



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:

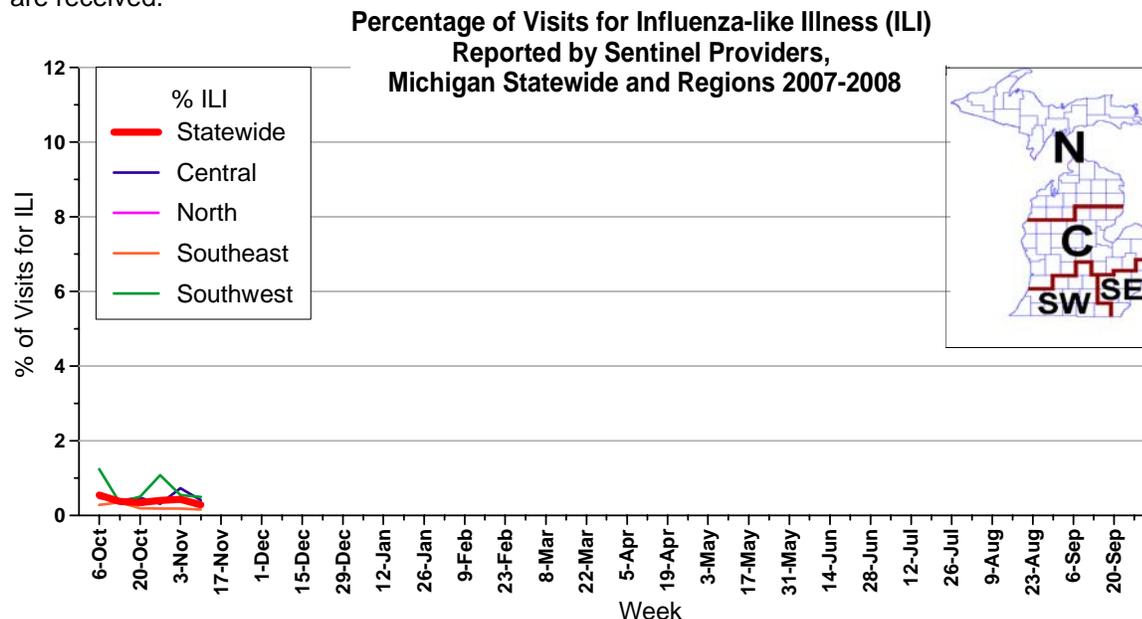
- **Michigan Surveillance:** Influenza indicators continue to hold steady at low levels.
- **National Surveillance:** Influenza activity remains low; only three states report local activity.
- **Avian Influenza:** A second UK poultry farm tests positive for highly pathogenic H5N1.

Michigan Disease Surveillance System: The week ending November 17 saw both individual influenza reports and aggregate flu-like illness reports hold steady near last week's levels. Both aggregate and individual reports are consistent with levels seen at this time last year.

Emergency Department Surveillance: Emergency department visits due to respiratory complaints leveled off this past week, while constitutional complaints held steady near last week's levels. Both constitutional and respiratory complaints are consistent with numbers seen this time last year. Five constitutional alerts in the C(2), N(1) and SW(1) Influenza Surveillance Regions with one Statewide alert and three respiratory alerts in the C(2) and N(1) Influenza Surveillance Regions were generated last week.

Over-the-Counter Product Surveillance: OTC product sales activity was mixed last week, with cough/cold and thermometers holding steady, while chest rubs and children's electrolytes increased slightly. The indicators levels are comparable to those seen at this time last year, except for chest rubs, which are slightly higher.

Sentinel Surveillance (as of November 15): During the week ending November 10, 2007, the proportion of visits due to influenza-like illness (ILI) in Michigan remained unchanged from last week at 0.3% of all visits. This represents 28 cases of ILI out of 9676 total patient visits; thirty-seven sentinels provided data for this report. By region, the proportion of visits due to ILI was: 0.4%, Central; 0.3%, North; 0.2%, Southeast; and 0.5% 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 the sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or potterr1@michigan.gov for more information.

Laboratory Surveillance (as of November 21): The MDCH Bureau of Laboratories has not culture confirmed any cases of influenza for the 2007-2008 influenza season, which started on October 1.

***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.

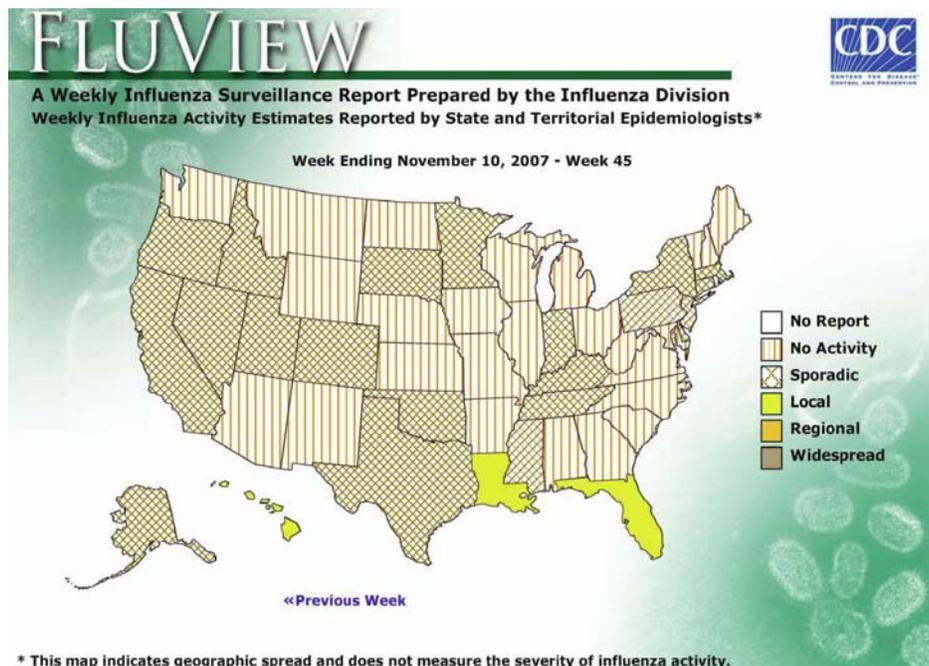
Influenza-Associated Pediatric Mortality (as of November 21): For the 2007-2008 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan.

***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 MDCH to ensure that appropriate clinical specimens can be obtained.

Congregate Settings Outbreaks (as of November 21): There have been no reports for the 2007-2008 influenza season.

National (CDC [edited], November 16): During week 45 (November 4-10, 2007), a low level of influenza activity was reported in the United States. During week 45, WHO and NREVSS laboratories reported 1,811 specimens tested for influenza viruses, 48 (2.7%) of which were positive, including three influenza A (H1) viruses (Mountain region), one influenza A (H3) virus (West South Central region), 40 influenza A viruses that were not subtyped (Mountain, New England, South Atlantic, and West South Central regions) and four influenza B viruses (New England and South Atlantic regions). The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold. The proportion of outpatient visits for influenza-like illness (ILI) and acute respiratory illness (ARI) was below national baseline levels. The Mountain and New England regions reported ILI slightly above their region-specific baselines. Three states reported local activity; 21 states and the District of Columbia reported sporadic influenza activity; and 26 states reported no influenza activity.

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



International, WHO (Weekly Epidemiological Record, November 20): During weeks 44–45, the level of overall influenza activity in the world remained low with sporadic activity observed in some countries.

During weeks 44-45, sporadic influenza activity was detected in Belgium (B), Canada (A predominant, B), Chile (B), China (B predominant, H1), Hong Kong Special Administrative Region of China (B predominant, H3), Japan (H1, H3), Madagascar (H1), Mexico (A), Poland (B) Sri Lanka (A), Sweden (A), Tunisia (H1,B), United Kingdom (H1) and United States of America (A predominant, B).

Czech Republic, Denmark, Finland, France, Islamic Republic of Iran, Latvia, Mongolia, Norway, Philippines, Portugal, Romania, Slovenia, Spain and Switzerland reported no influenza activity.

MDCH reported **NO INFLUENZA ACTIVITY** to the CDC for the week ending November 17, 2007.

For stakeholders interested in additional information regarding influenza vaccination and education, the MDCH publication *Michigan FluBytes* is available online at http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779_40563-125027--,00.html. *FluBytes* is published weekly during the 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.

International, Poultry (DEFRA website, November 19): Laboratory test results have today confirmed H5N1 Avian Influenza in turkeys at one of the Dangerous Contact premises. These premises were confirmed as a Dangerous Contact, and placed under restriction, on 14th November. Culling was completed on 17th November. On clinical inspection the flock appeared healthy which indicates the infection was in its early stages.

As a result of confirming disease this now becomes the second Infected Premises. A 3km radius Protection Zone is being placed around the premises on the Norfolk-Suffolk border and the existing Surveillance Zone is being extended.

Acting Chief Veterinary Officer Fred Landeg said:

"The laboratory test results today highlight the importance of poultry keepers in the area being extremely vigilant. It is essential they practice the highest levels of biosecurity and report any suspicions of disease to their local Animal Health office."

The national ban on bird gatherings remains firmly in place. Movement restrictions apply in the Protection, Surveillance and Restricted Zones, and bird keepers in those zones are required to house or otherwise isolate their birds from wild birds.

International, Poultry (Arab News [edited] via ProMed, November 20): A poultry market in the Aziziyah district of Riyadh was cordoned off after inspectors identified 4 cases of bird flu there yesterday [19 Nov 2007] during a random inspection.

An emergency team, assigned by the Ministry of Agriculture to control the deadly virus, cordoned the market off. The team comprises officials from the police, the municipality, the ministries of health and agriculture, and the National Commission for Wildlife Conservation and Development (NCWD).

"There are 85 poultry shops in this market and each will have a minimum of 1000 birds. The team plans to cull the birds and disinfect the whole area to stop the virus from spreading," said Soliman Al-Buthi, general manager of the Environmental Health Department at the Riyadh Municipality. He added that the municipality is working with the emergency team to tackle the problem. Al-Buthi stressed that the situation is under control and called on members of the public to help the authorities tackle the problem.

According to a statement issued yesterday [19 Nov 2007] by Muhammad Al-Sheha, undersecretary at the Ministry of Agriculture, the authorities have so far culled 222,000 birds in Al-Kharj, Durma, Muzamiyah, and Al-Hayati.

Bird flu was discovered earlier this year [2007] in peacocks, turkeys, and parrots at a house in the east of the Kingdom. This led to a number of birds in the area being destroyed. The recent outbreak of the disease has led to poultry farm workers being examined by Ministry of Health doctors. All workers have so far tested negative.

"Farm workers were brought to hospitals in their respective regions and were examined for bird flu. Clinical examinations revealed that none of them had bird flu," Khaled Al-Mirghalani, Ministry of Health spokesman, told Arab News yesterday [19 Nov 2007]. "We have given flu vaccinations to all those who were tested," he added.

Al-Mirghalani said that the Kingdom has adequate stock of Tamiflu tablets for use in case of emergencies. He added that there are no vaccinations against bird flu and Tamiflu tablets are administered as a treatment. "We're fully equipped with laboratories and drugs to treat suspected patients, if any," said Mirghalani, adding that citizens need to immediately report suspected cases. He also advised people to keep away from birds, not to hunt them, not to touch dead birds without gloves, and to only consume chicken and eggs that are well cooked.

The Agriculture Ministry has called on poultry farmers to strictly implement safety regulations. It also called on the public to inform authorities about suspected bird flu cases by telephoning 01-403-0911.

Michigan Wild Bird Surveillance (USDA, as of November 21): For the 2007 testing season, 963 Michigan samples have been taken so far, comprised of 100 live bird samples, 489 hunter-killed birds, 99 morbidity/mortality samples, and 275 environmental samples. Three recent samples from Michigan have been entered into the HEDDS system: a mallard from Bay County on 10/30/07, an American black duck from Saint Clair County on 10/31/07, and an American black duck from Tuscola County on 11/4/07. All samples have preliminarily tested positive for the North American H5N1 strain (unrelated to current outbreaks in the Eastern Hemisphere), and confirmatory testing is underway.

H5N1 subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 50,250 birds or environmental samples tested nationwide. The 2007 testing season will run from April 1, 2007-March 31, 2008. For more information, visit the National H5N1 Early Detection Data System website at <http://wildlifedisease.nh.gov/ai/>.

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.

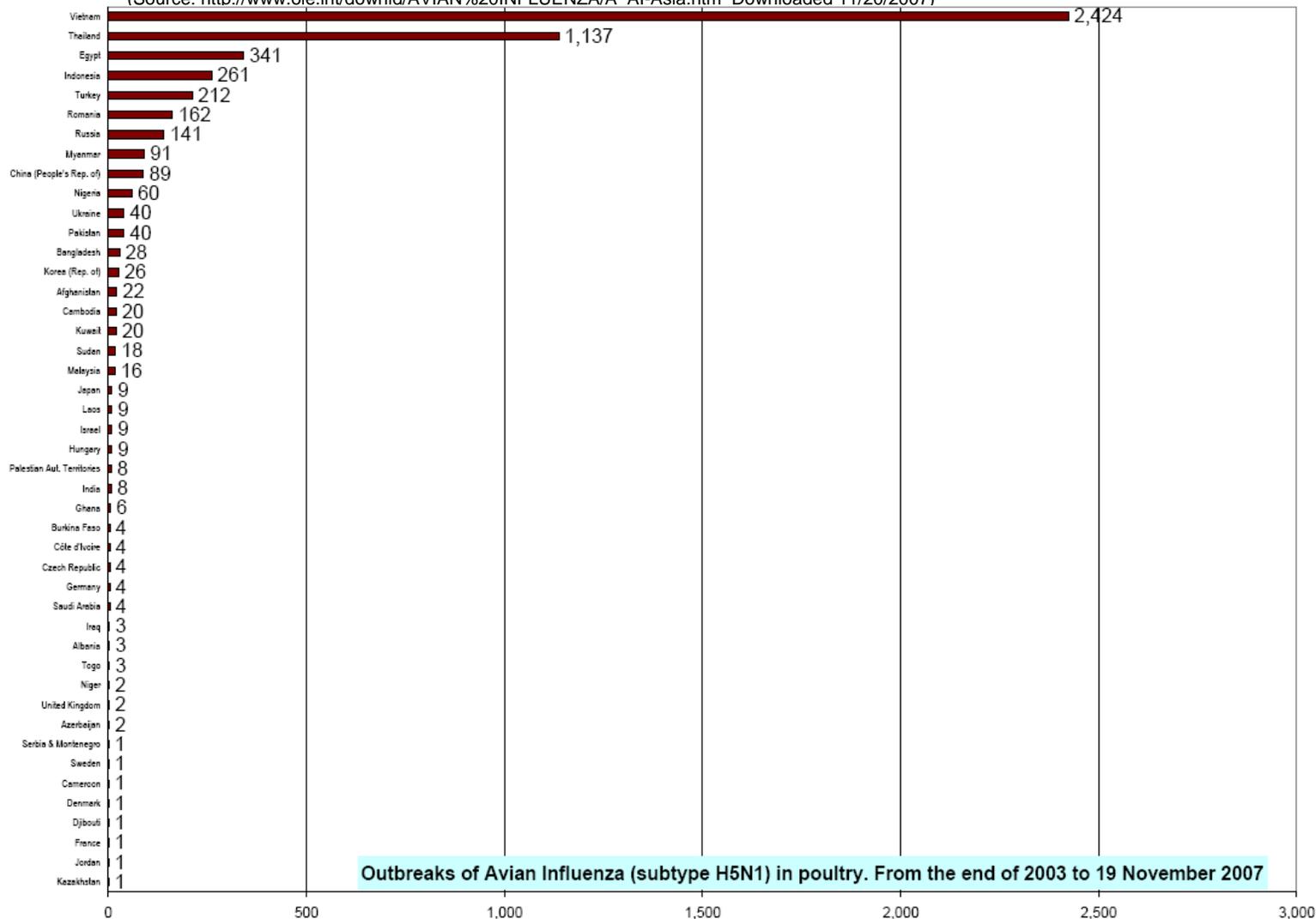
Contributors

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Table 1. H5N1 Influenza in Poultry (Outbreaks up to November 19, 2007)

(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 11/20/2007)



Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 19 November 2007

Table 2. H5N1 Influenza in Humans (Cases up to November 12, 2007)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2007_11_12/en/index.html Downloaded 11/13/2007)

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	cases	deaths	cases	deaths	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	3	2	25	16
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	20	5	38	15
Indonesia	0	0	0	0	20	13	55	45	38	33	113	91
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	7	4	100	46
Total	4	4	46	32	98	43	115	79	72	48	335	206