



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:** MDCH Bureau of Laboratories reports first positive influenza cases this season.
- **National Surveillance:** Influenza activity remains low; 15 states reported sporadic activity last week.
- **Avian Influenza:** H5N1 poultry outbreaks reported in Vietnam and Thailand.

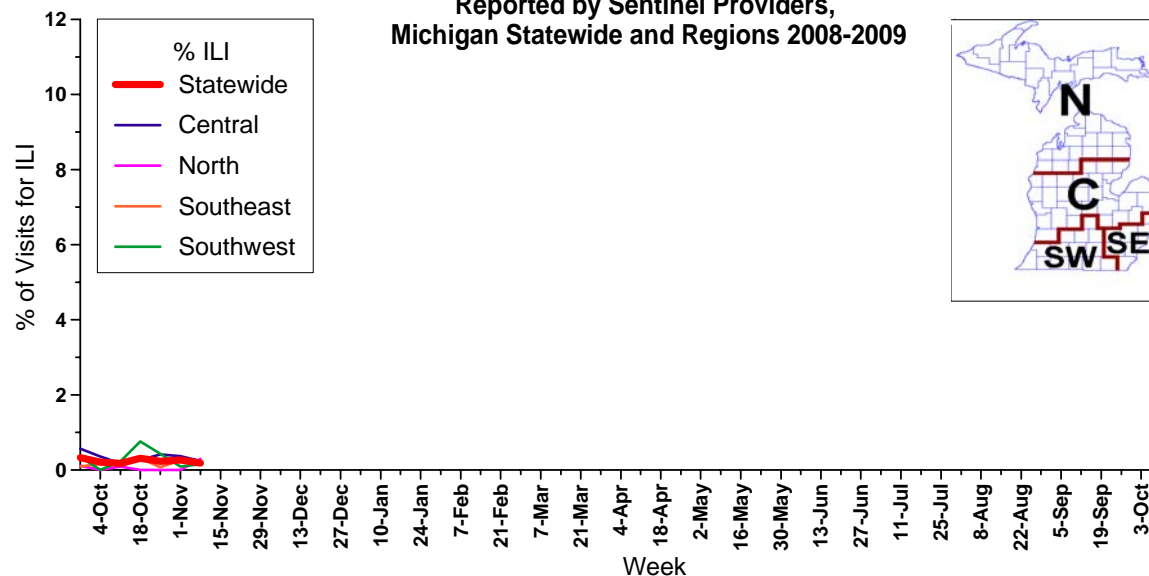
Michigan Disease Surveillance System: The week ending November 8 saw individual influenza remain steady near last week's levels, while aggregate reports increased slightly. Individual reports are consistent with levels seen at this time last year, while aggregate numbers are slightly lower.

Emergency Department Surveillance: Emergency department visits from both respiratory and constitutional complaints remained steady near last week's levels. The numbers from both categories are slightly lower than what was seen this time last year. Eight constitutional alerts in the C(5), N(1), SE(1) and SW(1) Influenza Surveillance Regions and three respiratory alerts in the C(1), N(1) and SW(1) Influenza Surveillance Regions were generated last week.

Over-the-Counter Product Surveillance: Overall, OTC product sales were mixed last week. Only cough and cold medication remained near last week's numbers. The remaining indicators saw a slight increase in sales over the week. All indicators, except cough and cold, seem to be showing a slight trend upward over the last few weeks. Indicator levels are comparable to those seen at this time last year.

Sentinel Provider Surveillance (as of November 13): During the week ending November 8, 2008, the proportion of visits due to influenza-like illness (ILI) remained at a low level, 0.2%; 19 patient visits due to ILI were reported out of 10,412 office visits. This level of ILI activity is consistent with that reported in fall during prior years' surveillance. Thirty-one sentinels provided data for this report. 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 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 November 13): Two new influenza isolates, one influenza A and one influenza B, were identified at the MDCH Bureau of Laboratories (BOL) during the past week. For the 2008-2009 influenza season, MDCH BOL has identified two influenza isolates:

- 1 A, subtype pending
- 1 B, strain typing pending

Two sentinel laboratories from the Southwest region are reporting very low and sporadic influenza A and B positives. Low numbers of positive RSV and adenovirus tests are also being reported statewide.

***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 13): No influenza-associated pediatric mortalities 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.

Congregate Settings Outbreaks (as of November 13): No congregate setting outbreaks due to influenza have been reported to MDCH for the 2008-2009 influenza season.

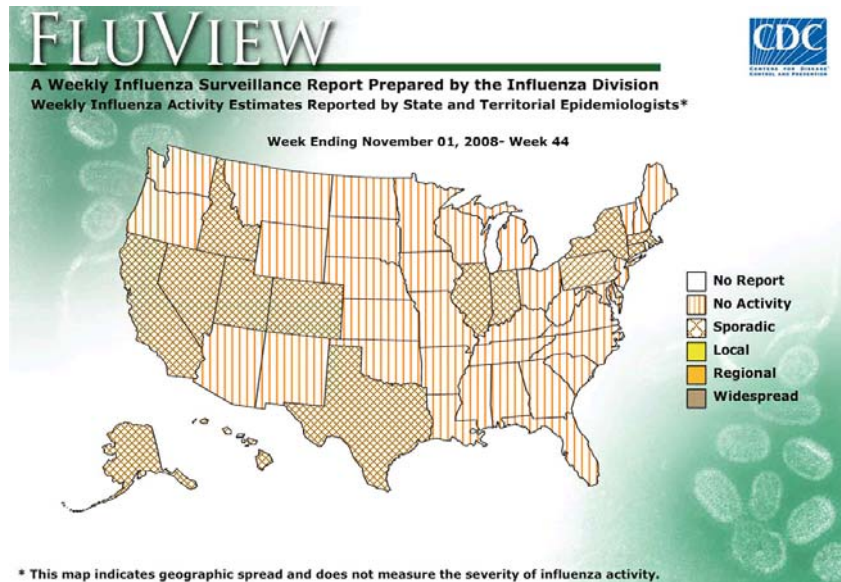
National (CDC [edited], November 7): During week 44 (October 26-November 1, 2008), a low level of influenza activity was reported in the United States. Eleven (0.6%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories, and reported to CDC/Influenza Division, were positive for influenza. The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold. The proportion of outpatient visits for influenza-like illness (ILI) was below national and region-specific baseline levels. Fifteen states, the District of Columbia, and Puerto Rico reported sporadic influenza activity; 35 states reported no influenza activity.

CDC has antigenically characterized one influenza virus collected by U.S. laboratories since October 1, 2008. The influenza B virus was characterized as B/Florida/04/2006-like, belonging to the B/Yamagata lineage. Influenza B viruses currently circulating can be divided into two antigenically distinct lineages represented by the B/Yamagata/16/88 and B/Victoria/02/87 viruses. The recommended influenza B component for the 2008-09 influenza vaccine is a B/ Florida/04/2006-like virus, belonging to the B/Yamagata lineage.

In addition, a small number of isolates from specimens collected during September were available for antigenic characterization: two influenza A (H3N2), and four influenza B viruses. All six viruses were antigenically similar to the components selected for the 2008-09 influenza vaccine (A/Brisbane/10/2007-like (H3N2), and B/Florida/04/2006-like).

It is too early in the influenza season to determine which influenza viruses will predominate or how well the vaccine and circulating strains will match.

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



International (WHO, November 7): During the weeks 43-44 overall influenza activity in the southern hemisphere continued to decline. Activity was low in the rest of the world with sporadic activity observed in some countries.

Between weeks 43-44 sporadic influenza activity was detected in Belarus (A), Belgium (B), Canada (A,B), Chile (B, H1), China (H1), China, Hong Kong Special Administrative Region (H1,H3,B), Denmark (H3), Finland (A), Japan (H3), Kenya (A), Mexico (B), Poland (A), Russian Federation (H1,H3,B), the United Kingdom of Great Britain and Northern Ireland (H3, H1) and the United States of America (A, B).

Bulgaria, Cameroon, France, the Islamic Republic of Iran, Mongolia, Norway, Oman, Poland, Portugal, Romania, Slovenia, Spain, Switzerland and Ukraine reported no influenza activity.

MDCH reported **NO INFLUENZA ACTIVITY** to the CDC for the week ending November 8, 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, Poultry (Xinhua News, November 12): A bird flu outbreak has been confirmed in Nghe An, a central province of Vietnam, the local newspaper Liberty Saigon reported on Wednesday, citing a statement from the provincial People's Committee.

The outbreak was spotted at the Dien Hong commune, causing the death of nearly 1,000 poultry. Specimens from the dead poultry have recently been tested positive to the bird flu virus strain H5N1, according to the statement.

The local authority has established a zone covering the outbreak to prevent the virus from spreading. Consumption and sale of birds and bird-related products within the zone are banned.

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.

International, Poultry (Bangkok Post, November 13): Another outbreak of bird flu was detected in Nong Chang district [Thailand] yesterday, prompting a mass culling of infected chickens amid resentment among poultry breeders.

The discovery came after five chickens at a farm in Thung Saliang district of Sukhothai became sick and died on Oct 27. Lab tests showed one chicken carcass was infected with the H5N1 virus.

Provincial livestock officials disinfected bird flu-hit Ban Hua Khao, where the chickens died of unknown causes, culled scores more chickens and collected the carcasses for lab tests.

The culling infuriated three poultry owners because the chickens were breeding stock and expensive.

Besides, there had been no official proof of avian flu infection in the fowls, they said.

Despite all efforts to contain bird flu, Sukhothai was hit again as the deadly virus was discovered on a fighting cock farm in Sawankhalok yesterday.

Samples of blood and droppings from fighting cocks bred by farmer Pinyo Ketnil were collected for a second lab test following the first last week.

The test showed that the chickens were infected with bird flu, but the epidemiologists had yet to identify the strain.

To date, no fighting cocks have died.

Agriculture and Cooperatives Minister Somsak Prissanantakul reprimanded the Livestock Development Department for the two-week delay in a lab test report on the bird flu outbreak in Sukhothai, which he said could worsen the ongoing situation.

A war room has been set up at both provincial health offices to monitor the bird flu situation, according to the Public Health Ministry.

Michigan Wild Bird Surveillance (USDA, as of November 13): For the 2008 testing season, 1873 Michigan samples have been taken so far, comprised of 327 live birds, 1064 hunter-killed birds, 32 morbidity or mortality samples and 450 environmental samples.

HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 59,583 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 HPAI 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.

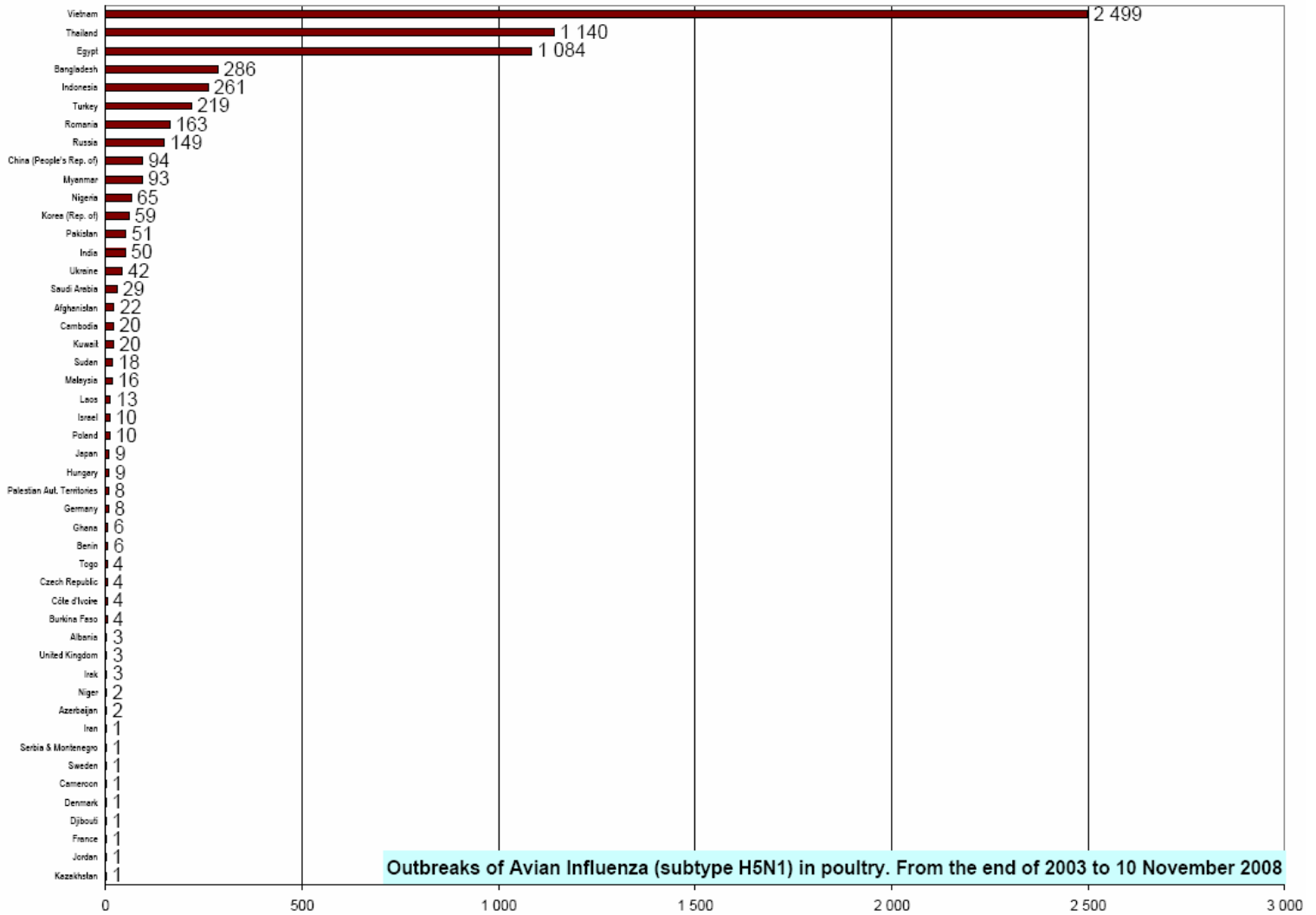
Contributors

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Table 1. H5N1 Influenza in Poultry (Outbreaks up to November 10, 2008)

(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 11/13/08)



Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 10 November 2008

Table 2. H5N1 Influenza in Humans (Cases up to September 10, 2008)

(http://www.who.int/csr/disease/avian_influenza/country/cases_table_2008_09_10/en/index.html Downloaded 9/10/2008)

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	20	17	137	112
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
Total	4	4	46	32	98	43	115	79	88	59	36	28	387	245