



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories

Michigan Department
of Community Health



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New updates in this issue:

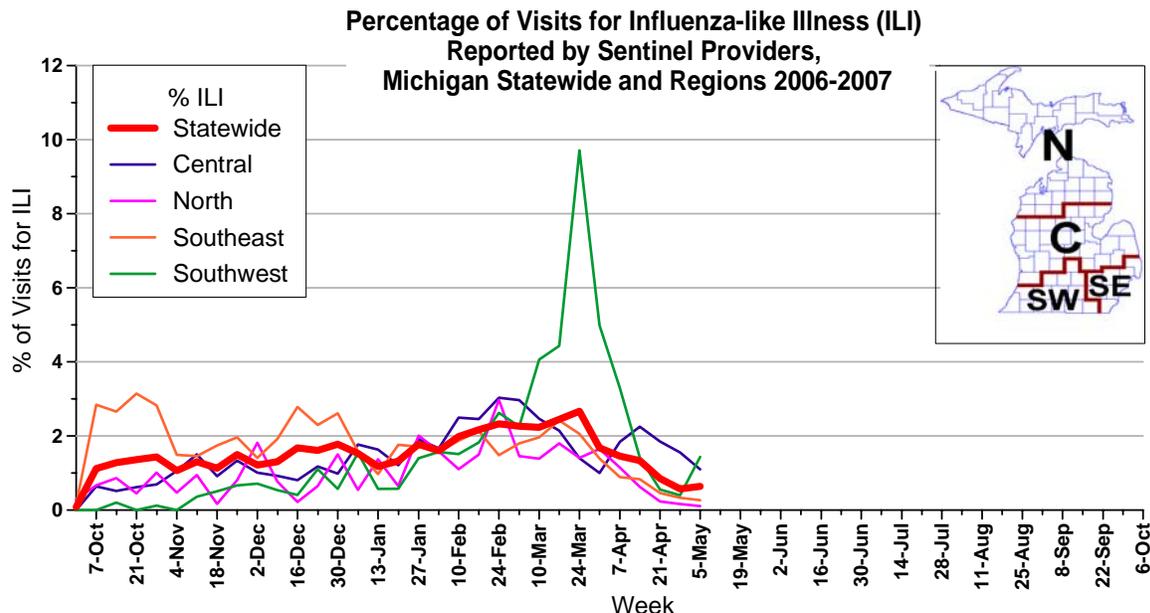
- **Michigan Surveillance:** Activity continues to decrease from peak in mid-March.
- **National Surveillance:** Influenza activity continues to decrease; 30 states are at sporadic levels.
- **Avian Influenza:** Ongoing human cases in Indonesia (not WHO-confirmed).

Michigan Disease Surveillance System: Last week had a slight decrease in both individual influenza reports and aggregate flu-like illness reports from the previous week. These indicators are expected to continue to fluctuate at baseline levels until next fall.

Emergency Department Surveillance: Emergency department visits due to constitutional complaints saw a fifth week of notable decline. Reported levels are consistent with levels from this time last year. Two constitutional alerts in Regions 1(1) and 5(1) and one respiratory alert in Region 1 were generated last week.

Over-the-Counter Product Surveillance: OTC product sales activity remained steady or decreased slightly last week. Chest rubs and both adult and children's cold relief liquids held steady, while all other indicators decreased. 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 its percentage of total sales for this time last year.

Sentinel Surveillance (as of May 10): During the week ending May 5, 2007, the proportion of visits due to influenza-like illness (ILI) in Michigan remained at a low level, 0.5% of all visits. This represents 27 cases of ILI out of 5076 total patient visits; twenty sentinels provided data for this report. The proportion of visits due to ILI decreased in the Central region (1.1%), North (0.1%), and Southeast (0.2%) regions, but increased slightly in the Southwest (1.4%) surveillance regions. Note that these rates may change as additional reports are received.



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 the sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or potterr1@michigan.gov for more information.

Laboratory Surveillance (as of May 10): For the 2006-2007 influenza season, there have been 151 culture-confirmed cases from the MDCH Lab:

- 69 A:H1N1 (Southeast (22), Southwest (21), Central (16), North (10))
- 31 A:H3N2 (North (12), Southeast (12), Central (4), Southwest (3))
- 51 B (Central (17), Southeast (17), Southwest (12), North (5))

All influenza B cultures have been B/Malaysia, except for three B/Shanghai results from the Southeast region. Submissions to MDCH BOL have decreased dramatically, with one new positive result last week. One sentinel lab in the Southeast region is still reporting low numbers of positive influenza tests.

***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 May 10): For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan. MDCH and CDC investigated a possible pediatric death due to influenza from the Southeast region, but results were inconclusive.

***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 May 10): There has been one report of an influenza A outbreak from a Central region extended care facility for the 2006-2007 influenza season. Investigations for two possible facility outbreaks, one each from the Southwest and Central regions, were unable to confirm influenza as the cause of these outbreaks.

National (CDC, May 9): CDC issued a Health Advisory on May 9, 2007 regarding an increase during the 2006-2007 influenza season in the number of influenza-associated pediatric deaths with *Staphylococcus aureus* co-infection. CDC reminds all healthcare providers, clinical agencies and medical examiners to be aware of potential bacterial co-infections in influenza patients and to take bacterial cultures when appropriate. All possible influenza-associated pediatric deaths should be reported immediately to MDCH at 517-335-8165. For the full advisory, visit <http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00259>.

National (CDC, May 4): During week 17 (April 22 – 28, 2007), influenza activity continued to decrease in the United States. Data from the U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories indicated a decrease in the percentage of specimens testing positive for influenza. The percentage of visits for ILI to sentinel providers decreased during week 17 and was below the national baseline for the sixth consecutive week. Three states reported regional influenza activity; nine states reported local influenza activity; the District of Columbia, New York City, and 30 states reported sporadic influenza activity; and eight states reported no influenza activity. The number of jurisdictions reporting widespread or regional influenza activity decreased from five for week 16 to three for week 17. The percent of deaths due to pneumonia and influenza remained below baseline levels for the entire influenza season to date.

During week 17, WHO and NREVSS laboratories reported 1,673 specimens tested for influenza viruses, 164 (9.8%) of which were positive: 15 influenza A (H1) viruses, 71 influenza A (H3) viruses, 50 influenza A viruses that were not subtyped, and 28 influenza B viruses.

laboratory tests show the woman had contracted the H5N1 strain of bird flu, which can be lethal to humans.

Indonesia has reported more bird flu deaths than any other nation. World Health Organization officials have only confirmed 63 deaths in the country. The bird flu virus is widespread among poultry in many parts of Indonesia, where millions of people keep a few chickens or other domesticated birds in their yards. The WHO says bird flu has killed 172 people worldwide since it reemerged in Asia in 2003. **[Editor's note: WHO has not confirmed the last 12 deaths due to H5N1 in Indonesia because of ongoing disagreements regarding the sharing of H5N1 samples. However, from now on MI FluFocus will report Indonesian cases that have been confirmed by the Indonesian Health Ministry in order to provide a more accurate picture of H5N1 activity in humans. The number of worldwide human cases of H5N1 in Table 2 will reflect this change.]**

International, Human (WHO, May 9): WHO has provided a list of questions and answers regarding pandemic influenza vaccines, available at http://www.who.int/immunization/newsroom/PI_QAs/en/index.html.

International, Poultry (Thanhnie News, May 6): Almost 250 ducks in central Viet Nam have been killed by the bird flu virus since 1 May 2007, the country's 1st outbreak of the disease in more than a month, local health authorities reported.

Animal health staff in Nghe An Province have culled the remaining 360 ducks from the infected flock. The group had not been vaccinated against bird flu. Dien Tho commune, where the flock was raised, has now been quarantined and disinfected.

The tests showed the ducks were infected with H5 virus, and further tests will be carried out to determine whether it is H5N1, the deadly strain that has killed 42 Vietnamese, the world's 2nd highest death toll after Indonesia's 74.

The World Health Organization (WHO) said last month [April 2007] that Viet Nam and 5 other developing countries would receive up to USD 2.5 million from donations made by the US and Japan. The United Nations health agency also urged Viet Nam to accelerate poultry vaccinations and target more ducks in its anti-bird flu campaign. Thanks to the campaign, Viet Nam has had no human cases since November 2005.

International, Poultry (The Daily Star, Bangladesh, May 6): Some 8500 chickens were culled in 3 poultry farms here [Unb, Savar] Friday [May 4] evening following detection of bird flu in a nearby farm. Joint forces and livestock officials culled 4000 chickens in Masum Poultry Farm of Abdul Karim, 2500 chickens in Lamia Poultry Farm of Anwar Hossain and 2000 chickens in Patuakhali Poultry Farm-2 of Joyal Abedin. On Thursday [May 3], 1500 chickens were culled in Patuakhali Poultry Farm in Rajason area following detection of bird flu.

After that, the government took a decision to cull the chickens of the farms within a one-km area of the affected farm, and reported the decision to the farm owners through a notification. It also imposed a ban on transportation of poultry products in the affected area.

On Thursday [May 3] night, 2000 chickens of Khulna Poultry Farm of Maulana Alamgir Hossain at Rajason were also culled.

The farm owners, however, claimed the disease to be "Ranikhet" [Newcastle Disease].

International, Poultry (Reuters, May 8): Bangladesh has culled about 25,000 more chickens over the past four days as bird flu spread to eight additional farms, officials said on Tuesday.

One of the newly infected farms is in the Mirpur area of the capital Dhaka, while six were in Dhaka district, which surrounds the capital more than 10 million people. The eighth affected farm is in Magura district, 200 km (125 miles) southwest of the capital.

"So far, nearly 132,000 chickens have been culled in 52 farms in 10 districts," a statement from the fisheries and livestock ministry said. More than 200,000 eggs have also been destroyed in the past four days and more than 1.3 million since March 22.

The H5N1 virus was first detected at six farms at Savar near Dhaka on March 22 and the virus has continued

to spread across the country. There have been no cases of human infection.

"We are struggling day and night to contain the disease, but it has continued to spread," a senior ministry official said. He said efforts by veterinary and health officials had prevented bird flu spreading through all of the country's 64 districts. Authorities have pledged to pay 70 taka (nearly US\$1) for each culled bird.

C.S. Karim, adviser to the interim government and head of the fisheries and livestock ministry said on Monday all affected farms would be given money to restart their businesses.

Indian authorities were testing dead poultry for bird flu in an eastern state after more than 3,000 birds were found dead, officials said on Tuesday. The dead chickens were found over the past two days at poultry farms in remote Matigara village in West Bengal, close to the border with Bangladesh.

Michigan Wild Bird Surveillance (USDA, May 10): The final numbers for Michigan's 2006 season were 3099 total samples, of which DNR collected 1090 and USDA-WS collected 2009. Samples consisted of live-captured birds (193), agency harvested birds (378), hunter-harvested (1191), sentinel animals (195), morbidity/mortality events (136), and environmental samples (1006, USDA-WS). 67 samples have been taken so far for the 2007 testing season (59 from USDA-WS and 8 from DNR).

According to the National HPAI Early Detection Data System website, available at <http://wildlifedisease.nbio.gov/ai/>, HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 384 birds or environmental samples tested nationwide. The 2007 testing season will run from April 1, 2007-March 31, 2008.

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.

Contributors

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Table 1. H5N1 Influenza in Poultry (Outbreaks up to May 7, 2007)

(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 5/7/2007)

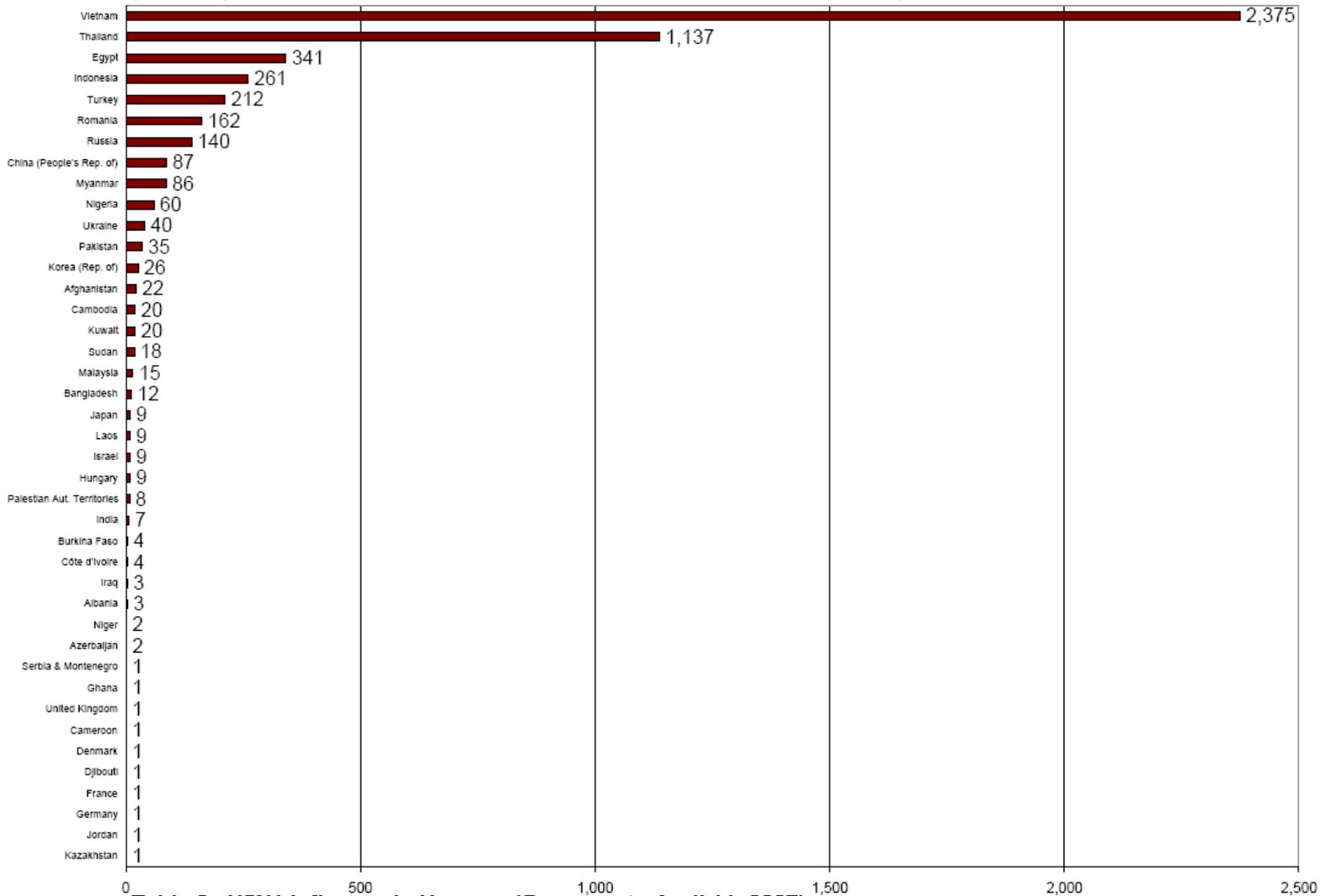


Table 2. H5N1 Influenza in Humans (Cases up to April 11, 2007)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2007_04_11/en/index.html Downloaded 4/11/2007)

Cumulative number of lab-confirmed human cases reported to WHO. Total number of cases includes deaths.

Country	2003		2004		2005		2006		2007		Total	
	cases	deaths	cases	deaths								
Azerbaijan	0	0	0	0	0	0	8	5	0	0	8	5
Cambodia	0	0	0	0	4	4	2	2	1	1	7	7
China	1	1	0	0	8	5	13	8	2	1	24	15
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	16	4	34	14
Indonesia	0	0	0	0	20	13	55	45	6	5	81(95*)	63(75*)
Iraq	0	0	0	0	0	0	3	2	0	0	3	2
Lao PDR	0	0	0	0	0	0	0	0	2	2	2	2
Nigeria	0	0	0	0	0	0	0	0	1	1	1	1
Thailand	0	0	17	12	5	2	3	3	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	0	0	93	42
Total	4	4	46	32	98	43	115	79	28	14	291(305*)	172(184*)

* These numbers are reported by the Indonesian Health Ministry and are not WHO-confirmed (5/10/07).