Influenza at the human-animal interface

Summary and assessment as of 4 June 2012

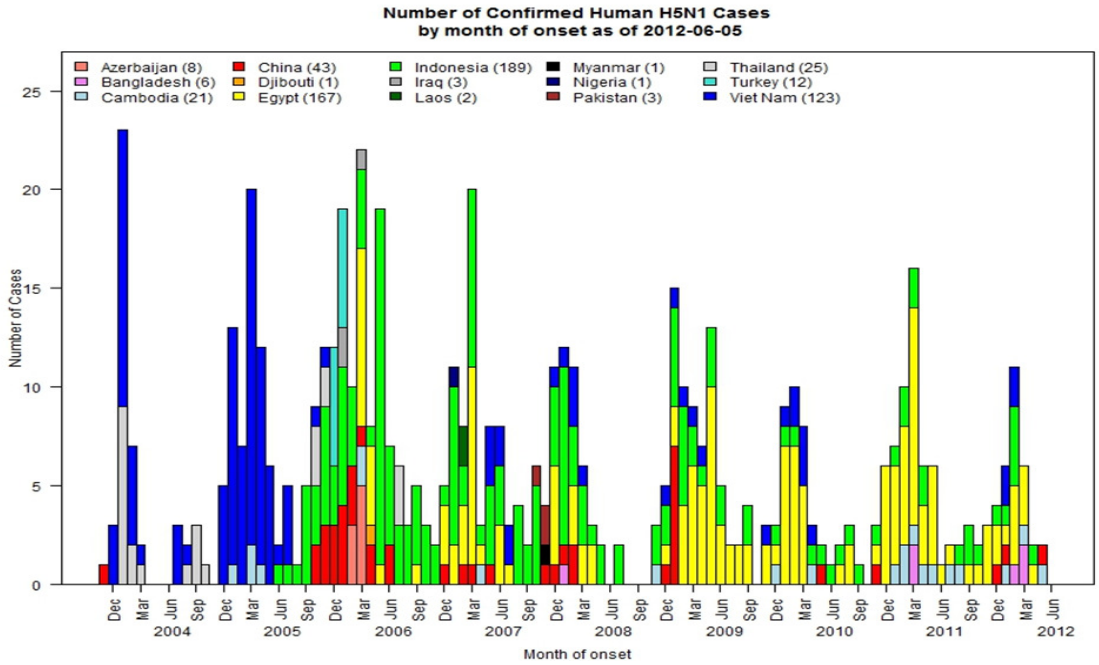
Human infections with avian influenza A(H5N1) virus and associated animal health events

From 2003 through 04 June 2012, 605 laboratory-confirmed human cases with avian influenza A(H5N1) virus infection have been officially reported to WHO from 15 countries, of which 357 died. Since January 2012, 27 human cases of influenza A(H5N1) virus infection have been reported to the WHO.

Between 7 May and 4 June 2012, 2 new human cases have been reported from Cambodia (1) and China (1)

According to FAO, H5N1 viruses are thought to be circulating endemically in poultry in China, Egypt, Indonesia, Viet Nam, Bangladesh and India. In Cambodia, sporadic reintroduction into poultry populations is thought to occur[1]. The epidemiologic curve of recent human cases (Figure 1) follows the same pattern seen in previous years, with larger numbers of cases in the winter months, decreasing towards summer in the northern hemisphere. This curve follows the seasonal curve of outbreaks in birds.

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



[1] Approaches to Controlling, Preventing and Eliminating H5N1 Highly Pathogenic Avian Influenza in Endemic Countries. Rome, United Nations Food and Agriculture Organization, 2011

The 2 new cases were sporadic cases. No further cases linked to the confirmed cases were reported. Both had exposure history (see Table 1). The H5N1 virus isolated from the specimen of the case in China belongs to the clade 2.3.2.1, which clusters with the viruses recently isolated from wild birds in China, Hong Kong Special Administrative Region (SAR), and from the human case detected in December 2010. Clade 2.3.2.1 is the predominant clade currently circulating in birds in the region[2]. No further virological information regarding the Cambodian case is yet available to WHO.

Table 1: laboratory-confirmed human cases of avian influenza A(H5N1) virus infection (5 March -2 April 2012)

Country	Province	Age (y)	Sex	Date of onset	Date of Hospitalisation	Oseltamivir treatment Start date	Date of death	Exposure to
Cambodia	Kampong Speu Province	10	F	20/05/2012	28703/2012 25/05/2012	NA	30/03/2012 27/05/2012	Sick/ dead poultry
China	Hong Kong SAR*	2	M	23/05/2012	28/05/2012	NA		Live animal market in Guangdong

NA: not applicable or not available
***Case travelled from Guangdong province to Hong Kong SAR seeking health care**

Overall public health risk assessment: A decrease in reported events in poultry is expected for this time of year. Two sporadic cases reported this month in countries with known influenza A(H5N1) circulation in poultry are within the expected range. These sporadic cases do not appear to have features that would raise concern regarding onward sustained human to human transmission.

All human infections with non-human influenza viruses as such are reportable to WHO under IHR (2005). More information on influenza at the human-animal interface is available from WHO (http://www.who.int/influenza/human_animal_interface/en/); additional information on influenza in animals is available from OIE (www.oie.int/animal-health-in-the-world/web-portal-on-avian-influenza/), FAO (www.fao.org/avianflu/en/index.html), and OFFLU (http://www.offlu.net/index.html).

Relevant Links:

WHO Table: 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

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

WHO Archive: Avian Influenza situation updates:
http://www.who.int/influenza/human_animal_interface/avian_influenza/archive/en/index.html

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

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

Updated unified nomenclature system for the highly pathogenic H5N1 avian influenza viruses
http://www.who.int/influenza/gisrs_laboratory/h5n1_nomenclature/en/index.html

[2] Antigenic and genetic characteristics of zoonotic influenza viruses and development of candidate vaccine viruses for pandemic preparedness Feb 2012
http://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/index.html