

# Pandemic Postings

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## International situation

**Egypt** [WHO 26/12/07](#), [28/12/07](#), [2/01/08](#). Five cases of human infection with avian influenza H5N1 have been confirmed in Egypt since the last update. These were a 25-year-old woman from Bani Suef Governorate (see [map](#)) who was hospitalised 23 December and died 25 December; a 50-year-old woman from Damietta Governorate who was hospitalised on 24 December and died 31 December; a 22-year-old woman from Monufia Governorate who was hospitalised on 26 December; a 25-year-old woman from Dakahlia Governorate who developed symptoms 26 December and died 30 December; and a 36-year-old woman from Monufia Governorate who developed symptoms 26 December and died 31 December. No evidence of epidemiological links between the two Monufia Governorate cases has been identified.

**Indonesia** [WHO 26/12/07](#), [11/01/08](#), [15/01/08](#), [18/01/08](#), [21/01/08](#). Four cases of human infection with H5N1 avian influenza have been confirmed in Indonesia since the last update. These were a 24-year-old female from West Jakarta municipality, Jakarta province (see [map](#)) who developed symptoms 14 December and died 25 December; a 16-year-old female from West Java (Jawa Barat) Province who developed symptoms 30 December and died 15 January 2008; a 32-year-old female from Tangerang District, Banten Province who developed symptoms 3 January 2008 and died 10 January; and an 8-year-old boy, also from Tangerang District, who developed symptoms 7 January and died 18 January.

**Viet Nam** [WHO 28/12/07](#) One case of human infection with H5N1 avian influenza has been confirmed in Viet Nam in a 4-year-old male from Son La province (see [map](#)). He developed symptoms 7 December and died 16 December.

**Pakistan** [WHO 27/12/07](#) Avian influenza virus strain A (H5N1) has been confirmed in samples collected from one case in a family with 8 cases of influenza-like illness reported in the last Pandemic Postings bulletin. Other cases in the family are considered likely H5N1. The confirmed case was a 25-year-old male from the Peshawar area (see [map](#)) who developed febrile respiratory illness 21 November and died 28 November.

## Background

**Update on avian influenza A (H5N1) virus infection in humans** [N Engl J Med 2008;358:261-273](#) This article reviews and updates the 2005 WHO report on avian influenza A (H5N1) infections in humans, and covers a number of topics including viral ecology, human epidemiology, pathogenesis (particularly viral factors, viral replication, pathological findings and host responses), clinical features, laboratory diagnosis, treatment and prevention (antiviral chemoprophylaxis and role of immunisation) of avian influenza. Points made by the authors in the article include the following:

- the median age of patients with H5N1 is approximately 18 years with 90% of patients 40 years of age or younger and older adults are underrepresented;
- direct bird-to-human transmission is the predominant means of human infection although exactly how this occurs is not well understood;

Current global avian influenza activity  
 Confirmed human cases of avian influenza A/(H5N1), 18 Dec 2007 - 21 Jan 2008<sup>1</sup>, and outbreaks of highly-pathogenic avian influenza H5N1 in poultry 17 Dec - 16 Jan 2008.<sup>2</sup> The complete list of human cases and poultry outbreaks to date can be found on the [ARPHS website](#).

	Human <sup>1</sup>		Poultry <sup>2</sup>
	cases	deaths	outbreaks
Bangladesh	-	-	36
Benin	-	-	2
Egypt	5	3	80
Indonesia	4	4	-
India	-	-	2
Israel	-	-	1
Iran	-	-	1
Myanmar	-	-	1
Pakistan	1	1	4
Poland	-	-	2
Russia	-	-	4
Saudi Arabia	-	-	1
Viet Nam	1	1	10
<b>Total</b>	<b>11</b>	<b>9</b>	<b>144</b>

### Notes:

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

## Background (contd)

- the incubation period after exposure to infected poultry is thought to be less than 7 days and is often 2-5 days. In human to human transmission, the incubation period is thought to be 3-9 days;
- detection of viral RNA by reverse transcriptase PCR remains the best method for the initial diagnosis;
- antiviral agents have variable effectiveness against the H5N1 virus depending on particular antiviral agent and the virus strain. Supportive care is emphasised as being critical in the successful management of cases.
- corticosteroids should not be used routinely in patients with H5N1.

**Physical interventions to interrupt or reduce the spread of respiratory viruses** [Jefferson et al. BMJ 2008;336:77-80](#). Paper reporting results of a systematic review of evidence for the effectiveness of physical interventions to interrupt or reduce the spread of respiratory viruses. There was significant heterogeneity in the studies reviewed. The authors concluded that physical barriers such as handwashing, wearing a mask and isolation of potentially infected patients were effective in preventing spread of respiratory viral infections.

**Overview of the world HPAI (H5N1) situation** [FAO, 12/07](#). Brief report from the UN Food and Agriculture Organisation that summarises outbreaks of H5N1 in poultry and other avian species in 2007. The report concludes that there has been an improvement in the general HPAI (H5N1) situation worldwide, but there is still a risk of recurrence and spread of the infection, and the disease is becoming enzootic in some regions.

**Human infections associated with wild birds.** [Tsiodras et al. J Infect 2007; 21/12/07 \[epub ahead of print\]. DOI: 10.1016/j.jinf.2007.11.001](#). The authors of this systematic review conclude that evidence suggests wild birds play a limited role in human infectious diseases. Direct transmission of an infectious agent from wild birds to humans is rarely identified; transmission mechanisms need further elucidation.

## Details of recently-reported poultry outbreaks

**Bangladesh OIE 17/12/07.** There were 36 poultry outbreaks reported by Bangladesh on 17/12 but many of these occurred earlier in the year. Only two outbreaks occurred in December. The first on the 5/12/07 in Pouroshova (Rajshahi division) ([see map](#)) amongst backyard poultry. There were 8 cases, all of which died, and a further 468 birds that were destroyed. The second outbreak was in Bamandang (Rajshahi division) ([see map](#)) and started on the 10/12/07. There were 57 cases and a further 565 birds destroyed.

**Benin OIE 31/12/07.** There have been 2 further outbreaks reported in Benin. One occurred in Porto Novo Village involving 123 susceptible birds (chickens, turkeys and ducks). There were 16 deaths (all cases) and the remaining 107 birds were destroyed. The second outbreak occurred in Dangbo in a village and also affected a mixture of chickens, ducks and turkeys. There were 87 susceptible birds, 9 died and the remaining 78 were destroyed. See [map](#) for department locations.

**Egypt OIE 3/12/07.** Egypt has reported 80 backdated outbreaks of H5N1 avian influenza in poultry in a single report to OIE.

**Iran OIE 16/01/08.** An outbreak was reported in Darzi Naghieb ([see map](#)) on the 10/12/07 affecting free range chickens. There were 489 susceptible birds. There were 14 identified cases, all of which died. The remaining birds were destroyed.

**Israel OIE 7/1/08.** There was one outbreak in Israel, in the Haifa district ([see map](#)) affecting 12 chickens, 8 ducks and 5 pigeons. These birds were kept at the back of a Kindergarten in cages. 10 of the chickens and 2 of the ducks died. No pigeons died and were found to be H5N1 negative on testing. All remaining birds were culled.

**Myanmar OIE 29/12/07.** There was an outbreak of H5N1 avian influenza on 23/12/07 in Yankham ([See map](#)) involving backyard poultry. There were 1056 susceptible birds, 13 cases all of which died. The remaining 1043 susceptible birds were destroyed.

**India OIE 15/01/08.** There were two outbreaks notified from India. One occurred in Rampurhat, West Bengal district ([see map](#)) on the 4/1/08 and involved backyard poultry in a number of small and marginal farms in three different villages. There were 819078 susceptible birds identified. There were 35525 cases and all of these died. The second outbreak was in a small farm also in the West Bengal district ([see map](#)) on the 7/01/08.

**Poland OIE 23/12/07.** There were two poultry outbreaks of H5N1 reported in Poland. One occurred on the 16/12 in Gladowko ([see map](#)) and affected 5 backyard hens. These five hens died and the remaining 3 susceptible hens were destroyed. The other outbreak occurred in Sadlowo Parcele ([see map](#)) and affected a flock of 185435 24 week laying hens. There were 20 cases which all died. The remaining 185415 birds were destroyed

**Saudi Arabia OIE 24/12/07.** There was one outbreak of H5N1 avian influenza reported in Saudi Arabia update report submitted since the last pandemic posting. This outbreak however occurred on the 15/11/07. It occurred in Thadk in Ari Riyad province ([see map](#)), in a flock of layer hens. There were 144000 susceptible hens, 10000 were cases and died while the remaining 134000 were destroyed.

**Russia OIE 24/12/07** There were four poultry outbreaks of H5N1 avian influenza reported in Russia ([see map](#)). Two outbreaks occurred in Gulyay Borisovka. One affected layer chickens and started on the 1/12/07. The second outbreak affected backyard poultry and started on the 12/12/07. It is thought these two outbreaks were connected. All susceptible birds were destroyed. A third outbreak occurred in Sladkaya Balka on the 18/12/07 involving 71 cases and 6868 susceptible backyard poultry. The fourth outbreak occurred on 19/12/07 in Shosseyniy and 1258 backyard poultry.

**Saudi Arabia OIE, 19/11/07.** There were 4 outbreaks of H5N1 avian influenza reported in Saudi Arabia. The outbreaks occurred in Al-Kharji (12/11/2007), Al-Muzahmiah (14/11/2007), Dhuma (14/11/2007) and Hiathen (14/11/2007) ([see map](#)). All of the outbreaks involved broiler and breeder chickens.

**Viet Nam OIE 7/1/08.** There were 10 outbreaks in Viet Nam ([see map](#)) reported in the latest update. Only 5 of those occurred since the last Pandemic posting. These occurred in Huyen Boi (17/12/07), Truong Tho (18/12/07), Ward no. 9 (22/12/07), Da Loc (23/12/07) and Luong Chau (01/01/08). All of the outbreaks involved ducks except for the one in Huyen Boi which involved chickens. All susceptible birds were destroyed.