May 23, 2015 including viral surveillance, novel flu A viruses, antigenic characterization, antiviral resistance, outpatient illness, geographic spread of flu, hospitalizations, and pediatric mortality, as well as the composition of the 2015-16 flu vaccines.

AVIAN INFLUENZA A(H5N1) NEWS ARTICLES

- [H5N1 strikes Ivory Coast for first time in more than 8 years](#)

AVIAN INFLUENZA A(H7N9) NEWS ARTICLES

- [China's Jiangsu province reports 3 H7N9 cases](#)

ALANA'S FOUNDATION ANNUAL FUNDRAISER

Save the date! Alana's Foundation is holding their annual fundraiser on August 6, 2015. Their Summer Concert Bash will be in Pontiac at the Crofoot at 7:30 PM. Tickets are \$35 in advance and \$40 at the door. More info on this year's fundraiser can be found [here](#).

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

UPCOMING ACIP MEETING JUNE 24-25

The draft agenda for the upcoming Advisory Committee on Immunization Practices (ACIP) meeting on June 24-25, 2015 is [online](#). Influenza A(H5N1) and seasonal influenza vaccination recommendations are scheduled to be discussed on June 24 and will include votes on proposed recommendations for both. If you would like to listen in to the ACIP meeting, the webcast instructions can be found [here](#).

INFLUENZA-RELATED JOURNAL ARTICLES

- [Global circulation patterns of seasonal influenza viruses vary with antigenic drift](#)
 - Less frequent global movement of A/H1N1 and B viruses, slower rates of antigenic evolution, lower ages of infection, and smaller, less frequent epidemics compared to A/H3N2
- [Influenza case definitions - optimizing sensitivity and specificity](#)
- [Performance of case definitions for influenza surveillance](#)
 - Analysis supports use of revised WHO ILI case definition

CANINE INFLUENZA NEWS IN THE U.S.

- [Canine flu in Michigan? Vets now required to report it](#)
- [State veterinarian confirms dog flu found in South Dakota](#)

OTHER INFLUENZA-RELATED NEWS

- [Researchers targeting host rather than flu virus have success with new treatment in mice](#)
- [Flu cases tracking at record levels in Australia](#)
- [H5 strikes 31,000 chickens in Ghana](#)
- [Avian flu strikes poultry in Taiwan, Vietnam](#)
- [BLM Arizona issues equine influenza advisory](#)
- WHO Europe: [Training course on laboratory preparedness for emerging respiratory pathogens](#)
- [FDA grants 12 year exclusivity to Flublok® influenza vaccine](#)

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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