

## Avian Influenza Report

Avian Influenza Report is a weekly report produced by the Surveillance Division of the Communicable Disease Branch of the Centre for Health Protection. This report highlights global avian influenza activity in humans and birds.

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## **Summary**

- 1. Since the previous issue of Avian Influenza Report (AIR), there were no new human cases of avian influenza A(H7N9). Since March 2013 (as of June 10, 2023), there were a total of 1568 human cases of avian influenza A(H7N9) reported globally (all were reported in the seven waves between 2013 and September 2019). The latest case was reported on April 5, 2019.
- 2. Since the previous issue of AIR, there were no new human cases of avian influenza A(H5N6). Since 2014 (as of June 10, 2023), there were 85 human cases of avian influenza A(H5N6) reported globally and 84 of them occurred in Mainland China. The latest case was reported on June 5, 2023.
- 3. Since the previous issue of AIR, there were no new human cases of avian influenza A(H5N1). From 2013 to 2022, 0 to 145 confirmed human cases of avian influenza A(H5N1) were reported to the World Health Organization (WHO) annually (according to onset date).\* The latest case was reported on May 30, 2023.

<sup>\*</sup> Since November 21, 2012, WHO only publishes information on human cases with avian influenza A(H5N1) infection in "<u>Influenza at human – animal interface: Monthly Risk Assessment Summary</u>". Only cases of human infection with H5N1 involved in events that are unusual or associated with potential increased risks will be reported in Disease Outbreak News. The latest <u>report</u> was published in April, 2023.

## This week's highlights

(Sources: WHO, NHC, Mainland health authorities, Ministry of Agriculture of the People's Republic of China, Centre for Health Protection (CHP) and World Organisation for Animal Health (OIE))

Table 1. Hong Kong: Confirmed human cases of avian influenza A(H5N1 / H5N6 / H7N9) since previous issue of AIR

	No. of H5 cases (No. of deaths)	No. of H7N9 cases (No. of deaths)	Details
In this reporting period	0(0)	0(0)	-

Table 2. Outside Hong Kong: Confirmed human cases of avian influenza A(H5N1 / H5N6 / H7N9) since previous issue of AIR

Date of report	Country	Province / Region	District / City	Sex	Age	Condition at time of reporting	Subtype of virus
1	-	-	-	-	-	-	1

Table 3. Confirmed human cases of avian influenza A(H5N1) reported to WHO / NHC since 2003 (by onset date) §

Year	Cases	Deaths	Case fatality rate
2003	4	4	100%
2004	46	32	69.6%
2005	98	43	43.9%
2006	115	79	68.7%
2007	88	59	67.0%
2008	44	33	75.0%
2009	73	32	43.8%
2010	48	24	50.0%
2011	62	34	54.8%
2012	32	20	62.5%
2013	39	25	64.1%
2014	52	22	42.3%
2015	145	42	29.0%
2016	10	3	30.0%
2017	4	2	50.0%
2018	0	0	0%
2019	1	1	100%
2020	1	0	0%
2021	2	1	50.0%
2022	6	1	16.7%
2023	6	1	25.0%
Overall	876	458	52.3%

<sup>§</sup> Further breakdown by countries is available at WHO website

Table 4. Confirmed human cases of avian influenza A(H5N1) reported to WHO / NHC since 2003 (by date of reporting)

Countries /Areas	Cumulative no. of cases (December 2003 to June 2023)	No. of recent cases (February to June 2023)
Azerbaijan	8	0
Bangladesh	8	0
Cambodia	58	2
Canada	1	0
Chile	1	1
Ecuador	1	0
Mainland China	55#	1
Djibouti	1	0
Egypt	359	0
India	1	0
Indonesia	200	0
Iraq	3	0
Lao People's Democratic Republic	3	0
Myanmar	1	0
Nepal	1	0
Nigeria	1	0
Pakistan	3	0
Spain	2	0
Thailand	25	0
Turkey	12	0
United Kingdom	3	2
United States of America	1	0
Vietnam	128	0
Overall	876	6

<sup>#</sup> Including two cases from Mainland China detected in Hong Kong

Table 5. Cumulative numbers of confirmed cases of human infection with avian influenza A(H5N6) since 2014 and since January 2023 respectively

Confirmed H5N6 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2014 (85 cases in total) (as of June 10, 2023)	Cumulative no. of cases since January 2023 (3 cases in total) (as of June 10, 2023)
	Guangxi Zhuang Autonomous Region	20	0
	Guangdong Province	14	1
	Hunan Province	14	1
	Sichuan Province	13	1
Mainland	Jiangsu Province	5	0
China	Chongqing Municipality	3	0
	Anhui Province	2	0
	Fujian Province	2	0
	Jiangxi Province	3*	0
	Yunnan Province	2	0

Confirmed H5N6 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2014 (85 cases in total) (as of June 10, 2023)	Cumulative no. of cases since January 2023 (3 cases in total) (as of June 10, 2023)
	Zhejiang Province	2	0
	Beijing Municipality	1	0
	Guizhou Province	1	0
	Henan Province	1	0
	Hubei Province	1	0
Lao People's Democratic Republic		1	0

<sup>\*</sup> one case was imported from Guangdong Province

 ${\it Table~6.} \quad \textbf{Cumulative numbers of confirmed cases of human infection with avian influenza~A(H7N9) since~2013~and since~October~2022~respectively$ 

Confirmed H7N9 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2013 (1568 cases in total) (as of June 10, 2023)	Cumulative no. of cases since October 2022 (0 case in total) (as of June 10, 2023)
	Zhejiang Province	310	0
	Guangdong Province	259	0
	Jiangsu Province	252	0
	Fujian Province	108	0
	Anhui Province	99	0
	Hunan Province	95	0
	Shanghai Municipality	57	0
	Jiangxi Province	52	0
	Sichuan Province	38	0
	Beijing Municipality	35	0
	Guangxi Zhuang Autonomous Region	31	0
	Hubei Province	31	0
	Hebei Province	29	0
Mainland	Henan Province	28	0
China	Shandong Province	28	0
	Guizhou Province	20	0
	Xinjiang Uygur Autonomous Region	14	0
	Chongqing Municipality	9	0
	Yunnan Province	8	0
	Shaanxi Province	7	0
	Gansu Province	6	0
	Liaoning Province	5	0
	Tianjin Municipality	5	0
	Jilin Province	3	0
	Shanxi Province	3	0
	Tibet Autonomous Region	3	0
	Inner Mongolia Autonomous Region	2	0
	Hong Kong	21*	0
	Taiwan	5*	0
	Canada	2*	0
	Macao	2#	0

Confirmed H7N9 human cases have been reported in the following countries / areas	Cumulative no. of cases since 2013 (1568 cases in total) (as of June 10, 2023)	Cumulative no. of cases since October 2022 (0 case in total) (as of June 10, 2023)
Malaysia	1*	0

<sup>\*</sup> All cases imported from Mainland China

Table 7. Confirmed human cases of avian influenza A infections other than avian influenza A(H5N1 / H5N6 / H7N9) reported in the past 6 months (as of June 12, 2023)

	Place of occurrence	No. of cases (No. of deaths)	Details
In this reporting period	Mainland China	1(0)	Avian influenza A(H9N2):  Jiangxi Province:  A 7-month-old boy with onset on May 1, 2023.
Previously reported cases (onset/ reported in the past 6 months)	Mainland China	3(1)	Avian influenza A(H3N8):  Guangdong Province:  A 56-year-old woman with onset on February 22, 2023.  Avian influenza A(H9N2):  Jiangxi Province:  A 3-year-old girl with onset on January 31, 2023.  Hunan Province:  A 2-year-old boy with onset on February 5, 2023.

Table 8. Hong Kong: Confirmed reports of avian influenza A(H5) or avian influenza A(H7N9) in poultry / wild birds / environmental samples since 2015

	No. of reports of H5 in poultry / wild birds / environmental samples	No. of reports of H7N9 in poultry / wild birds / environmental samples	Details
In this reporting period	0	0	-
Previously reported cases since 2015 (before this reporting period)	23*	1#	-

Carcass of a peregrine falcon found in Yuen Long on April 9, 2015 (H5N6)

<sup>\*</sup>The latest case imported from Mainland China

Carcass of an oriental magpie robin found in Sai Kung on April 29, 2015 (H5N6)

Carcass of an oriental magpie robin found in Kwai Chung on November 17, 2015 (H5N6)

Carcass of a great egret found in Wong Tai Sin on December 31, 2015 (H5N6).

Chicken carcass found in Tuen Mun on February 14, 2016 (H5N6)

Chicken carcass found in Tai O on February 18, 2016 (H5N6)

Samples of faecal droppings collected at Mai Po Nature Reserve on November 25, 2016 (H5N6)

A sample of faecal droppings collected at Mai Po Nature Reserve on November 30, 2016 (H5N6)

A dead red-whiskered bulbul collected at Kowloon City on April 7, 2017 (H5N6)

A dead oriental magpie robin found in Tseung Kwan O on December 21, 2017 (H5N6)

A dead black-faced spoonbill found in the Hong Kong Wetland Park in Tin Shui Wai on December 21, 2017 (H5N6)

An environmental swab of a chopping board and skin swabs of a chilled duck sample taken from a fresh provision shop in Wan Chai on 2 January & 9 January, 2018 (H5N6)

An oropharyngeal swab from a batch of chilled chicken taken at a fresh provision shop in Mong Kok, reported on 23 January, 2018 (H5N6)

A black-headed gull carcass found in Ngau Hom Tsuen, Lau Fau Shan on February 8, 2018 (H5N6)

A dead crested myna found at Kun Lung Wai, Fanling reported on April 9, 2018 (H5N6)

A swab sample taken from a bird cage housing a hill myna at a pet bird shop in Yuen Po Street Bird Garden in Mong Kok on 7 April, 2018 (H5N6)

Samples of faecal droppings collected at Mai Po Nature Reserve reported on January 14, 2021 (H5N8)

Carcass of a peregrine falcon found in Wu Kai Sha reported on February 1, 2021 (H5N8)

Carcass of a black-faced spoonbill found in the Hong Kong Wetland Park in Tin Shui Wai reported on December 20, 2021 (H5N1)

Carcass of a Eurasian Curlew found in the Mai Po Nature Reserve reported on January 26, 2022 (H5N1)

Environmental sample collected from Mai Po Nature Reserve on November 9, 2022 (H5N1)

Carcass of a black-faced spoonbill found in Mai Po Nature Reserve reported on November 30, 2022 (H5N1)

Black-faced spoonbill carcass found in Hong Kong Wetland Park reported on December 12, 2022 (H5N1)

# A sample of faecal droppings of live poultry taken from a poultry stall in Yan Oi Market in Tuen Mun reported on June 5, 2016 (H7N9)

Table 9. Outside Hong Kong: Confirmed avian influenza A(H5) or other highly pathogenic avian influenza in poultry / wild birds / environmental samples reported in this week – number of reports for various subtypes of virus

Subtype of virus	No. of reports
H5	4
H5N1	31

Table 10. Outside Hong Kong: Confirmed avian influenza A(H5) or other highly pathogenic avian influenza in poultry / wild birds / environmental samples reported in this week – details of reports

Places of Occurrence	Details			
	Samples from poultry and birds in Valparaíso were tested positive for highly pathogenic avian influenza A(H5N1).	June 2, 2023 June 4, 2023		
Chile	Samples from birds in Magallanes y Antártica Chilena, Los Ríos, Libertador General Bernardo O'Higgins, Araucanía, Coquimbo, Bío-Bío, Tarapacá, Atacama, Maule, Ñuble, Desembocadura Rio Loa, Chilean Exclusive Economic Zone, Arica y Parinacota and Antofagasta were tested positive for highly pathogenic avian influenza A(H5N1).	June 2, 2023		
	Samples from poultry in Región Metropolitana de Santiago were tested positive for highly pathogenic avian influenza A(H5N1).	June 5, 2023		
Paraguay	Samples from birds in Boquerón were tested positive for	June 5, 2023		

Places of Occurrence	Details	OIE Report Date	
	highly pathogenic avian influenza A(H5).		
Brazil	Samples from birds in Rio de Janeiro, Espírito Santo, São Paulo, Brazilian Exclusive Economic Zone and Rio Grande do Sul were tested positive for highly pathogenic avian influenza A(H5N1).	June 6, 2023	
Germany	Samples from poultry and birds in Bayern, Mecklenburg-Vorpommern and Schleswig-Holstein were tested positive for highly pathogenic avian influenza A(H5N1).	June 6, 2023 June 7, 2023	
	Samples from birds in Rheinland-Pfalz, Sachsen, Sachsen-Anhalt and Nordrhein-Westfalen were tested positive for highly pathogenic avian influenza A(H5N1).	June 7, 2023 June 9, 2023	
Hungary	Samples from birds in Borsod-Abaúj-Zemplén were tested positive for highly pathogenic avian influenza A(H5N1).	June 6, 2023	
Italy	Samples from birds in Lombardia were tested positive for highly pathogenic avian influenza A(H5N1).	June 7, 2023	
	Samples from poultry and birds in Río Negro were tested positive for highly pathogenic avian influenza A(H5).	June 8, 2023	
Argentina	Samples from poultry in Santa Fe were tested positive for highly pathogenic avian influenza A(H5).	June 8, 2023	
	Samples from birds in Santa Cruz and Buenos Aires were tested positive for highly pathogenic avian influenza A(H5).	June 8, 2023	
Canada	Samples from poultry in Québec, Saskatchewan and Alberta were tested positive for highly pathogenic avian influenza A(H5N1).	June 8, 2023	
Finland	Samples from birds in Etelä-Suomen aluehallintovirasto were tested positive for highly pathogenic avian influenza A(H5).	June 8, 2023	
Japan	Samples from birds in Yamagata, Niigata, Toyama, Kagoshima and Hokkaido were tested positive for highly pathogenic avian influenza A(H5N1).	June 8, 2023	
Latvia	Samples from birds in Kurzemes, Rīgas and Vidzemes were tested positive for highly pathogenic avian	June 8, 2023	

Places of Occurrence	Details	OIE Report Date
	influenza A(H5N1).	
Sweden	Samples from birds in Järfälla and Tanum were tested positive for highly pathogenic avian influenza A(H5N1).	June 8, 2023
	Samples from poultry and birds in Washington were tested positive for highly pathogenic avian influenza A(H5N1).	June 8, 2023
United States of America	Samples from poultry in Pennsylvania, Michigan, Tennessee, North Dakota, Nebraska and Texas were tested positive for highly pathogenic avian influenza A(H5N1).	June 8, 2023
	Samples from birds in Wyoming, California, Oregon, Maine and North Carolina were tested positive for highly pathogenic avian influenza A(H5N1).	June 8, 2023
Austria	Samples from birds in Vorarlberg and Oberösterreich were tested positive for highly pathogenic avian influenza A(H5N1).	June 9, 2023
Czech Republic	Samples from birds in Královéhradecký were tested positive for highly pathogenic avian influenza A(H5N1).	June 9, 2023
Lithuania	Samples from birds in Klaipedos and Telšiai were tested positive for highly pathogenic avian influenza A(H5N1).	June 9, 2023
Slovenia	Samples from birds in Podravska were tested positive for highly pathogenic avian influenza A(H5N1).	June 9, 2023
Luxembourg	Samples from birds in Grevenmacher were tested positive for highly pathogenic avian influenza A(H5N1).	
Korea	Samples from poultry in Jeollanam-do were tested positive for highly pathogenic avian influenza A(H5N1).	June 12, 2023
Nepal	Samples from poultry in Bagmati Pradesh were tested positive for highly pathogenic avian influenza A(H5N1).	June 12, 2023
United Kingdom	Samples from poultry and birds in England and Wales were tested positive for highly pathogenic avian influenza A(H5N1).	June 12, 2023

For cumulative reports of avian influenza A(H5) or other highly pathogenic avian influenza in poultry / wild birds, please refer to the <u>OIE</u> website.

Table 11. Countries / areas with documented human infection with avian influenza A(H7N9) or highly pathogenic avian influenza (including infections in humans/birds and relevant environmental samples) in the past 6 months (as of June 12, 2023)

Countries / Areas	Human cases		Poultry cases /	other related samples	Wild bird cases / other related samples	
	Subtype of virus	Date of last report / onset of last reported case (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)
Algeria	-	-	H5	12/12/2022 (H5N1)	-	-
Argentina	-	-	H5	08/06/2023*	H5	08/06/2023*
Austria	-	-	H5	17/05/2023 (H5N1)	H5	09/06/2023 (H5N1)
Belgium	-	-	Н5	24/02/2023 (H5N1)	Н5	26/05/2023* 26/05/2023 (H5N1)
Bhutan	-	-	-	-	Н5	01/04/2023 (H5N1)
Bolivia	-	-	H5	18/04/2023 (H5N1)	Н5	07/04/2023 (H5N1)
Bulgaria	-	-	H5	03/04/2023 (H5N1)	-	-
Brazil	-	-	-	-	Н5	06/06/2023 (H5N1)
Cambodia	H5	14/02/2023 (H5N1)	-	-	Н5	06/03/2023 (H5N1)
Canada	-	-	Н5	08/06/2023 (H5N1)	Н5	24/05/2023* 26/05/2023 (H5N1)
Chile	Н5	13/03/2023 (H5N1)	Н5	26/04/2023* 05/06/2023 (H5N1)	Н5	02/06/2023 (H5N1)
Colombia	-	-	-	-	Н5	18/04/2023 (H5N1)
Costa Rica	-	-	-	-	Н5	11/04/2023*
Cuba	-	-	-	-	Н5	27/04/2023 (H5N1)
Cyprus	-	-	-	-	Н5	23/03/2023 (H5N1)
Czech Republic	-	-	H5	19/05/2023 (H5N1)	Н5	09/06/2023 (H5N1)
Denmark	-	-	H5	26/04/2023 (H5N1)	Н5	30/05/2023 (H5N1)
Ecuador	Н5	25/12/2022 (H5N1)	Н5	30/05/2023 (H5N1)	Н5	31/01/2023* 15/03/2023 (H5N1)
Egypt	-	-	Endemic (H5)	Endemic (H5N1)	-	-
Estonia	-	-	H5	03/03/2023 (H5N1)	Н5	22/05/2023 (H5N1)
Faroe Islands	-	-	-	-	Н5	09/03/2023 (H5N1)
Finland	-	-	-	-	H5	08/06/2023*
France	-	-	H5	02/06/2023 (H5N1)	H5	02/06/2023 (H5N1)
Gambia	-	-	-	-	H5	08/04/2023 (H5N1)
Germany	-	-	Н5	06/06/2023 (H5N1)	H5	09/06/2023 (H5N1)
Greenland	-	-	-	-	Н5	05/01/2023 (H5N1)

Countries / Areas	Human cases		Poultry cases / other related samples		Wild bird cases / other related samples	
	Subtype of virus	Date of last report / onset of last reported case (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)
Guatemala	-	-	-	-	H5	27/02/2023 (H5N1)
Guinea	-	-	-	-	Н5	22/05/2023 (H5N1)
Honduras	-	-	-	-	Н5	12/03/2023 (H5N1)
Hong Kong Special Administrative Region	-	-	-	-	Н5	12/12/2022 (H5N1)
Hungary	-	-	H5	23/05/2023 (H5N1)	H5	06/06/2023 (H5N1)
Iceland	-	-	-	-	H5	17/05/2023 (H5N1)
India	-	-	H5	09/05/2023 (H5N1)	-	-
Indonesia	-	-	Endemic (H5)	Endemic (H5N1) 12/05/2023 (H5N1)	-	-
Ireland	-	-	Н5	09/12/2022 (H5N1)	Н5	03/05/2023 (H5N1)
Israel	-	-	H5	11/01/2023 (H5N1)	Н5	04/01/2023 (H5N1)
Italy	-	-	Н5	31/05/2023 (H5N1)	Н5	07/06/2023 (H5N1)
Japan	-	-	H5	16/03/2023 (H5N2) 16/05/2023 (H5N1)	Н5	19/04/2023 (H5N8) 16/05/2023* 08/06/2023 (H5N1)
Korea	-	-	H5	12/06/2023 (H5N1)	-	-
Latvia	-	-	-	-	Н5	08/06/2023 (H5N1)
Lithuania	-	-	-	-	Н5	09/06/2023 (H5N1)
Luxembourg	-	-	-	-	Н5	11/06/2023 (H5N1)
Mainland China						
Guangdong	Н5	17/12/2022 (H5N6)	-	-	-	-
Guangxi	Н5	22/09/2022 (H5N1)	-	-	-	-
Jiangsu	H5	31/01/2023 (H5N1)	-	-	-	-
Sichuan	H5	19/05/2023 (H5N6)	-	-	-	-
Mexico	-	-	H5	24/05/2023 (H5N1)	Н5	25/05/2023 (H5N1)
Moldova	-	-	H5	13/02/2023 (H5N1)	-	-
Nepal	-	-	H5	12/06/2023 (H5N1)	H5	02/03/2023 (H5N1)
Netherlands	-	-	H5	07/04/2023 (H5N1)	H5	25/05/2023 (H5N1)
Niger	-	-	H5	02/01/2023 (H5N1)	-	-
Nigeria	-	-	H5	06/05/2023 (H5N1)	-	-
Norway	-	-	H5	24/03/2023 (H5N1)	Н5	23/12/2022*

	Human cases		Poultry cases / other related samples		Wild bird cases / other related samples	
Countries / Areas	Subtype of virus	Date of last report / onset of last reported case (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)
						29/12/2022 (H5N5)
						24/04/2023 (H5N1)
Panama	-	-	-	-	H5	16/05/2023 (H5N1)
Paraguay	-	-	-	-	H5	05/06/2023*
Peru	-	-	H5	27/02/2023*	H5	23/02/2023*
Philippines	-	-	H5	18/01/2023 (H5N1)	-	-
Poland	-	-	H5	31/05/2023 (H5N1)	H5	31/05/2023 (H5N1)
Romania	-	-	H5	23/05/2023 (H5N1)	H5	31/03/2023 (H5N1)
Russia	-	-	H5	22/05/2023 (H5N1)	H5	02/06/2023 (H5N1)
Senegal	-	-	H5	24/04/2023 (H5N1)	Н5	24/04/2023 (H5N1)
Serbia	-	-	-	-	Н5	19/05/2023 (H5N1)
Slovakia	-	-	H5	06/02/2023 (H5N1)	H5	08/02/2023 (H5N1)
Slovenia	-	-	H5	27/02/2023 (H5N1)	Н5	09/06/2023 (H5N1)
G 41 A.C.			115	26/04/2023 (H5N1)	117	23/03/2023 (H5N1)
South Africa	-	-	Н5	26/05/2023*	Н5	30/05/2023*
Spain	-	-	H5	13/03/2023 (H5N1)	Н5	22/05/2023 (H5N1)
						02/03/2023 (H5N5)
Sweden	-	-	H5	22/03/2023 (H5N1)	H5	23/03/2023*
						08/06/2023 (H5N1)
Switzerland	-	-	H5	24/05/2023 (H5N1)	H5	24/05/2023 (H5N1)
				14/02/2023 (H5N5)		
Taiwan	-	-	H5	23/02/2023 (H5N2)	H5	09/05/2023 (H5N1)
				09/05/2023 (H5N1)		
Turkey	-		H5	26/05/2023 (H5N1)	-	-
United Kingdom	H5	30/05/2023 (H5N1)	H5	12/06/2023 (H5N1)	H5	12/06/2023 (H5N1)
United States of America	-	-	H5	08/06/2023 (H5N1)	H5	08/06/2023 (H5N1)
Uruguay	-	-	H5	03/03/2023*	H5	25/05/2023*
Venezuela	-	-	-	-	H5	02/12/2022 (H5N1)

Sources: WHO, OIE, NHC and other official websites \* without further subtype information