



# MI FluFocus

## Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology  
Bureau of Laboratories

Michigan Department of Community Health



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September 20, 2007  
Vol. 4; No. 38

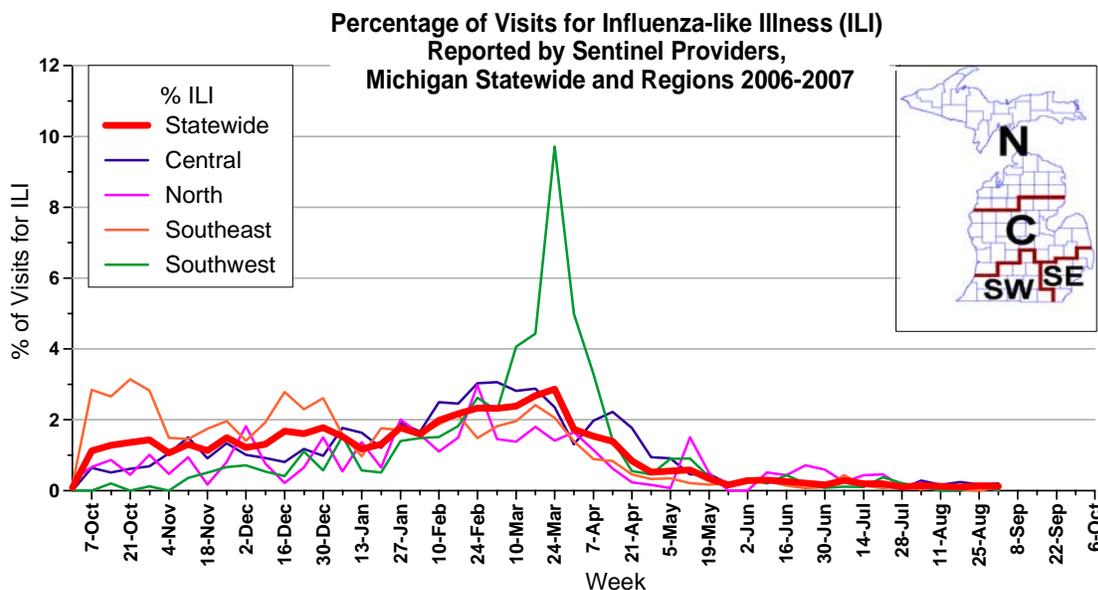
### New updates in this issue:

- **Michigan Surveillance:** Multiple respiratory alerts issued; the fall respiratory season, but not the influenza season, appears to have started.
- **Avian Influenza:** New H5N1 outbreaks in poultry reported from China and Nigeria.

**Michigan Disease Surveillance System:** The week ending September 15 saw a continued rise in aggregate flu-like illness reports due to increasing school reports. Individual influenza reports held steady near the previous week's levels. Increases in aggregate reports are expected to continue for the next few weeks as the school reporting season becomes established. Individual flu reporting levels are expected to have a more gradual increase as the influenza season approaches. 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 rose during the past week, which is consistent with the increasing respiratory activity observed at this time last year. Constitutional complaints remained steady overall. This combination suggests the beginning of the typical fall respiratory season, but these and other indicators do not support the beginning of the influenza season at this time. Seven constitutional alerts in Regions 1(1), 3(1), 5(2), 6(2), and 7(1) and 14 respiratory alerts in Regions 1(2), 2S(2), 3(2), 5(3), 6(1) 7(1) and 8(2) including one Statewide were generated last week.

**Sentinel Surveillance (as of September 20):** During the week ending September 15, 2007, the proportion of visits due to influenza-like illness (ILI) in Michigan remained at low a low level; 0.1% of all visits. This represents 4 cases of ILI out of 3207 total patient visits; fifteen sentinels provided data for this report. By surveillance region, the proportion of visits due to ILI was 0.2%, Central; 0.0%, North; 0.1%, Southeast; and 0.0%, 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](mailto:potterr1@michigan.gov) for more information.

**Laboratory Surveillance (as of September 20):** For the 2006-2007 influenza season, there have been 160 culture-confirmed cases from the MDCH Lab:

- 70 A:H1N1 (Southeast (23), Southwest (21), Central (16), North (10))
- 1 A:H1N2 (Central)
- 35 A:H3N2 (North (12), Southeast (12), Central (8), Southwest (3))
- 54 B (Southeast (18), Central (17), Southwest (12), North (7))

The one influenza A H1N2 specimen was collected in early August from a 17 month old child from the Central region. This strain was last seen in Michigan and other states in the 2002-2003 influenza season; during that season this strain was thought to be a reassortment of the circulating influenza A H1N1 and H3N2 strains. The specimen has been sent to CDC for further antigenic characterization. All influenza B cultures have been B/Malaysia, except for six B/Shanghai results from the Southeast region.

\*\*\*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 September 20):** For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan. One possible case from the Southwest region is currently under investigation by MDCH and the CDC.

\*\*\*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](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 September 20):** There has been one report of an influenza A outbreak from a Central region extended care facility for the 2006-2007 influenza season.

**International (Eurosurveillance Weekly Release, August 23):** Apart from the unusual cases in children in Australia, the 2007 influenza season in the southern hemisphere has not been exceptional, either in the number of cases being reported or the strains circulating. Those strains that have been seen were also seen in the northern hemisphere in its last season [2006], and most of them are included in the current vaccine for the southern hemisphere this season (an A/New Caledonia/20/99(H1N1)-like virus, an A/Wisconsin/67/2005(H3N2)-like virus and a B/Malaysia/2506/2004-like virus). As was seen in the northern hemisphere's 2006/07 season, A(H3N2) strains in the southern hemisphere have not reacted well to antiserum A/Wisconsin/67/2005. The WHO will formally address the southern hemisphere experience in its coming regular consultation for selection of vaccine strains. For the entire report, visit <http://www.eurosurveillance.org/ew/2007/070823.asp#4>.

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Weekly reporting to the CDC has concluded for the 2006-2007 influenza season.

## **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 (Xinhua News Agency, September 18):** China's southern city of Guangzhou has destroyed 153,320 domestic fowls in the wake of an outbreak of bird flu, local authorities said on Tuesday [Sep 18].

The extermination of 134,384 ducks, 18,786 chickens and 150 doves was carried out in 9 villages within a radius of 3 km (2 miles) from the site of the outbreak, an official with the Panyu district government said.

A total of 68 poultry farmers in Panyu district who have had close contact with ducks killed by bird flu have taken blood tests and medical checkups, and were found to be in good condition.

The Ministry of Agriculture and the National Avian Influenza Reference Laboratory have confirmed a subtype H5N1 bird flu strain killed 9830 ducks raised in Sixian Village of Panyu District in Guangzhou City since Sep 5, 2007.

The Panyu district government announced on Tuesday the suspension of all poultry markets within a 13 km (8 mile) radius surveillance zone. Tan Yinghua, Party chief of the district, told Xinhua the district would put more pork, beef, and fish on the market to meet the needs of local consumers.

As the world's largest producer of poultry, livestock, and aquatic products, China has suffered huge economic losses from outbreaks of animal diseases. It is estimated that animal diseases cost China 40 billion yuan [USD 5.31824 billion] annually.

The previous reported case of H5N1 bird flu in China occurred in May [2007] in central China's Hunan Province, which killed more than 11,000 poultry with another 52,800 birds being culled.

China has reported 25 human cases of bird flu since 2003, which have resulted in 16 deaths.

**International, Poultry (AllAfrica report [edited], September 20):** Over 1052 birds have so far been culled in Panda Development Area of Nasarawa State in the wake of avian influenza (bird flu) that affected the area just as the people of the area were commended for reporting early signs of the flu.

UNICEF (UN Children's Fund) field officer for avian influenza, Alhaji Bala Hassan, who visited the affected area from their headquarters in Bauchi said the efforts of the people of the area in reporting cases of sick or dead birds as well as their contributions towards the depopulation exercise was commendable.

Bala who was in Nasarawa weekend and visited Kondoro and Panda district areas where the incident occurred, cautioned the people against taking sick or dead birds for granted and [to] ensure that poultry meat and eggs are properly cooked before consumption.

He particularly advised parents to keep their children away from sick or dead birds and advised them to always imbibe the culture of washing their hands whenever they come in contact with sick or dead birds to avoid the spread of the flu.

The district head of Kondoro, Alhaji Muha-mmeadu Habu, [thanked the UNICEF officers] for their philanthropic gestures in curbing not only the flu but in the area of child survival and other programmes. He also called on the state government to come to their aid in the payment of compensations due to the birds they have lost.

**International, Poultry (OIE [edited], September 18):** Low pathogenic avian influenza (poultry), Portugal  
Information received on (and dated) 18 Sep 2007 from Dra Sofia Quintans, Direccao-Geral de Veterinaria, Ministerio da Agricultura, LISBONNE, Portugal

Report type: immediate notification

Start date: 12 Sep 2007

Date of confirmation of event: 12 Sep 2007

Date submitted to OIE: 18 Sep 2007

Reason for notification: 1st occurrence of a listed disease

Manifestation of disease: subclinical infection

Causal agent: low pathogenic avian influenza virus

Serotype: H5N2  
Nature of diagnosis: laboratory (basic)

Total outbreaks: 1  
Outbreak Location: RIBATEJO NORTE (Tomar)  
Species: birds  
Susceptible 68,255  
Cases -  
Deaths 0  
Destroyed -  
Slaughtered 0  
Species Birds  
Apparent morbidity rate 0.00 percent  
Apparent mortality rate 0.00 percent  
Proportion susceptible removed 0.00 percent  
Source of infection: unknown or inconclusive  
Epidemiological comments: the flocks were sampled under the National Surveillance Plan for Avian Influenza 2007. Stamping out procedures are ongoing in both flocks (provisional date of stamping out conclusion: 23 Sep 2007). By 17 Sep 2007, 35,376 ducks had been killed.

Control measures already applied: movement control inside the country; screening; stamping out; zoning; vaccination prohibited; no treatment of affected animals. Measures to be applied: disinfection of infected premises/establishment(s)

**Michigan Wild Bird Surveillance (USDA, as of September 20):** For the 2007 testing season, 260 Michigan samples have been taken so far, comprised of 100 live bird samples, 99 hunter-killed birds and 61 morbidity/mortality samples.

5 live mallard ducks from Addison, Vermont have preliminarily tested positive for avian influenza H5N1; these results are believed to be the typical North American low pathogenic strain of H5N1 and are currently undergoing confirmatory testing. According to the National HPAI Early Detection Data System website, HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 17,362 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 HPAI Early Detection Data System website at <http://wildlifedisease.nbii.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.**

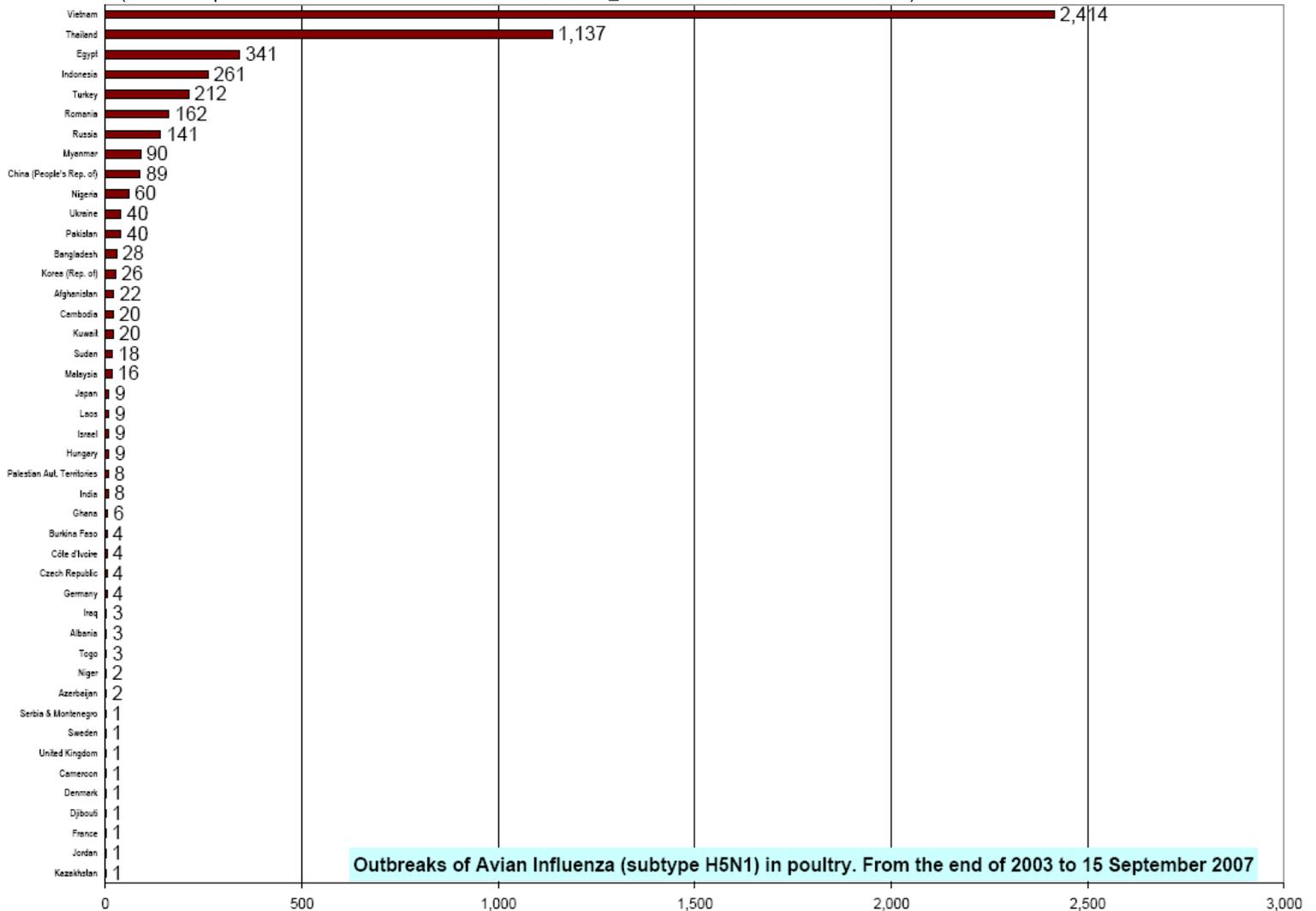
**Contributors**

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**Table 1. H5N1 Influenza in Poultry (Outbreaks up to September 15, 2007)**

(Source: [http://www.oie.int/downld/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm) Downloaded 9/20/2007)



**Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 15 September 2007**

**Table 2. H5N1 Influenza in Humans (Cases up to September 10, 2007)**

([http://www.who.int/entity/csr/disease/avian\\_influenza/country/cases\\_table\\_2007\\_09\\_10/en/index.html](http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2007_09_10/en/index.html) Downloaded 9/10/2007)

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	31	27	106	85
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
<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>65</b>	<b>42</b>	<b>328</b>	<b>200</b>