

## Human infection with avian influenza A (H5) viruses

### Human infection with avian influenza A(H5N1) virus

From 4 to 10 December 2015, **no new cases** of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region.

From February 2003 to 10 December 2015, 237 cases of human infection with avian influenza A(H5N1) virus were reported from four countries within the Western Pacific Region (Table 1). Of these cases, 134 were fatal, resulting in a case fatality rate (CFR) of 57%.

**Table 1: Cumulative number laboratory-confirmed human cases (C) and deaths (D) of influenza A(H5N1) virus infection reported to WHO (January 2003 to 10 September 2015), Western Pacific Region.**

Country	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		Total	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
Cambodia	0	0	0	0	4	4	2	2	1	1	1	0	1	0	1	1	8	8	3	3	26	14	9	4	0	0	56	37
China	1	1	0	0	8	5	13	8	5	3	4	4	7	4	2	1	1	1	2	1	2	2	2	0	5	1	52	31
Lao PDR	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
Viet Nam	3	3	29	20	61	19	0	0	8	5	6	5	5	5	7	2	0	0	4	2	2	1	2	2	0	0	127	64
<b>Total</b>	<b>4</b>	<b>4</b>	<b>29</b>	<b>20</b>	<b>73</b>	<b>28</b>	<b>15</b>	<b>10</b>	<b>16</b>	<b>11</b>	<b>11</b>	<b>9</b>	<b>13</b>	<b>9</b>	<b>10</b>	<b>4</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>6</b>	<b>30</b>	<b>17</b>	<b>13</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>237</b>	<b>134</b>

From 2003 to 10 December 2015, there have been 844 cases of human infection with avian influenza A(H5N1) virus reported from 16 countries worldwide. Of these cases, 449 were fatal, resulting in a CFR of 53%.

### Human infection with avian influenza A (H5N6) virus

From 4 to 10 December 2015, **no new cases** of human infection with avian influenza A(H5N6) virus were reported to WHO in the Western Pacific Region. Since May 2014, four human cases of influenza A(H5N6) have been reported, globally, all four cases were reported from China.

### 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 would not be 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/](http://www.who.int/influenza/human_animal_interface/en/)

## Human infection with avian influenza A (H7N9) virus in China

From 4 to 10 December 2015, **no new cases** of human infection with avian influenza A (H7N9) virus were reported to WHO in the Western Pacific Region and no further cases have been reported since 11 November 2015.

<http://www.who.int/csr/don/13-november-2015-avian-influenza-china/en/>

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) 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) viruses

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.

*For more information on human infection with avian influenza A (H7N9) virus reported to WHO, visit:*

[http://www.who.int/influenza/human\\_animal\\_interface/influenza\\_h7n9/en/](http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/)

*For more information on risk assessment on avian influenza A(H7N9) virus, visit:*

[http://www.who.int/influenza/human\\_animal\\_interface/influenza\\_h7n9/RiskAssessment\\_H7N9\\_23Feb2015.pdf](http://www.who.int/influenza/human_animal_interface/influenza_h7n9/RiskAssessment_H7N9_23Feb2015.pdf)

## Animal infection with avian influenza

From 4 to 10 December, 10 outbreaks of avian influenza virus in birds were reported in the Western Pacific Region; Six in Taiwan, China (4 HPAI H5N2 and 2 HPAI H5N8), three in Republic of Korea and one in Viet Nam.

### HPAI H5N8 outbreak in poultry, Republic of Korea

Three new outbreaks of HPAI H5N8 infection in poultry were reported in Jeollanam-do province. The first outbreak started on 13 November and the last one on 15 November. In total, 70,023 birds were destroyed.

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/Review?page\\_refer=MapFullEventReport&reportid=19130](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=19130)

### HPAI H5N8 outbreak in poultry, Taiwan, China

Two new outbreaks of HPAI H5N8 infection in poultry were reported in Tainan city and Chiayi county. The outbreaks started on 14 September and resulted in 1,329 bird deaths with an additional 1,671 birds destroyed.

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/Review?page\\_refer=MapFullEventReport&reportid=19247](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=19247)

### HPAI H5N2 outbreak in poultry, Taiwan, China

Four new outbreaks of HPAI H5N2 infection in poultry were reported in Taiwan, China (3 in Pingtung county and 1 in Hualien county). The first outbreak started on 16 November and the last one on 24 November. In total, there were 12,779 bird deaths with an additional 14,099 birds destroyed.

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/Review?page\\_refer=MapFullEventReport&reportid=19227](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=19227)

### HPAI H5N6 outbreak in poultry, Viet Nam

A new outbreak of HPAI H5N6 infection in poultry was reported in Quang Ninh province. The outbreak started on 7 December 2015 and resulted in 100 bird deaths with an additional 605 birds destroyed.

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/Review?page\\_refer=MapFullEventReport&reportid=19316](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=19316)

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

- World Organization of Animal Health (OIE) web page:  
<http://www.oie.int/animal-health-in-the-world/web-portal-on-avian-influenza/>  
and <http://www.oie.int/animal-health-in-the-world/update-on-avian-influenza>
- Food and Agriculture Organization of the UN (FAO) webpage: Avian Influenza:  
<http://www.fao.org/avianflu/en/index.html>
- OFFLU:  
<http://www.offlu.net/>
- EMPRES:  
<http://www.fao.org/ag/aqainfo/programmes/en/empres.html>

## 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/qisrs\\_laboratory/updates/summaryreport](http://www.who.int/influenza/qisrs_laboratory/updates/summaryreport)

## Other updates

*Influenza at the human-animal interface — Summary and assessment as of 13 November 2015*

[http://www.who.int/influenza/human\\_animal\\_interface/Influenza\\_Summary\\_IRA\\_HA\\_interface\\_13November\\_2015.pdf?ua=1](http://www.who.int/influenza/human_animal_interface/Influenza_Summary_IRA_HA_interface_13November_2015.pdf?ua=1)

*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\\_23Feb20115.pdf?ua=1](http://www.who.int/influenza/human_animal_interface/influenza_h7n9/RiskAssessment_H7N9_23Feb20115.pdf?ua=1)

*WHO Recommended composition of influenza virus vaccines for use in the 2016 southern hemisphere influenza season—24 September 2015*

[http://www.who.int/influenza/vaccines/virus/recommendations/2016\\_south/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2016_south/en/)

*Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines—24 September 2015*

[http://www.who.int/influenza/vaccines/virus/characteristics\\_virus\\_vaccines/en/](http://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/)

*H7N9 situation update (FAO) —8 Decemberr 2015*

[http://www.fao.org/aq/aqainfo/programmes/en/empres/H7N9/Situation\\_update.html](http://www.fao.org/aq/aqainfo/programmes/en/empres/H7N9/Situation_update.html)