



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories

Michigan Department
of Community Health



Jennifer M. Granholm, Governor
Janet Olszewski, Director

Editor: Susan Vagasky, DVM
VagaskyS@Michigan.gov

November 2, 2006
Vol. 3; No. 44

New updates in this issue:

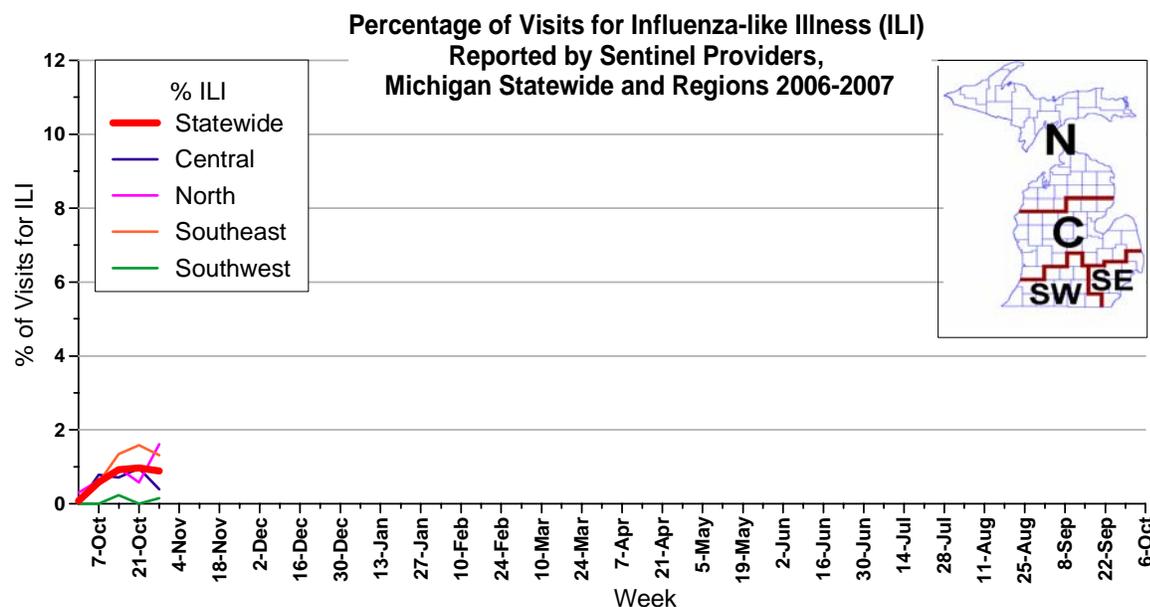
- **Syndromic Surveillance:** Slight increases in flu-like illness and some over-the-counter product sales.
- **Sentinel Surveillance:** New sentinel provider data for the week ending October 28.
- **Avian Influenza:** Previous human Egyptian case dies; new strain of H5N1 is spreading.

Michigan Disease Surveillance System: Reports of flu-like illness continue to rise, but only slightly this week. This increasing trend is expected to continue as the respiratory illness season progresses. The current flu-like illness reported levels, however, are comparable to that seen at this time last year.

Emergency Department Surveillance: Emergency department visits due to constitutional and respiratory complaints continue to remain relatively steady. The levels of constitutional syndrome complaints have remained steady, while respiratory syndrome complaints have only slightly decreased. These levels are consistent with levels seen at this time last year. Four constitutional alerts in Regions 1(2), 5(1), and 7(1) and four respiratory alerts in Regions 1(1), 5(2), and 7(1) were generated in the past week.

Over-the-Counter Product Surveillance: Over the past week, there were very slight increases in the cough/cold, cold relief - adult liquid, pediatric anti-fever and children's electrolytes sales categories. Of note, three of the four categories with increases were preceded by a noticeable decrease. The other four indicators remained stable. However, all eight indicators levels are comparable to those seen at this time last year.

Sentinel Surveillance (as of November 2, 2006): During the week ending October 28, 2006, the proportion of visits due to influenza-like illness (ILI) remained unchanged from last week at 0.9% of all visits, representing 62 cases of ILI out of 6977 total patient visits. Twenty-six sentinels provided data for this report. By region, the percentage of visits due to ILI was 0.4%, Central; 1.6% North; 1.3%, Southeast; 0.1%, Southwest.



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 November 2): No reports were received for the past week. There are no culture-confirmed cases from the MDCH Laboratory for the 2006-2007 influenza season. In addition, no reports of positive culture-confirmed influenza cases have been reported from the 16 Michigan sentinel laboratories across the state, although low levels of parainfluenza and respiratory syncytial viruses are being identified.

***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 November 2): MDCH received notification of a possible pediatric death in September due to influenza B from the Detroit City Health Department; the case is currently under investigation. For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality.

***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 November 2): 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.

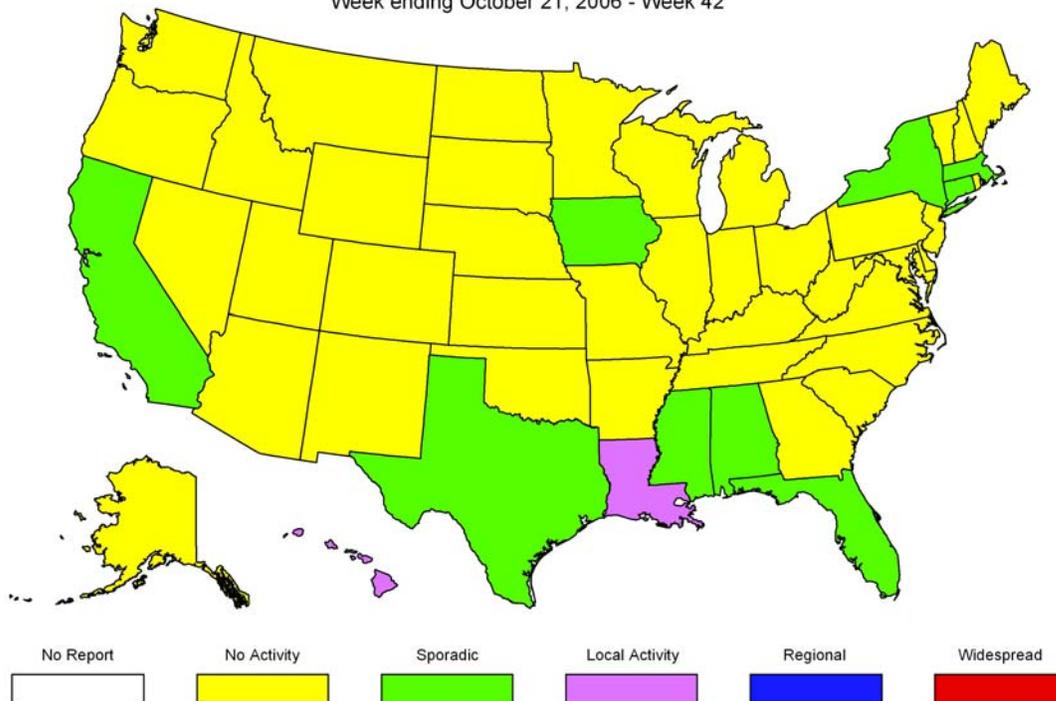
National (CDC): During week 42 (October 15 – October 21, 2006), a low level of influenza activity was reported in the United States. Three (0.3%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. During week 42, WHO and NREVSS laboratories reported 1,164 specimens tested for influenza viruses, three of which were positive: one influenza A (H3) virus, one influenza A virus that was not subtyped, and one influenza B virus. 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. Two states reported local influenza activity; nine states and New York City reported sporadic influenza activity; and 39 states, and the District of Columbia reported no influenza activity.

Since October 1, 2006, CDC has antigenically characterized 1 influenza virus collected by U.S. laboratories. The influenza A (H1) virus was characterized as A/New Caledonia/20/99 -like, which is the influenza A (H1) component recommended for the 2006-07 influenza vaccine.

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

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists

Week ending October 21, 2006 - Week 42



International (WHO, as of October 20): During weeks 35-40, overall influenza activity remained low in both hemispheres. Argentina continued to report localized influenza A (H1N1) activity, with sporadic detections of influenza B. Localized influenza A (H1N1) activity continued in China until week 37, which then declined and was reported as sporadic. As reported during previous weeks, influenza A (H3N2) activity remained regional in New Zealand until week 36, then rapidly declined and was reported as sporadic. During weeks 35-40, low influenza activity was reported in Australia (A and B), Brazil (A and B), Hong Kong Special Administrative Region of China (H1, H3 and B), Madagascar (H1 and H3), Mexico (H3 and A), Portugal (B), the United States (A and B) and Uruguay (A). In week 40, France, Japan, New Caledonia, Philippines, Slovenia, Spain, Sweden and the United Kingdom reported no influenza activity.

MDCH reported **NO ACTIVITY** to the CDC for this past week ending October 28, 2006.

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 (WHO, October 31): The Ministry of Health in Egypt has confirmed the country's seventh death from H5N1 avian influenza. The 39-year-old woman, whose infection was confirmed on October 11th, died on October 30th. The patient is from the Gharbiya governorate in the Nile Delta. She developed symptoms on September 30th and was hospitalized on October 4th. She subsequently developed pneumonia. Her recent history includes the home slaughter and defeathering of around a dozen ducks when signs of illness and deaths began to occur in the flock. Of the 15 cases confirmed to date in Egypt, seven have been fatal.

Associated Press (October 30): Scientists have discovered a new strain of bird flu that appears to sidestep current vaccines. It's infecting people as well as poultry in Asia, and some researchers fear its evolution may have been steered by the vaccination programs designed to protect poultry from earlier types of the H5N1 flu. The discovery by Yi Guan of the University of Hong Kong and colleagues is reported in Tuesday's issue of Proceedings of the National Academy of Sciences. The new variant has become the

primary version of the bird flu in several provinces of China and has spread to Hong Kong, Laos, Malaysia and Thailand, the researchers report. It is being called H5N1 Fujian-like, to distinguish it from earlier Hong Kong and Vietnam variants.

“We don’t know what is driving this,” report co-author Dr. Robert G. Webster of St. Jude’s Children’s Research Hospital in Memphis, Tenn. New vaccines will have to be developed, Webster said. Many scientists are going to think the vaccination program encouraged the virus to evolve resistance, he added, but high-quality vaccines can reduce the level of illness and prevent emergence of variants. While the new virus has infected people, there is no evidence that it can pass easily from person to person, Webster said. However, he added, “this virus is continuing to drift.” For the complete article, visit http://hosted.ap.org/dynamic/stories/N/NEW_BIRD_FLU?SITE=ALDOT&SECTION=HOME&TEMPLATE=DEFAULT.

Jakarta Post (October 28): An Indonesian surveillance study conducted over the past year by the Forestry Ministry has found that migrating flocks of birds are not carrying strains of avian influenza. The H5N1 virus has so far only been found in either domesticated or farming poultry, says the Forestry Ministry’s conservation for biological resources director, Adi Susmiyanto. The ministry has been studying migratory and wild birds in locations and clusters prone to bird flu in the hopes of identifying the prevalence of the virus in the wild fowls. Of 334 birds tested in Indramayu, West Java, only three domesticated muscovy ducks were found to be infected. For the complete story, visit <http://www.thejakartapost.com/yesterdaydetail.asp?fileid=20061028.H04>.

National Wild Bird Surveillance (USDA, October 31): According to the United States Department of Agriculture and the Department of the Interior’s Low Pathogenic “North American” H5N1 Avian Influenza website, live mallard ducks from Niagra County, NY and Grundy County, IL have preliminarily tested positive for the low pathogenic H5 and N1 subtypes. Birds from both locations were sampled on October 21. Confirmatory testing is underway.

Because these LPAI H5N1 detections are common and pose no threat to human health, USDA and DOI are transitioning to a new method of notifying the public. DOI will maintain a list of all such routine detections as part of the National Highly Pathogenic Avian Influenza Early Detection Data System. The low path H5N1 detection list can be accessed at <http://wildlifedisease.nbj.gov/ai/LPAITable.pdf>. A link also will be available on USDA’s avian influenza Web page at <http://www.usda.gov/birdflu>. In the event of a presumptive H5N1 test result involving a large number of sick or dead birds, or other circumstances that suggest the possibility of a highly pathogenic virus, USDA and DOI will issue a news release or conduct a technical briefing to notify the media and the public.

Michigan Wild Bird Surveillance: According to the United States Department of Agriculture (USDA) and the Department of the Interior, an unspecified number of live mallard ducks from St. Claire County, MI have preliminarily tested positive for the H5 and N1 subtypes of avian influenza. These birds were sampled by the Michigan Department of Natural Resources in conjunction with USDA. Initial screening tests indicate that these samples are the low pathogenic “North American strain” and are not the highly pathogenic “Asian strain” of H5N1. Confirmatory testing of the subtypes and pathogenicity are underway.

According to the National HPAI Early Detection Data System website, available at <http://wildlifedisease.nbj.gov/ai/>, Michigan has results for a total of 538 wild birds submitted for testing as of October 27. 191 of these birds were live-captured and tested, 222 were hunter-killed, 65 were sentinel animals, and 60 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 34,514 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 October 26, 2006)

(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 10/27/2006)

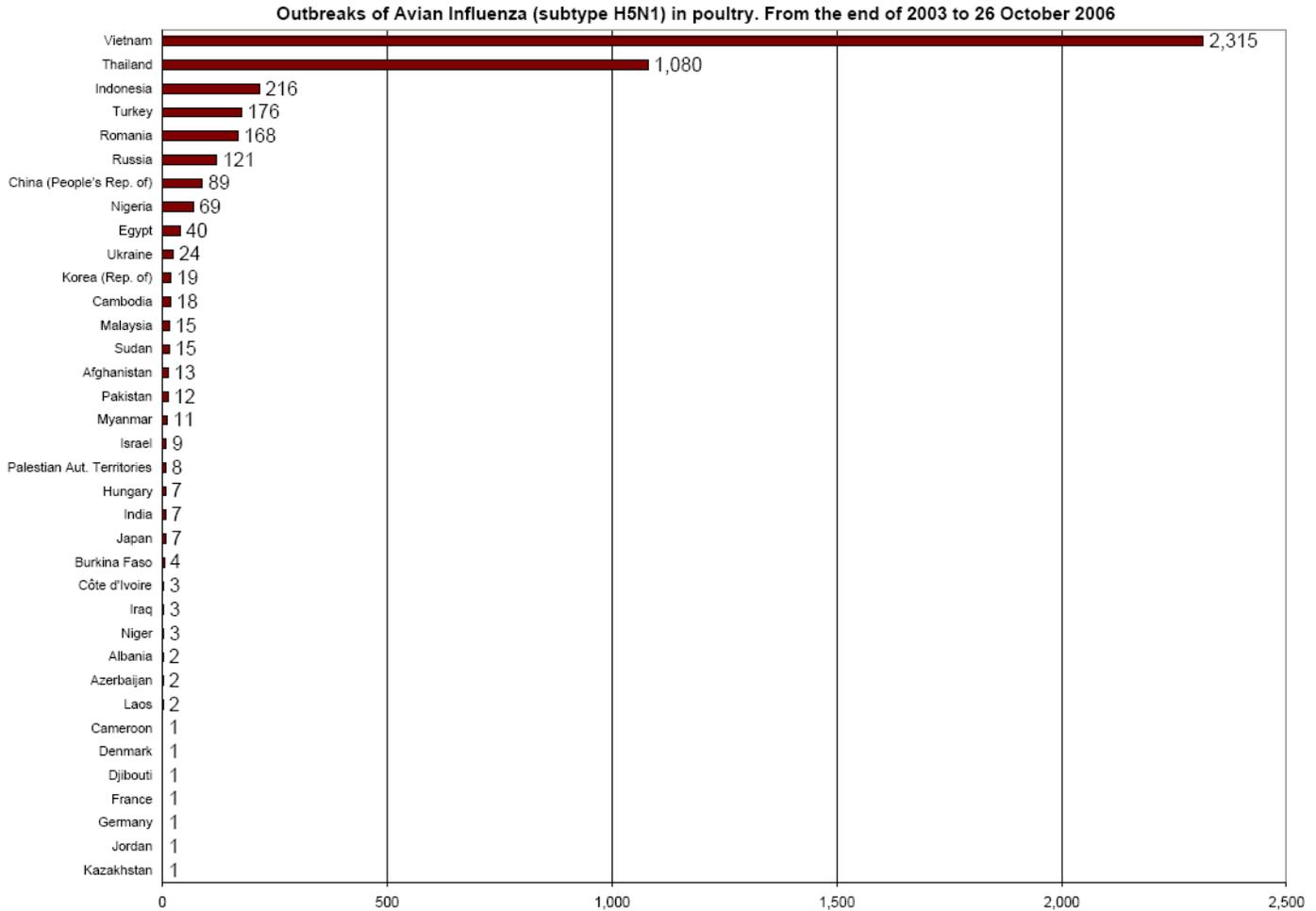


Table 2. H5N1 Influenza in Humans (Cases up to October 31, 2006)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 10/31/2006)

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	53	43	72	55
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	109	74	256	152