



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories

Michigan Department
of Community Health



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June 26, 2008
Vol. 5; No. 26

New updates in this issue:

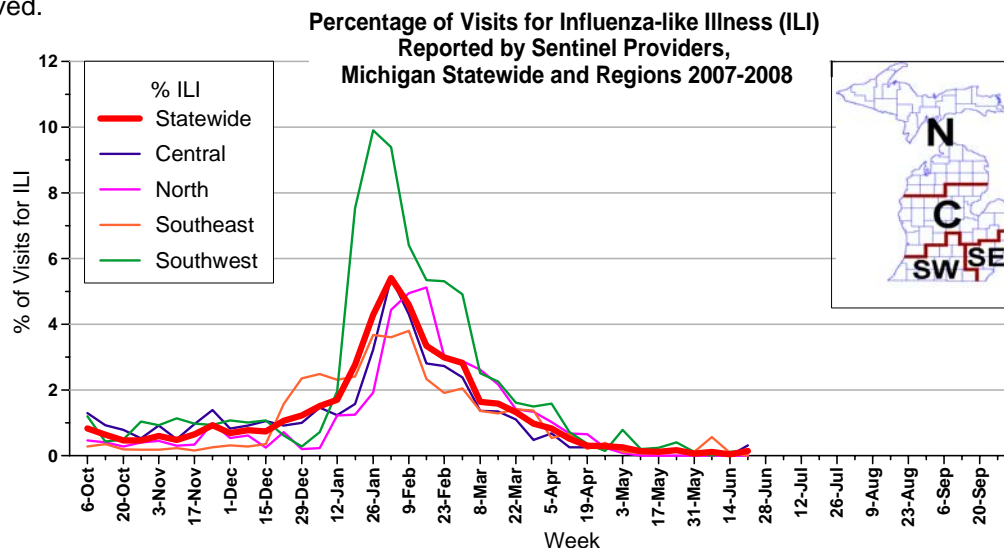
- **Michigan Surveillance:** No significant changes to any influenza activity surveillance indicators.
- **National Surveillance:** CDC releases MMWR summary on the 2007-2008 influenza season.
- **Avian Influenza:** Pakistan reports an H5N1 outbreak in poultry.

Michigan Disease Surveillance System: The week ending June 21 saw individual influenza reports remain steady near last week's levels, while aggregate levels decreased. Both aggregate flu-like illness reports and individual influenza reports are consistent with numbers seen this time last year.

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. Three constitutional alerts in the C(2) and SW(1) Influenza Surveillance Regions and four respiratory alerts in the C(2), SE(1) and SW(1) Influenza Surveillance Regions were generated last week.

Over-the-Counter Product Surveillance: Overall, OTC product sales activity was mixed last week. Children's electrolytes decreased slightly over the week, chest rubs saw a slight increase, and the remainder held steady near last week's levels. All indicator levels are comparable to those seen at this time last year.

Sentinel Surveillance (as of June 26): During the week ending June 21, 2008, 0.1% of all office visits reported by Michigan influenza sentinel sites were due to influenza-like illness (ILI). This represents 8 patients with ILI out of 5450 total patients seen. ILI rates were very low in all four surveillance regions. Twenty 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 for more information.

Laboratory Surveillance (as of June 26): 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 June 26): 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 for the complete protocol. Please immediately call MDCH to ensure that proper clinical specimens are obtained.

Congregate Settings Outbreaks (as of June 26): 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.

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.

International (WHO, June 26): During weeks 24–25, the level of overall influenza activity in the world was low. Countries in the northern hemisphere reported sporadic or no activity. In the southern hemisphere, influenza activity remained moderate.

China, Hong Kong Special Administrative Region. Mild increase in influenza activity was noted, with mostly A(H3) viruses detected. A(H1) were also detected. From Influenza B the majority of viruses were B/Yamagata lineage.

New Zealand. Local activity of influenza was reported, with mostly influenza A viruses circulating. Influenza B viruses were also detected.

Between weeks 24 and 25, sporadic influenza activity was detected in Canada (B, A), Chile (A, B), Germany (B), Iran (Islamic Republic of) (B), Norway (B), Sri Lanka (A), United States of America (B, A) and Uruguay (H1, B).

France, Poland, Portugal and Slovenia reported no influenza activity.

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. *FluBytes* is published biweekly during the summer months.

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 (Agence France-Presse, June 22): Pakistani authorities Sunday reported a new outbreak of avian flu at a commercial poultry farm in the country's northwest, killing thousands of birds, officials said.

Tests conducted at a government-run laboratory in Islamabad confirmed the presence of the deadly H5N1 strain of bird flu at a farm in Swabi district, local livestock department chief Ibrahim Khan told AFP.

"The virus was detected after the owner of the farm informed us on Friday that some 4,000 birds had died within the past few days," he said.

"We got the confirmation on Saturday, sealed the farm and culled around 2,000 birds," he said.

All workers on the affected farm were examined by the ministry of health but none was found to have been affected by the virus, he added.

Local health officials are monitoring surrounding farms and advised them to take precautionary measures including vaccination of birds, he said.

Pakistan's first H5N1 cases were detected in March 2006 at two chicken farms in North West Frontier Province, prompting consumer panic and a mass slaughter of birds at several sites.

The virus resurfaced in early February last year among chickens in Rawalpindi, adjoining Islamabad, and in peacocks in the northwestern city of Mansehra.

In February this year Pakistani officials sealed off several farms and culled around 10,000 chickens after an outbreak in the southern port city of Karachi.

Michigan Wild Bird Surveillance (USDA, as of June 26): For the 2008 testing season, 236 Michigan samples have been taken so far, comprised of 228 hunter-killed birds and 8 morbidity/mortality samples.

HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 4097 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.

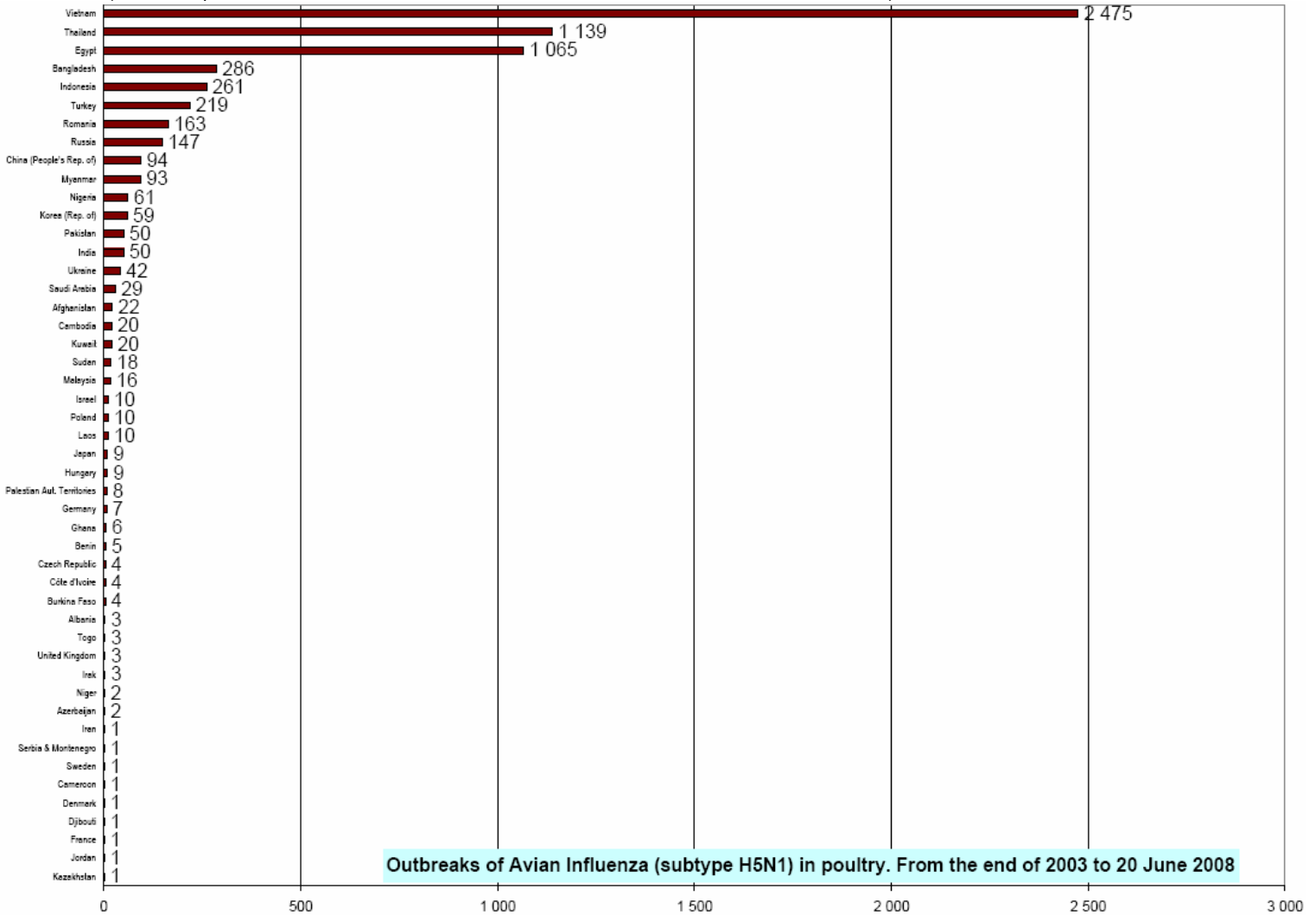
Contributors

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Table 1. H5N1 Influenza in Poultry (Outbreaks up to June 20, 2008)

(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 6/23/08)



Outbreaks of Avian Influenza (subtype H5N1) in poultry. From the end of 2003 to 20 June 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 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
Total	4	4	46	32	98	43	115	79	88	59	34	26	385	243