



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories



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New updates in this issue:

- **Michigan Surveillance:** MDCH reports "local" influenza activity to CDC for the week ending Sept. 19.
- **National Surveillance:** Influenza activity increases; 21 states report widespread activity.
- **International Surveillance:** WHO reports variable influenza activity in the northern temperate regions.

2009 Influenza A (H1N1) virus Updates

Ed. Note: Since MDCH and CDC are conducting aggregate influenza reporting (i.e. reporting of all influenza viruses, not just those due to 2009 H1N1 influenza), this data from the 2009 Influenza A (H1N1) virus Update section of the *MI FluFocus* has been moved to relevant Michigan and National Surveillance sections starting this week.

On August 17 and September 18, MDCH released guidance for healthcare providers, laboratorians and public health personnel regarding appropriate patients for influenza testing at the MDCH lab and reporting of influenza hospitalizations and deaths. The guidance is available at www.michigan.gov/h1n1flu.

Please continue to reference the State of Michigan's novel 2009 influenza A (H1N1) website at www.michigan.gov/h1n1flu and the MDCH influenza website at www.michigan.gov/flu for additional information. Local health departments can find guidance documents in the MI-HAN document library. In addition to the previous websites, additional laboratory-specific information is located at the Bureau of Laboratories H1N1 page at http://www.michigan.gov/mdch/0,1607,7-132-2945_5103-213906--,00.html.

International (WHO Pandemic Update 66 [edited], September 18): In the temperate regions* of the northern hemisphere, influenza activity remains widely variable. In North America, the United States is reporting increases in influenza-like-illness activity above the seasonal baseline, most notably in the southern, southeastern, and parts of the northeastern United States.

In Canada, influenza activity remains low. In Europe and Central Asia influenza activity remains low overall, except in France, which is reporting increases in influenza-like-illness activity (for week 37) above the seasonal epidemic threshold. Geographically localized influenza activity is being reported in several countries (Austria, Georgia, Ireland, Luxembourg, Norway, Portugal, the Czech Republic, Cyprus, and Israel). In Japan, influenza activity remains stably increased above the seasonal epidemic threshold with the most notable increases being reported on the southern island of Okinawa.

In the tropical regions of the Americas and Asia, influenza transmission remains active. Geographically regional to widespread influenza activity continues to be reported throughout much of South and Southeast Asia, with increasing trends in respiratory diseases being reported in India and Bangladesh. Geographically regional to widespread influenza activity continues to be reported for the tropical regions of Central and South America without a consistent pattern in the trend of respiratory diseases (continued increases are being reported in Bolivia and Venezuela).

In the temperate regions* of the southern hemisphere, influenza activity continues to decrease or has returned to the seasonal baseline in most countries. In Australia, later affected areas are also now reporting declining levels of influenza-like-illness. In South Africa, influenza activity appears to have recently passed over the second peak (the first peak was due to seasonal influenza A (H3N2) and second peak was due to pandemic (H1N1) 2009).

WHO Collaborating Centres and other laboratories continue to report sporadic isolates of oseltamivir resistant influenza virus. Twenty six such virus isolates have now been described from around the world, all of which carry the same H275Y mutation that confers resistance to the antiviral oseltamivir but not to the antiviral zanamivir. Of these, 12 have been associated with post-exposure prophylaxis, five with long term oseltamivir treatment in patients with immunosuppression. Worldwide, over 10,000 clinical samples and isolates of the pandemic (H1N1) 2009 virus have been tested and found to be sensitive to oseltamivir. WHO will continue to monitor the situation closely in collaboration with its partners.

Pandemic (H1N1) influenza virus continues to be the predominant circulating influenza virus, both in the northern and southern hemisphere. See below for detailed laboratory surveillance update.

*Countries in temperate regions are defined as those north of the Tropic of Cancer or south of the Tropic of Capricorn, while countries in tropical regions are defined as those between these two latitudes.

The countries and overseas territories/communities that have newly reported their first pandemic (H1N1) 2009 confirmed case(s) since the last web update (No. 65) as of 13 September 2009 are: Malawi.

Region	Cumulative total	
	as of 13 September 2009	
	Cases*	Deaths
WHO Regional Office for Africa (AFRO)	8125	40
WHO Regional Office for the Americas (AMRO)	124126	2625
WHO Regional Office for the Eastern Mediterranean (EMRO)	10533	61
WHO Regional Office for Europe (EURO)	over 52000	at least 140
WHO Regional Office for South-East Asia (SEARO)	25339	283
WHO Regional Office for the Western Pacific (WPRO)	76348	337
Total	over 296471	at least 3486

*Given that countries are no longer required to test and report individual cases, the number of cases reported actually understates the real number of cases.

Influenza Surveillance Reports

Michigan Disease Surveillance System: The week ending September 19 saw both aggregate flu-like numbers and individual influenza reports increase slightly. Novel influenza reports saw an increase over the previous week's numbers as well. Aggregate numbers are slightly lower than the numbers seen this time last year while individual and novel influenza reports are slightly higher.

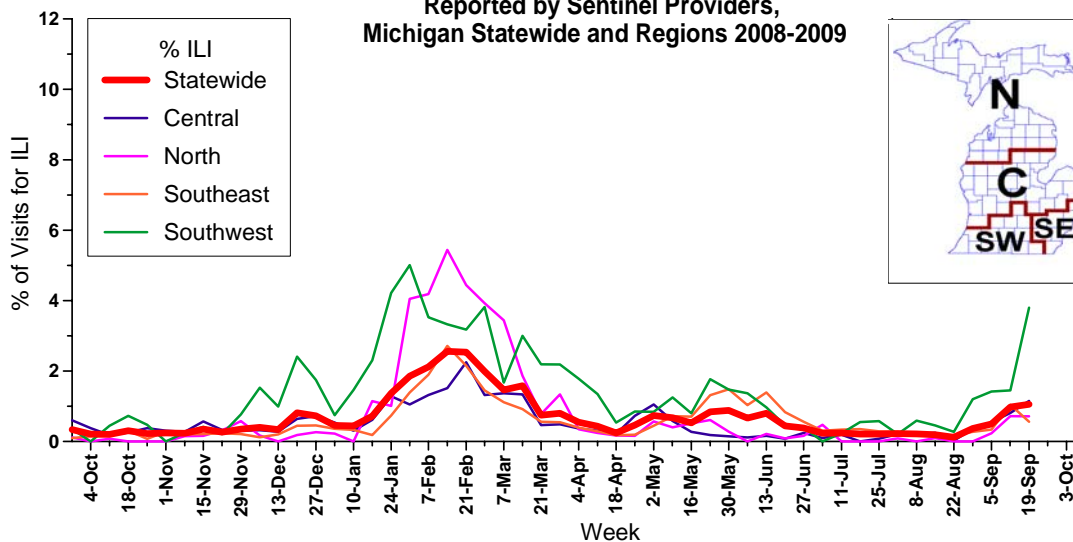
As of September 19, 7386 cases of flu-like illness and confirmed and probable cases of seasonal and novel influenza, including 13 deaths, were reported in Michigan. 9 hospitalizations due to influenza were reported during the week of September 13-19, 2009. This report is updated every Tuesday by 5:00 pm and can be accessed at a link on this website: <http://www.michigan.gov/h1n1flu>.

Emergency Department Surveillance: Emergency department visits from both constitutional and respiratory complaints increased compared to the previous week's levels. Both constitutional and respiratory numbers are comparable to numbers seen at this time last year. Four constitutional alerts in the C(2) and N(2) Influenza Surveillance Regions and fourteen respiratory alerts in the C(4), N(2), SE(4) and SW(2) Influenza Surveillance Regions including two Statewide alerts were generated last week.

Over-the-Counter Product Surveillance: Overall, OTC product sales were elevated last week. Every indicator increased slightly in sales over the previous week. Unpromoted children's electrolytes sales saw a slight decrease over the past week, but children's electrolyte sales overall saw a very slight increase. All indicator levels are comparable to those seen at this time last year.

Sentinel Provider Surveillance (as of September 24): During the week ending September 19, 2009, the proportion of visits due to influenza-like illness (ILI) increased compared to the previous week at 1.1% overall; 93 patient visits due to ILI were reported out of 8,798 office visits. Twenty-six sentinel sites provided data for this report. Activity increased in two surveillance regions: Central (1.2%) and Southwest (3.8%); remained the same in the North region (0.7%); and decreased in the Southeast (0.6%). The large increase in the Southwest should be interpreted with caution as only 3 sentinel sites from this region have submitted reports at this time. Note that these rates may change as additional reports are received.

**Percentage of Visits for Influenza-like Illness (ILI)
Reported by Sentinel Providers,
Michigan Statewide and Regions 2008-2009**



As part of pandemic influenza surveillance, CDC and MDCH highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Cristi Carlton at 517-335-9104 or CarltonC2@michigan.gov for more information.

Laboratory Surveillance (as of September 24): During the past week, one new seasonal influenza A (H1N1) isolate was identified at the MDCH Bureau of Laboratories. For the 2008-2009 season, MDCH BOL has identified 320 seasonal influenza isolates (followed by Influenza Surveillance Regions of origin):

- 189 A/H1N1 or A/H1 (63SE, 43SW, 26C, 57N)
- 12 A/H3N2 or A/H3 (5SE, 3SW, 1C, 3N)
- 119 B (24SE, 45SW, 14C, 36N)
 - 9 B/Florida/4/2006-like (4SE, 1SW, 1C, 3N)
 - 108 B/Malaysia/2506/2004-like (20SE, 43SW, 12C, 33N)
 - 1 untypable (SW)
 - 1 pending subtyping (C)

9 sentinel laboratories reported for the week ending September 19, 2009. 1 lab reported increasing influenza A positives (SE), 3 labs reported steady influenza A positives (SW, C), and 4 labs reported zero influenza A positives (SE, C, N). 9 labs reported zero influenza B positives (SE, SW, C, N).

Michigan Influenza Antigenic Characterization (as of September 24): 38 influenza seasonal A/H1N1 isolates have been antigenically characterized by the CDC; results indicate all seasonal isolates are A/Brisbane/59/2007-like, which matches the influenza A/H1N1 component of this season's Northern Hemisphere vaccine. 2 influenza A/H3N2 isolates have been characterized as A/Brisbane/10/2007-like, which matches the A/H3N2 component of this season's vaccine.

11 Michigan pandemic influenza A (H1N1) specimens have been antigenically characterized by the CDC; all have been characterized as A/California/07/2009-like (H1N1)v. This strain is the variant reference virus selected by WHO as a potential candidate for pandemic influenza A(H1N1) vaccine.

20 influenza B isolates have been antigenically characterized by the CDC. 3 influenza B isolates have been characterized as B/Florida/4/2006-like, which matches the influenza B component of this season's vaccine. 17 influenza B isolates have been characterized as B/Brisbane/60/2008-like, which does not match this season's vaccine, but is a recommended component of the 2009-2010 vaccine.

Michigan Influenza Antiviral Resistance Data (as of September 24): 39 influenza seasonal A/H1N1 viruses from the MDCH Bureau of Laboratories have been tested for antiviral resistance at CDC for the 2008-2009 season. All 39 viruses were resistant to oseltamivir (Tamiflu®) and sensitive to zanamivir, amantadine and rimantadine. These viruses were collected in the SE(15), SW(13), C(3) and N(8) Influenza Surveillance Regions. 4 influenza A/H3N2 isolates, collected in the C(2) and N(2) Regions, have been tested for antiviral resistance; these viruses were resistant to the adamantanes (amantadine and rimantadine) and sensitive to oseltamivir and zanamivir.

8 Michigan pandemic influenza A (H1N1) specimens have been evaluated by CDC for resistance to the adamantane class of antiviral medications; all specimens were resistant. 6 specimens were evaluated for resistance to oseltamivir and zanamivir; all were sensitive to these antivirals. For information about antiviral susceptibility for swine-origin influenza A (H1N1), go to <http://www.cdc.gov/h1n1flu/antiviral.htm>.

19 influenza B isolates, collected in the SE(8), SW(2), C(1) and N(5) Regions, have been tested for antiviral resistance; these viruses were sensitive to oseltamivir and zanamivir (the adamantanes are not effective against B viruses).

Antiviral resistance testing often takes several weeks to complete, and thus cannot be used to guide treatment of individual patients. However, CDC has made interim recommendations regarding the use of antiviral medications for the treatment of influenza and for prophylaxis. This guidance is available at <http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00279>.

Seasonal Influenza-Associated Pediatric Mortality (as of September 24): Three influenza-associated pediatric mortalities (1 influenza A (SW), 2 influenza B (SE)) have been reported to MDCH for the 2008-2009 influenza season.

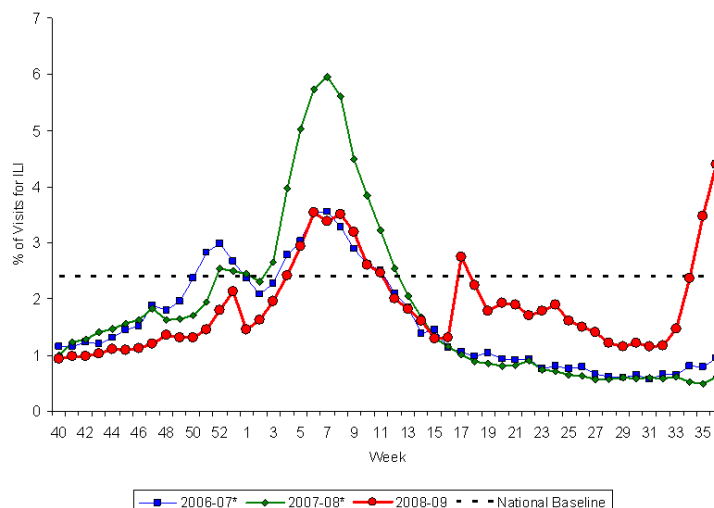
***The CDC has asked all states to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child (<18 years) resulting from a compatible illness confirmed to be influenza by an appropriate diagnostic test, but also any unexplained death with evidence of an infectious process in a child. Please immediately call MDCH to ensure that proper clinical specimens are obtained. View the complete MDCH protocol online at http://www.michigan.gov/documents/mdch/ME_pediatric_influenza_guidance_v2_214270_7.pdf.

Influenza Congregate Settings Outbreaks (as of September 24): Three congregate setting outbreaks (1C, 2N) due to seasonal influenza (1 influenza A, 1 influenza B, 1 untyped) have been reported to MDCH for the 2008-09 influenza season.

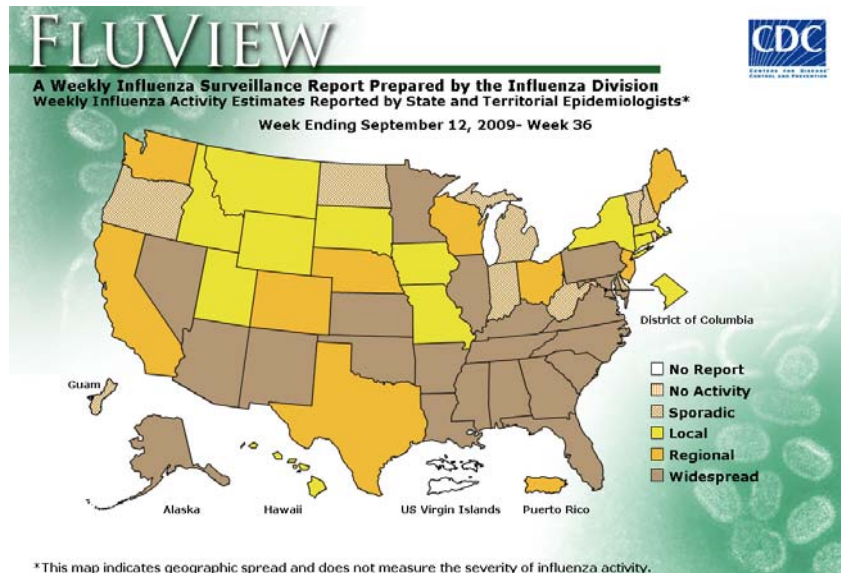
6 congregate setting outbreaks in Michigan associated with pandemic influenza A H1N1 have been reported to MDCH (1SE, 3SW, 1C, 1N).

National (CDC [edited], September 18): During week 36 (September 6-12, 2009), influenza activity increased in the U.S. 1,378 (18.2%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza. 99% of all subtyped influenza A viruses being reported to CDC were 2009 influenza A (H1N1) viruses. The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold. Two influenza-associated pediatric deaths were reported, and both were associated with 2009 influenza A (H1N1) virus infection. The proportion of outpatient visits for influenza-like illness (ILI) was above the national baseline. Regions 2, 4, 5, 6, 7, 9, and 10 reported ILI above region-specific baseline levels. Twenty-one states reported geographically widespread influenza activity, nine states and Puerto Rico reported regional influenza activity, 11 states and the District of Columbia reported local influenza activity, eight states and Guam reported sporadic influenza activity, one state reported no influenza activity, and the U.S. Virgin Islands did not report. The 2009-10 influenza season officially begins October 4, 2009.

Percentage of Visits for Influenza-like Illness (ILI) Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet), National Summary 2008-09 and Previous Two Seasons



*There was no week 53 during the 2006-07 and 2007-08 seasons, therefore the week 53 data point for those seasons is an average of weeks 52 and 1.



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

From <http://www.cdc.gov/h1n1flu/updates/us/#totalcases>:

U.S. Influenza and Pneumonia-Associated Hospitalizations and Deaths from Aug 30 – Sep 12, 2009

Cases Defined by	Hospitalizations	Deaths
Influenza and Pneumonia Syndrome*	3,534	291
Influenza Laboratory-Tests**	1,035	73
Totals:	4,569	364

*Reports can be based on syndromic, admission or discharge data, or a combination of data elements that could include laboratory-confirmed and [influenza-like illness](#) hospitalizations.

**Laboratory confirmation includes any positive influenza test (rapid influenza tests, RT-PCR, DFA, IFA, or culture), whether or not typing was done.

This table is based on data from a new influenza and pneumonia hospitalizations and deaths web-based reporting system that will be used to monitor trends in activity. This is the second week of data from this new system and reflects reports by 39 of 56 jurisdictions this week. The table shows aggregate reports of all influenza and pneumonia-associated hospitalizations and deaths (including 2009 H1N1 and seasonal flu) since August 30, 2009 received by CDC from U.S. states and territories. This table will be updated weekly each Friday at 11 a.m. For the 2009-2010 influenza season, states are reporting based on [new case definitions for hospitalizations and deaths](#) effective August 30, 2009.

International (WHO, August 7): This summary provides an updated report of seasonal influenza activity. It does not include reports of avian influenza in humans, available at: [the WHO avian influenza page](#), or reports of the recent influenza A (H1N1) virus, available at: [the WHO page for influenza A\(H1N1\)](#).

During the weeks 29-30, the overall level of seasonal influenza activity decreased in the southern hemisphere. In Australia local activity occurred with H3 and H1 cocirculating. The predominant strain in New Zealand was still H1 with sporadic H3 viruses detected. Local outbreaks of influenza B were reported by Madagascar and Réunion. Influenza activity due to H3 in South Africa declined to local levels. In China Hong Kong Special Administrative Region, influenza activity due to H3 increased with some H1 and B also detected. Sporadic seasonal influenza activity was observed in Cameroon (H3), Canada (B), Chile (H3), Côte d'Ivoire (H1,H3), French Guiana (H1,H3), Greece (A), Iran (H1,H3,B), Italy (H1,H3), Kenya (H1,B), Japan (H3), Morocco (H1), Norway (B), Republic of Korea (H3,B), Russian Federation (H1,H3,B), Tunisia (H3) and United States of America (H1,H3,B). Albania, Austria, Belgium, Bulgaria, Denmark, Estonia, Georgia, Kazakhstan, Lithuania, Netherlands, Oman, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Sri Lanka, Turkey, Ukraine and United Kingdom reported no seasonal activity.

MDCH reported **LOCAL INFLUENZA ACTIVITY** to the CDC for the week ending Sept. 19, 2009.

For those interested in additional influenza vaccination and education information, the MDCH *FluBytes* is available at http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779_40563-125027--,00.html.

Avian and Novel Influenza Activity

WHO Pandemic Phase: Phase 6 – characterized by increased and sustained transmission in the general population. Human to human transmission of an animal or human-animal influenza reassortant virus has caused sustained community level outbreaks in at least two WHO regions.

International, Human (WHO, September 24): The Ministry of Health of Egypt has reported 2 new confirmed human case of avian influenza A(H5N1).

The first case is a 13 year-old male from Alexandria Governorate. His symptoms started on 13 September. He was admitted to hospital on 14 September, where he received oseltamivir treatment. The patient is in a stable condition.

The second case is a 14 month old female from Tahrer District, Behira Governorate. Her symptoms started on 23 September. She was admitted to Damanhur Fever Hospital where she received oseltamivir treatment. The patient is in a stable condition.

Investigations into the source of infection indicated that both cases had close contact with dead and/or sick poultry. The cases were confirmed by the Egyptian Central Public Health Laboratories. Of the 87 cases confirmed to date in Egypt, 27 have been fatal.

International, Swine (OIE [edited], September 18): Information received on 18 Sep 2009 from Dr Nigel Gibbens, Chief Veterinary Officer, Department for Environment, Food and Rural Affairs, Department for Environment, Food and Rural Affairs, LONDON, United Kingdom

Report type: Immediate notification

Start date 01 Sep 2009; Date of 1st confirmation of the event 16 Sep 2009; Report date 18 Sep 2009

Causal agent: Pandemic H1N1 virus (2009)

New outbreaks

Outbreak 1 Greenhill, NORTHERN IRELAND

Date of start of the outbreak 01 Sep 2009; Outbreak status: Continuing (or date resolved not provided)

Epidemiological unit: Farm

Species Swine: Susceptible 5000; Cases 4500; Deaths 5; Destroyed 0; Slaughtered 0

Affected Population: Birth to bacon pig unit of approximately 5000 pigs (600 sows). Finishing pigs showing clinical signs 1st (1 Sep 2009). Clinical signs being shown by the rest of the pigs within 3-4 days. About 7 Sep 2009, farrowing sows showed a reduction in appetite and gradually recovered in a few days. Only recently weaned pigs are currently showing signs of disease (coughing).

Summary of outbreaks Total outbreaks: 1

Species Swine

Apparent morbidity rate 90.00 percent; Apparent mortality rate 0.10 percent; Apparent case fatality rate 0.11 percent

Proportion susceptible animals lost* 0.10 percent * Removed from the susceptible population through death, destruction and/or slaughter

Source of the outbreak(s) or origin of infection. Unknown or inconclusive

Epidemiological comments: Closed unit. All animals leaving the unit go for slaughter. Only gilts are brought onto the unit. No known cases of human flu are currently associated with this outbreak.

Control measures: Measures applied. No vaccination. Treatment of affected animals (Oral antibiotics)

Diagnostic test results

Laboratory name and type Veterinary Sciences Division, Stormont, Northern Ireland (National laboratory)

Test real-time PCR; Test date 16 Sep 2009; Result Positive

Laboratory name and type Veterinary Laboratories Agency, Weybridge (OIE's Reference Laboratory)

Test gene sequencing; Test date 17 Sep 2009; Result Positive

Test polymerase chain reaction (PCR); Test date 17 Sep 2009; Result Positive

International, Research (AP via MSNBC, September 21): Heart patients who catch the flu may have more to worry about than just a fever or the sniffles: the virus could also spark a heart attack, new research shows.

Amid the global outbreak of swine flu, experts say it's crucial that heart patients get vaccinated against both regular flu and swine flu to avoid medical problems. Doctors said swine flu isn't any more dangerous than regular flu, but it's important for heart patients to get vaccinated because more flu viruses will be circulating this year.

British researchers analyzed 39 previous studies of heart patients and found a consistent link between flu and heart attacks. Up to half of all unexpected flu deaths were due to heart disease, the researchers found.

The study was published online Tuesday in the British medical journal, The Lancet Infectious Diseases. "The message here is so strong and so logical that it's hard for us to ignore," said Dr. Ralph Brindis, vice president of the American College of Cardiology. "If we can convince cardiac patients to get a flu vaccine, that could ultimately save lives."

Only about one-third of heart patients in the U.S. regularly get vaccinated.

Doctors have long known that flu viruses can worsen existing medical conditions and that heart patients are especially vulnerable during flu pandemics. Flu viruses cause inflammation in the body, usually in the lungs. But they can also cause swelling in the heart itself or in the coronary arteries, which could lead to dangerous clots breaking off and causing a heart attack.

Once heart patients get the flu, they are also more vulnerable to complications like pneumonia and other infections.

"We know influenza vaccine is effective in preventing influenza and therefore in theory, ought to be effective in preventing the complications of influenza," said Andrew Hayward of University College London, one of the study authors. He said two of the studies analyzed showed heart patients who got a flu shot had fewer heart attacks than those who didn't.

Hayward said flu viruses might merely act as triggers for heart attacks in cardiovascular patients. "Influenza may be bringing forward an event that might have happened anyway," he said, adding there is evidence that when the virus peaks, so too do heart attacks.

Experts are unsure whether the study results apply to otherwise healthy people with no history of heart disease. But they say flu viruses could potentially trigger heart attacks in people with no apparent heart disease, if they have risk factors like high blood pressure or are overweight.

For heart patients, doctors said the evidence is clear.

"Flu has too often been off the radar screen," said Dr. Harlan Krumholz, a spokesman for the American Heart Association and professor of medicine at Yale University. "But flu is as important to think about as cholesterol or blood pressure."

Michigan Wild Bird Surveillance (USDA, as of September 24): For the 2009 testing season (April 1, 2009 - March 31, 2010), HPAI subtype H5N1 has not been recovered from any of the 43 Michigan samples tested to date, including 34 live wild bird and 9 morbidity/mortality specimens. H5N1 HPAI has not been recovered from 9255 bird or environmental samples tested nationwide for the 2009 season. For more information, visit the National HPAI Early Detection Data System at <http://wildlifedisease.nbj.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 Peters at PetersS1@Michigan.gov with any questions regarding this newsletter or to be added to the weekly electronic mailing list.

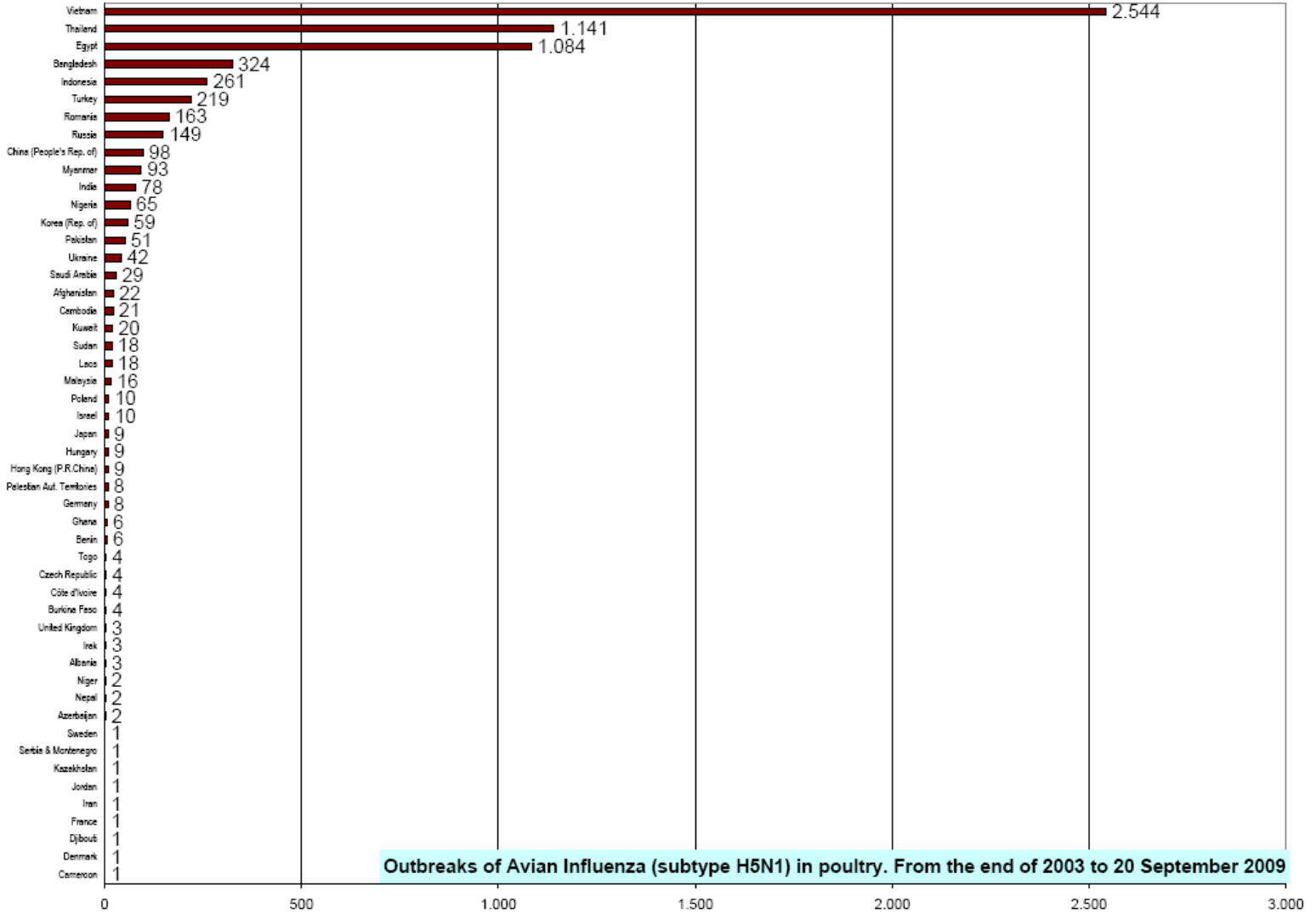
Contributors

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Table 1. H5N1 Influenza in Poultry (Outbreaks up to September 20, 2009)

(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 9/22/09)



Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 20 September 2009

Table 2. H5N1 Influenza in Humans (Cases up to August 24, 2009)

(http://www.who.int/csr/disease/avian_influenza/country/cases_table_2009_09_24/en/index.html Downloaded 9/24/2009)

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

Country	2003		2004		2005		2006		2007		2008		2009		Total	
	cases	deaths	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	0	0	8	5
Bangladesh	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Cambodia	0	0	0	0	4	4	2	2	1	1	1	0	0	0	8	7
China	1	1	0	0	8	5	13	8	5	3	4	4	7	4	38	25
Djibouti	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	25	9	8	4	36	4	87	27
Indonesia	0	0	0	0	20	13	55	45	42	37	24	20	0	0	141	115
Iraq	0	0	0	0	0	0	3	2	0	0	0	0	0	0	3	2
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2
Myanmar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Nigeria	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1
Pakistan	0	0	0	0	0	0	0	0	3	1	0	0	0	0	3	1
Thailand	0	0	17	12	5	2	3	3	0	0	0	0	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	0	0	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	8	5	6	5	4	4	111	56
Total	4	4	46	32	98	43	115	79	88	59	44	33	47	12	442	262