

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

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

Between 10 September and 16 September 2021, **no new cases** of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region.

As of 16 September 2021, a total of 239 cases of human infection with avian influenza A(H5N1) virus have been 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 16 September 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
<b>Total</b>	<b>161</b>	<b>91</b>	<b>71</b>	<b>42</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>239</b>	<b>134</b>

Globally, from January 2003 to 16 September 2021, there were 863 cases of human infection with avian influenza A(H5N1) virus reported from 18 countries. Of these 863 cases, 456 were fatal (CFR of 53%). The last case was reported from India in July 2021 ([source](#)).

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

**Two new cases** of human infection with avian influenza A(H5N6) were reported from the National Health Commission of the People's Republic of China to WHO on 8 and 14 September 2021.

The first case is a 48-year-old female, pediatrician from Liuzhou, Guangxi with onset of illness on 25 August 2021. She was hospitalized on 29 August. The case developed severe pneumonia and is currently in a severe condition. The case had exposure to live poultry before onset of illness. No further cases were detected among family members or at the workplace of the reported case.

The second case is a 40-year-old female, teacher from Yongzhou, Hunan with onset of illness on 8 September 2021. She was hospitalized on 9 September. The case developed severe pneumonia and is currently in a severe condition. The case had exposure to live poultry market before onset of illness. No further cases were detected among family members.

To date, a total of 44 laboratory-confirmed cases of human infection with influenza A(H5N6) virus including 23 deaths have been reported to WHO in the Western Pacific Region since 2014. The last case was reported from China, with onset date of 12 August 2021.

\*9 deaths at the time of IHR notification and 14 additional cases resulting in death after IHR notification

### Public health risk assessment for human infection with avian influenza A(H5) viruses

On 18 February 2021, the National IHR Focal Point of the Russian Federation notified WHO of detection of avian influenza A(H5N8) in seven human clinical specimens. These are the first reported cases of avian influenza A(H5N8) in humans. Positive clinical specimens were collected from poultry farm workers who participated in a response operation to contain an avian influenza A(H5N8) outbreak detected in a poultry farm in Astrakhan Oblast in the Russian Federation. The cases remained asymptomatic for the whole

follow-up duration (several weeks). All close contacts of these cases were clinically monitored, and no one showed signs of clinical illness. Based on currently available information, the risk of human-to-human transmission remains low.

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 information on monthly risk assessments on Avian Influenza, visit:

<https://www.who.int/teams/global-influenza-programme/avian-influenza/monthly-risk-assessment-summary>

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

Between 10 September and 16 September 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 10 September and 16 September 2021, **no new cases** of human infection with avian influenza A(H7N9) virus were reported to WHO in the Western Pacific Region. To date, a total of 1,568 laboratory-confirmed human infections with avian influenza A(H7N9) virus including 616 fatal cases (CFR: 39%) have been reported to WHO since early 2013. The last case of human infection with avian influenza A(H7N9) reported to WHO in the Western Pacific Region was on 14 February 2017.

Of the 1,568 human infections with avian influenza A(H7N9), 33 have reported mutations in the hemagglutinin gene indicating a change to high pathogenicity in poultry. These 33 cases were from Taiwan, China (one case had travel history to Guangdong), Guangxi, Guangdong, Hunan, Shaanxi, Hebei, Henan, Fujian, Yunnan, and 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.

## Human infection with avian influenza A(H9N2) virus

**One new case** of human infection with avian influenza A(H9N2) was reported from National Health Commission of the People's Republic of China to WHO on 14 September 2021. The case is a 11-year-old male student from Qiannan Buyi and Miao Autonomous Prefecture, Guizhou Province, China with onset of a mild illness on 6 September 2021. He was not hospitalized. The case had a history of exposure to domestic poultry prior to illness onset and no further cases were suspected among family members at the time of reporting.

To date, 17 cases of avian influenza A(H9N2) have been reported to WHO in the Western Pacific Region in 2021, and a total of 58 cases of human infection with avian influenza A(H9N2) have been reported to WHO in the Western Pacific Region since December 2015. The last case was reported from China, with onset date of 23 August 2021.

## Human infection with avian influenza A(H10N3) virus

Between 10 September and 16 September 2021, **no new cases** of human infection with avian influenza A(H10N3) virus were reported to WHO in the Western Pacific Region. To date, one case of avian influenza A(H10N3) virus has been reported globally.

Most previously reported human infections with avian influenza viruses were due to exposure to infected poultry or contaminated environments. Since avian influenza viruses, including avian influenza A(H10N3) viruses, continue to be detected in poultry populations, further sporadic human cases could be detected in the future. Currently available epidemiologic information suggests that the avian influenza A(H10N3) virus has not acquired the ability for sustained human-to-human transmission, thus the likelihood of spread among human is low (source [1](#), [2](#)).

## Animal infection with avian influenza virus

Between 10 September and 16 September 2021, **no new cases** of avian influenza were reported to OIE from the Western Pacific Region ([source](#)).

## 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](#)
- [Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases \(EMPRES\)](#)
- [FAO Global Animal Disease Information System \(EMPRES-i\)](#)

## Other updates

- [Influenza at the human-animal interface summary and assessment](#) 8 August 2021
  - 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 \(who.int\)](#) 25 September 2020
- [WHO SAGE Seasonal Influenza Vaccination Recommendations during the COVID-19 Pandemic Interim guidance](#). 21 September 2020

- [Recommended composition of influenza virus vaccines for use in the 2021-2022 northern hemisphere influenza season \(who.int\)](#) 26 February 2021
- [WHO Consultation on the Composition of Influenza Virus Vaccines for Use in the 2022 Southern Hemisphere Influenza Season](#) 13 – 30 September 2021
- [WHO Information Meeting on the Composition of Influenza Virus Vaccines for Use in the 2021-22 Northern Hemisphere Influenza Season.](#) 26 February 2021
- [Zoonotic influenza: candidate vaccine viruses and potency testing reagents.](#)