

Pandemic Postings

Current Alert Level: WHITE ([definition](#))
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International situation
China [WHO 20/02/08](#), [22/02/08](#), [26/02/08](#). Three fatal cases of human infection with H5N1 avian influenza have been reported in China. The cases were a 22-year-old man from Yongzhou Prefecture, Hunan Province (onset illness 16 Jan, died 24 Jan), a 41-year-old man from Guangxi Autonomous Region (onset illness, died 12 Feb, died 20 Feb), and a 44-year-old woman from Guangdong Province (onset illness 16 Feb, died 25 Feb). See [map](#) for province locations. The latter two cases had contact with sick or dying poultry prior to onset of illness.

Indonesia [WHO 21/01/08](#), [23/02/08](#), [29/02/08](#), [05/02/08](#), [12/02/08](#), [21/02/08](#). There have been 11 cases of human infection with H5N1 avian influenza reported from Indonesia; 9 of these cases were fatal. All cases were from the island of Java. See [map](#) for province locations.

Four cases were from Tangerang, Banten Province: these were an 8-year-old boy (illness onset 7 Jan, died 18 Jan); a 30-year-old man (onset 13 Jan, died 24 Jan); a 32-year-old man (onset 17 Jan, died 29 Jan) and a 29-year-old woman (onset 22 Jan, died 2 Feb). No links between cases are reported.

Five cases were from Jakarta Province: these were a 31-year-old woman (onset 18 Jan, died 31 Jan); a 23-year-old woman (onset 19 Jan, died 27 Jan); a 38-year-old woman (onset 23 Jan, no outcome reported); a 15-year-old girl (onset 2 Feb, no outcome reported); and a 3-year-old boy (onset 3 Feb, died 15 Feb). The 15-year-old girl was the daughter of the 38-year-old woman, but had been exposed to unwell poultry as well as to her mother's illness.

One case was from West Java Province: a 9-year-old boy who became unwell on 16 Jan and died on 27 Jan.

One case was from Central Java Province: a 16-year-old boy who became unwell on 3 Feb and died on 10 Feb.

Viet Nam [WHO 24/01/08](#), [15/02/08](#), [21/02/08](#), [26/02/08](#). There have been four fatal cases of human infection with H5N1 avian influenza reported from Vietnam since the last update. These cases were a 34-year-old man from Tuyen Quang Province (onset illness 10 Jan, died 18 Jan); a 40-year-old man from Hai Duong Province (onset 2 Feb, died 13 Feb); a 27-year-old man from Ninh Binh Province (onset 3 Feb, died 14 Feb); and a 23-year-old woman from Phu Tho Province (onset 14 Feb, died 25 Feb). See [map](#) for province locations: all are in the north of Viet Nam, although are only partly contiguous. All cases had contact with sick and dead poultry prior to developing symptoms.

Background

Evaluation of the safety and immunogenicity of a booster (third) dose of inactivated subvirion H5N1 influenza vaccine in humans. [Zangwell et al. J Infect Dis 2008;197:580-3](#). The authors of this paper report a study in which participants aged 81-64 years were given 3 doses of H5N1 vaccine, at 28 day and 6 month intervals for the 2nd and 3rd doses respectively. Antibody titres declined before the third dose, but 28 days following the third dose 78% of recipients of a 90µg dose had hemagglutination-inhibition geometric mean titers (GMTs) of 1:40. Proportions reaching this GMT were lower in groups receiving lower vaccine doses. Five months later, GMTs were significantly greater than those after the second dose.

Current global avian influenza activity
 Confirmed human cases of avian influenza A/(H5N1), 18 Jan 2008 - 26 Feb 2008¹, and outbreaks of highly-pathogenic avian influenza H5N1 in poultry 16 Jan 2007 - 23 Feb 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
China	3	3	2
Egypt	-	-	27
Germany	-	-	2
India	-	-	31
Indonesia	11	9	-
Laos	-	-	1
Pakistan	-	-	4
Saudi Arabia	-	-	24
Turkey	-	-	5
Ukraine	-	-	2
Viet Nam	4	4	12
Total	18	16	112

Notes:

1 As reported by [World Health Organization](#)

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

Background

Avian and pandemic influenza: a biosocial approach. [J Infect Dis 2008;197 \(S1: supplement\)](#). The February supplement of the Journal of Infectious Diseases presents papers from a Harvard University workshop on collaborative approaches between biological and social sciences for pandemic influenza response. Articles included address avian flu preparedness in China, lessons from the 1976 "swine flu affair," and novel approaches to prevent influenza infection in animals. The editors conclude that "the need to build public trust and public health infrastructure is one of the primary messages of this collection."

Social contact networks for the spread of pandemic influenza in children and teenagers. [Glass L, Glass R. BMC Public Health 2008;8:61 \(14 February 2008\)](#). This article describes a method used to characterise social networks with potential for influenza transmission, applied to school children and teenagers. The authors concluded that school closure and keeping young people at home may play an important role in preventing the spread of influenza throughout the community in a outbreak situation.

Pandemic influenza preparedness and community resiliency. [Middaugh J. JAMA 2008;299:566-8](#). This commentary piece raises concerns that pandemic preparedness strategies that emphasise social distancing may have serious adverse unintended consequences on community resiliency.

Cost-effectiveness of antiviral stockpiling. [Siddiqui M, Edmunds W. Emerg Infect Dis 2008;14:267](#). This article describes a model for investigating cost-effectiveness of stockpiling antivirals for an influenza pandemic in the UK, and the possible role of near-patient testing in conserving drug stocks. The study found that stockpiling antivirals for a treat-only programme is likely to be cost-effective (assuming that AV drugs provide some protection against death), even if the pandemic occurs many years from now.

Healthcare guide for pandemic flu planning [New Jersey Hospital Association, Jan 08](#). A US hospital association has published online a package of resources to evaluate hospital pandemic plans. The resources take the form of checklists pertinent to a range of hospital departments and services.

Details of recently-reported poultry outbreaks

China. [OIE 18/2/08](#) China reported 2 poultry outbreaks of avian influenza. Both of the outbreaks occurred in Tibet ([see map](#)): a broiler chicken and duck farm in Gongga on 21/1/08 (1000 cases, all died); and in Lhasa on 6/2/08 (180 cases, 132 deaths, 7566 birds destroyed).

Egypt. [OIE 7/2/08](#) Egypt has reported a further 27 outbreaks of H5N1 avian influenza in poultry since the last Pandemic Postings. All outbreaks commenced in Jan 08, and occurred in the governorates of Al Gharbiyah/Gharbia (9 outbreaks), Luxor (3), Al Minufiyah/Monufia (3), Dumyat/Damietta (2), Al Minya (2), Al Qalyubiyah/Qalyubia (2), Qina/Qena (1), Al Jizah/Giza (1), As Suways/Suez (1) and Al Fayyum/Faiyum (1). See [map](#) for governorate locations.

Germany. [OIE 22/1/08](#) There were 2 outbreaks of avian influenza in poultry reported in Germany. The first outbreak was in a backyard flock in Potsdam-Mittelmark ([see map](#)). It involved 30 susceptible birds. There were 5 cases, 2 of which died. The remaining cases and susceptible birds were destroyed. The second outbreak was in Ostprignitz Ruppin ([see map](#)). There were 5 cases in a small flock of laying hens. Four of the cases died and the remaining case and 10 other susceptible birds were destroyed.

India. [OIE 9/2/08](#) There have been 31 outbreaks reported in India since the last Pandemic update. These outbreaks all occurred in the West Bengal district ([see map](#)) and involved backyard poultry in small and marginal farms.

Laos. [OIE 13/12/08](#) There was one outbreak reported in Long, Laos ([see map](#)). It involved 1317 susceptible chickens. There were 765 cases all of which died. It does not appear that the remaining birds have been destroyed.

Pakistan [OIE 20/2/08](#) There have been 4 reported outbreaks in Pakistan. Two of these outbreaks occurred in the North West Frontier region ([see map](#)), on 18/1/08 in a 7 week old broiler breeding flock (1895 cases, 726 deaths); and on 13/2/08 in a broiler flock (2153 cases, 1239 deaths, 3761 birds destroyed). Two outbreaks occurred in the Sindh region, both on 28/1/08: a commercial broiler farm (1980 cases, 1782 deaths, 4218 birds destroyed); and on a poultry farm (5500 susceptibles, 2200 cases, 2200 deaths and the remaining 3300 birds destroyed).

Saudi Arabia. [OIE 17/2/08](#). There were 24 outbreaks of H5N1 avian influenza in poultry in Saudi Arabia reported to WHO since the last pandemic posting.

Turkey. [OIE 13/2/08](#). There have been 5 outbreaks of H5N1 avian influenza reported by Turkey to WHO since the last update. These occurred in Zonguldak (18/1/08), Samsun (2 outbreaks; 26/1/08, 8/2/08) and Sakarya (2 outbreaks; 1/2/08, 7/2/08) ([see map](#)). All of the 5 outbreaks involved backyard poultry. There were 115 cases with 105 deaths. In total 5370 birds destroyed.

Ukraine. [OIE 13/2/08](#). There were two outbreaks reported in Ukraine. The first was in Chermomorskiy ([see map](#)). It involved 9 susceptible birds. Three birds died (2 chickens and a rooster) and the remaining 6 asymptomatic but susceptible birds were destroyed. The second outbreak was reported in wild birds (in coots, cormorants and gulls) in Sevastopolsky. Eight dead carcasses were found. No other susceptible birds identified.

Viet Nam. [OIE 1/2/08](#). There were 5 outbreaks of H5N1 avian influenza reported to WHO since the last update. These outbreaks occurred in Tra Vinh (4/1/08), Thai Nguyen (2 outbreaks; 9/1/08, 21/1/08), Quang Binh (16/01/08), and Tuyen Quang (19/01/08) ([see map](#)). The outbreaks occurred in unvaccinated ducks and chickens.