

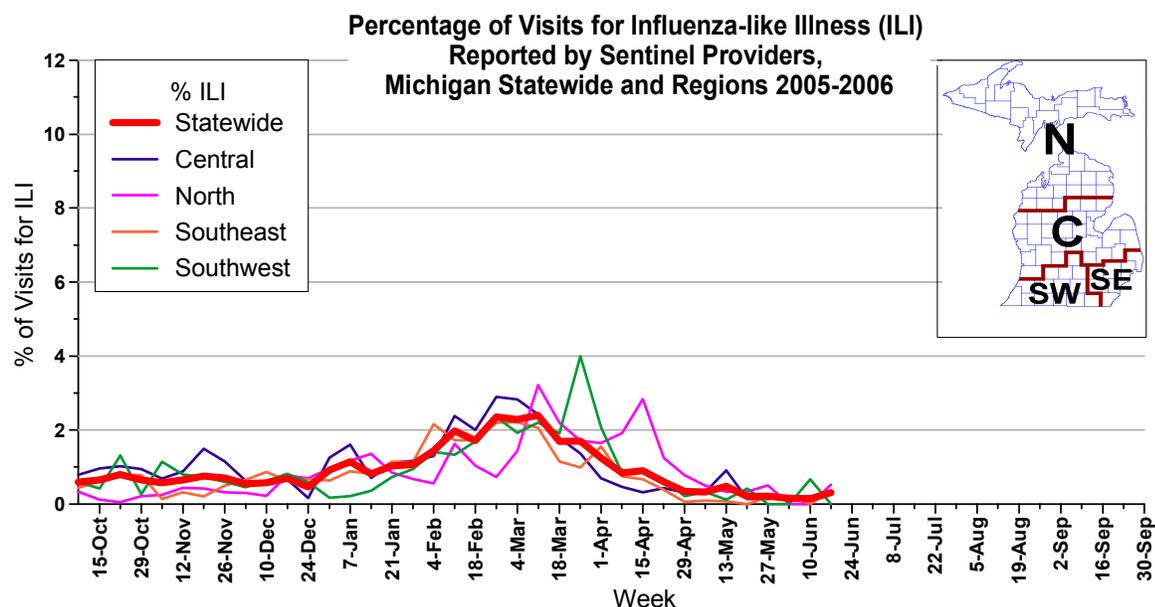
MIFluFocus
June 22, 2006
Weekly Influenza Surveillance and Avian Influenza Update

Michigan Disease Surveillance System: Flu-like illness activity, as reported in MDSS, has continued to decrease over the past week to a lower level than was reported from the same period in 2005.

Emergency Department Surveillance: Emergency department visits due to constitutional and respiratory complaints continued to show decreasing activity since last week. The current level of both indicators is lower than those reported from the same period last year. Over the past week, no statewide alerts were generated for either indicator.

Over-the-Counter Product Surveillance: The past week has demonstrated no overall increase in flu-like illness activity. With the exception of anti-fever product sales, which has shown a slight increase in trend, all recent product sales have either decreased or remained stable. Chest rub and thermometer sales continue to remain at higher levels than those reported from the same period last year; sales of all other indicators is comparable to or decreased from last year.

Sentinel Surveillance (as of June 22, 2006): During the week ending June 17, 2006, the proportion of visits due to influenza-like illness (ILI) remained similar last week at 0.3% of all visits, still lower than the rates reported at the beginning of the 2005-2006 season. Low levels of ILI activity were reported in all regions; the percentage of visits due to ILI by region was 0.3%, Central; 0.5%, North; 0.3%, Southeast; and 0.0%, Southwest.



Laboratory Surveillance (as of June 22, 2006): Two influenza A cases were reported from Oakland County during the past week ending June 17. Both cases were positive on rapid tests, but neither had any travel history or sick contacts. Samples were not available for follow-up testing.

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.

Influenza-Associated Pediatric Mortality (as of June 22, 2006, CDC data as of May 20): For the 2005-2006 influenza season, Michigan had one confirmed influenza-associated pediatric death from region 2S, with one other death under investigation at this time by MDCH. 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 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 June 22, 2006): No reports were received during the past reporting week.

A total of two congregate setting outbreaks have been reported to MDCH this 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 (June 16, 2006): The CDC has released its update on the 2005-2006 influenza season. In the United States, influenza A (H3N2) viruses predominated overall, but influenza B viruses were isolated more frequently than influenza A viruses late in the season. A small number of influenza A (H1N1) were isolated. The proportion of specimens testing positive for influenza first exceeded 10% during the week ending December 24, 2005 (week 51), peaked at 23.0% during the week ending March 11, 2006 (week 10), and declined to <10% during the week ending April 29, 2006 (week 17). Peak percentage of specimens testing positive for influenza ranged from 23.2% to 41.0% during the preceding five influenza seasons, and the peak occurred during early December to late February. Influenza activity in the United States peaked in early March. The number of pneumonia and influenza deaths did not exceed the epidemic threshold and peaked twice, once during the week ending January 14, 2006 (week 2), and again during the week ending March 18, 2006 (week 11).

The 2005-06 influenza season was notable because of the emergence of a high level of resistance among circulating influenza A (H3N2) viruses to the antiviral adamantanes (i.e., amantadine and rimantadine). Of 209 influenza A (H3N2) virus isolates collected from 26 states and sent to CDC during October 1-December 31, 2005, a total of 193 (92.3%) were resistant to adamantanes. On the basis of these findings, in January 2006, CDC recommended against use of the adamantane class of antivirals for the treatment and prophylaxis of influenza in the United States until susceptibility to adamantanes has been reestablished among circulating influenza A isolates. A high level of resistance to adamantanes (>90%) by influenza A (H3N2) viruses continued to be observed among specimens tested through May 2006.

The Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee has recommended that the 2006--07 trivalent influenza vaccine for the United States contain A/New Caledonia/20/99-like (H1N1), A/Wisconsin/67/2005-like (H3N2), and B/Malaysia/2506/2004-like viruses. This represents a change in the influenza A (H3N2) and influenza B components.

The Michigan 2005-06 Influenza Seasonal Summary will be published shortly. For the complete CDC 2005-06 Influenza Season Summary, see pgs. 648-653 of the MMWR for June 16, 2006. The Internet link is http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5523a2.htm?s_cid=mm5523a2_e.

International (WHO, as of June 14, and CDC, as of June 16): During weeks 20--22 (May 14-June 3), WHO reported that overall influenza activity declined further in northern hemisphere while it remained low in most parts of southern hemisphere, with the exception of South Africa. It is not clear whether the increase of activity in South Africa marks the start of the 2006 southern hemisphere influenza season.

According to the CDC, for the 2005-2006 season worldwide, influenza B viruses were the most commonly reported influenza type in Europe, influenza A (H1N1) and influenza B viruses predominated in Asia, and small numbers of influenza A and B viruses were reported in Africa.

Weekly influenza activity reporting to the CDC is finished for the 2005-2006 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.

WHO Update (June 20, 2006): The Ministry of Health in Indonesia has confirmed the country's 51st case of human infection with the H5N1 avian influenza virus. The case, which was fatal, occurred in a 13-year-old boy from South Jakarta. He developed symptoms on June 9, one week after helping his grandfather slaughter diseased chickens at the family home. The boy was hospitalized on 13 June and died on 14 June. The grandfather remains healthy. Contact tracing and monitoring are under way to ensure no further cases arise from this exposure setting. Of the 51 cases confirmed to date in Indonesia, 39 have been fatal (76% mortality).

WHO, FAO, and the Indonesian ministries of health and agriculture are jointly convening an expert consultation in Jakarta from June 21 to 23. The consultation is being held, at the request of the government's national commission on avian influenza and pandemic influenza, to assess the avian influenza situation in poultry and humans. The consultation, which will be attended by more than 40 national and international experts, will review measures for addressing the widespread presence of the virus in poultry and offer advice on strategies for reducing the number of human cases. The experts will also examine epidemiological and virological data collected during a month-long investigation of a cluster of cases among family members in the Kubu Simbelang village of North Sumatra. More than three weeks (two times the maximum incubation period) have passed since the last case in the cluster died on May 22. Daily house-to-house monitoring for influenza-like illness was conducted throughout the village and in health care facilities where patients were treated, and no further cases were detected. While these findings indicate no significant changes in the epidemiology of the disease, results from investigation of the cluster will be reviewed as they may yield lessons useful in the investigation and interpretation of other large clusters where human-to-human transmission is suspected.

On June 16, the Ministry of Health in China confirmed the country's 19th case of human infection with the H5N1 avian influenza virus. The patient is a 31-year-old man employed as a truck driver in Shenzhen City, Guangdong Province, near the border with Hong Kong. He developed symptoms on June 3 and was hospitalized on June 9. He remains hospitalized, in critical condition, with severe pneumonia. Investigation of his source of infection is under way. Preliminary reports indicate the man visited a local market where live poultry are sold on several occasions prior to symptom onset. However, health authorities have not been able to determine whether he was exposed to infected poultry at that market or elsewhere. H5N1 infections in poultry have not been officially reported in the area. Of the 19 laboratory-confirmed cases in China reported to date, 12 have been fatal.

Canadian Food Inspection Agency (June 20, 2006): As a precautionary measure the Canadian Food Inspection Agency (CFIA), in collaboration with the Government of Prince Edward Island, implemented disease control measures in and around a premises in western Prince Edward Island where a young goose in a backyard flock tested positive for an H5 subtype avian influenza virus on June 16. Testing by Canada's avian influenza reference laboratory in Winnipeg has found no additional evidence of AI virus in birds from this flock. All birds, including an index case, tested negative on serological and virological

tests. The CFIA's avian influenza response plan for backyard flocks was activated immediately upon confirmation of the H5 virus, including: depopulation of the infected flock, quarantining of the premises and investigation of possible sources of infection. As a precaution, the CFIA is monitoring the health of backyard flocks within 3 km of the infected premises. There are no commercial flocks identified within the 3 km area.

There is no evidence suggesting that the virus found in this circumstance is the H5N1 strain currently in Asia and other countries. That virus is marked by very high mortality in birds, which was not observed in this particular situation. The fact that the H5 virus was not detected in testing at the Winnipeg lab, along with the absence of clinical signs of disease in the birds depopulated in the flock, indicates that only a very small amount of low pathogenicity virus may have been present in the index bird. A finding of incidental contamination in the index bird would not be unexpected given that it spent time out of doors and other birds on the farm were confirmed to have co-mingled with wild migratory birds which commonly carry AI viruses.

The Winnipeg lab will attempt to grow virus from samples from the index bird in order to characterize the virus. This process will take up to two weeks. Ultimately, it may not be possible to gain further information about the virus. This situation is not unusual as was evidenced in the 2005 survey of AI in wild birds. Given the initial finding of H5, a quarantine on the index premises will be maintained until test results are complete consistent with Canada's precautionary approach and guidelines of the World Organization for Animal Health (OIE).

National Wild Bird Surveillance (June 15, 2006): The weekly surveillance update from the United States Department of the Interior, Fish and Wildlife Services in Alaska indicated that approximately 960 cloacal samples from the Yukon Kuskokwim Delta and Seward Peninsula regions were submitted to the National Wildlife Health Center for avian influenza testing. 362 of these samples were tested by RT-PCR and all were negative; the remainder will be tested this week. Spring subsistence sampling has concluded on St. Lawrence Island and approximately 800 cloacal samples were collected. Outreach efforts to local governments and hunters during the spring hunt were successful, and hunters are looking forward to providing samples this fall when high priority species will dominate the harvest. Helicopter surveys/sampling for shorebirds is underway on the North Slope, but minimal samples have been collected due to late nesting chronology. Individual dead birds continue to be reported, but no die-offs have occurred.

Michigan Wild Bird Surveillance: 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>

Table 1. H5N1 Influenza in Poultry (Outbreaks up to June 15, 2006)

(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 6/21/2006)

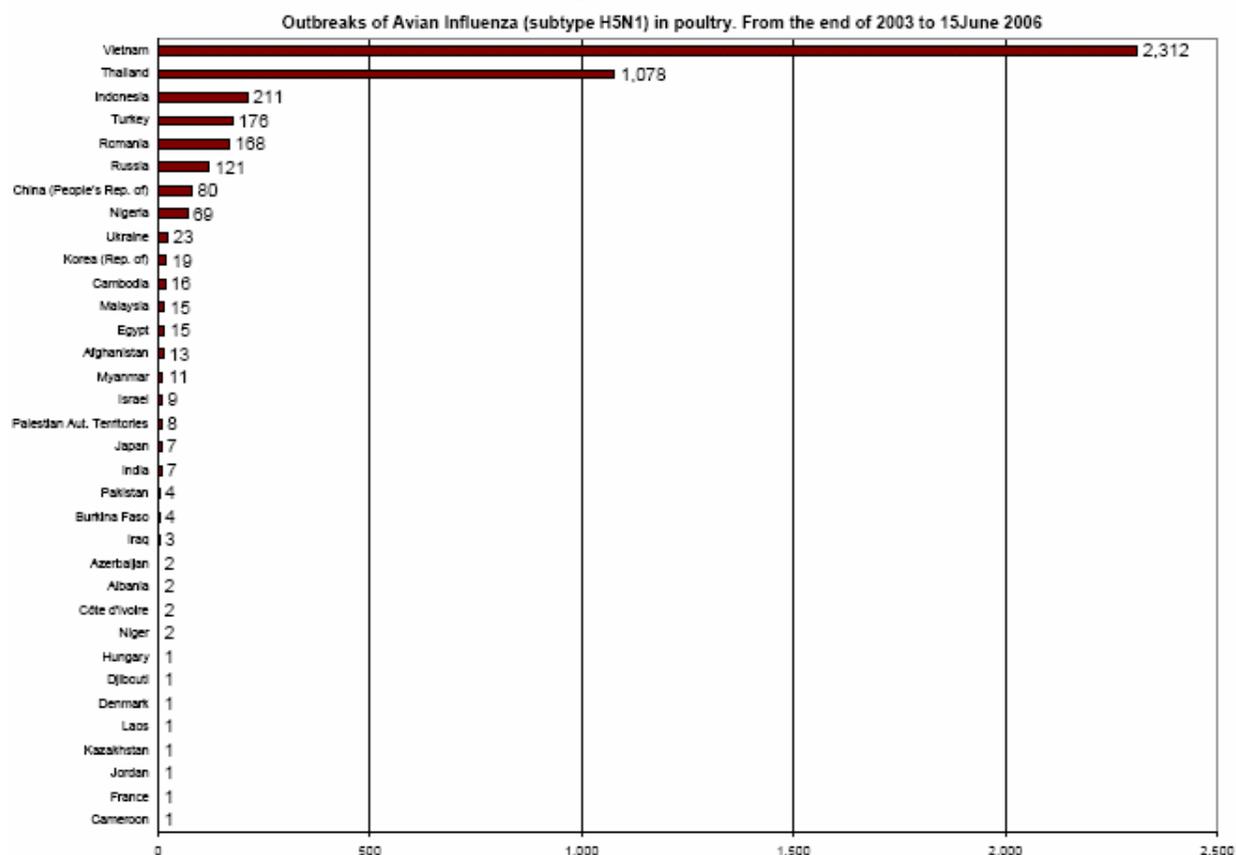


Table 2. H5N1 Influenza in Humans (Cases up to June 20, 2006)

(Source: http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 6/21/2006)

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	0	0	0	0	8	5	11	7	19	12
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	17	11	34	28	51	39
Iraq	0	0	0	0	0	0	2	2	2	2
Thailand	0	0	17	12	5	2	0	0	22	14
Turkey	0	0	0	0	0	0	12	4	12	4
Viet Nam	3	3	29	20	61	19	0	0	93	42
Total	3	3	46	32	95	41	84	54	228	130