

Pandemic Postings

Current Alert Level: WHITE ([definition](#))
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International situation

Egypt [WHO 28/02/08](#), [04/03/08](#), [05/03/08](#), [11/03/08](#), [08/04/08](#). Five cases of human infection with avian influenza H5N1 have been confirmed in Egypt since the last update, with two fatalities. These were a 4-year-old girl from [Minya](#) Governorate who developed symptoms 21 February; a 25-year-old woman from [Faiyum](#) Governorate who developed symptoms on 24 February and died 4 March; an 11-year-old boy from [Monufia](#) Governorate who developed symptoms on 26 February; an 8-year-old girl from Faiyum Governorate who developed symptoms 3 March; and a 19-year-old man from [Behera](#) Governorate who developed symptoms 30 March December and died 4 April. All cases had a history of exposure to sick or dead poultry.

Indonesia [WHO 02/04/08](#). Three cases of human infection with H5N1 avian influenza have been confirmed in Indonesia since the last update, with two fatalities. The cases were a 21-month-old girl from Bukit Tinggi, West Sumatra (see [map](#)), who developed symptoms on 17 March; an 11-year-old girl from Bekasi City, West Java, who developed symptoms 19 March and died on 28 March; and a 15-year-old boy from Subang District, West Java, who developed symptoms 19 March and died on 26 March. Sources of infection for all three cases remain under investigation.

Pakistan [WHO 03/04/08](#). Two further cases of human infection with H5N1 avian influenza have been confirmed in a family cluster in Peshawar, Pakistan (see [map](#)), described earlier in Pandemic Postings #50. The four cases in the family (three confirmed and two probable, two fatalities) all date from the period 29 October to 21 November 2007. Laboratory test results and epidemiologic findings suggest limited human to human transmission is likely to have occurred among some of the family members which is consistent with some human-to-human transmission events reported previously. The outbreak did not extend into the community, and appropriate steps were taken to reduce future risks of human infections.

Viet Nam [WHO 18/03/08](#). One further fatal case of human infection with H5N1 avian influenza has been confirmed in Vietnam. The case is an 11-year-old male from Thành Liêm district, Ha Nam province (see [map](#)) who developed symptoms on 4 March and died on 14 March. The case had contact with sick and dead poultry prior to his illness.

Background

When to rescind community mitigation strategies in an influenza pandemic [Davey VJ, Glass RJ. Emerg Infect Dis \[serial on the Internet\]. 2008 Mar \[cited 10/04/08\]](#). The authors of this paper used computer modelling to evaluate thresholds for rescinding two community mitigation strategies (school closures with home confinement of students, and home confinement of all community members) after an influenza pandemic. Strategies were most effective when used with high compliance when combined with stringent rescinding thresholds, such as absence of cases (in a hypothetical population of 10,000) in a 7-day period.

Current global avian influenza activity
 Confirmed human cases of avian influenza A/(H5N1), 27 Feb - 8 Apr 2008¹, and outbreaks of highly-pathogenic avian influenza H5N1 in poultry 24 Feb - 8 Apr 2008.² 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
Bangladesh	-	-	65
China	-	-	2
Egypt	5	2	-
India	-	-	5
Indonesia	3	2	-
Korea	-	-	2
Pakistan	2	-	2
Turkey	-	-	2
Vietnam	1	1	24
Total	11	5	102

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

Oseltamivir prophylaxis prevents H5N1 influenza morbidity and mortality in a ferret model [Boltz DA et al. J Infect Dis 2008;197: \[Epub ahead of print\] DOI: 10.1086/586711000-000](#). The authors of this paper report that ferrets given a 2.5 or 5 mg/kg twice daily oseltamivir dose started one day before a lethal dose of H5N1 had a 100% survival rate and no clinical symptoms, systemic virus spread or organ pathology. Systemic antibody titres were sufficient to protect against rechallenge.

Pandemic planning from a health disparities perspective [Blumenshine P et al. Emerg Infect Dis. 2008 May; \[Epub ahead of print\]](#). The authors of this paper explore how different population groups might fare in an influenza pandemic on the basis of social factors affecting exposure, influenza vulnerability, treatment timeliness and adequacy, and discuss policies that might differentially affect social groups' risk.

Public responses to community mitigation measures for pandemic influenza [Blendon RJ et al. Emerg Infect Dis 2008 May; \[Epub ahead of print\]](#). The authors of this paper report the results of a survey of likely responses by the public to measures such as social distancing and school closures in an influenza pandemic. Most would comply with recommendations but would be challenged to do so if their income or job were severely compromised; persons with lower incomes or ethnic minorities would experience greater problems. 24% said that they would not have anyone to take care of them if they became sick.

Probable limited person-to-person transmission of H5N1 in China [Wang H et al. Lancet 8 April 2008; \[Epub ahead of print\]: DOI:10.1016/S0140-6736\(08\)60493-6](#). A family cluster of two individuals infected with H5N1 virus was identified in Jiangsu Province, China, in December 2007. The index case was likely exposed at a poultry market 6 days prior to illness. The second cases (the 52-year-old father of the index case) had substantial unprotected close exposure to his ill son. H5N1 isolates from the two cases were virtually identical. 91 further contacts were investigated: all tested negative to H5N1 antibodies.

Understanding avian influenza [FAO, 04/08](#). This FAO published overview summarises "many of the factors that have or are believed to have led to the emergence and spread of avian influenza, and offers an extensive bibliography of important reference works for anyone wishing to learn more."

Details of recently-reported poultry outbreaks

Bangladesh OIE 16/03/08. 65 backdated poultry outbreaks of H5N1 avian influenza have been reported by Bangladesh. The outbreaks date from the period 05/02/07 to 09/02/08, and occurred in all administrative Divisions of Bangladesh.

China OIE 07/04/08. China reported 2 further poultry outbreaks of H5N1 avian influenza. The first occurred on 13/03/08 in a village market in Guangzhou (Guangdong Province), and involved 662 susceptible birds. The second occurred on 28/03/08 in a village in Basu, Tibet, and involved 2318 birds. Outbreak locations are shown in the map in the OIE report.

India OIE 08/04/08. Five poultry outbreaks of H5N1 avian influenza have been reported from India. The outbreaks occurred in the period 04/03/08 - 03/04/08 in West Bengal province (four outbreaks) and Tripura province (one outbreak). Outbreak locations are shown in a map in the OIE report.

Korea OIE 07/04/08. Two poultry outbreaks of H5N1 avian influenza have been reported from South Korea. Both outbreaks occurred in Cholla-Bukdo province in the period 01/04/08 - 03/04/08 and involved poultry farms ranging in size from 150,570 to 12,500 birds. Outbreak locations are mapped in the OIE report.

Pakistan OIE 10/03/08. Two further poultry outbreaks of H5N1 avian influenza have been reported in Pakistan. The outbreaks occurred in Sindh (two outbreaks) and North West Frontier region (two outbreaks) over the period 28/01/08 to 03/03/08, and involved poultry farms ranging in size from 4000 to 7200 birds. [See map](#) for province locations.

Turkey OIE 26/03/08. Two further poultry outbreaks of H5N1 avian influenza have been reported in Turkey. These occurred in Edirne on 09/03/08 (backyard poultry population of 1582 birds) and Sinop on 11/02/08 (backyard poultry population of 130 birds). [See map](#) for province locations: outbreak locations are mapped in the OIE report.

Viet Nam OIE 01/04/08. 24 further poultry outbreaks of H5N1 avian influenza have been reported in Vietnam. These outbreaks occurred in Quang Nam (5 outbreaks, 10/03/08 - 25/03/08), Ca Mau (13/03/08), Quang Binh (10/03/08), Soc Trang (07/03/08), Ha Noi (05/03/08), Tuyen Quang (2 outbreaks, 25/02/08 - 06/03/08), Quang Tri (05/03/08), Lao Cai (2 outbreaks, 28/02/08 - 03/03/08), Ha Nam (29/02/08), Vinh Long (3 outbreaks, 18-28/02/08), Quang Ninh (23/02/08), Ninh Binh (3 outbreaks, 18-22/02/08) and Hai Duong (18/02/08). [See map](#) for province locations; outbreak locations are mapped in the OIE report.