Human infection with avian influenza A(H5) viruses

Human infection with avian influenza A(H5N1) virus
From 23 December 2016 to 5 January 2017, no new cases of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region.

From January 2003 to 5 January 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 (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 19 December 2016), Western Pacific Region.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Cambodia</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>26</td>
<td>14</td>
</tr>
<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>
</tr>
<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>
</tr>
<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>
</tr>
<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>
</tr>
</tbody>
</table>

From January 2003 to 19 December 2016, there were 856 cases of human infection with avian influenza A(H5N1) virus reported from 16 countries worldwide. Of these cases, 452 were fatal, resulting in a CFR of 52.8%.

Human infection with avian influenza A(H5N6) virus
From 23 December 2016 to 5 January 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 animals 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

From 23 December 2016 to 5 January 2017, two additional human infections with avian influenza A(H7N9) virus were notified to WHO from Hong Kong Special Administrative Region (SAR) (source; http://www.who.int/csr/don/19-december-2016-2-ah7n9-china/en/, http://www.who.int/csr/don/19-december-2016-1-ah7n9-china/en/).

On 20 December 2016, the Department of Health, Hong Kong SAR reported a human infection with avian influenza A(H7N9) virus to WHO. The case is a 75-year-old man who travelled to Guangdong province from 28 November to 9 December 2016. On 8 December he developed symptoms. On 9 December he returned to Hong Kong SAR, was directly admitted to hospital, and tested negative for influenza virus. However on 19 December he was confirmed with avian influenza A(H7N9) virus RNA. His condition deteriorated and on 25 December he passed away.

On 30 December 2016, the Department of Health, Hong Kong SAR reported another human infection with avian influenza A(H7N9) virus to WHO. The case is a 70-year old man with underlying chronic conditions, who travelled to Guangdong province from 13 to 16 December 2016. On 26 December he developed symptoms, and on 28 December he was admitted to hospital and a sputum sample tested positive for avian influenza A(H7N9) virus RNA. The patient was in serious condition at the time of report.

To date, a total of 809 laboratory-confirmed human infections with avian influenza A(H7N9) virus have been reported to WHO since early 2013.

WHO is continuing to assess the epidemiological situation and will conduct further risk assessments with new information. Overall, the public health risk from avian influenza A(H7N9) viruses has not changed.

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. If this were to occur, community level spread is considered unlikely as the virus does not have the ability to transmit easily among humans.

Public health risk assessment for avian influenza A (H7N9) virus

On 23 February 2015, WHO conducted a public health risk assessment for avian influenza A(H7N9). This assessment found the overall public health risk from avian influenza A(H7N9) viruses has not changed since the previous assessment, published on 2 October 2014. 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/or its transmission behaviour to humans as it may have a serious public health impact.

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

From 23 December 2016 to 5 January 2017, new avian influenza H5N6 outbreaks among poultry were reported in Japan and China.

Highly pathogenic avian influenza (HPAI) H5N6 outbreak in poultry, Japan
Seven new outbreaks of HPAI H5N6 infection in poultry were reported in Aomori prefecture (2), Niigata (2), Hokkaido (1), Kumamoto (1) and Miyazaki (1). The first outbreak started on 28 November 2016 and the last one on 28 December 2016. In total, 425 birds died due to infection and 978,490 were destroyed. [http://www.oie.int/wahis_2/temp/reports/en_fup_0000022064_20161228_194100.pdf](http://www.oie.int/wahis_2/temp/reports/en_fup_0000022064_20161228_194100.pdf)

Highly pathogenic avian influenza (HPAI) H5N6 outbreak in poultry, China
Two new outbreaks of HPAI H5N6 infection in poultry were reported in Sichuan (1) and Xinjiang (1). The outbreak in Sichuan started on 7 December 2016, and a total of 11,000 birds died due to infection and 38,000 were destroyed. The outbreak in Xinjiang started on 17 December 2016, and a total of 10,716 birds died and 55,903 were destroyed. [http://www.oie.int/wahis_2/temp/reports/en_imm_0000021867_20161229_131303.pdf](http://www.oie.int/wahis_2/temp/reports/en_imm_0000021867_20161229_131303.pdf) [http://www.oie.int/wahis_2/temp/reports/en_imm_0000022062_20161229_131014.pdf](http://www.oie.int/wahis_2/temp/reports/en_imm_0000022062_20161229_131014.pdf)

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

- OFFLU: [http://www.offlu.net/](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/index.html](http://www.wpro.who.int/emerging_diseases/Influenza/en/index.html)

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

- Epidemiology: [http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance)
- Virology: [http://www.who.int/influenza/gisrs_laboratory/updates/summaryreport](http://www.who.int/influenza/gisrs_laboratory/updates/summaryreport)
Other updates

Influenza at the human-animal interface — Summary and assessment as of 21 November 2016

WHO Risk Assessment of human infection with avian influenza A(H7N9) virus
23 February 2015 posted on WHO website
http://www.who.int/influenza/human_animal_interface/influenza_h7n9/RiskAssessment_H7N9_23Feb2015.pdf?ua=1


Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines—29 September 2016
http://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/

H7N9 situation update (FAO) — 30 November 2016