Influenza at the human-animal interface

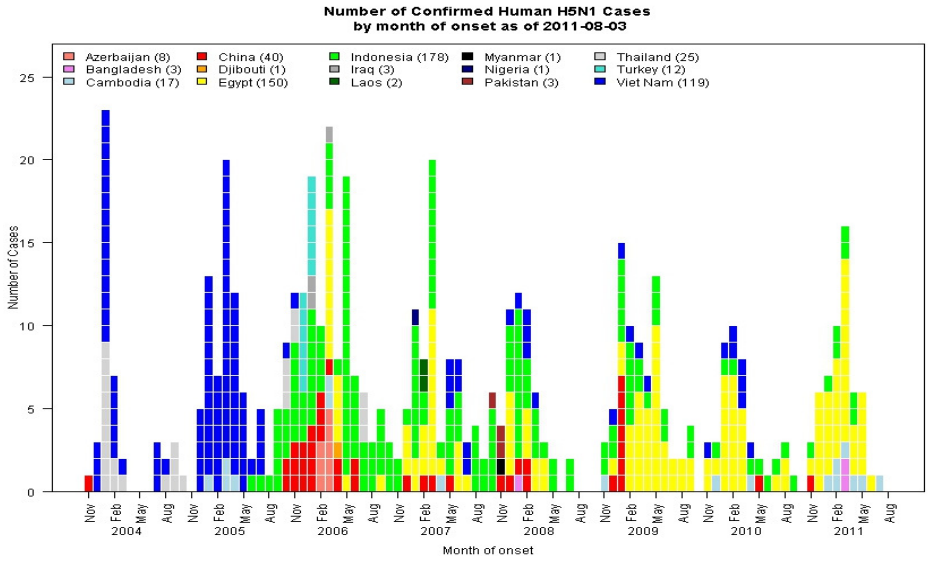
Summary and assessment as of 3 Aug 2011

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

As of 2 August, 563 confirmed human cases of infection with avian influenza H5N1 virus from 15 countries were reported to WHO (see figure). Of these, 330 died (CFR: 58.6%). Epidemiologic investigations have identified only limited human to human transmission of this virus since its emergence in 2003, and no community-level spread.

In the past month, only one human case of H5N1 infection was reported, from Cambodia. No other countries reported human cases since the last summary (4 July). The case, who died, was a 4 year old girl from Banteay Meanchey Province, Cambodia, with onset date on 11.07.2011. She was reported to have had exposure to dead poultry. Poultry outbreaks have recently been reported to the OIE from two villages in this province, as well as one outbreak in wild birds kept in a zoo in Takeo province. Birds in the two villages were culled. This is the seventh H5N1 human case reported from Cambodia in 2011, all of which were in people under 19 years of age and all of which were fatal. This is the highest number of human H5N1 cases reported in one year from Cambodia. The bases for the increased incidence and the high case fatality rate remain unclear.

In Cambodia, sporadic reintroduction of avian influenza H5N1 virus into poultry populations is thought to occur. Available information suggests that H5N1 viruses belonging to clade 1 are responsible for 2011 human cases and outbreaks in poultry. Currently, clade 1 viruses are being reported only from Viet Nam and Cambodia.



It is anticipated that people in Cambodia (as well as in the endemic counties) will continue to be exposed to the virus through contact with infected poultry or contaminated environments, and therefore sporadic human cases will occur as long as the virus continues to circulate in poultry.

Egypt and Indonesia have officially declared the H5N1 virus endemic in poultry[1], and information from FAO suggests the H5N1 virus is also circulating endemically in poultry in China, India, Viet Nam, and Bangladesh[2]. A decline in the overall number of poultry outbreaks reported through the FAO EMPRESi was seen in July. The number of infected villages in Indonesia, as detected by surveillance, has also decreased slightly in recent months. New outbreaks of HPAI H5N1 in poultry have been reported from Vietnam during July to the OIE. No other countries reported HPAI H5N1 in poultry or wild birds since the last summary. The downward trend in H5N1 events was predicted based on the seasonal pattern of outbreaks seen in previous years and the onset of warmer weather in the northern hemisphere. However, human cases are possible whenever the virus is circulating in birds, especially in household poultry. More information on animal influenza 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/csr/disease/avian_influenza/country/cases_table_2011_08_02/en/index.html

WHO Table: H5N1 avian influenza: timeline of major events
www.who.int/csr/disease/avian_influenza/ai_timeline/en/index.html

WHO Archive: Avian Influenza situation updates
www.who.int/csr/disease/avian_influenza/updates/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

Government of Egypt website: "Strengthening Avian Influenza Detection and Response" (SAIDR) website:
www.saidr.org/index.php

[1] OIE WAHID interface. HPAI Summary of Immediate notifications and Follow-ups - 2010. Available online: http://web.oie.int/wahis/public.php?page=disease_immediate_summary&disease_type=Terrestrial&disease_id=15

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