

8 January 2021

Human infection with avian influenza A(H5) viruses

Human infection with avian influenza A(H5N1) virus

Between 1 and 7 January 2021, **no new case** of human infection with avian influenza A(H5N1) virus was reported to WHO in the Western Pacific Region.

As of 7 January 2021, a total of 239 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). Of these cases, 134 were fatal, resulting in a case fatality rate (CFR) of 56%. The last case was reported from Lao PDR, with an onset date of 13 October 2020 (one case, no death).

Table 1: Cumulative number of laboratory-confirmed human cases (C) and deaths (D) of influenza A(H5N1) virus infection reported to WHO, by date of onset (January 2003 to 7 January 2021), Western Pacific Region.

Country	2003-2009		2010-2014		2015		2016		2017		2018		2019		2020		2021		Total	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
Cambodia	9	7	47	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	37
China	38	25	9	5	6	1	0	0	0	0	0	0	0	0	0	0	0	0	53	31
Lao PDR	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	2
Viet Nam	112	57	15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	64
Total	161	91	71	42	6	1	0	0	0	0	0	0	0	0	0	0	0	0	239	134

Globally, from January 2003 to 7 January 2021, there were 862 cases of human infection with avian influenza A(H5N1) virus reported from 17 countries. Of these 862 cases, 455 were fatal (CFR of 53%). The last case was reported from Lao PDR on 13 October 2020 ([source](#)).

Human infection with avian influenza A(H5N6) virus

Between 1 and 7 January 2021, **one new case** of human infection with avian influenza A(H5N6) virus was reported to WHO in the Western Pacific Region.

The case was a 51-year-old male farmer from Yongchuan, Chongqing, China who had exposure to domestic poultry prior to the onset of illness. He developed symptoms on 18 December 2020, was admitted to hospital on 28 December for severe pneumonia and was reportedly in critical condition at time of report. In 2020 there were two cases reported from China and this case is the first case reported from China in 2021. To date, a total of 27 laboratory-confirmed cases of human infection with influenza A(H5N6) virus 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, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected poultry or contaminated environments. Therefore, sporadic human cases are not unexpected.

With continued incidence of avian influenza due to existing and new influenza A(H5) viruses in poultry, there is a need to remain vigilant 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 continued to detect human cases and 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/

For information on monthly risk assessments on Avian Influenza, visit: http://www.who.int/influenza/human_animal_interface/HAIRiskAssessment/en/

Human infection with avian influenza A(H7N4) virus in China

Between 1 and 7 January 2021, **no new cases** of human infection with avian influenza A(H7N4) virus were reported to WHO in the Western Pacific Region. To date, only one laboratory-confirmed case of human infection with influenza A(H7N4) virus has been reported to WHO. This case was reported from China on 14 February 2018.

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

Between 1 and 7 January 2021, **no new cases** of human infection with avian influenza A(H7N9) virus were reported to WHO in the Western Pacific Region. As of 7 January 2021, a total of 1,568 laboratory-confirmed human infections with avian influenza A(H7N9) virus have been reported to WHO since early 2013. Among them, 33 cases were infected with HPAI A(H7N9) virus, which have mutations in the hemagglutinin gene indicating a change to high pathogenicity in poultry. These 33 cases were from Taiwan (the case had travel history to Guangdong), Guangxi, Guangdong, Hunan, Shaanxi, Hebei, Henan, Fujian, Yunnan, Inner Mongolia. No increased transmissibility or virulence of the virus within human cases has been detected related to the HPAI A(H7N9) virus ([source](#)).

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 (1 October 2016 to 30 September 2017) was greater than previous waves and the subsequent 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 is 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/

Human infection with avian influenza A(H9N2) in China

Between 1 and 7 January 2021, **one new case** of human infection with avian influenza A(H9N2) virus was reported in the Western Pacific Region.

The case was a 1-year-and 4-month-old male from Yunfu, Guangdong Province, China, who had exposure to domestic poultry prior to the onset of illness. He developed mild symptoms on 28 December, 2020 and was admitted to a hospital on 29 December. As of 4 January 2021, no family cluster was reported. This is the first case to be reported from China in 2021.

Additionally, on 9 December 2020, **six new cases** of human infection with avian influenza A(H9N2) virus were reported in the Western Pacific Region. The cases were retrospectively detected through Influenza-like illness Surveillance (ILI) between July 2019 and December 2020. No deaths were reported among the reported cases and all six reported mild symptoms. Five of the cases had exposure to poultry and one case had no clear poultry exposure. No family clusters were reported from any of the six cases. In 2020, there were thirteen cases reported from China. A total of 42 cases of human infection with avian influenza A(H9N2) in China have been reported since December 2015.

Animal infection with avian influenza virus

Between 1 and 7 January 2021, **thirty one new outbreaks** of avian influenza were reported to OIE from the Western Pacific Region.

Highly pathogenic avian influenza virus A(H5N5) in Taiwan, China

On 4 January, **two new outbreaks** of highly pathogenic avian influenza A(H5N5) among poultry were reported to OIE from Taiwan, China. The outbreaks occurred in Dacheng Township, Changhua County, and Yuanchang Township, Yunlin County. Among 35,384 susceptible birds, there were 5,200 cases including 5,200 deaths and the remaining 30,184 birds were culled ([Source](#)).

Highly pathogenic avian influenza virus A(H5N8) in Republic of Korea

On 3 January, **fifteen new outbreaks** of highly pathogenic avian influenza A(H5N8) among wild birds were reported to OIE from the Republic of Korea. The poultry outbreaks were reported from Jeollabuk, Chungcheongnam, Jeollanam, Gyeongsangbuk and Gyeonggi provinces.

On 4 January, a further **nine new outbreaks** of highly pathogenic avian influenza A(H5N8) among poultry were reported to OIE from the Republic of Korea. The outbreaks occurred in Chungcheongnam, Gyeonggi, Gangwon, Chungcheongbuk, Gyeongsangnam, Jeollanam, Gyeongsangbuk provinces.

In total, among 589,794 susceptible birds, there were 1,713 cases including 1,708 deaths and 588,096 birds were culled (Source [1](#), [2](#)).

Highly pathogenic avian influenza virus A(H5N8) in Japan

On 4 January, **five new outbreaks** of highly pathogenic avian influenza A(H5N8) among poultry and wild birds were reported to OIE from Japan. The four poultry outbreaks occurred in Kagawa, Chiba, Gifu and Miyazaki prefectures and one wild bird outbreak occurred in Saitama prefecture. Among 1,407,000 susceptible birds, there were 289 cases including 289 deaths and the remaining 1,406,712 birds were culled (Source [1](#), [2](#)).

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

- [World Organization for Animal Health \(OIE\) web page: Weekly disease information and Latest report on Avian Influenza](#)
- [Food and Agriculture Organization of the UN \(FAO\) webpage: Avian Influenza](#)
- [OFFLU: Animal Influenza](#)
- [Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases \(EMPRES\)](#)

Other updates

- [WHO Risk Assessment of human infection with avian influenza A virus.](#) 9 December 2020
 - Risk assessment summary: The overall public health risk from currently known influenza viruses at the human-animal interface has not changed, and the likelihood of sustained human-to-human transmission of these viruses remains low. Human infections with viruses of animal origin are expected at the human-animal interface wherever these viruses circulate in animals.
- [Recommended composition of influenza virus vaccines for use in the 2021 southern hemisphere influenza season.](#) 25 September 2020

- [WHO SAGE Seasonal Influenza Vaccination Recommendations during the COVID-19 Pandemic Interim guidance.](#) 21 September 2020
- [WHO Consultation and Information Meeting on the Composition of Influenza Virus Vaccines for Use in the 2021 Southern Hemisphere Influenza Season.](#) 16 September - 02 October 2020
- [Recommended composition of influenza virus vaccines for use in the 2020 - 2021 northern hemisphere influenza season.](#) 28 February 2020
- [WHO Consultation and Information Meeting on the Composition of Influenza Virus Vaccines for Use in the 2020-21 Northern Hemisphere Influenza Season.](#) 24-27 February 2020
- [Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines.](#) 1 October 2020
- [H7N9 situation update \(FAO\).](#) 4 December 2019
- [TIPRA Frequently Asked Questions.](#) March 2017