Human infection with avian influenza A(H5) viruses

Human infection with avian influenza A(H5N1) virus
Between 28 July and 3 August 2017, no new cases of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region.

As of 3 August 2017, a total of 238 cases of human infection with avian influenza A(H5N1) virus were reported from four countries within the Western Pacific Region since January 2003 (Table 1). The last case was reported on 14 January 2016. Of these cases, 134 were fatal, resulting in a case fatality rate (CFR) of 56%.

Table 1: Cumulative number laboratory-confirmed human cases (C) and deaths (D) of influenza A(H5N1) virus infection reported to WHO (January 2003 to 3 August 2017), Western Pacific Region.

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<tbody>
<tr>
<td>Cambodia</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>26</td>
<td>14</td>
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<tr>
<td>China</td>
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<td>26</td>
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<td>2</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Viet Nam</td>
<td>119</td>
<td>59</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>Total</td>
<td>171</td>
<td>95</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>30</td>
<td>17</td>
<td>13</td>
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From January 2003 to 3 August 2017, there were 859 cases of human infection with avian influenza A(H5N1) virus reported from 16 countries worldwide. Of these cases, 453 were fatal, resulting in a CFR of 52.7%.

(source: http://www.who.int/influenza/human_animal_interface/H5N1_cumulative_table_archives/en/)

Human infection with avian influenza A(H5N6) virus
Between 28 July and 3 August 2017, no new cases of human infection with avian influenza A(H5N6) virus were reported to WHO in the Western Pacific Region. The last case was reported on 1 December 2016 (source: http://www.who.int/csr/don/07-december-2016-ah5n6-china/en/). A total of 16 laboratory-confirmed cases of human infection with influenza A(H5N6) virus, including six deaths, have been reported to WHO from China since 2014.

Public health risk assessment for human infection with avian influenza A(H5) viruses
Whenever avian influenza viruses are circulating in poultry, sporadic infections and small clusters of human cases are possible in people exposed to infected poultry or contaminated environments; therefore sporadic human cases are not unexpected.

With the rapid spread and magnitude of avian influenza outbreaks due to existing and new influenza A(H5) viruses in poultry in areas that have not experienced this disease in poultry recently, there is a need for increased vigilance in the animal and public health sectors. Community awareness of the potential dangers for human health is essential to prevent infection in humans. Surveillance should be enhanced to detect human infections if they occur and to detect early changes in transmissibility and infectivity of the viruses.

For more information on confirmed cases of human infection with avian influenza A(H5) virus reported to WHO, visit: http://www.who.int/influenza/human_animal_interface/en/
Human infection with avian influenza A(H7N9) virus in China

Between 28 July and 3 August 2017, no new cases of human infection with avian influenza A(H7N9) virus were published in Disease Outbreak News. The cases reported in the most recent publication in Disease Outbreak News (dated 19 July 2017) were notified to WHO between 19-30 June 2017 (Source: http://www.who.int/csr/don/19-july-2017-ah7n9-china/en/). As of 3 August, a total of 1,554 laboratory-confirmed human infections with avian influenza A(H7N9) virus have been reported to WHO and published in Disease Outbreak News since early 2013.

China CDC reported on 30 June 2017 that during the fifth wave (since October 2016), 25 human cases were infected with highly pathogenic avian influenza (HPAI) A(H7N9) virus, which had changes in the hemagglutinin gene indicating a change to high pathogenicity in poultry. Mean age of these 25 patients was 57 years old (range: 17-80) and 16 were male. Onset dates of illness ranged from 17 December 2016 to 14 March 2017, and were from Guangdong (8), Guangxi (12), Hunan (4), and Taiwan (1, the case had travel history to Guangdong). No increased transmissibility or virulence to human cases has been detected related to the HPAI A(H7N9) virus (http://www.chinaivdc.cn/cnic/en/Surveillance/WeeklyReport/201706/t20170630_144621.htm). No further HPAI cases have been reported since 30 June 2017.

WHO is continuing to assess the epidemiological situation and will conduct further risk assessments as new information becomes available. The number and geographical distribution of human infections with avian influenza A(H7N9) viruses in the fifth epidemic wave (since October 2016) is greater than previous waves.

Further sporadic human cases of avian influenza A(H7N9) virus infection are expected in affected and possibly neighbouring areas. Should human cases from affected areas travel internationally, their infection may be detected in another country during or after arrival. However, if this were to occur, community level spread is considered unlikely as the virus does not have the ability to transmit easily among humans.

To date, there has been no evidence of sustained human-to-human transmission of avian influenza A(H7N9) virus. Human infections with the A(H7N9) virus are unusual and need to be monitored closely in order to identify changes in the virus and transmission behaviour to humans as this may have serious public health impacts.

For more information on human infection with avian influenza A(H7N9) virus reported to WHO: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/

Animal infection with avian influenza virus

Between 28 July and 3 August 2017, there were updates by OIE on outbreaks of highly pathogenic avian influenza H5N2 in naïve chickens in a slaughterhouse in Taiwan, China. The outbreaks started 13 July 2017, and are still ongoing. A total of 153 birds out of 1,096 susceptible birds have died due to the infection and 943 have been culled as a control measure. http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?reportid=24444

For more information on animal infection with avian influenza viruses with potential public health impact, visit:

- OFFLU: http://www.offlu.net/
Latest information on human seasonal influenza
For the latest information on the seasonal influenza situation in the Western Pacific Region, visit:
http://www.wpro.who.int/emerging_diseases/Influenza/en

For latest information on the global seasonal influenza situation, visit:

Epidemiology:
http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance

Virology:
http://www.who.int/influenza/gisrs_laboratory/updates/summaryreport

Other updates

WHO Risk Assessment of human infection with avian influenza A(H7N9) virus
15 June 2017 posted on WHO website
http://www.who.int/influenza/human_animal_interface/
Influenza_Summary_IRA_HA_interface_06_15_2017.pdf?ua=1

Recommended composition of influenza virus vaccines for use in the 2017-2018 northern hemisphere influenza season. 2 March 2017

Recommended composition of influenza virus vaccines for use in the 2017 southern hemisphere influenza season. 29 September 2016

Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines — 2 March 2017
http://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/

H7N9 situation update (FAO) — 28 June 2017

TIPRA Frequently Asked Questions — March 2017