



MI FluFocus

Influenza Surveillance and Avian Influenza Update

**Michigan Department of Community Health
Bureau of Epidemiology
Bureau of Laboratories**

**Editor: Susan Vagasky, DVM
VagaskyS@Michigan.gov**

**October 5, 2006
Vol. 3; No. 40**

New updates in this issue:

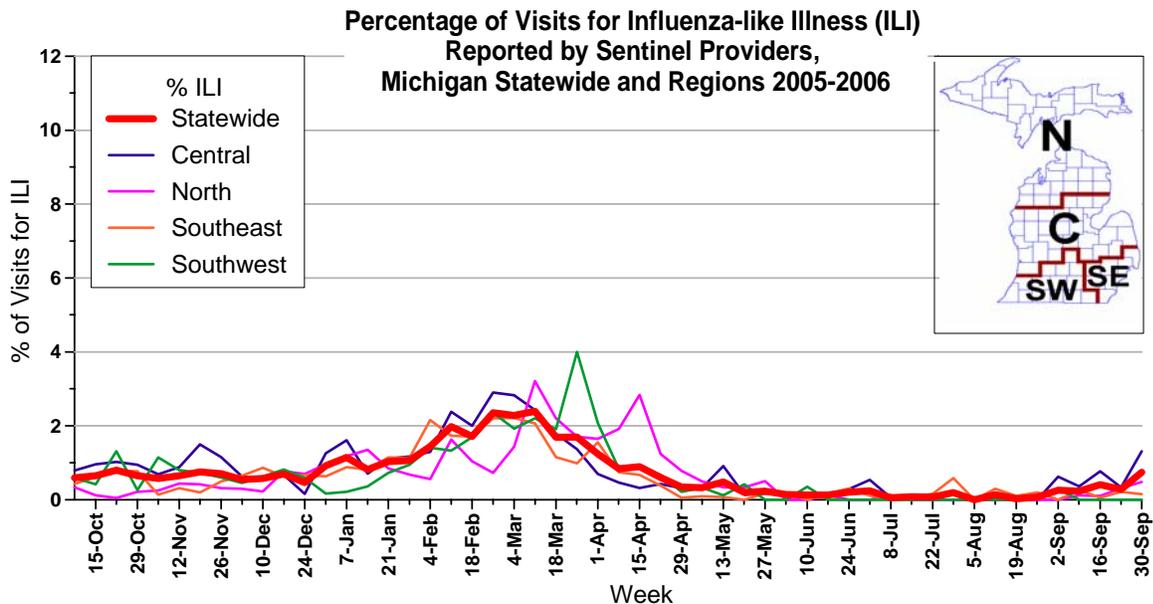
- **Syndromic Surveillance:** Respiratory and constitutional syndrome complaints have decreased.
 - **Sentinel Surveillance:** New sentinel provider data for the week ending September 30.
 - **Avian Influenza:** Human case in Indonesia; Low pathogenicity H5 and N1 subtypes found in Illinois.
-

Michigan Disease Surveillance System: As expected, the first few weeks of the academic year have correlated with an increase in flu-like illness activity reported in MDSS. This trend is expected to continue as the respiratory illness season progresses. However, current flu-like illness activity is comparable to that seen from last year at this time.

Emergency Department Surveillance: After several weeks, a much-improved picture of flu-like illness activity, as seen among the emergency department surveillance indicators, has emerged. The levels of both constitutional and respiratory syndrome complaints have decreased, with a dramatic decrease seen among respiratory complaints. Two regional constitutional alerts (Regions 5 and 7) and two regional respiratory alerts (Regions 1 and 5) were generated in the past week.

Over-the-Counter Product Surveillance: Over-the-counter influenza indicators support the conclusions drawn above. Over the past week, all eight indicators demonstrated sales levels that were either decreasing or stable. Only sales of chest rubs appear to be higher than from the same period last year.

Sentinel Surveillance (as of October 5, 2006): During the week ending September 30, 2006, the proportion of visits due to influenza-like illness (ILI) increased slightly from last week to 0.7% of all visits, representing 26 cases of ILI out of 3486 total patient visits. Seventeen sentinels provided data for this report. Low levels of ILI activity were reported in all regions; 1.3%, Central; 0.5%, North; 0.2%, Southeast; and 0.0%, Southwest. All 22 cases in the Central region, and most (22/26) cases in the state, were reported by a single large practice.



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 for more information.

Laboratory Surveillance (as of October 5): No reports were received for the past week. The MDCH laboratory has confirmed 138 influenza cases in Michigan over the 2005-2006 season, of which 132 were influenza A (H3N2) and 6 were influenza B.

***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 October 5): There were no new reports this week. For the 2005-2006 influenza season, Michigan had one confirmed influenza-associated pediatric death from region 2S. During October 2, 2005 – May 20, 2006, CDC received reports of 35 influenza-associated pediatric deaths, 33 of which occurred during the current influenza season.

***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 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 October 5): No reports were received during the past reporting week. A total of two congregated setting outbreaks have been reported to MDCH this past season; one in Southwest Michigan in late February and one in Southeast Michigan in late March. Both outbreaks were MDCH laboratory confirmed as due to influenza A (H3N2).

National (FDA, October 5): The Food and Drug Administration has just approved an additional influenza vaccine for the 2006-2007 season. FluLaval, which is approved for adults 18 and older, is manufactured by ID Biomedical Corporation of Quebec, Canada, a subsidiary of GlaxoSmithKline Biologics and will be distributed by GlaxoSmithKline, Research Triangle Park, N.C. It is not approved for pregnant women or children. For the entire press release, see <http://www.fda.gov/bbs/topics/NEWS/2006/NEW01478.html>.

International (WHO, as of August 30): During weeks 31- 33, with the exception of New Zealand, where regional influenza A(H3N2) activity continued, overall influenza activity in both northern and southern hemispheres was low. In Australia, localized influenza activity continued to be reported during weeks 31–33. Influenza A and B viruses co-circulated. During weeks 31-33, influenza A activity in New Zealand remained similar to previous weeks and was reported as regional. Low influenza activity was reported in Argentina (H1, A and B), Hong Kong, Special Administrative Region of China (H1, H3 and B), Japan (H1), Madagascar, South Africa (H3 and B), and Uruguay (H1, A and B). Sweden reported an A(H3N2) case imported from China during week 33. Mexico, Portugal and Slovenia reported no influenza activity.

Weekly influenza activity reporting to the CDC has not started for the 2006-2007 influenza season.

End of Seasonal Report

Avian Influenza Activity

WHO Pandemic Phase: Phase 3 - Human infection(s) with a new subtype, but no human-to-human spread or rare instances of spread to a close contact.

International Update (WHO, October 3): The Ministry of Health in Indonesia has confirmed the country's 69th case of human infection with the H5N1 avian influenza virus. The case is a 21-year-old female from East Java Province. She developed symptoms on September 19th and was hospitalized on September 25th. She remains hospitalized. She is the sister of a confirmed H5N1 case, an 11-year-old male who died on September 18th. Following that fatal case, health authorities initiated contact tracing, and on September 24th they received reports of symptoms in the sister. In line with the national protocol, she was immediately given the antiviral drug, oseltamivir, and isolated in hospital. The source of her infection is presently under investigation. Poultry deaths in the family's household were noted both before and during the illness of the brother. The woman was likely exposed to these poultry as well as to her brother. Of the 69 cases confirmed to date in Indonesia, 52 have been fatal.

Associated Press, September 30: A new outbreak of the deadly H5N1 strain of bird flu killed 985 chickens in China's northern region of Inner Mongolia, a state news agency reported Saturday. The discovery in a village near the city of Baotou prompted authorities to destroy 8,990 other chickens to prevent the virus from spreading, the Xinhua News Agency said. A laboratory confirmed Friday that the dead birds had the H5N1 strain of the virus. Eight earlier poultry outbreaks were recorded this year in central China and areas of the north, east and southwest, according to Xinhua. The most recent was in Changsha in the central province of Hunan, when 1,805 ducks were killed, the agency said. A quarantine on the area was lifted Sept. 6 after no new cases were found after three weeks. For the full story, go to http://news.yahoo.com/s/ap/20060930/ap_on_he_me/china_bird_flu.

National Wild Bird Surveillance (USDA, September 29): The U.S. Department of Agriculture (USDA) and Department of the Interior (DOI) today announced a detection of the H5 and N1 avian influenza subtypes in samples from wild, migratory Green-winged Teals in Illinois. Initial tests confirm that these wild duck samples do not contain the highly pathogenic H5N1 strain that has spread through birds in Asia, Europe and Africa. These samples were collected from apparently healthy birds and initial test results indicate the presence of low pathogenic avian influenza (LPAI) virus, which poses no threat to human health. The bird samples were collected on Sept. 24 in the Rice Lake Conservation Area of Fulton County, Illinois, through a partnership between USDA and the Illinois Department of Natural Resources as part of an expanded wild bird monitoring program. USDA and DOI are working collaboratively with states to sample wild birds throughout the U.S. for the presence of highly pathogenic avian influenza (HPAI).

As a result of this expanded testing program, USDA and DOI expect to identify additional cases of common strains of avian influenza in birds, which is not cause for concern. The ducks were showing no sign of sickness, which also suggests this is LPAI. Eleven samples were collected directly from the ducks. Of those samples, a pool of five samples tested positive for H5 and were sent to USDA's National Veterinary Services Laboratories (NVSL) in Ames, Iowa, for confirmatory testing. One of the five samples screened by NVSL tested positive for both H5 and N1. However, this does not mean these ducks are infected with an H5N1 strain. It is possible that there could be two separate avian influenza viruses, one containing H5 and

the other containing N1. Confirmatory testing underway at NVSL will clarify whether one or more strains of the virus are present, the specific subtype, as well as confirm the pathogenicity. These results are expected within two to three weeks and will be made public when completed.

Low pathogenic avian influenza commonly occurs in wild birds and can be found in a number of duck populations including the Green-winged Teal. It typically causes only minor sickness or no noticeable symptoms in birds. These strains of the virus include LPAI H5N1, commonly referred to as "North American" H5N1, which is very different from the more severe HPAI H5N1 circulating overseas. Duck populations, including Green-winged Teal, are commonly hunted. There is no known health risk to hunters or hunting dogs from contact with low pathogenic forms of avian influenza virus. Nevertheless, hunters are always encouraged to use common sense sanitation practices, such as hand washing and thorough cooking, when handling or preparing wildlife of any kind. DOI has issued guidelines for safe handling and preparation of wild game.

Michigan Wild Bird Surveillance: According to the National HPAI Early Detection Data System website, which is run by the US Geological Survey and available at <http://wildlifedisease.nbj.gov/ai/>, Michigan has results for a total of 415 wild birds submitted for testing as of September 29. 170 of these birds were live-captured and tested, 161 were hunter-killed, 54 were sentinel animals, and 30 were dead birds that were submitted for testing. HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 24,643 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 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 September 25, 2006)

(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 9/29/2006)

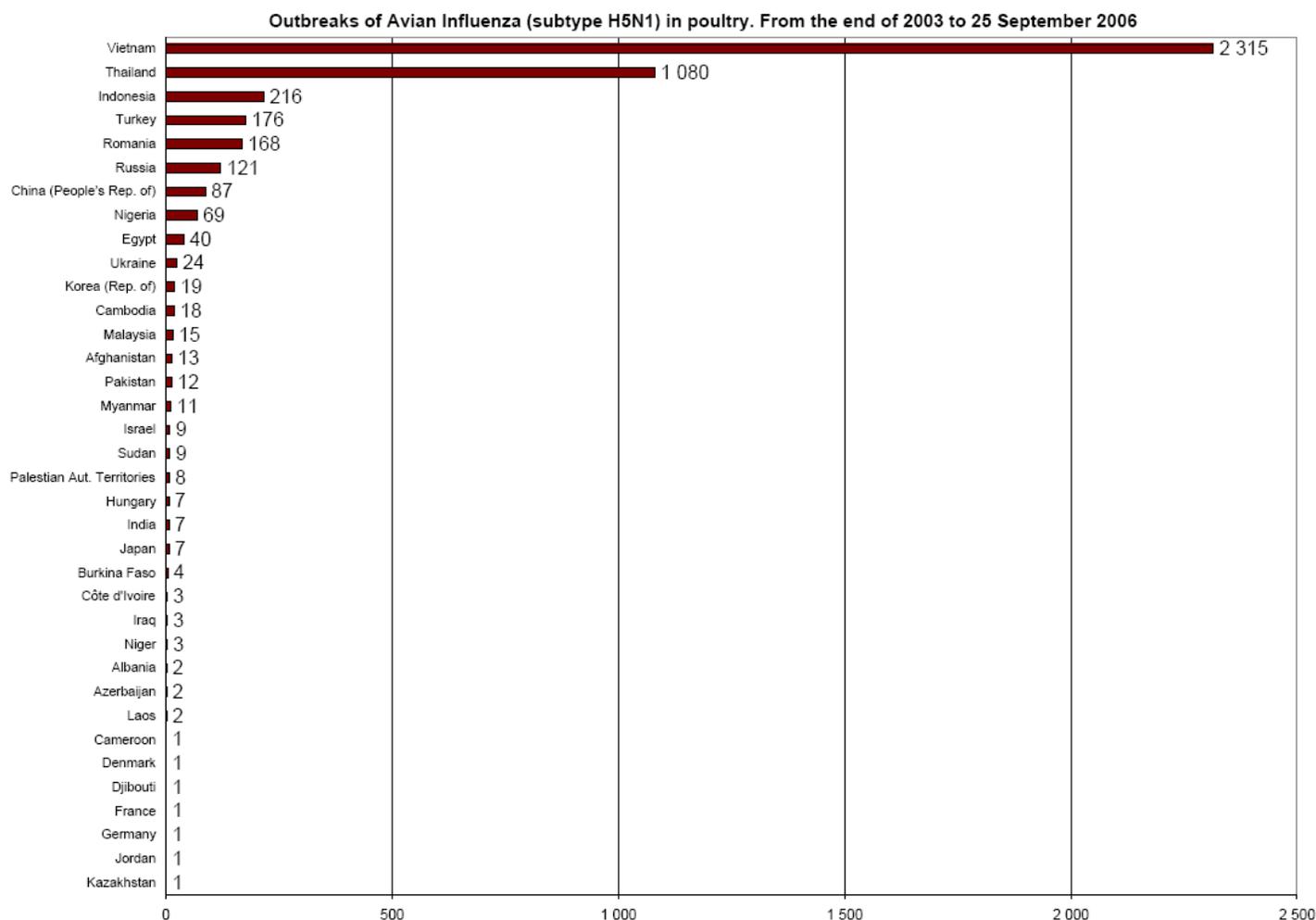


Table 2. H5N1 Influenza in Humans (Cases up to October 3, 2006)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 10/3/2006)

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	14	6	14	6
Indonesia	0	0	0	0	19	12	50	40	69	52
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	105	70	252	148