



# MI Flu Focus

Influenza Surveillance Updates  
Bureaus of Epidemiology and Laboratories

Michigan Department  
of Community Health



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Surveillance and Infectious Disease Epidemiology

August 7, 2014  
Vol. 11; No. 35

## Updates of Interest:

- **National:** Pigs at the North Dakota state fair test positive for influenza A/H3N2

## Table of Contents

|                                |   |
|--------------------------------|---|
| Influenza Surveillance Reports |   |
| Michigan.....                  | 1 |
| National.....                  | 3 |
| International.....             | 3 |
| Novel Influenza and Other News |   |
| WHO Pandemic Phase.....        | 3 |

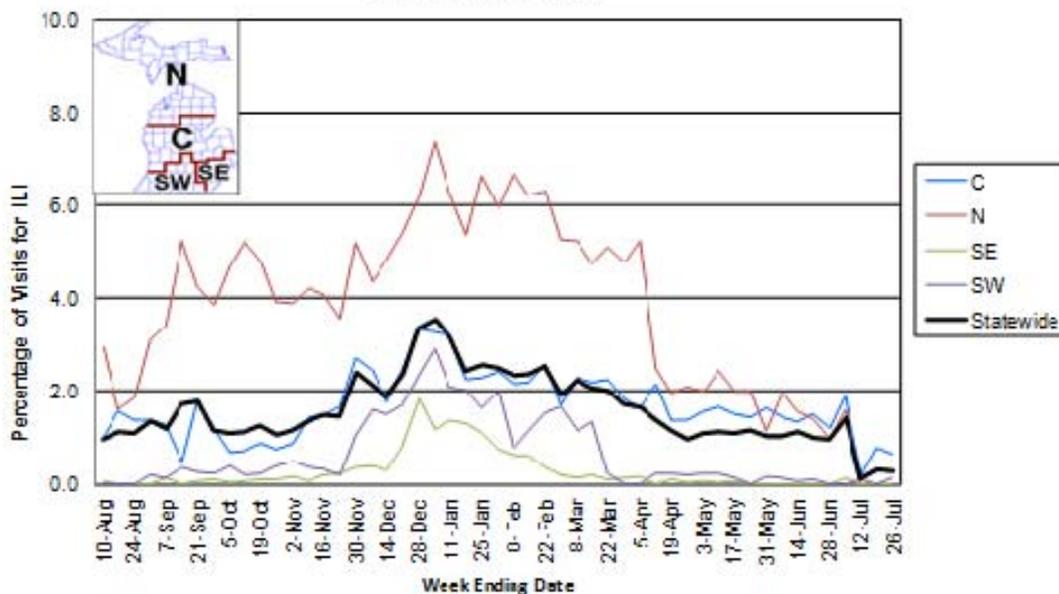
## Influenza Surveillance Reports

**Michigan Disease Surveillance System (as of August 7):** MDSS influenza data for the week ending August 2, 2014 indicated that compared to levels from the previous week, individual and aggregate reports remained steady at very sporadic levels. Both aggregate and individual reports are similar to levels seen during the same time period last year.

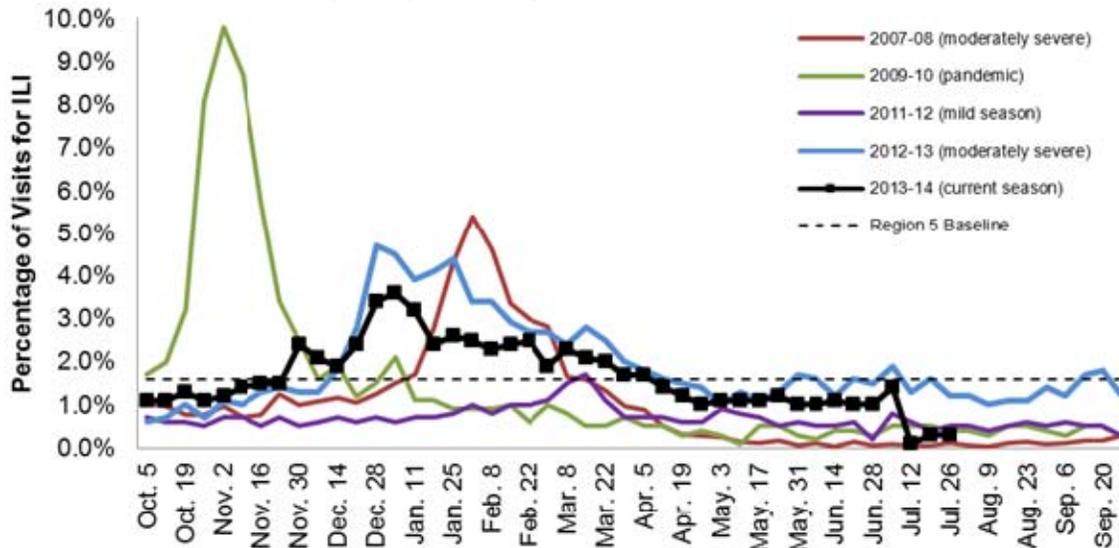
**Emergency Department Surveillance (as of August 7):** Emergency department visits due to both constitutional and respiratory complaints remained steady during the week ending August 2, 2014. Emergency department visits from constitutional and respiratory complaints are similar to levels during the same time period last year. In the past week, there were 7 constitutional alerts in the SE(2), SW(1) and C(4) Influenza Surveillance Regions and 2 respiratory alerts in the C(1) and N(1) Regions.

**Sentinel Provider Surveillance (as of July 31):** During the week ending July 26, 2014, the proportion of visits due to influenza-like illness (ILI) remained the same at 0.3% overall; this is below the regional baseline (1.6%). A total of 19 patient visits due to ILI were reported out of 6,639 office visits. Data were provided by 16 sentinel sites from the following regions: Central (6), North (1), Southeast (8), and Southwest (1). ILI activity decreased in one region: C (0.6%), increased in one region: SW (0.1%) and remained the same in two regions: N (0.0%) and SE (0.0%). Please note: These rates may change as additional reports are received.

Percentage of Visits for Influenza-like Illness (ILI)  
Reported by Sentinel Providers, Statewide and Regions  
2013-14 Flu Season



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



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 517-335-3385 or DeVitaS1@michigan.gov for more information.

**Hospital Surveillance (as of August 7):** The CDC Influenza Hospitalization Surveillance Project provides population-based rates of severe influenza illness through active surveillance and chart review of lab-confirmed cases, starting on October 1, 2013 and ending April 30, 2014, for Clinton, Eaton, Genesee, and Ingham counties. There were 232 influenza hospitalizations (69 pediatric, 163 adult) within the catchment area. Based on these counts, within the catchment area there are 33.0 pediatric influenza hospitalizations/100,000 population and 23.9 adult influenza hospitalizations/100,000.

The MDCH Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide. Reporting for the 2013-14 season has concluded. 458 hospitalizations were reported during September 29, 2013-April 26, 2014.

**Laboratory Surveillance (as of August 2):** During July 19 - August 2, 1 positive A/H3 (N) influenza result was reported by MDCH Bureau of Laboratories. For the 2013-14 season (starting Sept. 29, 2013), MDCH has identified 411 positive influenza results:

- Influenza 2009 A/H1N1pdm: 340 (77SE,132SW,94C,38N)
- Influenza A/H3: 33 (14SE,12SW,6C, 1N)
- Influenza A unsubtypable: 1 (1SE)
- Influenza A and B (LAIV recovery): 1 (1SE)
- Influenza B: 41 (11SE,15SW,9C,6N)
- RSV: 2 (2SW)
- Adenovirus: 2 (1SE,1SW)
- Parainfluenza: 3 (1SE,2SW)
- Human metapneumovirus: 4 (4SW)

6 sentinel labs (SE,SW,C) reported for the week ending August 2, 2014. One lab (C) reported sporadic parainfluenza activity. No labs reported influenza A or B, RSV, adenovirus or hMPV activity. Testing volumes are at very low levels.

**Michigan Influenza Antigenic Characterization (as of August 7):** For the 2013-14 season, 3 Michigan influenza specimens (1SE,2C) have been characterized at CDC as A/California/07/2009-like/H1N1/pdm09, matching the influenza A/H1N1pdm09 strain in the 2013-14 Northern Hemisphere vaccine. 2 specimens (2C) have been characterized at CDC and MDCH as B/Brisbane/60/2008-like, which is a B/Victoria lineage virus; it is not in the 2013-14 Northern Hemisphere trivalent vaccine but is in the quadrivalent vaccine. 29 specimens (7SE,11SW,6C,5N) have been characterized at CDC and MDCH as B/Massachusetts/02/2012-like, which is a B/Yamagata lineage virus that is included in the 2013-14 trivalent and quadrivalent vaccines.

**Michigan Influenza Antiviral Resistance Data (as of August 7):** For the 2013-14 season, 123 2009 A/H1N1pdm (33SE,37SW,41C,12N) and 15 A/H3 (6SE,7SW,2C) influenza specimens have been tested at the MDCH BOL for antiviral resistance. None of the influenza specimens tested have been resistant. CDC has made recommendations regarding the use of antivirals for treatment and prophylaxis of influenza, which are available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

**Influenza-associated Pediatric Mortality (as of August 7):** 3 pediatric influenza-associated influenza mortalities (1SE,2C) have been reported to MDCH for the 2013-14 season.

CDC requires reporting of flu-associated pediatric deaths (<18 yrs), including pediatric deaths due to an influenza-like illness with lab confirmation of influenza or any unexplained pediatric death with evidence of an infectious process. Contact MDCH immediately for proper specimen collection. The MDCH protocol is at [www.michigan.gov/documents/mdch/ME\\_pediatic\\_influenza\\_guidance\\_v2\\_214270\\_7.pdf](http://www.michigan.gov/documents/mdch/ME_pediatic_influenza_guidance_v2_214270_7.pdf).

**Influenza Congregate Settings Outbreaks (as of August 7):** One new respiratory outbreak in a SW long-term care facility due to parainfluenza was reported to MDCH during the previous weeks. 23 respiratory outbreaks (2SE,11SW,7C,3N) have been reported to MDCH during the 2013-14 season:

- Influenza 2009 A/H1N1pdm: 4 (1SE,2SW,1C)
- Influenza A/H3: 1 (1SW)
- Influenza A: 4 (3SW,1C)
- Influenza B: 3 (1SW,1C,1N)
- Influenza positive: 1 (1SW)
- Human metapneumovirus: 2 (1SE,1N)
- RSV: 1 (1SW)
- Parainfluenza: 1 (1SW)
- Negative/no testing: 6 (1SW,4C,1N)

**National (CDC):** Past weekly reports and updated data during the summer months are available online at: <http://www.cdc.gov/flu/weekly/>.

**International (WHO [edited], July 28):** Globally influenza activity remained low, but has been gradually increasing in the southern hemisphere. In North America and Europe, overall influenza activity remained at inter-seasonal levels. In eastern Asia, influenza activity reached inter-seasonal levels in most countries with influenza A(H3N2) and influenza B predominating. Influenza activity still increased slightly in the southern region of China however, mainly due to influenza A(H3N2). In northern Africa and western Asia, influenza activity remained low. In the southern hemisphere, activity continued to increase in most countries. In the temperate zone of South America influenza-like illness (ILI) continued to increase but was predominantly due to respiratory syncytial virus. Influenza A(H3N2) was the most common detected influenza virus. In Australia and New Zealand, the influenza season seemed to have started with ILI and the number of influenza detections increasing. Influenza A(H1N1)pdm09 was the most commonly detected virus in these countries. In South Africa the influenza detection rate increased with A(H3N2) the most frequently detected virus. Based on FluNet reporting (as of 25 July 2014), during weeks 27 to 28 (29 June to 12 July 2014), National Influenza Centres and other national labs from 55 countries, areas or territories reported data. The WHO GISRS labs tested more than 25675 specimens. 3184 were positive for influenza, of which 2844 (89.3%) were typed as influenza A and 340 (10.7%) as B. Of the sub-typed influenza A viruses, 416 (17.6%) were A(H1N1)pdm09 and 1948 (82.4%) were A(H3N2). Of the characterized B viruses, 89 (97.8%) belong to the B-Yamagata lineage and 2 (2.2%) to the B-Victoria lineage.

The full report is online at [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/index.html](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html).

Weekly reporting of influenza activity to the CDC has ended for the 2013-2014 influenza season.

For additional flu vaccination and education information, the MDCH *FluBytes* newsletter is available at [http://www.michigan.gov/mdch/0,1607,7-132-2940\\_2955\\_22779\\_40563-125027--,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779_40563-125027--,00.html).

### ***Novel Influenza Activity and Other News***

**WHO Pandemic Phase:** Post-pandemic – Influenza disease activity has returned to levels normally seen for seasonal influenza.

**National, Swine (North Dakota Department of Agriculture press release, July 31):** The North Dakota Department of Agriculture (NDDA) and North Dakota Department of Health (NDDoH) received results from

the National Veterinary Services Laboratory confirming that three pigs exhibited at the state fair in Minot have tested positive for an influenza A H3N2 virus strain. Although influenza can be passed from swine to people, there is no evidence at this time that any people have become ill as a result of exposure to these pigs.

NDDA animal health division staff inspects all animals displayed at the North Dakota State Fair. The pigs appeared healthy when they arrived at the fair and became ill thereafter. After being tested, they were removed from the fairgrounds by their owners at the recommendation of veterinarians. This is the first time that an influenza virus has been confirmed in swine at a fair in North Dakota.

“Fairs and exhibits are an excellent way to showcase livestock and expose the public to animal agriculture production,” said Agriculture Commissioner Doug Goehring. “When appropriate precautions are taken, there is minimal risk of spreading disease to the public.”

However, some influenza viruses can spread from pigs to people and from people to pigs. Spread from infected pigs to humans is thought to happen in the same way that seasonal influenza viruses spread between people; mainly through infected respiratory droplets created when an infected pig coughs. Swine influenza has not been shown to be transmissible to people through eating properly handled and prepared pork or other products derived from pigs.

According to the NDDoH, appropriate precautions to prevent the spread of influenza from pigs to people include the same types of measures used to prevent the spread of influenza between people; frequent hand washing and avoiding contact with those that are ill. Other precautions include not eating or drinking around animals and avoiding contact with material, such as bedding material, which has been in contact with pigs. Any exhibitor or visitor at high risk of serious flu complications, who is planning to attend a fair where pigs will be present, should consider avoiding pigs and swine barns. The NDDoH also encourages those who work with pigs to take precautions to avoid the spread of illness. Use masks and gloves when you work with ill animals to protect yourself against transfer of the virus.

“Washing hands prior to working with or handling animals and likewise after working with animals is a good practice,” State Veterinarian, Dr. Susan Keller said. “Swine producers should contact their veterinarians if they have any questions about influenza-like illnesses in their pigs. Vaccines are available that may prevent illness.”

According to the NDDoH, if you experience symptoms of influenza (fever, cough, sore throat, body aches, headache) after contact with animals, report that contact to your primary health care provider. Conversely, if you have influenza, avoid contact with pigs during your illness and for another week after symptoms have disappeared.

For more information about influenza, including the H3N2v flu, visit the health department’s influenza website at [www.ndflu.com](http://www.ndflu.com) or call the North Dakota Department of Health at 701-328-2378. For recommendations for swine producers, visit the NDDA website at [www.nd.gov/ndda/disease/h3n2-influenza](http://www.nd.gov/ndda/disease/h3n2-influenza) or call the State Veterinarian’s office at 701-328-2655.

The press release is available online at <http://www.ndflu.com/H3N2v/default.aspx>.

**International Poultry and Wild Bird Surveillance (OIE):** Reports of avian influenza activity, including summary graphs of avian influenza H5N1 outbreaks in poultry, can be found at the following website: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm).

**International Human Surveillance (WHO):** Reports of novel influenza activity in humans, including avian influenza A/H5N1 and A/H7N9, are available online at [www.who.int/influenza/human\\_animal\\_interface/en/](http://www.who.int/influenza/human_animal_interface/en/).

**For questions or to be added to the distribution list, please contact Susan Peters at [peterss1@michigan.gov](mailto:peterss1@michigan.gov)**

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