



# 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:

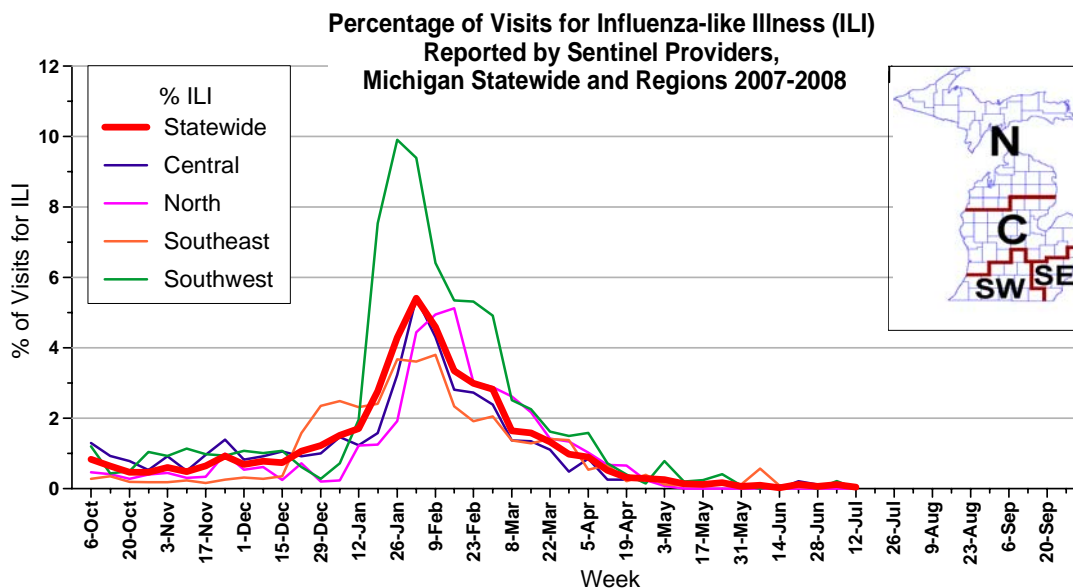
- **International Surveillance:** Australia quarantines pilgrims with seasonal influenza.
- **Avian Influenza:** New poultry outbreak in Vietnam; study suggests poultry vaccine is less effective.

**Michigan Disease Surveillance System:** The week ending July 12 saw both aggregate flu-like disease and individual influenza reports remain steady near last week's levels. Both aggregate flu-like illness and individual influenza reports are expected to fluctuate near baseline levels until the fall.

**Emergency Department Surveillance:** Emergency department visits from constitutional complaints remained steady near last week's levels, while respiratory complaints continued to decrease slightly. Both constitutional and respiratory complaints are consistent with numbers seen this time last year. Six constitutional alerts in the C(3), N(2) and SW(1) Influenza Surveillance Regions and four respiratory alerts in the C(2), N(1) and SE(1) Influenza Surveillance Regions were generated last week.

**Over-the-Counter Product Surveillance:** Overall, OTC product sales were steady or slightly increasing last week. Children's electrolytes showed a slight increase in sales and thermometer sales saw a slight mid-week increase. All others held steady near the previous week's levels. Indicator levels are comparable to those seen at this time last year.

**Sentinel Surveillance (as of July 17):** During the week ending June July 12, 2008, less than 0.1% of all office visits reported by Michigan influenza sentinel sites were due to influenza-like illness (ILI). This represents 2 cases out of 5326 total patients seen. These cases were reported in the Central surveillance region. Twenty-two practices provided data for this report. Note that these rates may change as additional reports are received.



As part of pandemic influenza preparedness, CDC and MDCH highly encourage 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](mailto:potterr1@michigan.gov) for more information.

**Laboratory Surveillance (as of July 17):** For the 2007-2008 influenza season, the MDCH Bureau of Laboratories has identified 247 influenza isolates:

- 190 A/H3N2: Central (58); Southwest (51); Southeast (49); North (32)
- 4 A/H1N1: Southeast (2); North (2)
- 2 A subtyping unable to be performed: Southeast (2)
- 51 B: Southeast (28); North (10); Southwest (6); Central (6); Indiana (1). 50 have been typed as B/Shanghai/361/2002-like and 1 was B/Malaysia/2506/2004-like (SE).

\*\*\*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 July 17):** For the 2007-2008 season, MDCH has confirmed one influenza-related pediatric mortality in Michigan. The case was a 13 year-old from the Central region with an influenza A/H3N2 and MRSA co-infection; disease onset was in late February.

\*\*\*The CDC has asked all states to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child (<18 years) resulting from a compatible illness confirmed to be influenza by an appropriate diagnostic test, but also any unexplained death with evidence of an infectious process in a child. See [www.michigan.gov/documents/fluletter\\_107562\\_7.pdf](http://www.michigan.gov/documents/fluletter_107562_7.pdf) for the complete protocol. Please immediately call MDCH to ensure that proper clinical specimens are obtained.

**Congregate Settings Outbreaks (as of July 17):** Congregate setting outbreaks have been reported in all regions of the state, peaking in the first two weeks of February. Seven outbreaks have been culture-confirmed at MDCH; six as influenza A/H3N2 and one as influenza B for the 2007-2008 season.

**Michigan Influenza Season Summary:** The 2007-2008 Michigan Influenza Season Summary is now available online at [www.michigan.gov/influenza](http://www.michigan.gov/influenza). Overall, this influenza season was moderate in activity with peak activity occurring in early February and was dominated by influenza A/H3N2.

**National (CDC):** To access the entire CDC weekly surveillance report throughout the influenza season, visit <http://www.cdc.gov/flu/weekly/fluactivity.htm>. The 2007-2008 national influenza season summary is available at [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5725a5.htm?s\\_cid=mm5725a5\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5725a5.htm?s_cid=mm5725a5_e).

**International, Antivirals (Reuters, July 11):** A Japanese government-backed research group has found no evidence that flu drug Tamiflu causes abnormal behavior in young people, a health ministry official said on Friday.

The study, which could lead to the lifting of warnings in Japan on the prescription of the drug to those between the ages of 10 and 19, was carried out in response to incidents that came to light last year in which young people jumped from buildings while taking Tamiflu.

The drug is distributed in Japan, a heavy user of Tamiflu, by Chugai Pharmaceutical Co Ltd through its partnership with developer Roche.

The findings will be presented to a drug safety panel at the ministry, which may decide to withdraw warnings against Tamiflu use in young people, which were introduced in March last year, the ministry official said.

"The timing of the presentation is not decided, but we want to do it as soon as possible," he said.

Japan and other countries have stockpiled Tamiflu, known generically as oseltamivir, as a precaution against a feared pandemic of a new and deadly type of influenza, which scientists say may develop from bird flu.

The Japanese study looked at 10,000 people under the age of 18 who were diagnosed with influenza in 2006 and 2007, the Nikkei financial daily said.

Interviews with doctors and family members revealed that those who took Tamiflu were marginally less likely to have exhibited abnormal behavior than those who did not, the Nikkei said.

A spokesman for Chugai Pharmaceutical declined to comment on the results of the study.

**International (Australian Broadcasting Corporation, July 16):** More than 50 World Youth Day pilgrims have been isolated in two centres in Sydney to prevent an outbreak of influenza.

Forty-two people are being treated and assessed at Oakhill College at Castle Hill in the city's north-west and other pilgrims are being treated at Olympic Park in Homebush.

New South Wales Health officials say the pilgrims have voluntarily gone into isolation after discussing the dangers of a flu outbreak with doctors and paramedics.

Acting deputy chief health officer Jeremy McAnulty says so far 11 cases of flu have been confirmed.

"By explaining to pilgrims with influenza the nature of it, what it means for them but also the risk of spreading it to other people, it's important they're aware of the rationale for the isolation," he said.

"So far we've found people to be cooperative with that, so that's good news."

**International (WHO, July 11):** During weeks 26–27, the level of overall influenza activity in the world increased. In the southern hemisphere, considerable increase of influenza activity and increased detections of influenza viruses were observed. Influenza B and A(H3N2) circulated. Countries in the northern hemisphere reported sporadic or no activity.

**Argentina.** Regional activity of influenza was reported. Mostly Influenza B cases were detected but influenza A also circulated.

**China, Hong Kong Special Administrative Region.** A mild increase in influenza activity continued, with mostly A (H3) viruses detected. A (H1) viruses were also detected. For influenza B, all viruses were B/Yamagata lineage.

**New Zealand.** Regional influenza activity was reported, with mostly influenza A (H3) viruses circulating. Influenza B viruses were also detected. The health district with the highest ILI consultation rate was Northland.

Between weeks 26 and 27, sporadic influenza activity was detected in Canada (A, B), Chile (A, B), Islamic Republic of Iran (B), Norway (B) and Panama (A, B).

Cameroon, Mongolia, Oman, Poland, Portugal, Slovenia and Switzerland reported no influenza activity.

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Seasonal influenza reporting to the CDC has ended for the 2007-2008 influenza season.

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](http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779_40563-125027--,00.html). *FluBytes* is published biweekly during the summer months.

**End of Seasonal Report**

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### **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 (CIDRAP [edited], July 10):** A poultry vaccine designed to protect chickens in Hong Kong from H5 avian influenza has lost effectiveness over the past 7 years of use, an expert told the Chinese media recently.

Yuen Kwok-yung, who heads the microbiology department at the University of Hong Kong, told the South China Morning Post newspaper that the virus is shifting away from the Fujian strain that it was developed for, according to a Jul 8 Deutsche Presse-Argentur (DPA) report.

He told city officials that they must ban all live chickens from markets before the vaccine becomes completely ineffective, the DPA report said. Tests on birds in 2005 suggested that the vaccine generated only a quarter of the antibody response it did in 2001.

"It takes time for the manufacturers to produce new vaccines. Hong Kong is taking its own risk if it still has live chickens in the market," Yuen said.

In early June, animal health workers detected the virus in poultry feces at several market stalls. They did not say if the testing was done in response to sick or dead birds, and the source of the virus has not been determined.

Since then, officials have banned poultry from overnight stays in the market and have proposed a total ban on live poultry in Hong Kong markets. They have offered traders and farmers compensation packages in return for surrendering their sales licenses, but the offer has angered the poultry merchants, who have said the government's offer was too low, according to previous reports.

**International, Poultry (Xinhua News Agency, July 16):** Specimens from dead chickens in Vietnam's southern Long An province have been tested positive to bird flu virus strain H5N1, according to local newspaper Youth on Wednesday.

Tests by Vietnam's Regional Animal Health Center No. 6 have shown that some chickens of a 3,000-fowl flock raised by a household in Can Duoc district were infected with bird flu, the newspaper quoted Duong Minh Phi, deputy head of the province's Veterinary Bureau, as saying.

Chickens in the flock started to die 10 days ago after developing bird flu symptoms, he said.

The Department of Animal Health under the Vietnamese Ministry of Agriculture and Rural Development has yet to confirm the bird flu outbreak in Long An. Now, only southern Tra Vinh province is being hit by the disease, the department said.

Bird flu outbreaks in Vietnam, starting in December 2003, have killed and led to the forced culling of dozens of millions of fowls in the country.

**Michigan Wild Bird Surveillance (USDA, as of July 17):** For the 2008 testing season, 381 Michigan samples have been taken so far, comprised of 61 live birds, 287 hunter-killed birds, 8 morbidity/mortality samples and 25 environmental samples.

H5N1 subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 9954 birds or environmental samples tested nationwide for the 2008 testing season, which will run from April 1, 2008 - March 31, 2009. For more information, visit the National H5N1 Early Detection Data System website at <http://wildlifedisease.nbio.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](mailto:VagaskyS@Michigan.gov) with any questions regarding this newsletter or to be added to the weekly electronic mailing list.**

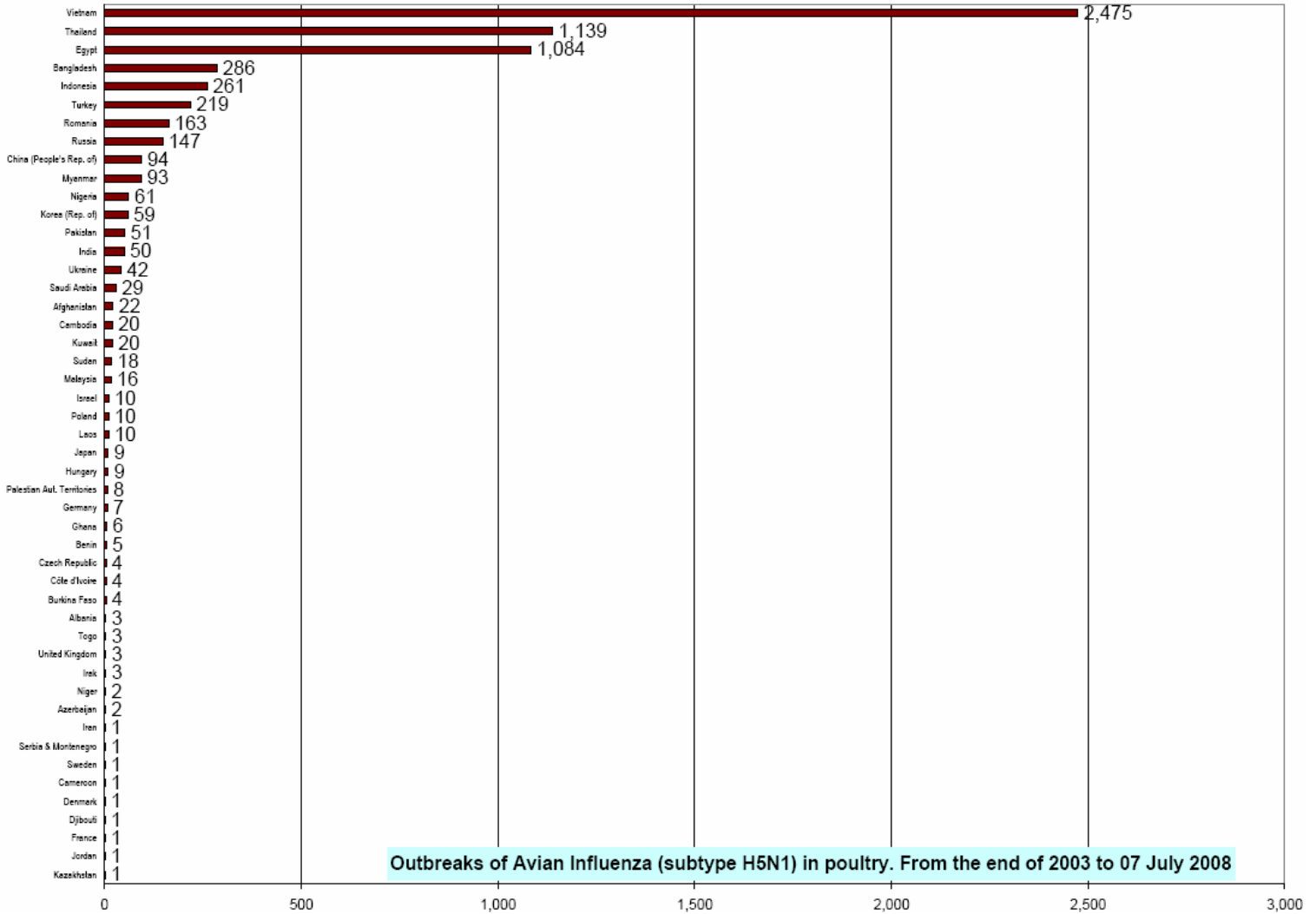
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**Table 1. H5N1 Influenza in Poultry (Outbreaks up to July 7, 2008)**

(Source: [http://www.oie.int/downld/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm) Downloaded 7/10/08)



**Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 07 July 2008**

**Table 2. H5N1 Influenza in Humans (Cases up to June 19, 2008)**

([http://www.who.int/csr/disease/avian\\_influenza/country/cases\\_table\\_2008\\_06\\_19/en/index.html](http://www.who.int/csr/disease/avian_influenza/country/cases_table_2008_06_19/en/index.html) Downloaded 6/19/2008)

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

| Country      | 2003     |          | 2004      |           | 2005      |           | 2006       |           | 2007      |           | 2008      |           | Total      |            |
|--------------|----------|----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|------------|------------|
|              | cases    | deaths   | cases     | deaths    | cases     | deaths    | cases      | deaths    | cases     | deaths    | cases     | deaths    | cases      | deaths     |
| Azerbaijan   | 0        | 0        | 0         | 0         | 0         | 0         | 8          | 5         | 0         | 0         | 0         | 0         | 8          | 5          |
| Bangladesh   | 0        | 0        | 0         | 0         | 0         | 0         | 0          | 0         | 0         | 0         | 1         | 0         | 1          | 0          |
| Cambodia     | 0        | 0        | 0         | 0         | 4         | 4         | 2          | 2         | 1         | 1         | 0         | 0         | 7          | 7          |
| China        | 1        | 1        | 0         | 0         | 8         | 5         | 13         | 8         | 5         | 3         | 3         | 3         | 30         | 20         |
| Djibouti     | 0        | 0        | 0         | 0         | 0         | 0         | 1          | 0         | 0         | 0         | 0         | 0         | 1          | 0          |
| Egypt        | 0        | 0        | 0         | 0         | 0         | 0         | 18         | 10        | 25        | 9         | 7         | 3         | 50         | 22         |
| Indonesia    | 0        | 0        | 0         | 0         | 20        | 13        | 55         | 45        | 42        | 37        | 18        | 15        | 135        | 110        |
| Iraq         | 0        | 0        | 0         | 0         | 0         | 0         | 3          | 2         | 0         | 0         | 0         | 0         | 3          | 2          |
| Lao PDR      | 0        | 0        | 0         | 0         | 0         | 0         | 0          | 0         | 2         | 2         | 0         | 0         | 2          | 2          |
| Myanmar      | 0        | 0        | 0         | 0         | 0         | 0         | 0          | 0         | 1         | 0         | 0         | 0         | 1          | 0          |
| Nigeria      | 0        | 0        | 0         | 0         | 0         | 0         | 0          | 0         | 1         | 1         | 0         | 0         | 1          | 1          |
| Pakistan     | 0        | 0        | 0         | 0         | 0         | 0         | 0          | 0         | 3         | 1         | 0         | 0         | 3          | 1          |
| Thailand     | 0        | 0        | 17        | 12        | 5         | 2         | 3          | 3         | 0         | 0         | 0         | 0         | 25         | 17         |
| Turkey       | 0        | 0        | 0         | 0         | 0         | 0         | 12         | 4         | 0         | 0         | 0         | 0         | 12         | 4          |
| Viet Nam     | 3        | 3        | 29        | 20        | 61        | 19        | 0          | 0         | 8         | 5         | 5         | 5         | 106        | 52         |
| <b>Total</b> | <b>4</b> | <b>4</b> | <b>46</b> | <b>32</b> | <b>98</b> | <b>43</b> | <b>115</b> | <b>79</b> | <b>88</b> | <b>59</b> | <b>34</b> | <b>26</b> | <b>385</b> | <b>243</b> |