

## Influenza at the human-animal interface

Summary and assessment as of 4 June 2013

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

From 2003 through 4 June 2013, 630 laboratory-confirmed human cases with avian influenza A(H5N1) virus infection have been officially reported to WHO from 15 countries, of which 375 died.

Since the last update on 26 April 2013, two new laboratory-confirmed human cases with influenza A(H5N1) virus infection were reported to WHO from Cambodia and Egypt. The investigations into these concluded that they were sporadic cases and that the appearance of these sporadic cases are expected and will likely occur in the future.

Cambodia reported one new case. This case was picked up through a fever surveillance study. The case fully recovered. All eleven human cases with influenza A(H5N1) virus infection reported in Cambodia since the beginning of 2013 come from five provinces located in southern Cambodia. These cases do not seem to be linked directly, 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 human 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 Cambodia<sup>1</sup>, and as such, additional sporadic human cases might be expected.

**Table 1: Laboratory-confirmed human cases of avian influenza A(H5N1) virus infection (26 April 2013- 5 4 June 2013)**

Country	Province	Age	Sex	Date of onset	Date of Hospitalisation	Oseltamivir treatment Start date	Date of death	Exposure to
Cambodia	Kampong Speu	5 years	F	28/01/2013	NA	No	NA	unknown
Egypt	Sohaq	25 years	F	25/04/2013	29/04/2013	01/05/2013	05/05/2013	Sick and dead backyard poultry

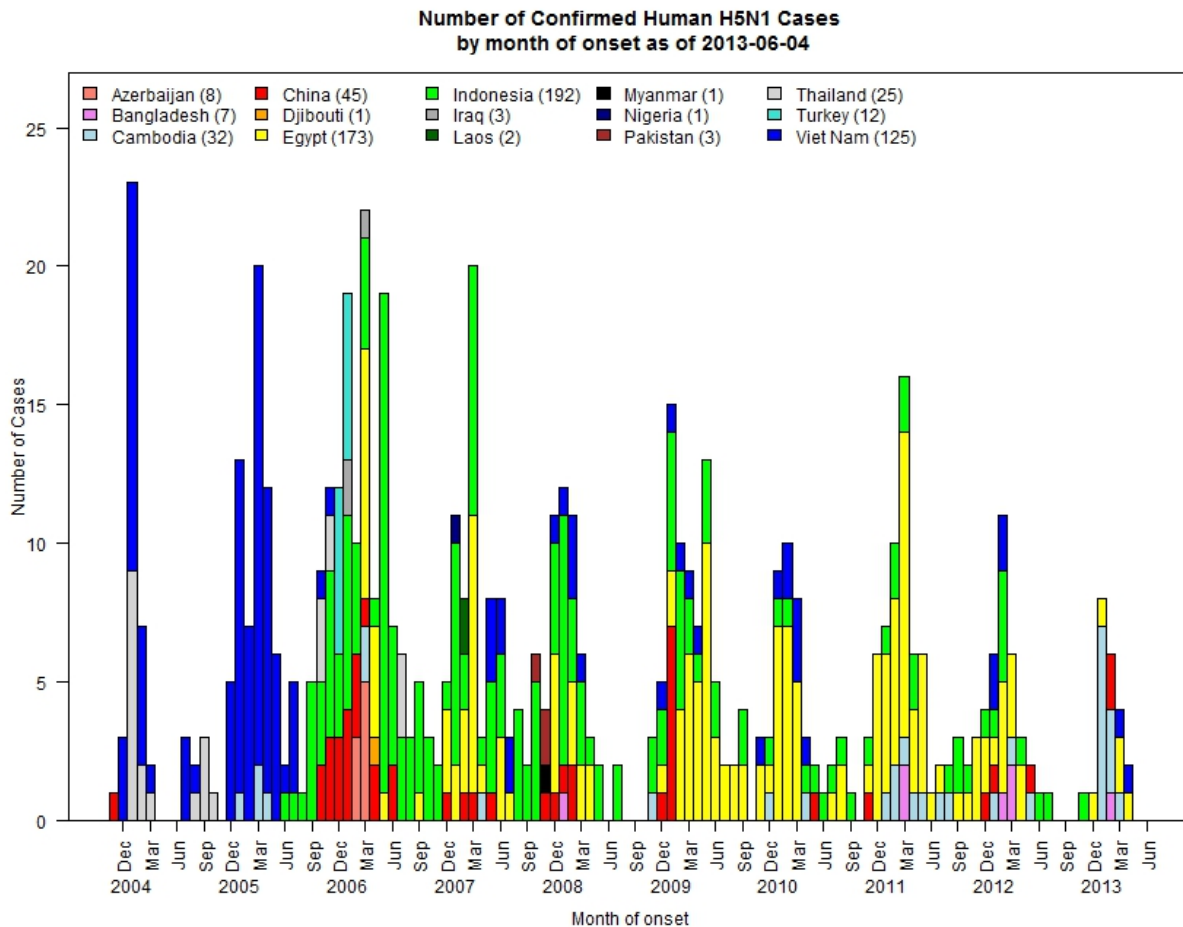
NA: not applicable or not available

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<sup>1</sup> 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>

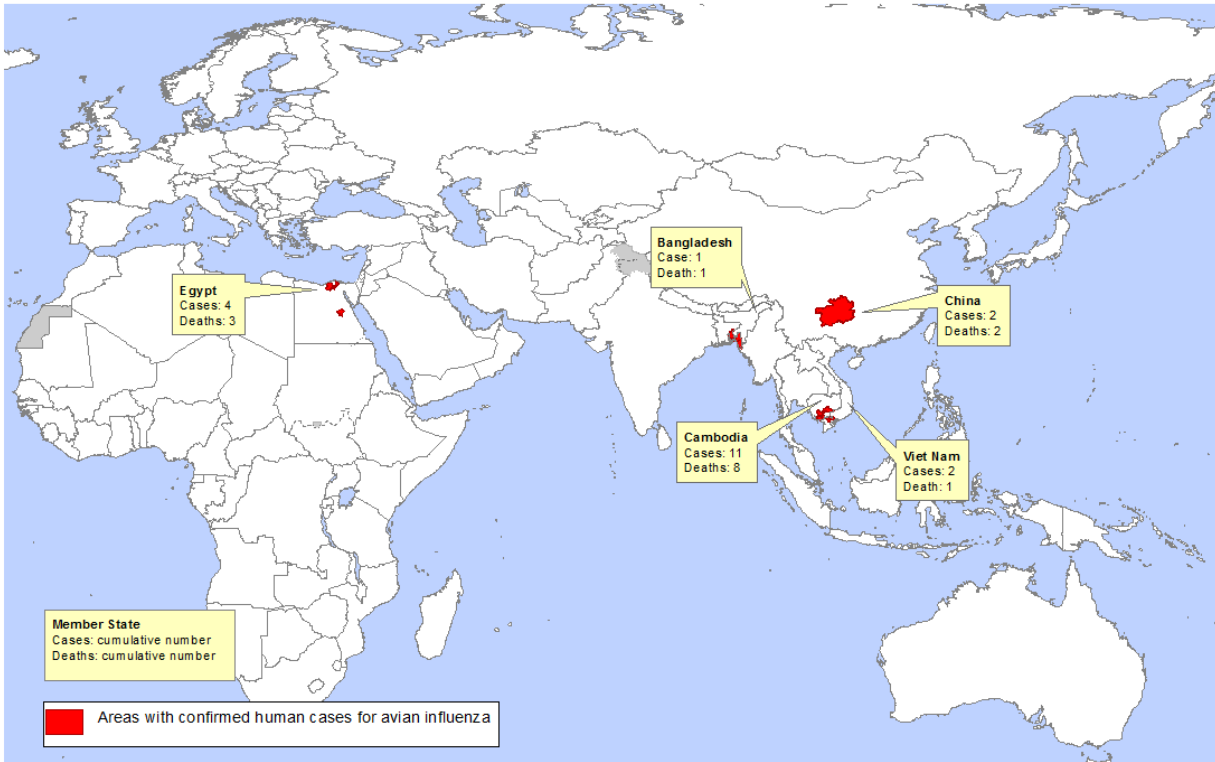
**Public health risk assessment of avian influenza A(H5N1) viruses:** Any time influenza viruses are circulating in poultry, sporadic infections or small clusters of human cases are possible especially in people exposed to infected poultry kept in households or contaminated environments. However, currently, this influenza 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**

Areas with confirmed human cases for avian influenza A(H5N1) reported to WHO, 2013- to-date\*,



\*All dates refer to onset of illness  
Data as of 04 June 2013  
Source: WHO/GIP

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## Human infection with other non-seasonal influenza viruses

### Avian influenza A(H7N9)

China has been reporting human cases of avian influenza A(H7N9) virus infection since the end of March 2013. There have been no new cases reported since 29 May. The last reported case had onset of illness on 21 May 2013. This event is closely monitored and separate risk assessments are carried out for this event. Please find the most updated information

at: [http://who.int/influenza/human\\_animal\\_interface/influenza\\_h7n9/en/index.html](http://who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html)

### Animal outbreaks with highly pathogenic avian influenza viruses with potential public health impact

Overall, official reports of animal influenza outbreaks are at their expected seasonal level ([http://www.oie.int/wahis\\_2/public/wahid.php/Diseaseinformation/WI](http://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI)). Normally with the onset of summer in the northern hemisphere, the number of reports of influenza events in birds is expected to decrease. Due to the human infections with avian influenza A(H7N9) virus and the presence of this virus in poultry in China, there is enhanced surveillance for various subtypes of avian influenza in both humans and animals in China, the countries neighboring China, and globally. It is therefore expected that more Influenza A(H5) and A(H7) events in humans and animals will be detected and reported, as well as identification of infections with a variety of other subtypes and reassortants. Many of these will not change the risk assessment. It is critical that these events be reported through the appropriate channels.

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/](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](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](http://www.who.int/influenza/human_animal_interface/avian_influenza/H5N1_avian_influenza_update.pdf)

Avian influenza A(H7N9) information

[http://who.int/influenza/human\\_animal\\_interface/influenza\\_h7n9/en/index.html](http://who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html)

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>

OFFLU

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

