Human infection with avian influenza A(H5) viruses

Human infection with avian influenza A(H5N1) virus
Between 25 and 31 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 1 September 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 1 September 2017), Western Pacific Region.

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</thead>
<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>
<td>9</td>
<td>4</td>
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<tr>
<td>China</td>
<td>40</td>
<td>26</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Lao PDR</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Viet Nam</td>
<td>119</td>
<td>59</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
<td>95</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>30</td>
<td>17</td>
<td>13</td>
<td>6</td>
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</table>

Globally, from January 2003 to 31 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%.


Human infection with avian influenza A(H5N6) virus
Between 25 and 31 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/](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/](http://www.who.int/influenza/human_animal_interface/en/)
Human infection with avian influenza A(H7N9) virus in China

Between 25 August and 31 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 7 August 2017) were notified to WHO on 11, 14 and 21 July 2017, respectively (Source: http://www.who.int/csr/don/07-august-2017-ah7n9-china/en/). As of 17 August, a total of 1,557 laboratory-confirmed human infections with avian influenza A(H7N9) virus have been reported to WHO since early 2013 and published in Disease Outbreak News.

On 28 August 2017, China CDC reported 2 additional human cases with highly pathogenic avian influenza (HPAI) A(H7N9) virus (changes in the hemagglutinin gene indicating a change to high pathogenicity in poultry) during the fifth wave (since October 2016). This brings the total number of human cases with HPAI A(H7N9) virus during 5th wave to 27. These 27 cases were from Guangdong, Guangxi, Hebei, Hunan, Shaanxi and Taiwan (the case had travel history to Guangdong) with illness onset date before July 2017.

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/201708/t20170828_151326.htm). No increased transmissibility or virulence to human cases was detected in the HPAI A(H7N9) virus.

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 25 August and 31 August 2017, poultry outbreaks of HPAI were reported from 3 Member States by OIE: HPAI A(H5N1) in Bac Lieu province, Viet Nam; HPAI A(H5N6) in Guizhou province, China; and HPAI A(H5N6) in Nueva Ecija province, Philippines.

HPAI A(H5N1) outbreak in Vietnam

New outbreaks of HPAI A(H5N1) in backyard poultry were reported from in Bac Lieu province. The outbreak started on 24 August 2017, and is still ongoing. A total of 600 birds out of 3,200 susceptible birds have died and the remaining 2,600 have been culled as a control measure.

HPAI A(H5N6) outbreak in China
New outbreaks of HPAI A(H5N6) in domestic quails in a farm were reported in Guizhou province. The outbreak started on 10 August 2017, and is still ongoing. A total of 9,752 birds out of 21,213 susceptible birds have died and 8,110 have been culled as a control measure.

HPAI A(H5N6) outbreak in Philippine
Two outbreaks started on 6 and 9 August 2017 of HPAI A(H5N6) in two farms are still ongoing in Nueva Ecija province. A total of 9,197 birds out of 37,000 susceptible birds have died and the remaining 27,603 have been culled as a control measure.

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) — 23 August 2017

TIPRA Frequently Asked Questions—March 2017