Auckland Regional Public Health Service
Rātonga Hauora ā Iwi o Tamaki Makaurau
Working with the people of Auckland, Counties Manukau and Waitemata

Pandemic Postings

Current Alert Level: WHITE (definition)
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International situation

Egypt WHO, 11/06/07; WHO, 12/06/07; WHO, 25/06/07. Three further cases of human H5N1 avian influenza have been reported in Egypt by WHO. All cases were from Qena Governorate (see map): a 10-year-old female who developed symptoms on 1 June and died on 9 June; a 4-year-old female who developed symptoms on 7 June, was admitted to hospital on 10 June and is currently in a stable condition; and a 4-year-old male who developed symptoms on 20 June, was admitted to hospital on 21 June and is also currently stable. Initial investigations into the infection sources indicate all cases were exposed to dead birds; WHO has not stated whether there are any links between the cases.

Indonesia WHO, 15/06/07; WHO, 25/06/07. Two further cases of human H5N1 avian influenza has been reported in Indonesia by WHO. Both cases were from Riau Province, in Sumatra (see map): a 26-year-old male from Riau Province who developed symptoms on 3 June, was hospitalized on 6 June and died in hospital on 12 June; and a 3-year-old female who developed symptoms on 18 June and has since recovered. Investigations into the source of both cases' infections indicate exposure to sick and dead poultry.

Poultry outbreaks:

- **Czech Republic** OIE, 22/06/07. One poultry outbreak of H5N1 avian influenza reported from the Czech Republic, dating from 19 June and involving a turkey farm comprising 6000 susceptible birds in Pardubický province (see map).
- **Ghana** OIE, 21/06/07. One poultry outbreak of H5N1 avian influenza reported in Ghana, dating from 13 June 2007 and involving a 1450-bird farm in Volta region (see map).
- **Malaysia** OIE, 12/06/07. One poultry outbreaks of H5N1 avian influenza reported in Malaysia, dating from 2 June 2007 and involving a village in Selangor province (see map) with 67 susceptible free-range chickens.
- **Myanmar** OIE, 09/06/07. One poultry outbreak of H5N1 avian influenza reported in Myanmar, dating from 2 June 2007 and involving a 989-bird layer poultry farm in Bago province (see map).
- **Togo** OIE, 22/06/07. Togo has reported its first poultry outbreak of H5N1 avian influenza, dating 6 June 2007 and involving a 5574-bird farm in Region Maritime (see map).

Background

Australian national pandemic influenza exercise, *Exercise Cumpston 06* **Report** Australian Government Department of Health and Aging, 07/06/07. *Exercise Cumpston 06*, combining 7 preliminary exercises (April to August) and a main activity 16-19 October, was the largest health simulation exercise conducted in Australia, and aimed to test the health system's ability to prevent, detect and respond to an influenza pandemic. Operational deployments were largely notional, except for some exercises in Queensland. While the exercise confirmed that Australia's National Action Plan for a Human Influenza Pandemic provides a sound and appropriate policy framework, valuable lessons were also identified. [edited from executive summary]

Current global avian influenza activity

Confirmed human cases of avian influenza A/(H5N1), 7 – 25 June 2007,[1] and outbreaks of highly-pathogenic avian influenza H5N1 in poultry, 8 – 25 June 2007,[2] by country. The complete list of human cases and poultry outbreaks to date can be found on the ARPHS website.

	Human[1]		Poultry[2]
	cases	deaths	outbreaks
Czech Republic	-	-	1
Egypt	3	1	-
Ghana	-	-	1
Indonesia	2	1	-
Malaysia	-	-	1
Myanmar	-	-	1
Togo	-	-	1
TOTAL	**5**	**2**	**5**

Notes:
1 As reported by World Health Organization
2 As reported by the World Organisation for Animal Health (OIE).

Background (contd)

Human cases of H5N1 avian influenza reported by WHO before June 2006 Chen J-M et al, Am J Infect Cont 2007; 35(5): 351-3. This paper presents findings of analysis of characteristics of 224 human cases of H5N1 avian influenza reported before June 2006. The authors report that the age distribution of the human cases demonstrates older people are more immune to the infection, possibly because of the cross protectivity induced by their previous infections with human influenza A viruses. [edited from abstract only: full paper not reviewed]

Ecologic immunology of avian influenza (H5N1) in migratory birds Weber TP and Stilianakis NI, Emerg Infect Dis 2007 Aug; [Epub ahead of print]. The authors of this commentary paper suggest that it is unlikely wild birds can spread the virus along established long-distance migration pathways because the intense sustained exercise involved in migration would lead to immunosuppression, birds would therefore not remain asymptomatic and infection would negatively affect migratory performance. [edited from abstract only]

Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits WHO, 23/05/07. Full text of agenda item at the Sixtieth World Health Assembly.

Optimising the dose of pre-pandemic influenza vaccines to reduce the infection attack rate Riley S et al, PloS Med 2007; 4(6): e218. doi:10.1371/journal.pmed.0040218. Stockpiles of pre-pandemic vaccines based on existing avian influenza strains are being considered by many countries. However, a major constraint on this strategy will be the total mass of antigen required. This paper reports results of a mathematical modelling study examining whether vaccine doses lower than those for maximal protection may provide incremental community-wide benefits because they would permit wider vaccine coverage for a given size of antigen stockpile. The authors state that attack rate reductions are likely if vaccines were given to more people at lower doses; for example, the attack rate in the US would drop from 67.6% to 58.7% if vaccine stocks currently intended for 20 million people were instead given to 160 million at a lower dose. The authors recommend that population-level implications or pre-pandemic vaccination programmes should be considered when deciding on stockpile size and dose. [edited from article abstract and text]