



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories



Editor: Susan Vagasky, DVM
VagaskyS@Michigan.gov

January 4, 2007
Vol. 1; No. 1

New updates in this issue:

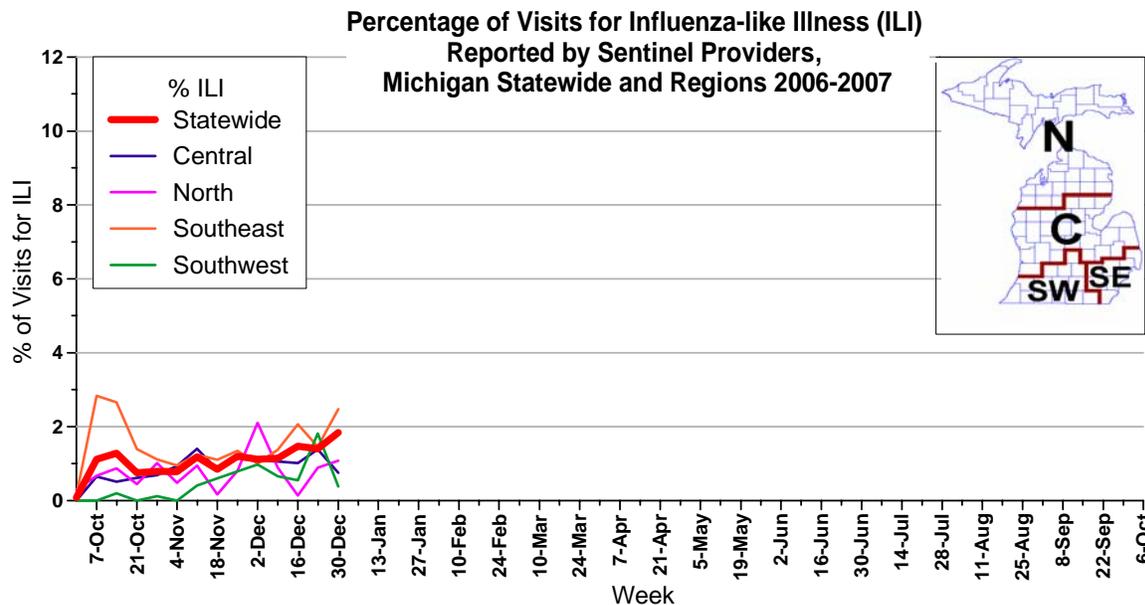
- **Michigan Surveillance:** All indicators of influenza activity continue to slowly increase.
- **National Surveillance:** Influenza activity is increasing; majority of isolated viruses are A(H1N1).
- **Avian Influenza:** Poultry outbreaks continue in Vietnam.

Michigan Disease Surveillance System: The last week has seen a decrease in aggregate flu-like illness reports which was expected to due holiday school closings; however, there was an increase in individual influenza reports to the local health departments. 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 both respiratory and constitutional complaints increased in the last week. These levels are higher than this time last year, but consistent with levels seen near the peak of last year's flu season. Three constitutional alerts in Regions 2N(2) and 3(1) and four respiratory alerts in Regions 2S(3) and 6(1) were generated last week.

Over-the-Counter Product Surveillance: OTC product sales seem to reflect the increase activity seen in the past week. Sales have remained relatively steady, slightly increased (adult liquid cold relief, nasal products, and thermometers), or had a decrease from a recent increase (pediatric anti-fever, chest rubs, and children's electrolytes). However, the indicators levels are comparable to those seen at this time last year, except for the pediatric cold relief liquid, which seems to be holding about 1-2% below its percentage of total sales for this time last year.

Sentinel Surveillance (as of January 4, 2006): During the week ending December 30, 2006, the proportion of visits due to influenza-like illness (ILI) in the state increased to 1.8% of all visits, representing 93 cases of ILI out of 5043 total patient visits; twenty-one sentinels provided data for this report. On a regional level, the percentage of visits was 0.7%, Central; 1.1%, North; 2.5% Southeast; and 0.4% Southwest. 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 influenza sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or potterr1@michigan.gov for more information.

Laboratory Surveillance (as of January 4): For the 2006-2007 influenza season, there have been 24 culture-confirmed cases from the MDCH Lab; 20 influenza A (Southeast (11), Southwest (3), Central (5), North (1)) and four influenza B (Central (2), Southeast (1), Southwest (1)). All influenza A cultures have been H1N1 or H1-like; all influenza B cultures have been B/Malaysia. Overall submission activity is light. The first positive rapid test results from the Western Upper Peninsula are being seen and are currently undergoing confirmatory culture at the MDCH lab.

Sentinel laboratories are reporting low numbers of positive influenza tests, with several Southeast laboratories and one Southwest lab reporting an increased number of positive tests. Low levels of parainfluenza, adenovirus and respiratory syncytial virus are being reported as well.

***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 January 4): For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan.

***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 January 4): 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 (NY Times, January 2): The New York Times released an interesting article profiling the CDC's Unexplained Deaths Project, or UNEX. This program investigates approximately 700 deaths in the U.S. each year, and can be utilized for any unexplained death apparently due to an infectious cause, including influenza. Cases can be referred by state health authorities, medical examiners and private physicians. For the complete article titled "In Atlanta, Medical Sleuths of Last Resort," visit <http://www.nytimes.com>.

National (CDC, December 29): During week 51 (December 17 – December 23, 2006), influenza activity increased in the United States. During week 51, WHO and NREVSS laboratories reported 1,926 specimens tested for influenza viruses, 195 (10.1%) of which were positive: 72 influenza A (H1) viruses, 1 influenza A (H3) virus, 77 influenza A viruses that were not subtyped, and 45 influenza B viruses. Four states reported widespread influenza activity; twelve states reported regional influenza activity; five states and the District of Columbia reported local influenza activity; 25 states and New York City reported sporadic influenza activity; one state reported no influenza activity, and three states did not report. The reporting of widespread or regional influenza activity increased from 12 states for week 50 to 17 states for week 51. On a national level, laboratory and outpatient influenza-like illness (ILI) surveillance data indicated an increase from week 49 to week 51, and ILI was above baseline for the second consecutive week this season. One influenza-associated pediatric death was reported during week 51. However, the percent of deaths due to pneumonia and influenza remained below baseline level.

Since October 1, 2006, WHO and NREVSS laboratories have tested a total of 37,281 specimens for influenza viruses and 1,571 (4.2%) were positive. Among the 1,571 influenza viruses, 1,250 (79.6%) were influenza A viruses and 321 (20.4%) were influenza B viruses. Three hundred seventy-six (30.1%) of the 1,250 influenza A viruses have been subtyped: 359 (95.5%) were influenza A (H1) viruses and 17 (4.5%) were influenza A (H3) viruses. Among specimens tested for influenza during the most recent 3 weeks

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 (Promed via Thanhnien News, January 2): More poultry deaths and infected sites have been reported in Vietnam's Hau Giang, Ca Mau and Bac Lieu provinces in the last two days. Nguyen Hien Trung, head of Hau Giang's animal health department, said a new site had been identified in Vi Thuy district on January 1 after a dead bird had tested positive for the deadly H5N1 virus strain. A total of 3 communes in 2 districts had bird flu, he said. Luong Ngoc Lan, head of Bac Lieu's department of agriculture and rural development, said more poultry deaths had been reported in Hong Dan, Hoa Binh, Vinh Loi, and Gia Rai districts on December 31. The dead birds had tested H5N1 positive in Hong Dan and Hoa Binh while results were awaited from the other 2 districts, Lan said. In Ca Mau many poultry reportedly died January 1. The epidemic has hit at least 13 districts in the 3 provinces, prompting the slaughter of tens of thousands of fowl. Four people in Bac Lieu and 2 in Soc Trang provinces have been hospitalized with bird flu symptoms. Last week Vietnam launched a national anti-bird flu campaign to stamp out the epidemic. At least 42 people have died of the H5N1 virus in Vietnam since 2003 with the latest case reported in November 2005.

Michigan Pandemic Preparedness (MDCH, January 3): A new MDCH pandemic influenza toolkit entitled "Pandemic Flu & You" is now available for public and stakeholder distribution. The document is available online at http://www.michigan.gov/documents/mdch/FLUtoolkitNEWstandard_181707_7.pdf.

Michigan Wild Bird Surveillance (USDA, December 29): According to the National HPAI Early Detection Data System website, available at <http://wildlifedisease.nbj.gov/ai/>, Michigan has results for a total of 2182 samples, from both wild birds and the environment, submitted for testing as of December 22. 470 of these were live-captured birds, 1207 were hunter-killed, 123 were sentinel animals, 175 were dead birds that were submitted for testing, and 207 were environmental samples. HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 70,642 birds or environmental samples 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 December 28, 2006)

(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 1/3/2007)

Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 28 December 2006

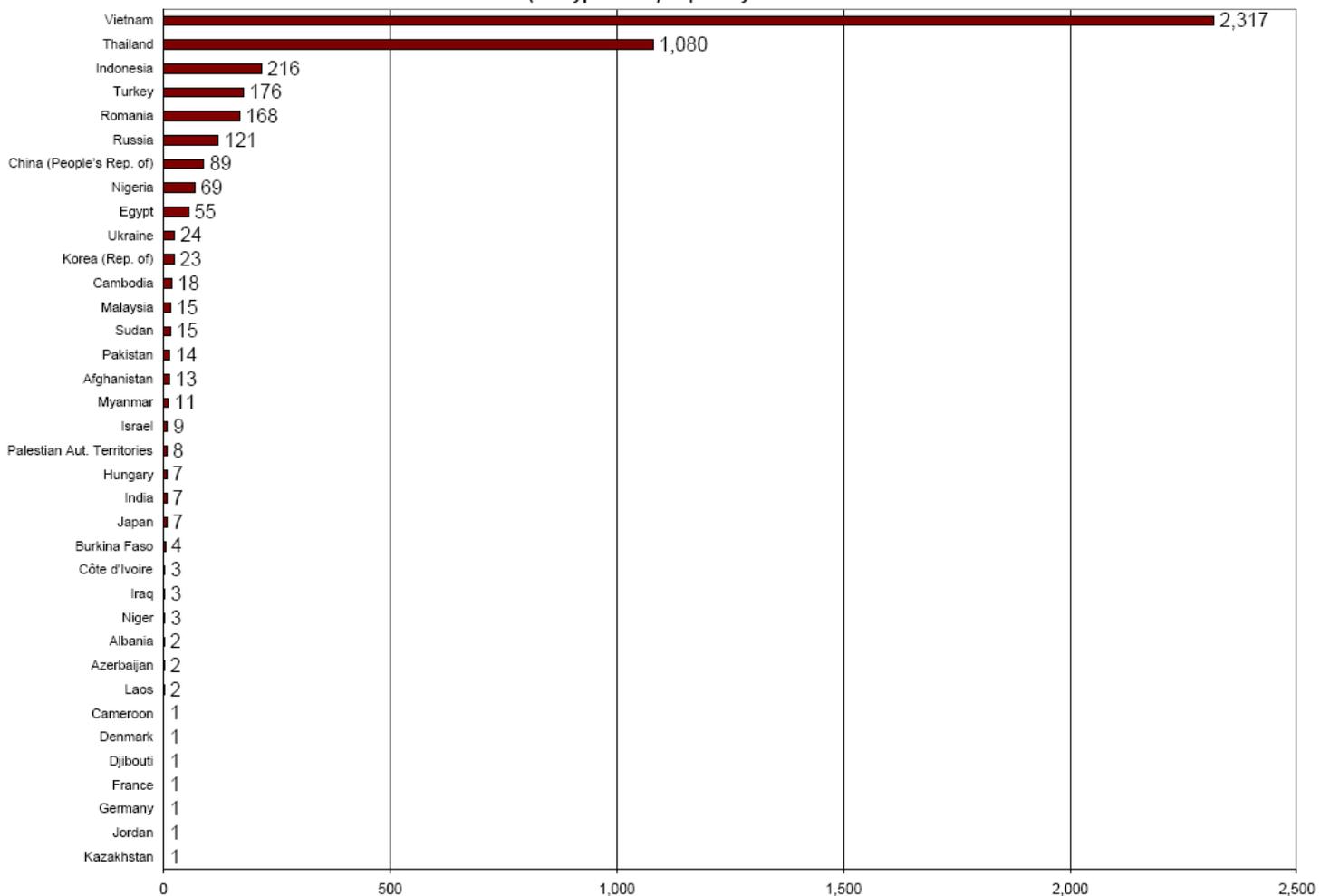


Table 2. H5N1 Influenza in Humans (Cases up to December 27, 2006)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 12/27/2006)

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	18	10	18	10
Indonesia	0	0	0	0	19	12	55	45	74	57
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	114	79	261	157