



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories



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New updates in this issue:

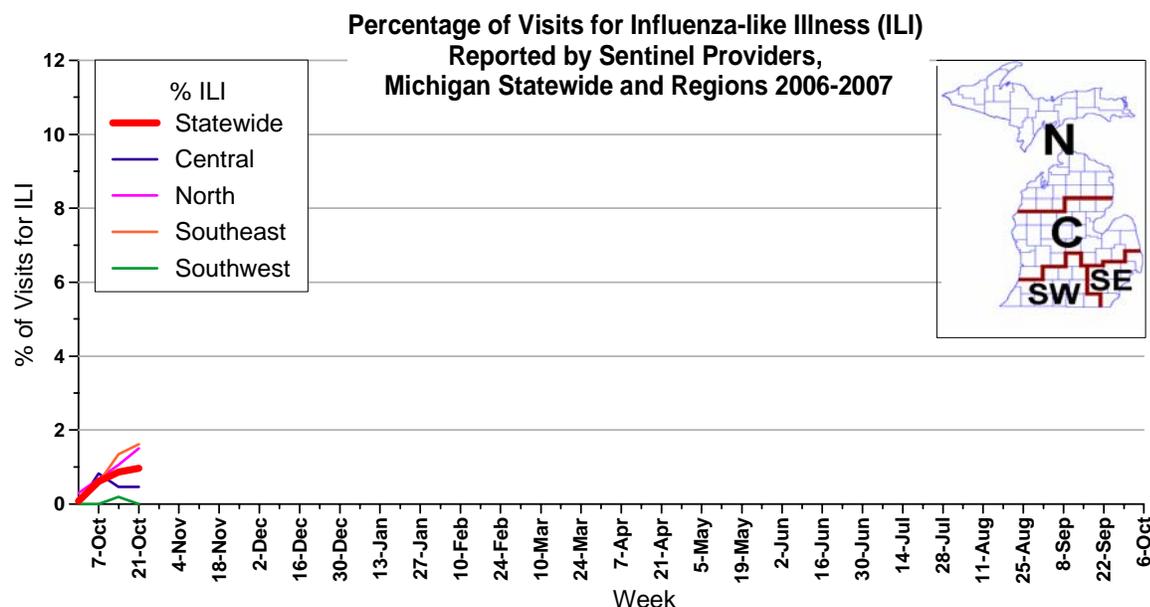
- **Syndromic Surveillance:** Flu-like illness in MDSS increased during the past week.
- **Sentinel Surveillance:** New sentinel provider data for the week ending October 21.
- **Avian Influenza:** Low pathogenicity H5 and N1 subtypes found in wild birds from Tuscola Co., MI.

Michigan Disease Surveillance System: After a few level weeks of flu-like illness reports following the increase of reporting at the beginning of the school year, another noticeable increase in reports occurred last 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 only slightly increased, while respiratory syndrome complaints have only slightly decreased. These levels are consistent with levels seen at this time last year. No constitutional alerts and four respiratory alerts in Regions 2S(1), 3(1), and 8(2) were generated in the past week.

Over-the-Counter Product Surveillance: Over-the-counter influenza indicators support the observations noted above. Over the past week, seven of eight indicators demonstrated sales levels that were either stable or slightly increasing. Only unpromoted thermometer sales slightly dropped in the last week. All indicators levels are comparable to those seen at this time last year.

Sentinel Surveillance (as of October 26, 2006): During the week ending October 21, 2006, the proportion of visits due to influenza-like illness (ILI) remained unchanged from last week at 1.0% of all visits, representing 47 cases of ILI out of 4847 total patient visits. Twenty-three sentinels provided data for this report. By region, the percentage of visits due to ILI was 0.5%, Central; 1.5% North; 1.6%, Southeast; 0.0%, 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 October 26): 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 five of 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 October 26): There were no new reports this week. 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.

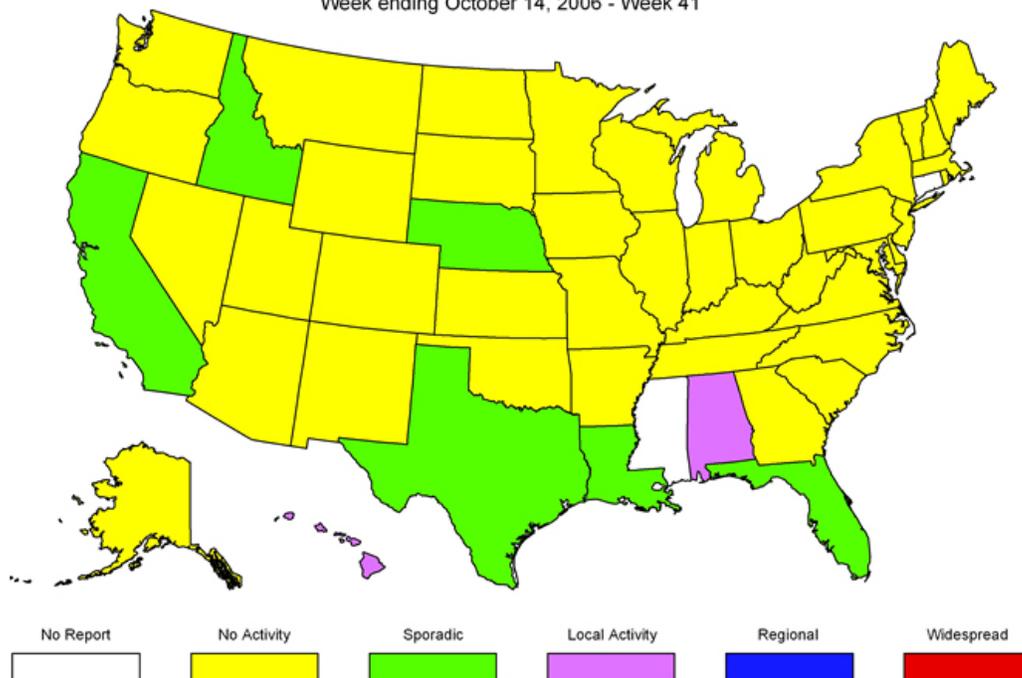
Congregate Settings Outbreaks (as of October 26): No reports were received during the past reporting week. There have been no reports of congregate influenza outbreaks to MDCH for the 2006-2007 influenza season.

National (CDC): During week 41 (October 8 – October 14, 2006), a low level of influenza activity was reported in the United States. Nine (1.0%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza; six were influenza A (H1N1) and three were influenza B. 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; six states reported sporadic influenza activity; 40 states, New York City, and the District of Columbia reported no influenza activity, and 2 states did not report.

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 14, 2006 - Week 41



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 21, 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.

Michigan Wild Bird Surveillance (USDA, October 20): The U.S. Department of Agriculture (USDA) and Department of the Interior (DOI) today announced a detection of H5 and N1 avian influenza subtypes in a wild Green-winged teal sample from Tuscola County, Mich., that was killed by hunters. Initial tests confirm that this wild bird sample does not contain the highly pathogenic H5N1 strain that has spread through birds in Asia, Europe and Africa. However, initial test results do indicate the presence of low pathogenic avian influenza (LPAI) virus, which poses no threat to human health.

Fifty-one bird samples were collected on Oct. 15 through a partnership between USDA and the Michigan 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 United States 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. Of the 51 samples collected from a number of wild bird species, five were sent to USDA's National Veterinary Services Laboratories (NVSL) in Ames, Iowa, for confirmatory testing. One sample tested positive for both H5 and N1 subtypes. This does not mean these birds 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. 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. 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.

According to the National HPAI Early Detection Data System website, which is run by the US Geological Survey and available at <http://wildlifedisease.nhii.gov/ai/>, Michigan has results for a total of 538 wild birds submitted for testing as of October 23. 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 33,850 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 16, 2006)

(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 10/25/2006)

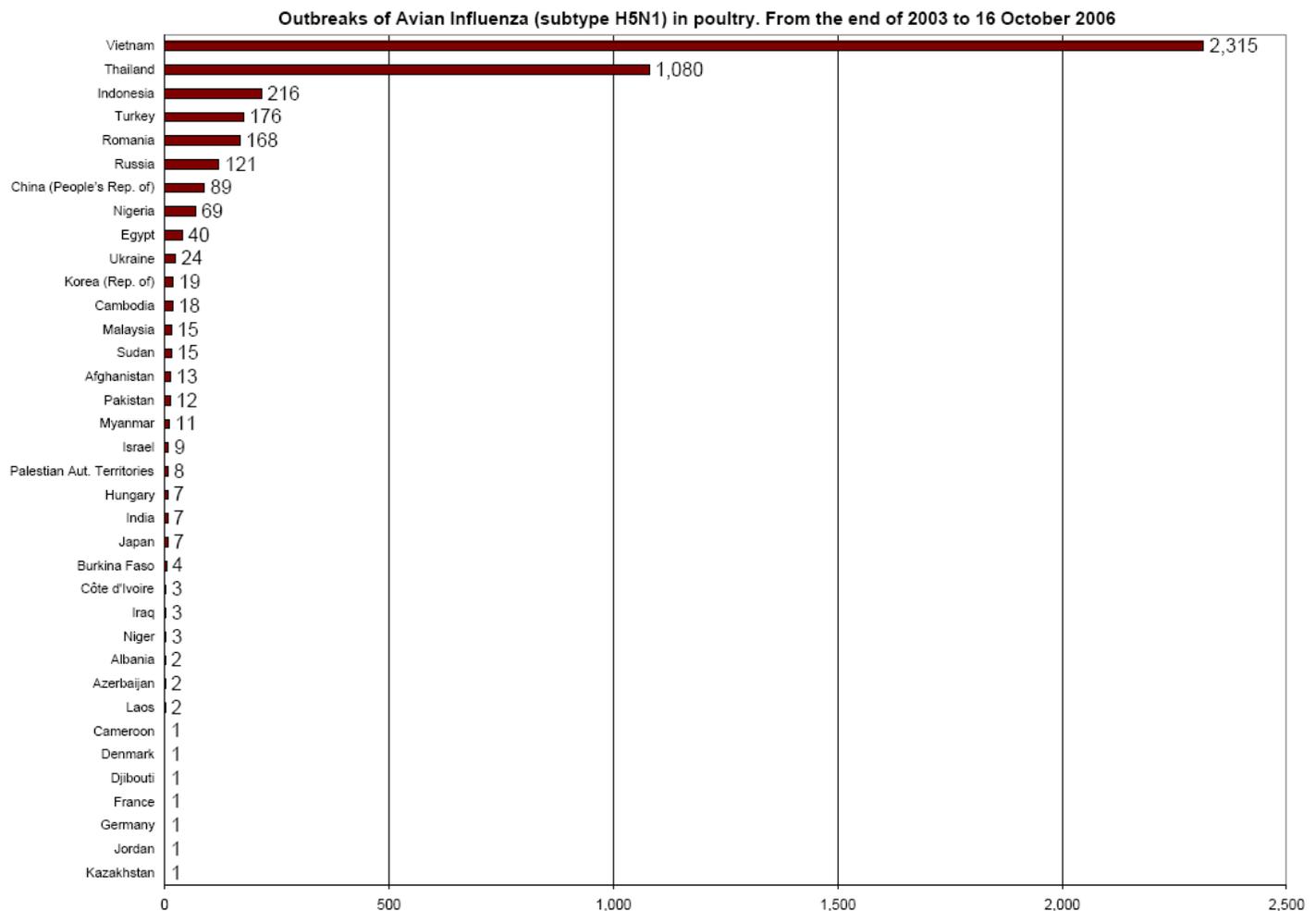


Table 2. H5N1 Influenza in Humans (Cases up to October 26, 2006)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 10/16/2006)
 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	cases	deaths	cases	deaths	cases	deaths	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	6	15	6
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	73	256	151