

Influenza at the human-animal interface

Summary and assessment as of 12 March 2013

Human infection with avian influenza A(H5N1) viruses and associated animal health events

From 2003 through 12 March 2013, 622 laboratory-confirmed human cases with avian influenza A(H5N1) virus infection have been officially reported to WHO from 15 countries, of which 371 died.

Since the last update on 15 February 2013, 2 new fatal laboratory-confirmed human cases with influenza A(H5N1) virus infection were reported to WHO from Cambodia. China reported 2 deaths in the human cases previously reported

(http://www.who.int/influenza/human_animal_interface/HAI_Risk_Assessment/en/index.html).

Since the beginning of 2013, Cambodia reported nine human cases with influenza A(H5N1) virus infection including eight fatal cases. These cases come from five provinces all located in southern Cambodia. These cases do not seem to be linked epidemiologically, and most had contact with sick poultry in their villages. The clade 1.1 viruses that have been isolated from cases are very similar to those isolated from poultry in the region. Investigations around these cases did not detect additional cases. This evidence suggests sporadic infections from exposure to infected poultry or contaminated environments, rather than human-to-human transmission. It has been suggested that the A(H5N1) virus is circulating endemically in poultry in Cambodia¹, as such, additional sporadic human cases might be expected.

Table 1: laboratory-confirmed human cases of avian influenza A(H5N1) virus infection (13 February- 12 March 2013)

Country	Province	Age (y)	Sex	Date of onset	Date of Hospitalisation	Oseltamivir treatment Start date	Date of death	Exposure to
Cambodia	Kampot	20 months	M	6/2/2013	18/2/2013	NA	19/2/2013	Sick or dead poultry
	Kampong Cham	35	M	8/2/2013	13/2/2013	13/2/2013	25/2/2013	Sick or dead poultry

NA: not applicable or not available

¹ Sorn, S., et al. Dynamic of H5N1 virus in Cambodia and emergence of a novel endemic sub-clade. Infect. Genet. Evol. (2012), <http://dx.doi.org/10.1016/j.meegid.2012.05.013>
<http://www.sciencedirect.com/science/article/pii/S1567134812002158>

Public health risk assessment of avian influenza A(H5N1) viruses: Any time influenza viruses are circulating in poultry, sporadic infections or small clusters of human cases are possible especially in people exposed to infected poultry kept in households or contaminated environments. However, currently, this A(H5N1) virus does not appear to transmit easily among people and therefore the risk of community level spread of this virus remains low. Therefore, the public health risk associated with this virus remains unchanged.

Figure 1: Epidemiological curve of avian influenza A(H5N1) cases in humans by country and month of onset

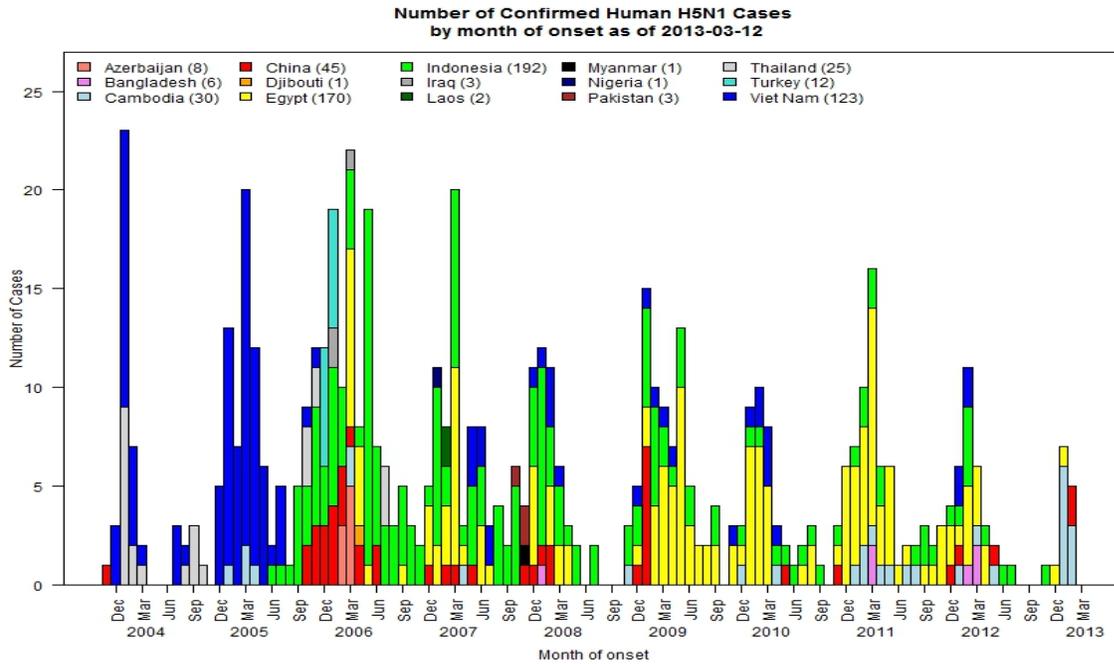
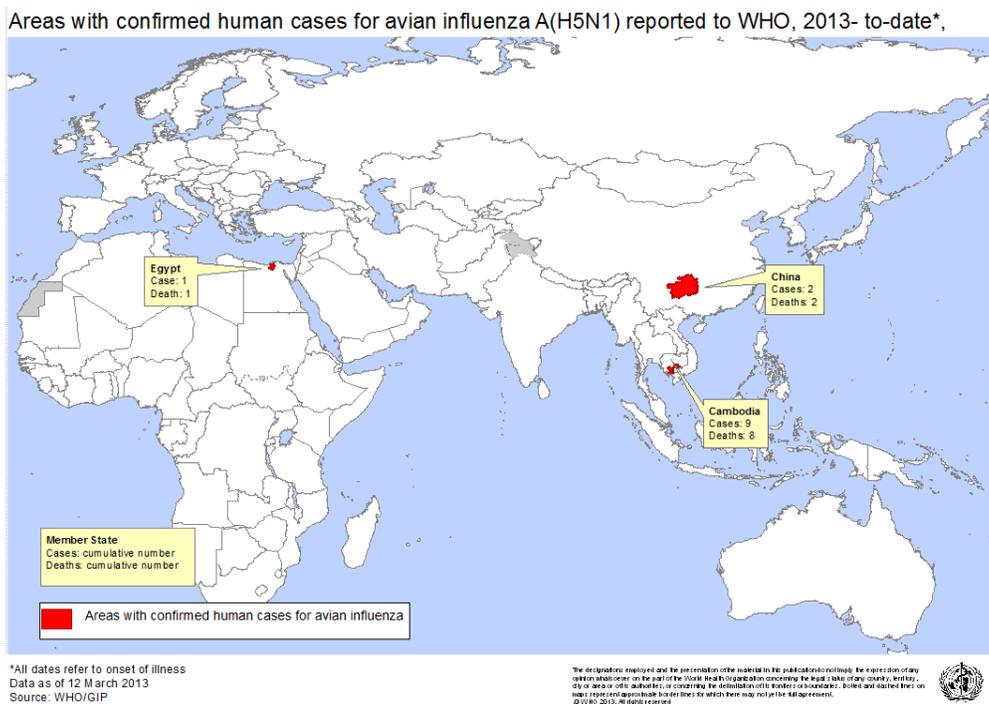


Figure 2: Map of avian influenza A(H5N1) cases in humans in 2013



Human infection with other non-seasonal influenza viruses

No new human case of influenza A(H3N2)v virus infection were reported from the United States of America (USA) or elsewhere.

Overall public health risk assessment of the non-seasonal influenza viruses: Further human cases and small clusters of infections with influenza A(H3N2)v virus may be expected as this virus is circulating in the swine population in the USA. Continued close monitoring of the situation and the virus is warranted. Sporadic human cases and small clusters of infections with other influenza viruses might also be expected from the USA and anywhere these viruses are circulating in animal populations to which humans are exposed.

Animal outbreaks with high pathogenic avian influenza viruses with potential public health impact

Overall, official reports of animal influenza outbreaks have increased over the past months (http://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI). This seasonal pattern is expected with the onset of winter in the northern hemisphere.

Due to the constant evolving nature of influenza viruses, WHO continues to stress the importance of global monitoring of influenza viruses in animals and people and recommends all Member States to strengthen routine influenza surveillance. All human infections with non-seasonal influenza viruses are reportable to WHO under IHR (2005).

Relevant Links:

WHO human-animal interface web page
http://www.who.int/influenza/human_animal_interface/en/

Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO http://www.who.int/influenza/human_animal_interface/EN_GIP_LatestCumulativeNumberH5N1cases.pdf

H5N1 avian influenza: timeline of major events http://www.who.int/influenza/human_animal_interface/avian_influenza/H5N1_avian_influenza_update.pdf

World Organisation of Animal Health (OIE) web page: Web portal on Avian Influenza
<http://www.oie.int/animal-health-in-the-world/web-portal-on-avian-influenza/>

Food and Agriculture Organization of the UN (FAO) webpage: Avian Influenza <http://www.fao.org/avianflu/en/index.html>

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<http://www.offlu.net/index.html>