

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 August 20, 2022), 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 August 20, 2022), there were 80 human cases of avian influenza A(H5N6) reported globally and 79 of them occurred in Mainland China. The latest case was reported on June 27, 2022.
3. Since the previous issue of AIR, there were no new human cases of avian influenza A(H5N1). From 2012 to 2022, 0 to 145 confirmed human cases of avian influenza A(H5N1) were reported to WHO annually (according to onset date).* The latest case was reported on May 6, 2022.

* Since November 21, 2012, WHO only publishes information on human cases with avian influenza A(H5N1) infection in “[Influenza at human – animal interface: Monthly Risk Assessment Summary](#)”. 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 [report](#) was published in July, 2022.

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
-	-	-	-	-	-	-	-

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%
2022	1	0	0%
Overall	865	456	52.7%

[§] Further breakdown by countries is available at [WHO](https://www.who.int/) 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 August 2022)	No. of recent cases (April to August 2022)
Azerbaijan	8	0
Bangladesh	8	0
Cambodia	56	0
Canada	1	0
Mainland China	53 [#]	0
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
Thailand	25	0
Turkey	12	0
United Kingdom	1	0
United States of America	1	1
Vietnam	127	0
Overall	865	1

[#] 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 2022 respectively

Confirmed H5N6 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2014 (80 cases in total) (as of August 20, 2022)	Cumulative no. of cases since January 2022 (22 cases in total) (as of August 20, 2022)
Mainland China	Guangxi Zhuang Autonomous Region	18	7
	Guangdong Province	13	1
	Hunan Province	13	0
	Sichuan Province	12	5
	Jiangsu Province	5	3
	Chongqing Municipality	3	0
	Anhui Province	2	0
	Fujian Province	2	1
	Jiangxi Province	3 [*]	2
	Yunnan Province	2	0
	Zhejiang Province	2	2
	Beijing Municipality	1	0

Confirmed H5N6 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2014 (80 cases in total) (as of August 20, 2022)	Cumulative no. of cases since January 2022 (22 cases in total) (as of August 20, 2022)
	Guizhou Province	1	0
	Henan Province	1	1
	Hubei Province	1	0
Lao People's Democratic Republic		1	0

* one case was imported from Guangdong Province

Table 6. Cumulative numbers of confirmed cases of human infection with avian influenza A(H7N9) since 2013 and since October 2021 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 August 20, 2022)	Cumulative no. of cases since October 2021 (0 case in total) (as of August 20, 2022)
Mainland China	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
	Henan Province	28	0
	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
Malaysia		1*	0

* All cases imported from Mainland China

[#] The latest case 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 August 22, 2022)

	Place of occurrence	No. of cases (No. of deaths)	Details
In this reporting period	-	0(0)	-
Previously reported cases (onset/ reported in the past 6 months)	Mainland China	5(0)	Avian influenza A(H3N8): ▪ Henan Province: ▫ A 4-year-old boy with onset on April 5, 2022. ▪ Hunan Province: ▫ A 5-year-old boy with onset on May 9, 2022. Avian influenza A(H9N2): ▪ Hunan Province: ▫ A 5-year-old boy with onset on April 26, 2022. ▪ Sichuan Province: ▫ A 1-year-old boy with onset on April 28, 2022. ▪ Guizhou Province: ▫ A 2-year-old boy with onset on May 8, 2022.
	Cambodia	1(0)	Avian influenza A(H9N2): ▪ A 13-month-old girl with onset on February 27, 2022.

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)	20*	1 [#]	-

* [Carcass of a peregrine falcon found in Yuen Long on April 9, 2015 \(H5N6\)](#)

[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 \(H5N1\)](#)
 # [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
H5N1	33
H5N8	3

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	OIE Report Date
Canada	Samples from poultry and birds in Ontario, British Columbia, Alberta, New Brunswick, Saskatchewan, Québec, Nova Scotia and Manitoba were tested positive for highly pathogenic avian influenza A(H5N1).	August 12, 2022 August 19, 2022
	Samples from birds in Newfoundland and Labrador, Canadian, Prince Edward Island and Yukon were tested positive for highly pathogenic avian influenza A(H5N1).	August 12, 2022 August 19, 2022
United States of America	Samples from poultry and birds in Minnesota, Colorado, Utah, Oregon, Idaho, Kentucky, Indiana, Washington, South Dakota, Iowa, Maryland, North Dakota, Missouri, Montana, Pennsylvania, Kansas, North Carolina, Wisconsin, New York, Nebraska, New Jersey, Michigan, Delaware and Maine were tested positive for highly	August 12, 2022 August 17, 2022 August 19, 2022 August 22, 2022

Places of occurrence	Details	OIE Report Date
	pathogenic avian influenza A(H5N1).	
	Samples from birds in Florida, Massachusetts, Wyoming, Arizona, District of Columbia, Illinois, Vermont, New Hampshire, Virginia, Alaska, Tennessee, Connecticut, Rhode Island, Ohio, Nevada, Alabama, California and Georgia were tested positive for highly pathogenic avian influenza A(H5N1).	August 12, 2022 August 19, 2022
	Samples from poultry in Texas and Oklahoma were tested positive for highly pathogenic avian influenza A(H5N1).	August 17, 2022 August 22, 2022
Albania	Samples from poultry in Dibër, Durrës, Fier and Korçë were tested positive for highly pathogenic avian influenza A(H5N8).	August 16, 2022
Belgium	Samples from birds in Vlaanderen, Belgian Exclusive Economic Zone and Wallonie were tested positive for highly pathogenic avian influenza A(H5N1).	August 16, 2022
Hungary	Samples from birds in Szabolcs-Szatmár-Bereg, Győr-Moson-Sopron, Komárom-Esztergom, Tolna, Baranya, Hajdú-Bihar, Csongrád, Fejér, Somogy, Borsod-Abaúj-Zemplén, Bács-Kiskun, Pest, Budapest and Vas were tested positive for highly pathogenic avian influenza A(H5N1).	August 16, 2022
Latvia	Samples from birds in Rgas were tested positive for highly pathogenic avian influenza A(H5N1).	August 16, 2022
Moldova	Samples from poultry in Fletî were tested positive for highly pathogenic avian influenza A(H5N1).	August 16, 2022
Netherlands	Samples from poultry and birds in Gelderland, Zeeland, Utrecht, Overijssel, Noord-Holland, Flevoland, Groningen, Noord-Brabant, Friesland and Limburg were tested positive for highly pathogenic avian influenza A(H5N1).	August 16, 2022 August 17, 2022 August 22, 2022
	Samples from birds in Zuid-Holland, Drenthe, Dutch Exclusive Economic Zone and IJsselmeer were tested positive for highly pathogenic avian influenza A(H5N1).	August 22, 2022
United Kingdom	Samples from poultry and birds in England, Scotland, Wales and Northern Ireland were tested positive for highly pathogenic avian influenza A(H5N1).	August 16, 2022 August 22, 2022
	Samples from birds in Guernsey, Guernsey Exclusive	August 16, 2022 August 22, 2022

Places of occurrence	Details	OIE Report Date
	Economic Zone, Isle of Man, Jersey and United Kingdom Exclusive Economic Zone were tested positive for highly pathogenic avian influenza A(H5N1).	
	Samples from birds in England were tested positive for highly pathogenic avian influenza A(H5N8).	August 16, 2022 August 22, 2022
Finland	Samples from birds in Ahvenanmaan valtionvirasto, Lounais-Suomen aluehallintovirasto, Etelä-Suomen aluehallintovirasto, Pohjois-Suomen aluehallintovirasto and Länsi- ja Sisä-Suomen aluehallintovirasto were tested positive for highly pathogenic avian influenza A(H5N1).	August 17, 2022
Portugal	Samples from birds in Coimbra and Beja were tested positive for highly pathogenic avian influenza A(H5N1).	August 17, 2022
Germany	Samples from poultry in Niedersachsen were tested positive for highly pathogenic avian influenza A(H5N1).	August 18, 2022
Russia	Samples from birds in Rostov and Russian Exclusive economic Zone were tested positive for highly pathogenic avian influenza A(H5N1).	August 18, 2022
France	Samples from poultry in Pays de la Loire, Nouvelle-Aquitaine, Occitanie, Bretagne, Auvergne-Rhône-Alpes, Hauts-de-France, Centre-Val de Loire and Normandie were tested positive for highly pathogenic avian influenza A(H5N1).	August 19, 2022
Spain	Samples from poultry and birds in Andalucía were tested positive for highly pathogenic avian influenza A(H5N1).	August 22, 2022
	Samples from birds in País Vasco, Cataluña, Extremadura, Castilla y León, Aragón, Comunidad de Madrid, Comunidad Foral de Navarra and Castilla - La Mancha were tested positive for highly pathogenic avian influenza A(H5N1).	August 22, 2022

For cumulative reports of avian influenza A(H5) or other highly pathogenic avian influenza in poultry / wild birds, please refer to the [OIE](#) 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 August 22, 2022)

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)
Albania	-	-	H5	16/08/2022 (H5N8)	H5	28/03/2022 (H5N1)
Austria	-	-	-	-	H5	22/07/2022 (H5N1)
Belgium	-	-	H5	30/03/2022 (H5N1)	H5	20/07/2022* 16/08/2022 (H5N1)
Bulgaria	-	-	H5	13/06/2022*	-	-
Cameroon	-	-	H5	23/02/2022 (H5N1)	-	-
Canada	-	-	H5	19/08/2022 (H5N1)	H5	19/08/2022 (H5N1)
Croatia	-	-	H5	10/06/2022 (H5N1)	H5	23/02/2022 (H5N1)
Czech Republic	-	-	H5	16/05/2022 (H5N1)	H5	17/05/2022 (H5N1)
Denmark	-	-	H5	08/02/2022 (H5N1)	H5	19/04/2022 (H5N8) 18/07/2022 (H5N1)
Egypt	-	-	Endemic (H5)	Endemic (H5N1)	-	-
Estonia	-	-	-	-	H5	05/04/2022 (H5N1)
Faroe Islands	-	-	-	-	H5	04/07/2022 (H5N1)
Finland	-	-	-	-	H5	17/08/2022 (H5N1)
France	-	-	H5	19/08/2022 (H5N1)	H5	05/08/2022 (H5N1)
Gabon	-	-	H5	19/05/2022 (H5N1)	-	-
Germany	-	-	H5	18/08/2022 (H5N1)	H5	07/02/2022 (H5N2) 09/08/2022 (H5N1)
Greece	-	-	-	-	H5	06/05/2022 (H5N1)
Guinea	-	-	H5	03/06/2022 (H5N1)	-	-
Hungary	-	-	H5	07/07/2022 (H5N1)	H5	16/08/2022 (H5N1)
Iceland	-	-	H5	05/05/2022 (H5N1)	H5	24/06/2022 (H5N1)
India	-	-	H5	22/04/2022 (H5N1)	-	-
Indonesia	-	-	Endemic (H5)	Endemic (H5N1)	-	-
Iraq	-	-	H5	23/06/2022 (H5N8)	-	-
Ireland	-	-	-	-	H5	12/08/2022 (H5N1)
Israel	-	-	H5	07/02/2022 (H5N1)	H5	03/05/2022 (H5N1) 29/06/2022 (H5N8)

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)
Italy	-	-	H5	13/06/2022 (H5N1)	H5	29/04/2022 (H5N1)
Japan	-	-	H5	18/05/2022 (H5N1)	H5	21/06/2022* 21/06/2022 (H5N1)
Kazakhstan	-	-	-	-	H5	04/08/2022*
Korea	-	-	H5	11/04/2022 (H5N1)	H5	11/02/2022 (H5N8) 05/04/2022 (H5N1)
Latvia	-	-	-	-	H5	16/08/2022 (H5N1)
Lithuania	-	-	-	-	H5	28/06/2022 (H5N1)
Luxembourg	-	-	-	-	H5	10/02/2022 (H5N8) 22/02/2022 (H5N1)
Mainland China						
Guangxi	H5	16/04/2022 (H5N6)	-	-	-	-
Henan	H5	18/03/2022 (H5N6)	-	-	-	-
Hubei	-	-	-	-	H5	16/05/2022 (H5N8)
Jiangsu	H5	24/03/2022 (H5N6)	-	-	-	-
Jiangxi	H5	20/02/2022 (H5N6) 02/06/2022 (H5N6)	-	-	-	-
Qinghai	-	-	-	-	H5	29/07/2022 (H5N1)
Shanxi	-	-	-	-	H5	16/05/2022 (H5N8)
Sichuan	H5	31/03/2022 (H5N6)	-	-	-	-
Mali	-	-	-	-	H5	06/04/2022 (H5N1)
Mexico	-	-	H7	27/04/2022 (H7N3)	-	-
Moldova	-	-	H5	16/08/2022 (H5N1)	-	-
Montenegro	-	-	-	-	H5	11/04/2022 (H5N1)
Namibia	-	-	-	-	H5	11/02/2022 (H5N1)
Nepal	-	-	H5	29/06/2022 (H5N1)	H5	28/03/2022 (H5N1)
Netherlands	-	-	H5	22/08/2022 (H5N1)	H5	22/08/2022 (H5N1)
Nigeria	-	-	H5	05/05/2022 (H5N1)	-	-
North Macedonia	-	-	-	-	H5	18/05/2022 (H5N1)
Norway	-	-	H5	04/04/2022 (H5N1)	H5	13/07/2022 (H5N5) 12/08/2022 (H5N1)
Philippines	-	-	H5	24/03/2022 (H5N8)	-	-

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)
				04/08/2022 (H5N1)		
Poland	-	-	H5	06/04/2022 (H5N2) 08/08/2022 (H5N1)	H5	19/07/2022 (H5N1)
Portugal	-	-	H5	23/02/2022 (H5N1)	H5	17/08/2022 (H5N1)
Romania	-	-	H5	29/03/2022 (H5N1)	H5	21/03/2022 (H5N1)
Russia	-	-	H5	03/08/2022 (H5N1)	H5	28/06/2022* 18/08/2022 (H5N1)
Senegal	-	-	H5	10/02/2022 (H5N1)	H5	17/02/2022 (H5N1)
Slovakia	-	-	H5	01/06/2022 (H5N1)	H5	12/04/2022 (H5N1)
Slovenia	-	-	-	-	H5	16/02/2022 (H5N1)
South Africa	-	-	H5	04/08/2022 (H5N1)	H5	04/08/2022 (H5N1)
Spain	-	-	H5	22/08/2022 (H5N1)	H5	22/08/2022 (H5N1)
Sweden	-	-	-	-	H5	25/03/2022 (H5N8) 09/08/2022 (H5N1)
Switzerland	-	-	-	-	H5	18/03/2022 (H5N1)
Taiwan	-	-	H5	26/07/2022 (H5N2)	H5	07/06/2022 (H5N2) 04/07/2021 (H5N1)
United Kingdom	-	-	H5	22/08/2022 (H5N1)	H5	16/08/2022 (H5N8) 22/08/2022 (H5N1)
United States of America	H5	20/04/2022 (H5N1)	H5	22/08/2022 (H5N1)	H5	19/08/2022 (H5N1)
Vietnam	-	-	H5	14/06/2022 (H5N1)	-	-

Sources: WHO, OIE, NHC and other official websites

* without further subtype information