



MI FluFocus

Influenza Surveillance Updates
Bureaus of Epidemiology and Laboratories



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Updates of Interest:

National: Low pathogenic avian influenza detected in a Minnesota turkey farm

International: Low pathogenic avian influenza serotype H7N7 detected in Netherlands

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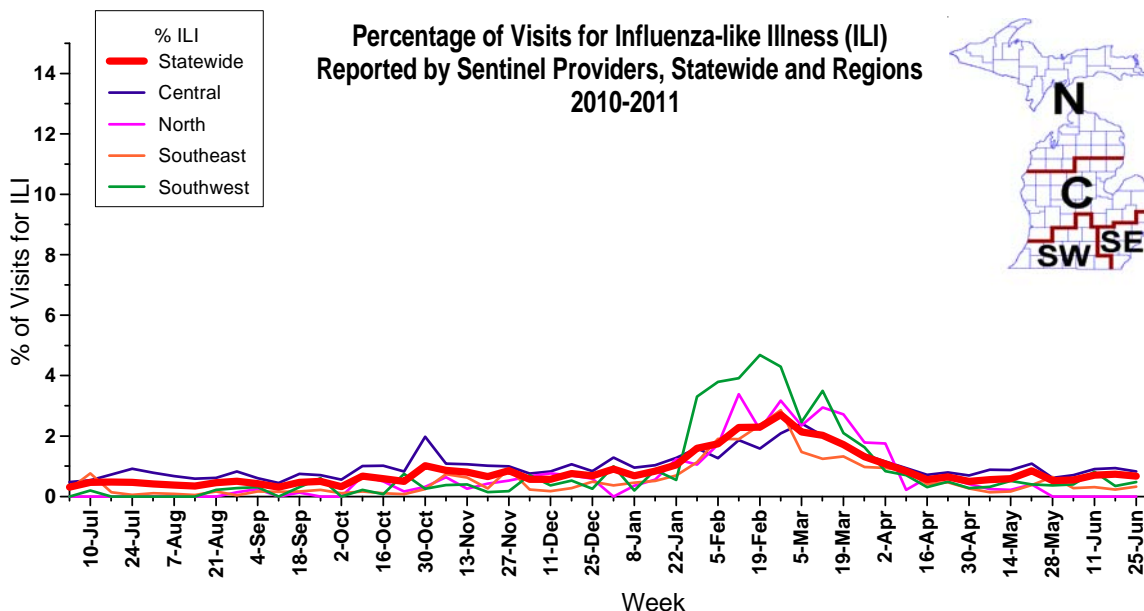
Influenza Surveillance Reports

Michigan Disease Surveillance System: MDSS data for the week ending June 25th indicated that both aggregate and individual reports remained steady at very low levels. Both aggregate and individual influenza cases are similar to levels seen during the same time last year.

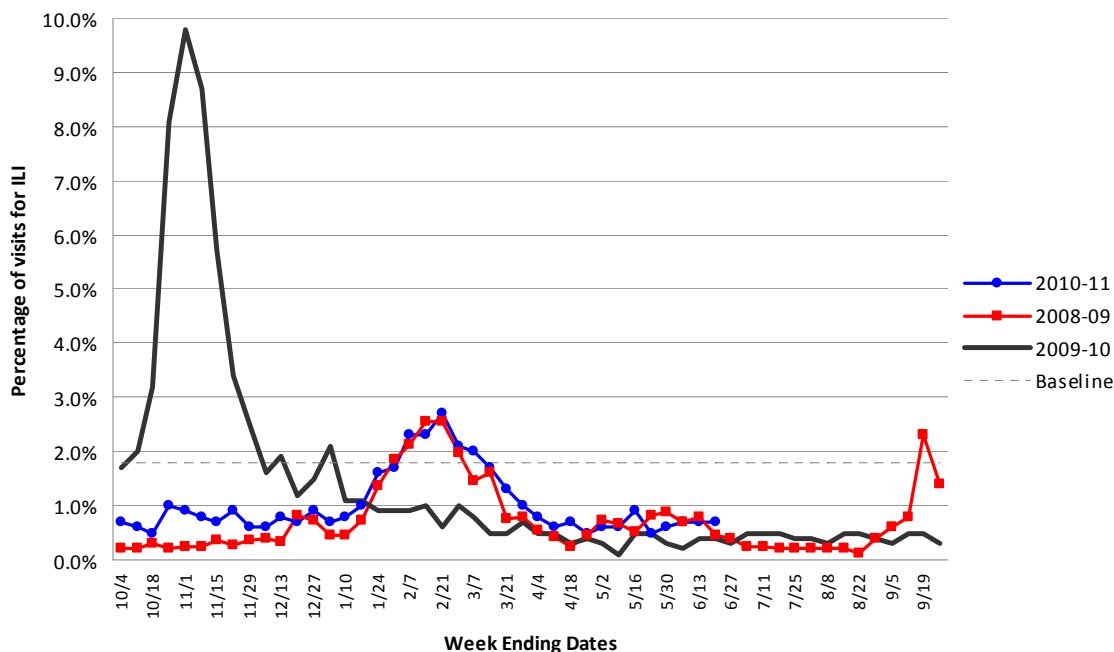
Emergency Department Surveillance: Compared to the previous week's levels, emergency department visits from constitutional and respiratory complaints decreased slightly. Constitutional complaints are slightly lower, while respiratory complaints are similar, than levels reported during the same time period last year. In the past week, there were no constitutional alerts and two respiratory alerts in the C Influenza Surveillance Region.

Over-the-Counter Product Surveillance: When compared to the previous week's data, sales of all indicators remained steady except for a slight increase in chest rub sales. When compared to this time last year, chest rub and cough/cold medication sales are slightly increased, while all other indicators are at similar levels.

Sentinel Provider Surveillance (as of June 30): During the week ending June 25, 2011, the proportion of visits due to influenza-like illness (ILI) remained at 0.7% overall; this is below the regional baseline of 1.8%. A total of 47 patient visits due to ILI were reported out of 6,950 office visits. Twenty-two sentinel sites provided data for this report. Activity decreased in one surveillance regions: Central (0.8%); slightly increased in two regions: Southwest (0.5%) and Southeast (0.3%); and remained at no activity in the North for the fifth week in a row. Please note these rates may change as additional reports are received.



**Percentage of Visits for Influenza Like Illness (ILI) Reported by the US Outpatient
Influenza-like Illness Surveillance Network (ILINet) - Michigan, 2008-2011**



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 Cristi Carlton at 517-335-9104 or CarltonC2@michigan.gov for more information.

Hospital Surveillance: The total number of cases for the 2010-11 season is 51 adult and 49 pediatric cases, and the estimated influenza hospitalization incidence rate in the catchment area (Clinton, Eaton and Ingham counties) is 49 per 100,000 for children and 14 per 100,000 for adults.

Laboratory Surveillance (as of June 25): During June 19-25, no positive specimens were reported by MDCH Bureau of Laboratories. For the 2010-11 season (starting October 3, 2010), MDCH BOL has identified 359 influenza results:

- 2009 Influenza A/H1N1: 148
- Influenza A unsubtypeable: 1
- Influenza A/H3: 157
- Influenza B: 53

7 sentinel labs (SE, SW, C, N) reported for the week ending June 25, 2011. No labs reported influenza A, influenza B or RSV positive results. Testing volumes are at very low levels.

Michigan Influenza Antigenic Characterization (as of June 30): One influenza A/H3 positive specimen, collected in January from the SE Region, was characterized at CDC as the A/H3/Perth/16/2009-like strain, which is the A/H3 component of the 2010-11 influenza vaccine. Five influenza B positive specimens, collected in March from the SE and SW Regions, were characterized at MDCH as the B/Brisbane/60/2008-like strain, which is the B component of the 2010-11 influenza vaccine.

Michigan Influenza Antiviral Resistance Data (as of June 30): One of the 24 Michigan influenza isolates tested for antiviral resistance at the CDC during the 2010-2011 season has been found to be resistant to oseltamivir (H275Y mutation present). This specimen was a 2009 influenza A/H1N1 positive specimen collected in early March; additional epidemiologic information is pending.

Antiviral resistance testing takes months to complete and cannot be used to guide individual patient treatment. However, 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 June 30): Six influenza-associated pediatric mortalities (2SE, 4C), one associated with flu A and five with flu B, have been reported to MDCH this season.

***CDC has asked states for information on any pediatric death associated with influenza. This includes not only any pediatric death (<18 years) resulting from a compatible illness with laboratory confirmation of influenza, but also any unexplained pediatric death with evidence of an infectious process. Please

immediately call MDCH to ensure proper specimens are obtained. View the complete MDCH protocol online at http://www.michigan.gov/documents/mdch/ME_pediatric_influenza_guidance_v2_214270_7.pdf.

Influenza Congregate Settings Outbreaks (as of June 30): 25 total outbreaks have been reported to MDCH for the 2010-2011 season:

- Influenza A/H3: 11 (4SE, 3SW, 1C, 3N)
- Influenza A/H1N1 2009: 2 (2SW)
- Influenza A/H3 and B both found: 1 (SW)
- Influenza A and B both found: 1 (C)
- Influenza B: 1 (C)
- Influenza positive, subtype unknown: 1 (SW)
- RSV and parainfluenza 3: 1 (C)
- RSV: 1 (C)
- No testing or negative: 6 (2SE, 2SW, 2N)

National (CDC, June 3): Limited national surveillance data is updated weekly during the summer months at the following website: <http://www.cdc.gov/flu/weekly/>.

International (WHO [edited], June 17): The influenza season has finished in the temperate countries of the northern hemisphere with only sporadic detections occurring. Transmission in tropical areas remains low with localized circulation noted in the western and eastern regions of sub-Saharan Africa and low level circulation in some countries of northern South America. South Africa has reported a sharp increase in Influenza-Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) rates, primarily influenza A(H1N1)2009. Influenza activity remains low in other temperate countries of the southern hemisphere.

The entire summary is available online at http://www.who.int/csr/disease/influenza/latest_update_GIP_surveillance/en/index.html

Map of International Activity (CDC): A Map of International Co-circulation of Seasonal Influenza is available online at <http://cdc.gov/flu/international/map.htm>.

Weekly reporting to the CDC has ended for the 2010-2011 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.

Novel Influenza Activity and Other News

WHO Pandemic Phase: Post pandemic - Influenza disease activity has returned to levels normally seen for seasonal influenza. It is expected that the pandemic virus will behave as a seasonal influenza A virus. It is important to maintain surveillance and update pandemic preparedness/response plans accordingly.

National, Poultry (OIE [edited], June 29): Country: United States of America

Causal Agent: Low pathogenic avian influenza virus Serotype(s) Pending

Date of first confirmation of the event: 29/06/2011; Date of Start of Event: 23/06/2011

Date of report: 29/06/2011; Date Submitted To OIE: 29/06/2011; State: MINNESOTA; County: Wright

Species: Birds; Susceptible: 5500; Cases: 0; Deaths: 0; Destroyed: 0; Slaughtered: 0

Affected Population: Commercial turkey operation. Routine pre-market testing of healthy birds with no clinical signs of avian influenza.

Epidemiological comments: The USDA Animal Plant Health Inspection Service (APHIS) and the Minnesota Board of Animal Health are conducting a comprehensive epidemiological investigation of this event. Epidemiological summary of the event:

- Routine pre-harvest testing of turkeys for avian influenza, no clinical signs of influenza.

- Following the State response and containment plan, the Minnesota Board of Animal Health has quarantined the index premises and has established a surveillance zone.

- A three mile surveillance zone has been implemented. All flocks within the three mile surveillance zone have been tested and are negative for influenza.

- No virus isolated.

Source of the outbreak(s) or origin of infection: Unknown or inconclusive

Control Measures Applied: Quarantine, Movement control inside the country, Zoning

To be applied: Disinfection of infected premises/establishment(s)

Animals treated: No; Vaccination Prohibited: Yes

International, Poultry (OIE [edited], June 24): Country: Netherlands

Causal Agent: Low pathogenic avian influenza virus Serotype(s) H7N7

Date of first confirmation of the event: 24/06/2011; Date of Start of Event: 23/06/2011

Province: FLEVOLAND; Location; Creil

Species: Birds; Susceptible: 47000; Destroyed: 47000; Affected Population: Free range laying hens

Epidemiological comments: Screening of all poultry in a 3-km zone.

Source of the outbreak(s) or origin of infection: Unknown or inconclusive

Control Measures Applied: Stamping out, Movement control inside the country, Screening

To be applied: No Planned Control Measures; Animals treated: No; Vaccination Prohibited: Yes

International, Poultry (CIDRAP, June 29): Ostrich farmers from South Africa's Western Cape were expected to meet with government officials today to discuss the possibility of a national disaster declaration because of highly pathogenic H5N2 avian influenza outbreaks that have decimated the local industry, the South African Broadcasting Corp. (SABC) reported. So far more than 23,000 birds have been culled, and ostrich meat from the area has been banned. State veterinarians are conducting another round of surveillance for the disease to assess the current status. Since mid April the country has reported 21 H5N2 outbreaks to the World Organization for Animal Health (OIE).

Michigan Wild Bird Surveillance (USDA, as of June 30): For the 2010 season (April 1, 2010-March 31, 2011), highly pathogenic avian influenza H5N1 has not been recovered from 40,860 samples tested nationwide, including 1283 Michigan samples (7 live bird, 1203 hunter-killed birds, 73 morbidity/mortality).

For the 2011 season (April 1, 2011-March 31, 2012), highly pathogenic avian influenza H5N1 has not been recovered from 78 samples tested nationwide. For more information, visit <http://wildlifedisease.nbio.gov/ai/>.

To learn about avian influenza surveillance in Michigan wild birds or to report dead waterfowl, go to Michigan's Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

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.

For questions or to be added to the distribution list, please contact Susan Peters at PetersS1@michigan.gov

Contributors

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Table. H5N1 Influenza in Humans - Cases up to June 22, 2011. http://www.who.int/csr/disease/avian_influenza/country/cases_table_2011_06_22/en/index.html. Downloaded 6/23/2011. Cumulative number of lab-confirmed cases reported to WHO. Total cases includes deaths.

Country	2003		2004		2005		2006		2007		2008		2009		2010		2011		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	0	0	0	0	0	0	0	0	0	0	8	5
Bangladesh	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	3	0
Cambodia	0	0	0	0	4	4	2	2	1	1	1	0	1	0	1	1	6	6	16	14
China	1	1	0	0	8	5	13	8	5	3	4	4	7	4	2	1	0	0	40	26
Djibouti	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	25	9	8	4	39	4	29	13	31	12	150	52
Indonesia	0	0	0	0	20	13	55	45	42	37	24	20	21	19	9	7	7	5	178	146
Iraq	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	3	2
Lao PDR	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
Myanmar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
Nigeria	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
Pakistan	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	3	1
Thailand	0	0	17	12	5	2	3	3	0	0	0	0	0	0	0	0	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	0	0	0	0	0	0	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	8	5	6	5	5	5	7	2	0	0	119	59
Total	4	4	46	32	98	43	115	79	88	59	44	33	73	32	48	24	46	23	562	329