



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories

Michigan Department
of Community Health



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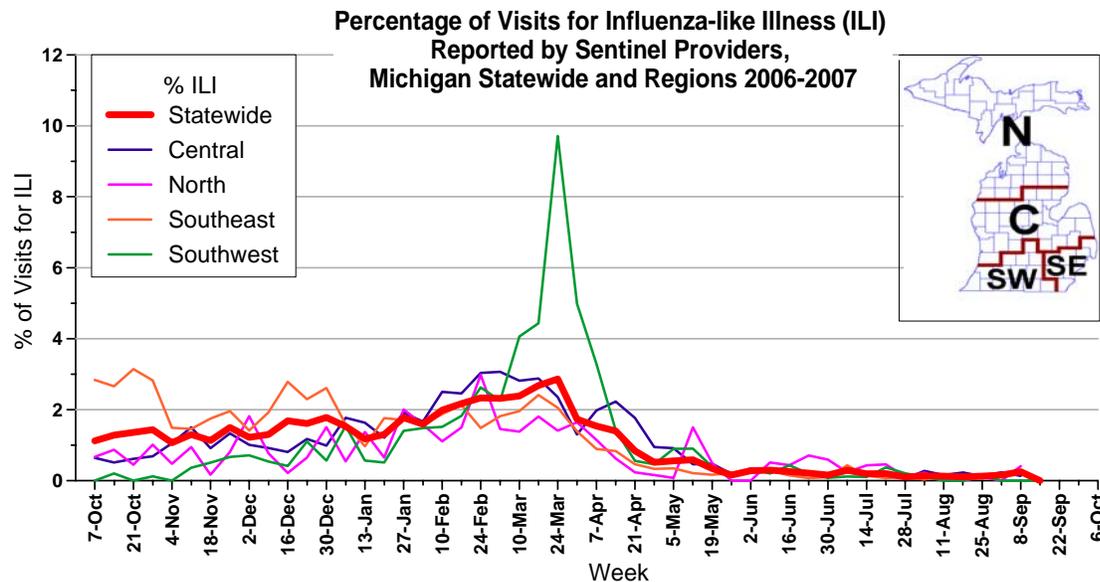
New updates in this issue:

- **Michigan Surveillance:** Aggregate reports increase slightly in conjunction with the new school year.
- **Avian Influenza:** New H5N1 human case in Indonesia; poultry outbreaks in multiple countries.

Michigan Disease Surveillance System: The week ending September 8th, 2007 saw the opening of the school year and the concurrent rise in aggregate flu-like illness 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 school reporting season moves into full-swing. 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 week ending September 8th, 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. Nine constitutional alerts in Regions 1(2), 2N(3), 3(1), 5(1), 7(1) and 8(1) and nine respiratory alerts in Regions 3(1), 5(2), 6(1) 7(3) and 8(2) were generated last week.

Sentinel Surveillance (as of September 13): During the week ending September 8, 2007, the proportion of visits due to influenza-like illness (ILI) in Michigan remained at low a low level.



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 for more information.

Laboratory Surveillance (as of September 13): 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:H1, N pending (Central)
- 35 A:H3N2 (North (12), Southeast (12), Central (8), Southwest (3))
- 54 B (Southeast (18), Central (17), Southwest (12), North (7))

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 13): 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 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 13): 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>.

Weekly reporting to the CDC has concluded for the 2006-2007 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, September 10): The Ministry of Health of Indonesia has announced a new case of human infection of H5N1 avian influenza. A 33-year-old male from Riau Province developed symptoms on August 25, was hospitalized on September 2 and died in hospital on September 6. His source of exposure is currently under investigation. Of the 106 cases confirmed to date in Indonesia, 85 have been fatal.

International, Poultry (Reuters Alertnet, September 4): Russia on Tuesday [Sept 4] reported its 3rd outbreak this year [2007] of the deadly H5N1 strain of bird flu after 410 birds died on a poultry farm in the country's south, but the growing poultry sector is set to withstand the scare.

Another 414 birds were culled and strict quarantine measures were in place at the farm in the Krasnodar region after local laboratory tests confirmed the presence of the virus in dead birds, Russia's animal and plant health watchdog said.

"It's serious enough to bring in strict measures, including quarantine, to make sure it doesn't spread," Alexei Alexeyenko, spokesman for the Rosselkhozadzor [Federal Service for Veterinary and Phytosanitary Surveillance] agency, said. "An investigation is being carried out to determine the source of the infection."

The highly pathogenic H5N1 strain was responsible for the deaths of birds at the Lebyazhye-Chepiginskoye farm, in the same region where the virus was detected in dead domestic birds in January.

Russia's 2nd outbreak of 2007 occurred in February, when several cases in towns around Moscow were traced to the capital's best-known pet market.

Russia expects to boost poultry meat output 16 percent this year to about 1.8 million tonnes, cutting the share of imports [for] domestic consumption. Russian poultry producers last year [2006] supplied about 53 percent of the country's consumption.

Dmitry Rylko, general director of the Institute for Agricultural Market Studies, said Russia's size and its quick reaction to bird flu cases offered commercial poultry farmers protection against bird flu. "Such cases will be repeated from time to time in various regions of the world, including Russia," he said. "In Russia, large-scale commercial farming is quite well protected against it due to good quarantine measures and the very low density of the poultry population, even in the south."

Russia's largest poultry producer is London-listed Cherkizovo, which last month [August 2007] acquired the country's 4th-largest producer, Chicken Kingdom, for USD 143 million.

Russia is stimulating an increase in poultry production partly by regulating imports with tariff quotas. Poultry import volumes fell 8.2 percent in the 1st half of 2007, although higher prices meant their value rose to USD 419.1 million. Russia last month banned poultry from Italy and Germany after bird flu was discovered at farms in both countries.

International, Poultry (Radio Free Asia [edited], September 6): A United Nations official has confirmed a fresh outbreak of avian influenza in the southern state of Mon, which borders Thailand in the south of the country.

An adviser to the Burmese government with the Food and Agricultural Organization (FAO) told RFA's Burmese service: "We have had an outbreak in Mon state. [A total of] 500 chickens were culled, but it is now under control."

The deadly H5N1 virus hit poultry in the Dawn Zayat quarter of Maulmein township, sources in the region said. A 2nd outbreak was also reported in Pa-An township in neighboring Karen State.

A veterinary team from the FAO's office in the former capital Rangoon had left together with Burmese livestock officials for the area to carry out a cull of poultry.

"Bird flu can spread in 3 ways: through the movement of poultry and its products, through caged birds and the wild bird trade, and through the migration of wild birds," Rangoon-based FAO expert Aung Khin said. "But [in Burma] most cases are from the movement of poultry and its products."

Burma's secretive military regime has confirmed the outbreak in Maulmein, but so far no official announcement has been made regarding the Karen state outbreak. There have been 2 outbreaks of bird flu in Mon state already this summer [2007], which lies about 300 kms (180 miles) south of Rangoon.

Authorities in the central Burmese region of Bago announced an outbreak of H5N1 among poultry in early August [2007], which started among backyard chicken and ducks, experts said. Thousands of birds were culled in Letpandan township in an attempt to contain that outbreak, which was later confirmed as bird flu.

Agricultural teams were having trouble disposing of infected carcasses during the rainy season, they said. "Since it is the rainy season here, we are facing a lot of trouble in burying or destroying the animals. When we dig the ground to bury them, all the water comes out and the cost of fuel is too high to burn them, but we are doing our best," he told reporter Khin Maung Soe.

Burmese authorities culled 660,000 birds last year [2006] to contain the spread of the deadly virus, which has ripped through Asian poultry flocks since 2003 and caused 319 cases in humans, 192 of which were fatal.

International, Poultry (International Herald Tribune [edited], September 7): German authorities said Friday [Sep 7] that more than 200,000 ducks would be slaughtered at 2 farms in Bavaria after tests indicated the presence of the H5N1 strain of bird flu.

The head of Bavaria's state office for health and food safety, Volker Hingst, said the slaughter was "a purely precautionary measure," taken after "laboratory indications of H5N1" were found. The birds were not visibly sick, he said.

The 2 farms are located near Schwandorf, east of Nuremberg, and have a total of 205,000 ducks. It was not immediately clear how the virus might have gotten there.

Last month [August 2007], more than 160,000 ducks were slaughtered at another Bavarian poultry farm following an outbreak of the disease. Officials have said that contaminated straw was the likely source in that case.

The 2 businesses affected Friday are subsidiaries of that farm, authorities said.

International, Wild Birds (RIA Novosti [edited], September 10): Laboratory tests have confirmed that a dead swan found in the Krasnodar Territory was infected with H5 bird flu virus, but not with the N1 strain, a source in the local administration said Monday [Sep 10].

This is the only case of bird flu detected in the territory since 410 chickens died from the virus and 22,000 birds were culled at a local poultry farm in southern Russia.

A regional laboratory identified the lethal H5N1 virus in the dead chickens, and took steps to contain the spread. The losses from the outbreak are estimated at 20 million rubles (USD 702,000).

Michigan Wild Bird Surveillance (USDA, September 13): For the 2007 testing season, 255 Michigan samples have been taken so far, comprised of 100 live bird samples, 99 hunter-killed birds and 56 morbidity/mortality samples.

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 17,330 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.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 September 12, 2007)

(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 9/13/2007)

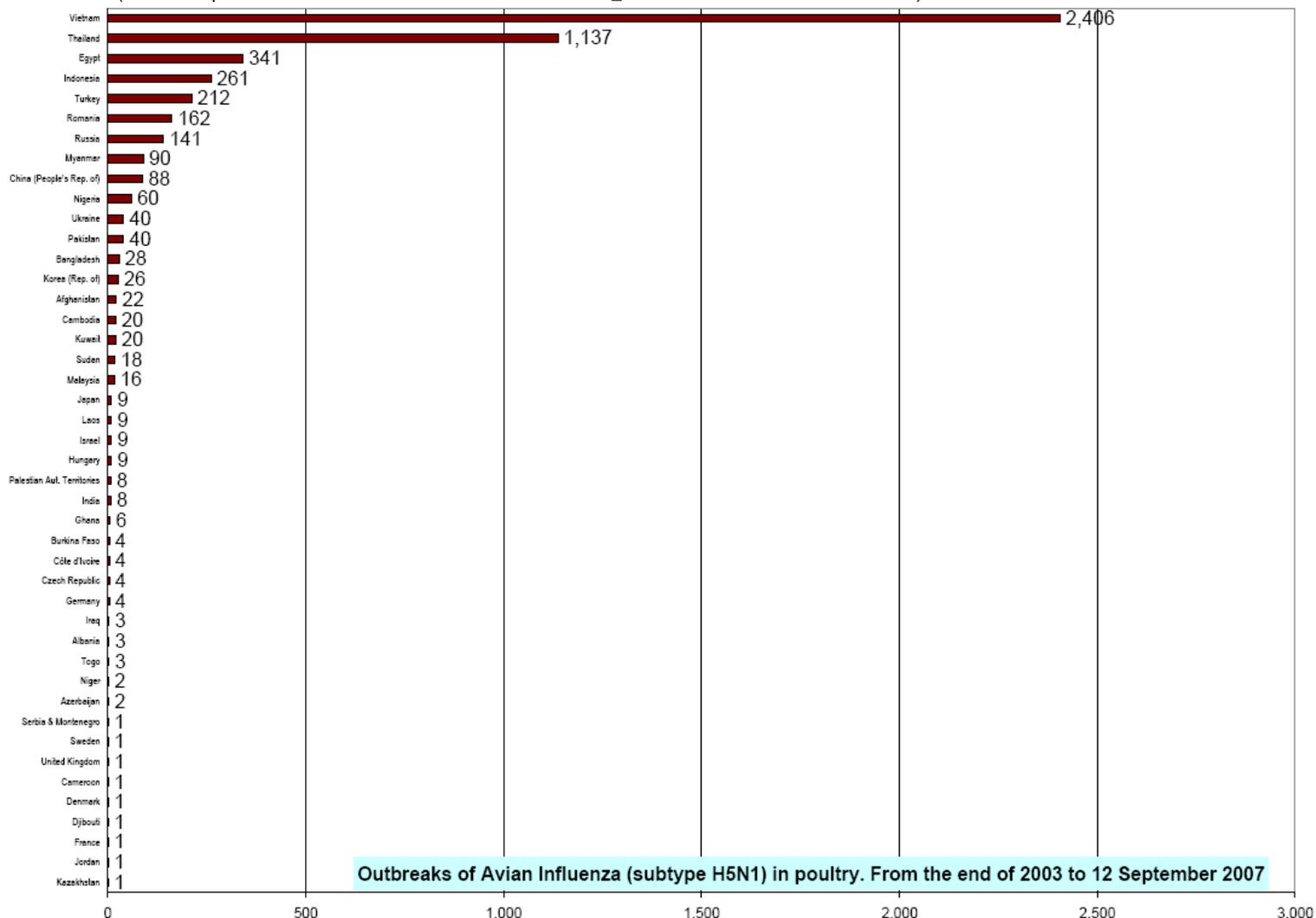


Table 2. H5N1 Influenza in Humans (Cases up to September 10, 2007)

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2007_09_10/en/index.html 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										
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
Total	4	4	46	32	98	43	115	79	65	42	328	200