Human infection with avian influenza A(H5) viruses

Human infection with avian influenza A(H5N1) virus

Western Pacific Region 24 May 2024

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H5N1) virus was reported to WHO in the Western Pacific Region.

From 1 January 2003 to 3 May 2024, a total of 254 cases of human infection with avian influenza A(H5N1) virus have been reported from four countries within the Western Pacific Region (Table 1). Of these cases, 141 were fatal, resulting in a case fatality rate (CFR) of 56%. The last case in the Western Pacific Region was reported from China, with an onset date of 26 March 2024.

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 (1 January 2003 to 3 May 2024), Western Pacific Region

Country	2003-2009		2010-2014		2015-2019		2020		2021		2022		2023		2024		Total	
	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D
Cambodia	9	7	47	30	0	0	0	0	0	0	0	0	6	4	5	1	67	42
China	38	25	9	5	6	1	0	0	0	0	1	1	1	0	0	0	55	32
Lao PDR	2	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	2
Viet Nam	112	57	15	7	0	0	0	0	0	0	1	0	0	0	1	1	129	65
Total	161	91	71	42	6	1	1	0	0	0	2	1	7	4	6	2	254	141

NB: This table is updated on a monthly basis following the updates from the <u>Source</u>.

Globally, from 1 January 2003 to 3 May 2024, 889 cases of human infection with avian influenza A(H5N1) virus were reported from 23 countries. Of these 889 cases, 463 were fatal (CFR of 52%) (source).

Human infection with avian influenza A(H5N6) virus

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H5N6) virus was reported to WHO in the Western Pacific Region. To date, a total of 91 laboratory-confirmed cases of human infection with influenza A(H5N6) virus, including 36 deaths (CFR 40%), have been reported to WHO in the Western Pacific Region since 2014. The last case was reported from China, with an onset date of 13 April 2024.

Human infection with avian influenza A(H5) virus

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H5) virus was reported to WHO in the Western Pacific Region. The last case was reported from Viet Nam, with an onset date of 5 October 2022 (one case, no death). This was the first case of avian influenza A(H5) reported from Viet Nam since 2014; NA subtype could not be determined.

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.

The rise in the number of reported human cases of A(H5N6) infection may reflect the continued circulation of the virus in birds, and enhanced surveillance system and diagnostic capacity as a direct outcome of the response to the COVID-19 pandemic. The zoonotic threat remains elevated due to the spread of the viruses among birds. However, the overall pandemic risk associated with A(H5) is considered not significantly changed in comparison to previous years. WHO recommends that Member States remain vigilant and consider mitigation steps to reduce human exposure to potentially infected birds to reduce the risk of additional zoonotic infection.

For information on risk assessments on Avian Influenza, see: monthly risk assessment summaries and Assessment of risk associated with highly pathogenic avian influenza A(H5N6) virus.

Human infection with avian influenza A(H3N8) virus

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H3N8) virus was reported to WHO in the Western Pacific Region. The last case was reported from China with an onset of illness of 22 February 2023. To date, a total of three laboratory-confirmed cases of human infection with influenza A(H3N8) virus with one death have been reported to WHO in the Western Pacific Region.

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

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H7N4) virus was 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 17 to 23 May 2024, no new case of human infection with avian influenza A(H7N9) virus was 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 in 2019.

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 a 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 related to the HPAI A(H7N9) virus has been detected.

Human infection with avian influenza A(H9N2) virus

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H9N2) virus was reported to WHO in the Western Pacific Region. To date, a total of 99 cases of human infection with avian influenza A(H9N2), including two deaths (both with underlying conditions), have been reported to WHO in the Western Pacific Region since December 2015. Of these, 96 were reported from China, two were reported from Cambodia, and one was reported from Viet Nam. The last case was reported from Tien Giang Province, Viet Nam, with onset date of 10 March 2024.

Human infection with avian influenza A(H10N3) virus

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H10N3) virus was reported to WHO in the Western Pacific Region.

To date, three cases of avian influenza A(H10N3) virus have been reported globally. The last case was reported from Yunnan Province with an onset date of 28 February 2024.

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 humans is low.

Human infection with avian influenza A(H10N5) virus

Between 17 to 23 May 2024, no new case of human infection with avian influenza A(H10N5) was reported to WHO in the Western Pacific Region. To date, one case of avian influenza A(H10N5) virus has been reported from Zhejiang Province, China, with an onset date of 30 November 2023.

Avian influenza A(H10) subtype viruses are known to be distributed in domestic and wild bird species worldwide. They are classified as low pathogenic and occasionally infect mammals (e.g., pigs). Human infection with avian influenza A(H10N5) is unusual; however, given the sporadic nature of human infection with H10Nx, this is not an unexpected event. There is no evidence of sustained human-to-human transmission of influenza A(H10Nx). Human infections of avian influenza need to be monitored and assessed for any indications of changes in transmissibility and virulence.

Animal infection with avian influenza virus

Between 17 to 23 May 2024, three new outbreaks of high pathogenicity avian influenza were reported to the World Organization for Animal Health (WOAH) from the Western Pacific Region. In China, two new outbreaks of high pathogenic avian influenza A(H5N1) were reported from wildlife (species unidentified) in Gangca country and Gonghe county. All 275 cases from the two new outbreaks died. (source) In Australia, one new outbreak of high pathogenic avian influenza A(H7N3) was reported from domestic birds (poultry) in Victoria State. Among 413 000 susceptible poultry, 7500 were cases and 3000 died. (source)

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

- WOAH web page: Weekly disease information and Latest report on 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 assessment 26 February 2024
- Recommended composition of influenza virus vaccines for use in the 2024-2025 northern hemisphere. February 2024
- Recommended composition of influenza virus vaccines for use in the 2024 southern hemisphere influenza season 29 September 2023
- WHO issues updated influenza vaccines position paper 1 June 2022
- Assessment of risk associated with recent influenza A(H5N1) clade 2.3.4.4b viruses 21 December 2022
- WHO SAGE Seasonal Influenza Vaccination Recommendations during the COVID-19 Pandemic Interim guidance 20 September 2020