

Pandemic Postings

Current Alert Level: **WHITE** ([definition](#))
 Update number: 44
 Date: 6 August 2007
 Prepared by: Dr Doone Winnard, [Dr Craig Thornley](#)
 Website: www.arphs.govt.nz (+ follow [link](#))

International situation

Egypt [WHO, 25/07/07](#). The Ministry of Health and Population of Egypt has confirmed a new human case of influenza A(H5N1) virus infection (this case was cited as an early reporting by CIDRAP in the last issue of Pandemic Postings). A 25-year-old female from the Damietta Governorate (see [map](#)) developed symptoms 20 July and is in a stable condition. The case is considered to have had exposure to sick and dead poultry.

Vietnam [CIDRAP, 31/07/07](#). CIDRAP have reported the death due to H5N1 avian influenza of a 7-months pregnant 22-year-old woman from H5N1 avian influenza in Vietnam. The woman was admitted on 24 July from the northern Ha Tay province, a major poultry supplier to Hanoi. This case has not yet been formally reported by WHO, so has not been included in the surveillance table opposite.

Poultry outbreaks:

- **India** [OIE, 26/07/07](#). One poultry outbreak of H5N1 avian influenza has been reported from India, the first for the country in more than a year. The outbreak dates from 7 July 2007 in Manipur province (see [map](#)), which is close to Myanmar. The outbreak involved a backyard poultry farm with 144 susceptible birds.
- **Myanmar** [OIE, 02/08/07](#) OIE reports on two new outbreaks of H5N1 in poultry in Myanmar. The outbreaks date from 24 July and 28 July 2007 in the Bago and Mon provinces respectively (see [map](#)). The Bago outbreak involved a farm with 5213 susceptible birds, while the Mon outbreak involved a farm with 950 susceptible birds.
- **Togo** [OIE, 30/07/07](#). Two recent outbreaks of H5N1 avian influenza have been reported from Togo. The outbreaks date from 1 July and 20 July 2007 in the Maritime region (see [map](#)). The 1 July outbreak involved a farm with 2555 susceptible birds, while the 20 July outbreak involved 300 susceptible birds.

Background

WHO interim infection control guidelines for ARDs [WHO, 06/07](#) WHO has released guidelines which provide recommendations for non-pharmacological measures to prevent and control acute respiratory diseases (ARDs) in health care settings.

Surveillance and interventions in live poultry markets (LPMs) for the control of avian influenza. Live poultry markets are important in the maintenance, amplification and dissemination of avian influenza, and a risk factor for zoonotic transmission of H5N1 to humans. Surveillance of birds in these markets is therefore important. The dynamics of H9N2 transmission are thought to provide an indicator of influenza transmission in LPMs. A recent study suggests that sampling of poultry drinking water may be a convenient, non-invasive and sensitive method of monitoring compared to faecal testing [Leung YHC et al Emerg Infect Dis 2007 Sept; \[Epub ahead of print\]](#). In Hong Kong the introduction of 'rest days' twice monthly, where unsold poultry are cleared and stalls disinfected, have been demonstrated to reduce isolation rates of the H9N2 virus [Lau EHY et al, Emerg Infect Dis 2007 Sept; \[Epub ahead of print\]](#).

Current global avian influenza activity
 Confirmed human cases of avian influenza A/(H5N1), 12 - 25 July 2007,¹ and outbreaks of highly-pathogenic avian influenza H5N1 in poultry, 17 July - 2 August 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
Egypt	1	-	-
India	-	-	1
Myanmar	-	-	2
Togo	-	-	2
TOTAL	1	-	5

Notes:

- 1 As reported by [World Health Organization](#)
- 2 As reported by the [World Organisation for Animal Health \(OIE\)](#).

Background (contd)

Reduced sensitivity of influenza A (H5N1) to oseltamivir [McKimm-Breschkin JL et al, Emerg Infect Dis 2007 Sept; \[Epub ahead of print\]](#) This study tested the neuraminidase sensitivity of recent clade 1 & 2 H5N1 viruses compared to earlier strains. All strains had similar sensitivity to zanamivir. However, in comparison with 2004 clade 1 viruses, 2005 clade 1 viruses from Cambodia were 6 times less sensitive to oseltamivir and 2005 clade 2 viruses from Indonesia were up to 30 times less sensitive to oseltamivir. The authors suggest that zanamivir may also play an important role in pandemic stockpiles.

Modelling the effect of frequent travellers on epidemic spread [Hollingsworth TD et al, Emerg Infect Dis 207 Sept; \[Epub ahead of print\]](#) The authors of this paper report a modelling study of epidemic spread by frequent travellers. The authors suggest that frequent international travellers are only likely to accelerate the spread of epidemics if they are infected early in an outbreak and there is not a high epidemic growth rate. In epidemic influenza where the growth rate is likely to be high, the effect of frequent travellers is likely to be overwhelmed by the large numbers of infected people in the general population.

Human-to-human transmission parameters for avian influenza A (H5N1) [Yang Y et al, Emerg Infect Dis 2007 Sep; \[Epub ahead of print\]](#) The authors of this paper report a study using a statistical transmission model to estimate whether human-to-human transmission of H5N1 could have occurred in the previously reported familial case clusters in Sumatra and Turkey. The authors claim evidence for transmission in the Sumatran cluster, with an estimated household secondary attack rate (SAR) of 29% and an estimated lower limit for the reproductive number (R₀) of 1.14. The estimated SAR is similar to that estimated for interpandemic influenza A in the US. Evidence was not found for human-to-human transmission in reported familial cases in Turkey.

Potential for H5N1 reassortment beyond the winter months in parts of Asia [Park AW & Glass K, Lancet Infect Dis 2007 Aug 7\(8\): 543](#) The seasonal patterns of the incidence of both human and avian influenza in human beings are less pronounced in east and southeast Asia than the patterns in temperate regions around the world. This means the possibility of a person being co-infected with both human and avian strains of influenza, giving potential for reassortment, in these areas is highest in winter but does occur at other times of the year [edited from abstract only: full paper not reviewed].