



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories

Michigan Department
of Community Health



Jennifer M. Granholm, Governor
Janet Olszewski, Director

Editor: Susan Vagasky, DVM
Surveillance and Infectious Disease Epidemiology
VagaskyS@Michigan.gov

March 6, 2008
Vol. 5; No. 10

New updates in this issue:

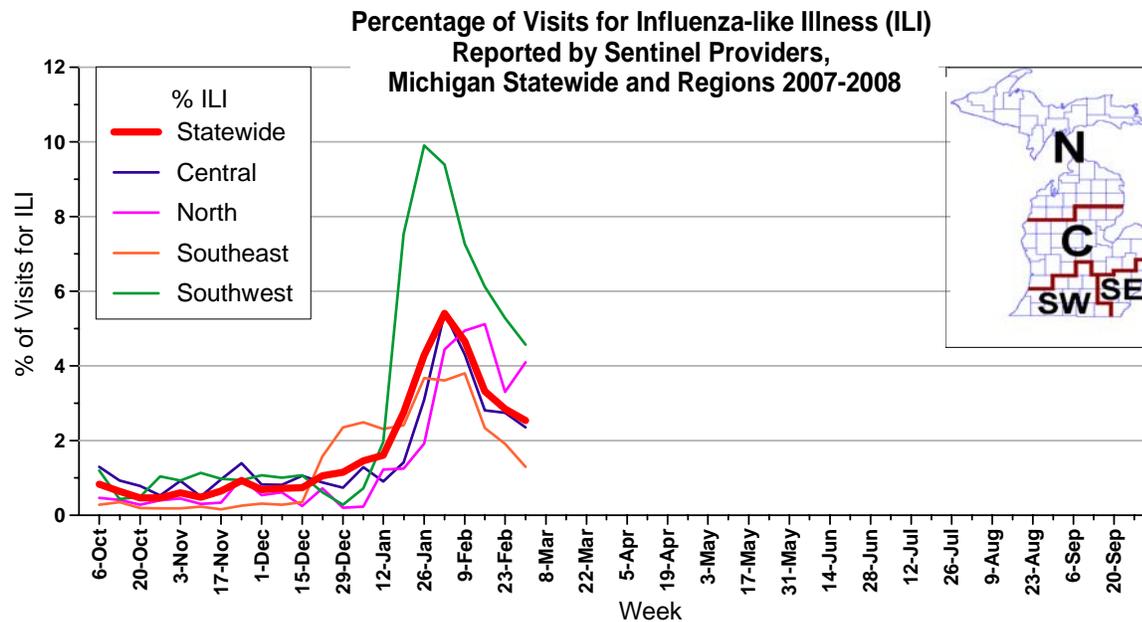
- **Michigan Surveillance:** Most indicators continue to decrease; influenza B activity increases slightly.
- **National Surveillance:** Activity decreases slightly; 49 states still at widespread activity levels.
- **Avian Influenza:** Egypt reports new human H5N1 cases; multiple countries with poultry outbreaks.

Michigan Disease Surveillance System: The week ending March 1 saw aggregate flu-like illness and individual influenza reports decline from last week's levels. Aggregate flu-like illness reports are comparable with numbers seen this time last year, while individual influenza reports are considerably higher.

Emergency Department Surveillance: Emergency department visits from both respiratory complaints and constitutional complaints dropped again this week. Respiratory complaints are slightly higher than numbers that were seen this time last year, while constitutional complaints are consistent with last year. Four constitutional alerts in the C(1), N(1) and SW(2) Influenza Surveillance Regions and four respiratory alerts in the C(3) and SE(1) Influenza Surveillance Regions were generated last week.

Over-the-Counter Product Surveillance: OTC product sales activity was steady or increasing last week. Cough and cold medicine and thermometers were up slightly last week. Chest rubs and children's electrolytes were generally steady. The indicator levels are comparable to those seen at this time last year.

Sentinel Surveillance (as of March 6): The proportion of visits due to influenza-like illness (ILI) in Michigan is above baseline, but has been decreasing from its peak in late Jan. over the past few weeks, and is at 2.5% for the week ending March 1. This represents 182 cases of ILI out of 7177 total patient visits; 30 sentinels provided data for this report. The proportion of visits due to ILI was 2.4% in the Central region, 4.1% in the North region, 1.3% in the Southeast region, and 4.6% in the Southwest region. 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 for more information.

Laboratory Surveillance (as of March 6): For the 2007-2008 influenza season, the MDCH Bureau of Laboratories has identified 207 influenza isolates:

- 169 A/H3N2: Central (52); Southeast (48); Southwest (44); North (25)
- 3 A/H1N1: Southeast (2); North (1)
- 7 A subtype pending: North (4); Southeast (2); Southwest (1)
- 28 B: Southeast (14); North (8); Central (3); Southwest (3). 26 have been typed as B/Shanghai/361/2002-like and 2 are pending subtyping.

Sentinel laboratories are reporting decreasing levels of positive influenza A tests and low but steady to increasing numbers of positive influenza B tests. RSV activity continues to be steady.

***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.

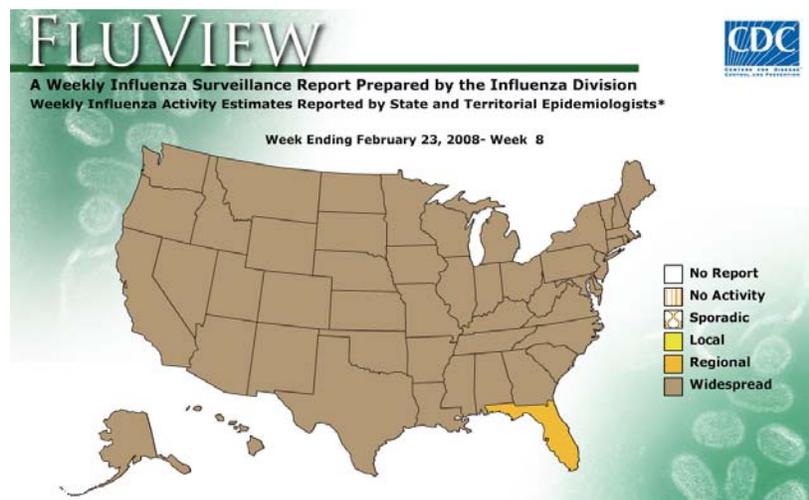
Influenza-Associated Pediatric Mortality (as of March 6): For the 2007-2008 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan.

***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 for the complete protocol. Please immediately call MDCH to ensure that proper clinical specimens are obtained.

Congregate Settings Outbreaks (as of March 6): Congregate setting outbreaks have been reported in all regions of the state. Two outbreaks have been culture-confirmed as influenza A/H3N2 at MDCH for the 2007-2008 influenza season. Additional results for other outbreaks are still pending.

National (CDC, February 29): During week 8 (February 17 - 23, 2008), influenza activity decreased slightly in the United States. Two thousand three hundred twenty-one (30.0%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. The proportion of deaths attributed to pneumonia and influenza was above the epidemic threshold for the seventh consecutive week. The proportion of outpatient visits for influenza-like illness (ILI) and acute respiratory illness (ARI) was above national baseline levels. ILI decreased in seven of the nine regions compared to week 7, and was above region-specific baselines in all nine regions. The East South Central, Mid-Atlantic, Mountain, New England, Pacific, South Atlantic and West North Central regions reported ARI at or above their region specific baselines. Forty-nine states reported widespread influenza activity; one state reported regional influenza activity; and the District of Columbia reported local 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, February 22): During weeks 6–7, the level of overall influenza activity in the world remained the same. Majority of influenza activity was observed and the majority of viruses detected were in most countries of the Northern Europe and North America. The elevated level of influenza activity in Northern hemisphere is expected for this time of the year. Influenza A (H1N1) viruses predominated, as well as A (H3N2) and B viruses circulated.

The entire report can be found online at <http://www.who.int/csr/disease/influenza/update/en/>

MDCH reported **WIDESPREAD ACTIVITY** to the CDC for the week ending March 1, 2008.

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, Human (WHO, March 4): The Ministry of Health and Population of Egypt has announced a new human case of avian influenza A(H5N1) virus infection. The case is a 25 years old female from Sennoris District, Fayum Governorate. She developed symptoms on 24 February and was hospitalized on 27 February. Her death has now been confirmed by the Ministry of Health and Population.

Investigations into the source of her infection indicate that she had contact with sick poultry prior to becoming unwell. Of the 45 cases confirmed to date in Egypt, 20 have been fatal.

International, Human (WHO, March 5): The Ministry of Health and Population of Egypt has announced a new human case of avian influenza A(H5N1) virus infection. The case is an 11-year-old male from Menof District, Menofia Governorate. He was hospitalized with symptoms on 26 February and was confirmed as being infected with A(H5N1) by the Central Public Health Laboratory and NAMRU-3 on 4 March. He remains in a critical condition.

Investigations into the source of his infection indicate a history of contact with sick and dead poultry. Of the 46 cases confirmed to date in Egypt, 20 have been fatal.

International, Poultry (OANA, February 29): The dangerous virus of bird flu, H5N1, is spreading in the northern province of Luang Namtha [Laos], according to the Provincial Agriculture and Forestry Service.

Mr. Somchanh Midouang, Vice-Director of Luang Namtha Agriculture and Forestry Service disclosed on 26 February that after the first outbreak at Ban Nam Ma, Long district and Ban Thongmay, Sing district, all authorities concerned were able to contain the spread immediately.

A few days later the outbreak of bird flu has been found at three new places in Ban Boung, Luang Namtha district. This village has 153 households, 157 families with a population of 975 residents raising 1,563 poultry, in which 342 ducks died out of a total number of 2,133 poultry. Hearing the news, the provincial authorities as well as the Bird Flu Prevention and Control Committee sent an investigative team to the spread area for collecting contaminated parts for the National Vet Lab in Vientiane Capital.

The result of the test showed they were of H5N1 strain.

In response to this, on 25 February the Provincial Bird Flu Prevention and Control Committee in cooperation with local authorities held a meeting to outline an emergency plan and some preventive measures to handle the spread.

As a result, some 35 villages have been put under surveillance. While the affected village has been sprayed with chemical substance to kill the virus and the dead poultry have been buried.

As a preventive measure, 570 poultry at Ban Boung have been culled between 26 and 28 February. In the meantime, the committee disseminated the information on the bird flu outbreak to the locals and banned poultry movement as well as establishing vet inspection checkpoint in the village.

International, Poultry (Kuwait News Agency, March 2): A case of bird flu has been discovered on Sunday [2 Mar 2008] in the southern Iraqi city of Basra. An Iraqi higher committee Secretariat in combating bird flu from the Iraqi cabinet council said the new discovery is in Al-Fedagiya village in the Fao area. The committee, based on the discovery, prohibited all transfers of poultry and live birds to other provinces before getting permission from local vet hospitals.

The committee also issued an order prohibiting the selling and dealing of birds and poultry in the area, including taking all the precautionary measures needed.

The committee also called on citizens in the area to avoid bird hunting the area for their own safety.

International, Poultry (BBC, March 3): Hundreds of chickens in the village of Krajan, Bringin Subdistrict, Semarang District, Central Java [Indonesia], were culled due to bird flu (avian influenza) virus spreading in the area.

Around 400 chickens were burned and then buried in an attempt to curb bird flu virus, Siti Fatimah, a local resident of Krajan, said here on Thursday [28 Feb].

The measure was taken following the death of tens of Fatimah's chickens earlier due to bird flu virus, she said.

Meanwhile, head of the Semarang animal husbandry and fishery office Agus Purwoko Djati said that a rapid kit test conducted by officers of the Participatory Disease Surveillance Response team had confirmed that the chickens had died of bird flu.

To prevent the bird flu virus from spreading to wider areas, hundreds of chickens found surrounding the dead chickens were culled. Owners of the chickens received IDR 10,000 in compensation for each chicken that had to be killed.

International, Poultry (VNA News Agency, March 3): The recent discovery of new bird flu outbreaks in the northern provinces of Phu Tho and Ha Nam [Vietnam] have brought the number of the nation's epidemic-hit cities and provinces to nine.

The report was delivered by the Veterinary Department under the Ministry of Agriculture and Rural Development (MARD) on March 2.

The H5N1 virus was found in two chicken farms in Cam Khe district of Phu Tho province on February 28. Meanwhile, the disease was detected in a duck farm on February 29 in Duy Tien district of Ha Nam province.

Earlier, the Mekong delta province of Long An has been allowed to declare free from bird flu. The other seven affected provinces and cities include northern Thai Nguyen, Quang Ninh, Hai Duong, Nam Dinh, Tuyen Quang and Ninh Binh and southern Vinh Long.

International, Wild Birds (RIA Novosti, February 29): The deadly H5N1 bird flu strain has been confirmed in another wild bird in Dorset, southern England, agriculture officials said on Friday.

The goose was found dead on February 25 around a mile (1.5 kms) from the site where a case of bird flu was discovered less than a month ago, the Department for Environment, Food and Rural Affairs said.

So far, at least 11 wild birds have been killed by bird flu since January in the U.K., with the last case confirmed on February 4.

Although no cases of human-to-human transmission of H5N1 have been reported, scientists fear the virus could mutate into a strain that could pass easily between people, causing a global pandemic.

International, Wild Birds (Xinhua News Agency, March 4): Preliminary testing of a dead oriental magpie robin found earlier in Hong Kong had indicated a suspected case of H5 bird flu, authorities in the southern Chinese special administrative region said Tuesday.

The dead bird was collected near the management centre in Tai Po Kau Nature Reserve on Friday, the Agriculture, Fisheries and Conservation Department said, adding that the case was subject to further confirmatory tests.

Oriental magpie robin is a common resident bird in Hong Kong, a spokesman for the Agriculture, Fisheries and Conservation Department was quoted as saying.

The spokesman said authorities have conducted a thorough cleansing operation in the nearby area of the management centre on Tuesday and staff of the country park would also step up precautionary measures.

The department also inspected a chicken farm within three kilometres of where the bird was found and found no abnormal deaths or bird flu symptoms among the chickens.

Hong Kong had recently recorded several cases of dead birds testing positive for the H5N1 strain, which has killed hundreds around the world, leading scientists and the public to fear a wide spread pandemic that could kill as many as millions.

The spokesman said the threat of bird flu remained and authorities would remain vigilant and continue to take preventive and control measures.

He also reminded the public to observe good personal hygiene.

"They should avoid personal contact with wild birds or live poultry and clean their hands thoroughly after coming into contact with them," he said.

Michigan Wild Bird Surveillance (USDA, as of March 6): For the 2007 testing season, 1936 Michigan samples have been taken so far, comprised of 100 live bird samples, 1385 hunter-killed birds, 176 morbidity/mortality samples, and 275 environmental samples.

H5N1 subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 90,555 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.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 with any questions regarding this newsletter or to be added to the weekly electronic mailing list.

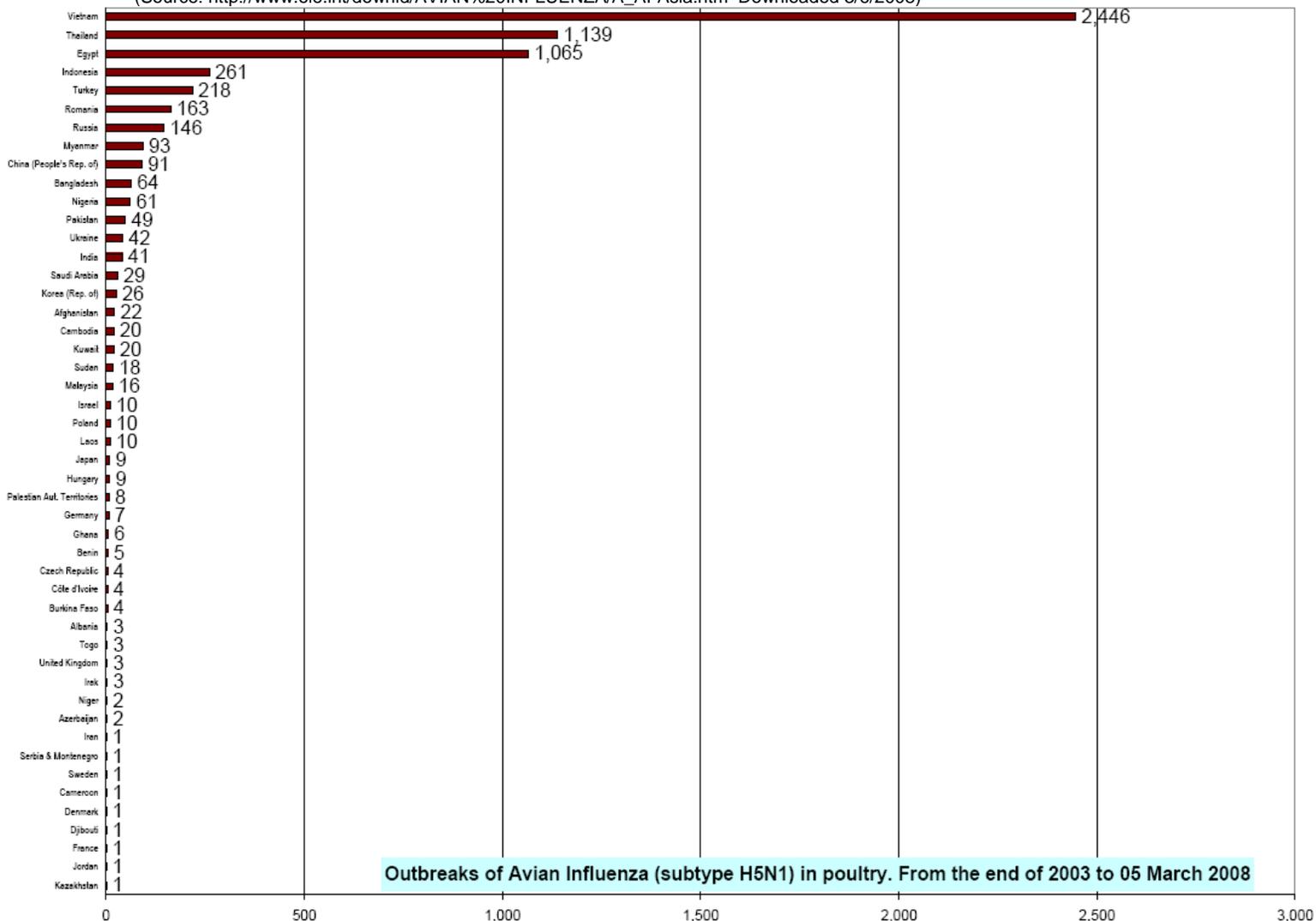
Contributors

MDCH Bureau of Epidemiology - Sally Bidol, MPH; Edward Hartwick, MS; Elizabeth Lewis, MHS; Kyle Enger, MPH

MDCH Bureau of Laboratories – Patricia Clark, MPH

Table 1. H5N1 Influenza in Poultry (Outbreaks up to March 5, 2008)

(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 3/6/2008)



Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 05 March 2008

Table 2. H5N1 Influenza in Humans (Cases up to March 5, 2008)

(http://www.who.int/csr/disease/avian_influenza/country/cases_table_2008_03_05/en/index.html Downloaded 3/5/2008)

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
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	3	1	46	20
Indonesia	0	0	0	0	20	13	55	45	42	37	12	10	129	105
Iraq	0	0	0	0	0	0	3	2	0	0	0	0	3	2
Lao People's Dem. Rep.	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	1	1	0	0	1	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	4	4	105	51
Total	4	4	46	32	98	43	115	79	86	59	22	18	371	235