



# MI FluFocus

## Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology  
Bureau of Laboratories

Michigan Department  
of Community Health



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December 7, 2006  
Vol. 3; No. 48

### New updates in this issue:

- **Michigan Surveillance:** MDCH Lab submissions and culture-confirmed cases are increasing.
- **National Surveillance:** Overall activity is low; the majority of isolates have been influenza A.

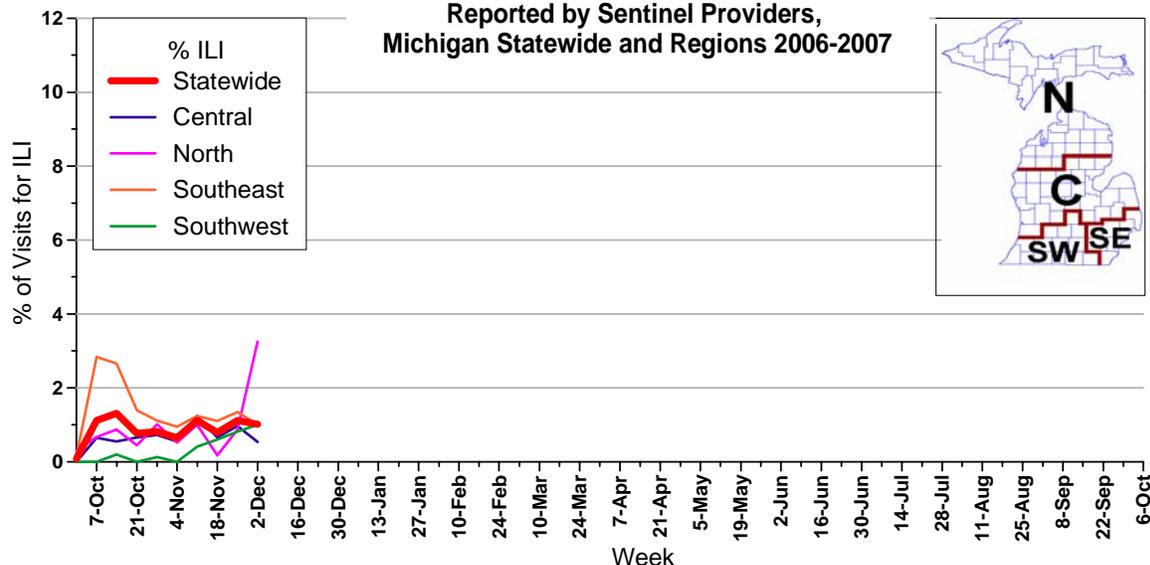
**Michigan Disease Surveillance System:** The last week has seen an increase in flu-like illness reports; however, this is fairly consistent with the trend seen over the past few weeks and should be considered steady. These minor weekly changes can be explained by variations in reporting. These reports are likely to continue to fluctuate in this manner over the next few weeks. The current flu-like illness reported levels are comparable to that seen at this time last year.

**Emergency Department Surveillance:** Emergency department visits due to constitutional and respiratory complaints have decreased in the last week, dropping back from a recent increase in both types of visits. Current levels are slightly higher but still consistent with levels seen at this time last year. Two constitutional alerts in Regions 6(1) and 7(1) and five respiratory alerts in Regions 1(2), 5(1) and 7(2) were generated in the past week.

**Over-the-Counter Product Surveillance:** OTC product sales appear to reflect the slightly decreased activity seen in the past week. Most sales remained relatively steady or had a slight decrease in sales, with the exception of an increase in children's electrolytes. However, the indicators levels are comparable to those seen at this time last year, except for the adult and pediatric cold relief liquid, which are holding about 1-2% below their percentage of total sales for this time last year.

**Sentinel Surveillance (as of December 7, 2006):** During the week ending December 2, 2006, the proportion of visits due to influenza-like illness (ILI) remained relatively unchanged from last week at 1.0 % of all visits, representing 87 cases of ILI out of 8573 total patient visits; thirty sentinels provided data for this report. The percentage of visits due to ILI in each of the four surveillance regions was 0.5%, Central; 3.2% North (3 visits due to ILI); 1.0%, Southeast; 1.0%, Southwest. Note that these rates may change as additional reports are received.

Percentage of Visits for Influenza-like Illness (ILI)  
Reported by Sentinel Providers,  
Michigan Statewide and Regions 2006-2007



As part of pandemic influenza preparedness, CDC and MDCH highly encourage and recommend year-round participation from all sentinel providers. New practices are encouraged to join influenza sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or [potterr1@michigan.gov](mailto:potterr1@michigan.gov) for more information.

**Laboratory Surveillance (as of December 7):** For the 2006-2007 influenza season, there have been four culture-confirmed cases from the MDCH Lab, three (two A/H1N1 and one B) from southeast Michigan (Regions 2N and 2S) and one (A/H1N1) from south central Michigan (Region 1). Seven sentinel laboratories (southeast and southwest Michigan) are reporting low numbers of positive influenza tests. Low levels of parainfluenza, adenovirus and respiratory syncytial virus are being reported as well.

\*\*\*As a reminder, the positive predictive value of influenza rapid tests decreases during times of low influenza prevalence. MDCH suggests that during periods of low influenza activity in your community, all positive rapid tests results be confirmed by sending in a specimen for viral culture; this can be arranged through your local health department.

**Influenza-Associated Pediatric Mortality (as of December 7):** For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan.

\*\*\*Reminder: The CDC has asked all states to continue to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child less than 18 years of age resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory or rapid diagnostic test, but also unexplained death with evidence of an infectious process in a child. Refer to [http://www.michigan.gov/documents/fluletter\\_107562\\_7.pdf](http://www.michigan.gov/documents/fluletter_107562_7.pdf) for the complete protocol. It is important to immediately call or fax information to MDCH to ensure that appropriate clinical specimens can be obtained.

**Congregate Settings Outbreaks (as of December 7):** No reports were received during the past reporting week. There have been no reports of congregated influenza outbreaks to MDCH for the 2006-2007 influenza season.

**National (CDC, December 1):** During week 47 (Nov. 19 – Nov. 25), a low level of influenza activity was reported in the United States. The proportion of patient visits to sentinel providers for influenza-like illness (ILI) and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. No influenza-associated pediatric deaths were reported for week 47, and no deaths have been reported for the 2006-07 season. No laboratory-confirmed influenza-associated pediatric hospitalizations have been reported from the two population-based surveillance networks: the Emerging Infections Program (EIP) and the New Vaccine Surveillance Network (NVSN). One state reported widespread influenza activity; three states reported regional activity; four states reported local activity; 24 states, the District of Columbia, and New York City reported sporadic activity; and 18 states reported no influenza activity.

During week 47, WHO and NREVSS laboratories reported 1,823 specimens tested for influenza viruses, 67 (3.7%) of which were positive: four influenza A(H1) viruses, 53 influenza A viruses that were not subtyped, and 10 influenza B viruses. Since October 1, 2006, WHO and NREVSS laboratories have tested a total of 18,443 specimens for influenza viruses and 570 (3.1%) were positive. Among the 570 influenza viruses, 455 (79.8%) were influenza A viruses and 115 (20.2%) were influenza B viruses. One hundred and six (23.3%) of the 455 influenza A viruses have been subtyped: 99 (93.4%) were influenza A(H1) viruses and 7 (6.6%) were influenza A(H3) viruses. Of the 570 influenza viruses reported this season, 353 (61.9%) have been reported from Florida. CDC has antigenically characterized 23 influenza viruses (six A(H1) and 17 B viruses) since October 1, 2006. Of the A(H1) viruses, all were characterized as A/New Caledonia/20/99-like, which is the A(H1) component of the 2006-07 influenza vaccine. Eight additional isolates collected from an outbreak in September were also characterized as A/New Caledonia/20/99-like. Six (35.3%) of the 17 influenza B viruses characterized belong to the B/Victoria lineage of viruses, three of the six viruses were similar to B/Ohio/01/2005, the B component of the 2006-07 influenza vaccine. Three of these six viruses showed somewhat reduced titers with antisera produced against B/Ohio/01/2005. Eleven (64.7%) of the 17 influenza B viruses characterized belong to the B/Yamagata lineage of viruses.

To access the CDC weekly surveillance report throughout the influenza season, visit <http://www.cdc.gov/flu/weekly/fluactivity.htm>.



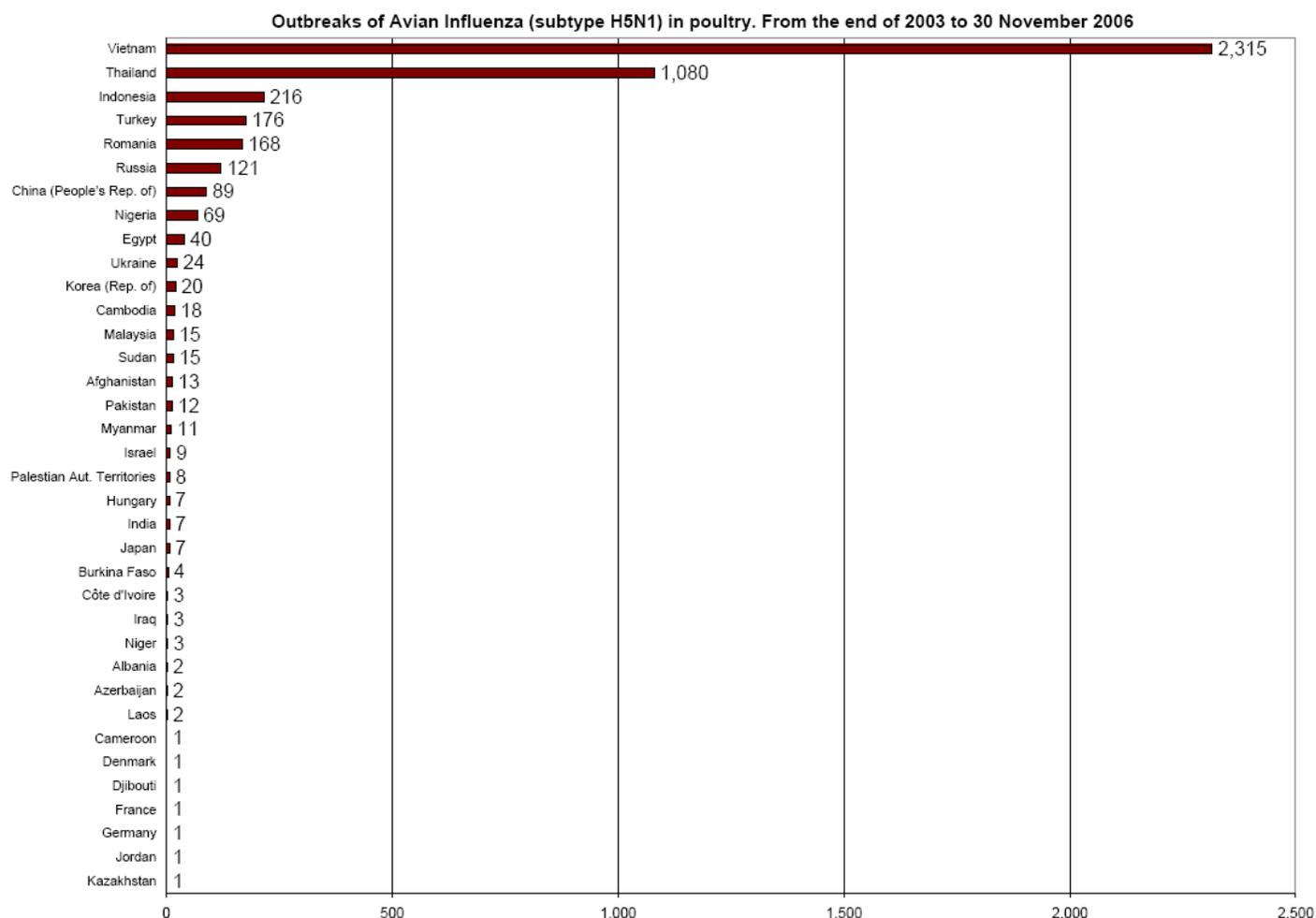
subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 46,250 birds tested nationwide.

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>.

**Please contact Susan Vagasky at [VagaskyS@Michigan.gov](mailto:VagaskyS@Michigan.gov) with any questions regarding this newsletter or to be added to the weekly electronic mailing list.**

**Table 1. H5N1 Influenza in Poultry (Outbreaks up to November 30, 2006)**

(Source: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm) Downloaded 12/1/2006)



**Table 2. H5N1 Influenza in Humans (Cases up to November 29, 2006)**

([http://www.who.int/entity/csr/disease/avian\\_influenza/country/cases\\_table\\_2006\\_06\\_06/en/index.html](http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html) Downloaded 11/30/2006)

Cumulative number of confirmed human cases of Avian Influenza A(H5N1) reported to WHO. The total number of cases includes number of deaths. WHO only reports laboratory-confirmed cases.

Country	2003		2004		2005		2006		Total	
	cases	deaths								
Azerbaijan	0	0	0	0	0	0	8	5	8	5
Cambodia	0	0	0	0	4	4	2	2	6	6
China	1	1	0	0	8	5	12	8	21	14
Djibouti	0	0	0	0	0	0	1	0	1	0
Egypt	0	0	0	0	0	0	15	7	15	7
Indonesia	0	0	0	0	19	12	55	45	74	57
Iraq	0	0	0	0	0	0	3	2	3	2
Thailand	0	0	17	12	5	2	3	3	25	17
Turkey	0	0	0	0	0	0	12	4	12	4
Viet Nam	3	3	29	20	61	19	0	0	93	42
Total	4	4	46	32	97	42	111	76	258	154