

Influenza at the human-animal interface

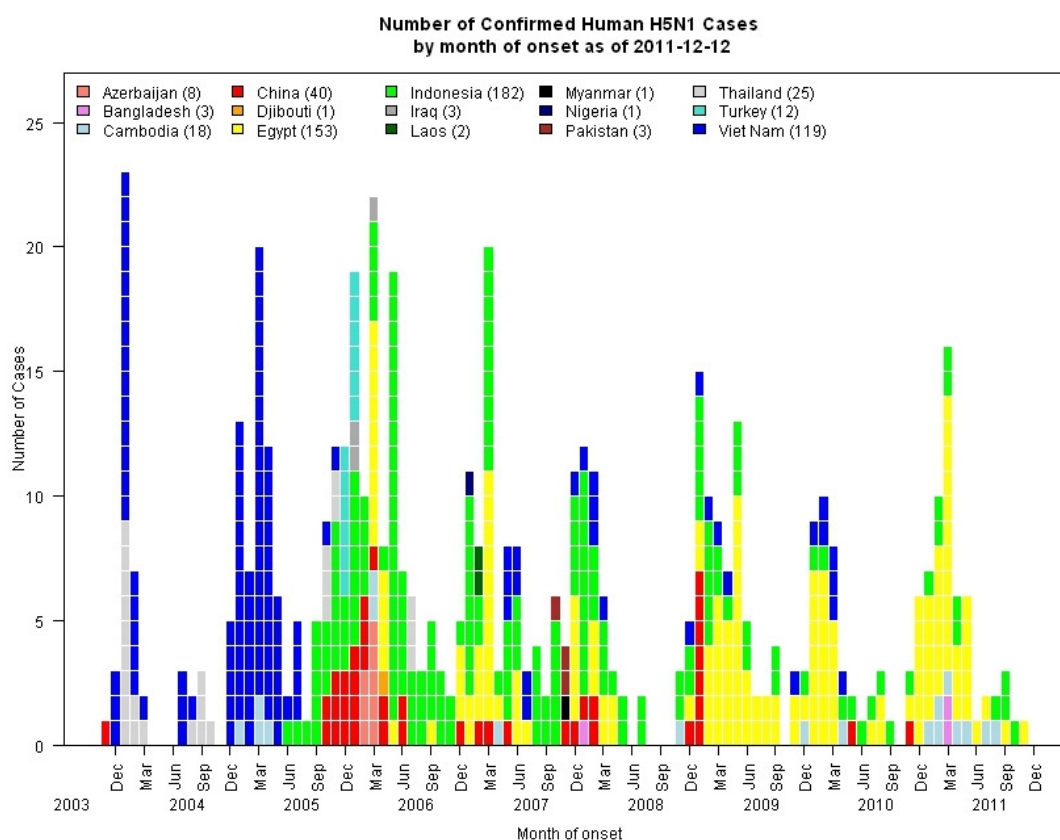
Summary and assessment as of 5 December 2011

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

As of 5 December 2011, 571 confirmed human cases of infection with avian influenza H5N1 virus from 15 countries have been reported to WHO (see epidemiological curve, below). Of these, 335 died (CFR: 58.7%). So far in 2011, 55 human cases have been reported from four countries: Bangladesh (2), Cambodia (8), Egypt (34), and Indonesia (11). Two new cases have been reported since the last summary (7 November, 2011); one in Egypt and one in Indonesia.

The Egyptian case occurred in a 31-year-old woman from Dakahlia Governorate who was hospitalised in critical condition but recovered. The virus continues to circulate in poultry in many governorates in Egypt.

The Indonesian case occurred in a 29-year old woman from Bali, who died. She was the mother of the two siblings from Bali reported in the last summary, all of whom had exposure to sick poultry



Both Indonesia and Egypt have officially declared the H5N1 virus endemic in poultry¹, and information from FAO suggests the H5N1 virus is also circulating endemically in poultry in China, India, Viet Nam, and Bangladesh². In Cambodia, sporadic reintroduction into poultry populations is thought to occur. The slightly increasing numbers of outbreaks in birds identified globally was not evident this month, but would be expected during this period of the year, and a continued upward trend in H5N1 events in both birds and humans is predicted based on the historical seasonal pattern of outbreaks.

It is anticipated that people in countries experiencing outbreaks of H5N1 in poultry 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, especially in household poultry.

Epidemiologic investigations have identified only limited human-to-human transmission of this virus since its emergence in 2003, and no community-level transmission has been noted. Therefore, the sporadic cases and small clusters being reported are not considered unusual and are not thought to indicate any increase in public health risk. As well, recent reported evolution of the H5N1 virus is not thought to indicate any increase in public health risk³.

Human infections with other animal influenza viruses

Over the past 3 months, a total of 10 cases of infection with a variant influenza (H3N2) virus have been reported from several states in the USA, including a cluster of three cases in children. All 10 cases have recovered. Although some of the cases have a history of attending the same gatherings or agricultural events, only the cluster of children had any known epidemiological connection with each other, and there is no evidence of further human spread. This variant H3N2 virus (H3N2v) is thought to be circulating in widely in swine populations in the USA, and additional sporadic cases and small clusters of human infections with this or another swine-origin virus would not be unlikely. The WHO has already developed a candidate human vaccine virus based on a variant H3N2 virus isolated in 2010.

(http://www.who.int/influenza/vaccines/virus/candidates_reagents/a_h3n2_soiv/en/index.html).

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

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

³ http://www.who.int/influenza/human_animal_interface/avian_influenza/h5n1-2011_08_30/en/index.html

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