

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.

VOLUME 19, NUMBER 01

Reporting period: Jan 1, 2023 – Jan 7, 2023 (Week 01) (Published on January 10, 2023)

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 January 7, 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, one confirmed human case of avian influenza A(H5N6) from Hunan Province was reported by the National Health Commission (NHC). Since 2014 (as of January 7, 2023), there were 83 human cases of avian influenza A(H5N6) reported globally and 82 of them occurred in Mainland China. The latest case was reported on January 6, 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 November 30, 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 December, 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
06/01/2023	Mainland China	Hunan Province	Changsha	M	54	Critical	H5N6

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	4	1	25.0%
2023	0	0	0%
Overall	868	457	52.6%

[§] 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 January 2023)	No. of recent cases (September 2022 to January 2023)
Azerbaijan	8	0
Bangladesh	8	0
Cambodia	56	0
Canada	1	0
Mainland China	54#	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	2
Thailand	25	0
Turkey	12	0
United Kingdom	1	0
United States of America	1	0
Vietnam	127	0
Overall	868	3

[#] 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 (83 cases in total) (as of January 7, 2023)	Cumulative no. of cases since January 2023 (1 case in total) (as of January 7, 2023)
	Guangxi Zhuang Autonomous Region	20	0
	Hunan Province	14	1
	Guangdong Province	13	0
	Sichuan Province	12	0
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
	Zhejiang Province	2	0

Confirmed H5N6 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2014 (83 cases in total) (as of January 7, 2023)	Cumulative no. of cases since January 2023 (1 case in total) (as of January 7, 2023)
	Beijing Municipality	1	0
	Guizhou Province	1	0
	Henan Province	1	0
	Hubei Province	1	0
Lao People's Democratic Republic		1	0

^{*} one case was imported from Guangdong Province

 $\it Table~6.$ 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 January 7, 2023)	Cumulative no. of cases since October 2022 (0 case in total) (as of January 7, 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 January 7, 2023)	Cumulative no. of cases since October 2022 (0 case in total) (as of January 7, 2023)
Malaysia	1*	0

^{*} 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 January 9, 2023)

	Place of occurrence	No. of cases (No. of deaths)	Details	
In this reporting period	Mainland China	3(0)	Avian influenza A(H9N2): ◆ Hunan Province: □ A 58-year-old man with onset on October 19, 2022. ◆ Gansu Province: □ A 5-year-old girl with onset on October 23, 2022. ◆ Anhui Province: □ A 3-year-old boy with onset on November 13, 2022.	
Previously reported cases (onset/ reported in the past 6 months)	Mainland China	2(0)	Avian influenza A(H9N2): ◆ Guangdong Province: □ A 1-year-old boy with onset on August 1, 2022. ◆ Gansu Province: □ A 3-year-old boy with onset on September 20, 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)	23*	1#	-

^{*}The latest case imported from Mainland China

* 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)

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
H5N1	46

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
Poland	Samples from poultry in Wielkopolskie were tested positive for highly pathogenic avian influenza A(H5N1).	December 28, 2022
Ecuador	Samples from poultry in Cotopaxi were tested positive for highly pathogenic avian influenza A(H5N1).	December 31, 2022
Czech Republic	Samples from poultry in Moravskoslezský, Plzeňský, Kraj Vysočina, Jihočeský and Středočeský were tested positive for highly pathogenic avian influenza A(H5N1).	January 3, 2023
Ireland	Samples from birds in Cork, Tipperary, Laoighis and Offaly were tested positive for highly pathogenic avian	January 3, 2023

Places of Occurrence	Details	OIE Report Date	
	influenza A(H5N1).		
Belgium	Samples from birds in Vlaanderen, Wallonie and Belgian Exclusive Economic Zone were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023 January 6, 2023	
	Samples from poultry and birds in Saskatchewan, Québec, Alberta, Ontario, Manitoba and British Columbia were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023	
Canada	Samples from birds in Newfoundland and Labrador, Northwest Territories, Yukon, Nunavut, Prince Edward Island, Nova Scotia and New Brunswick were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023	
	Samples from poultry and birds in Niedersachsen were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023 January 6, 2023	
Germany	Samples from poultry in Nordrhein-Westfalen were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023	
	Samples from birds in Baden-Württemberg, Brandenburg and Hamburg were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	
	Samples from poultry and birds in Hajdú-Bihar and Bács-Kiskun were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023 January 6, 2023	
Hungary	Samples from poultry in Békés and Csongrád-Csanád were tested positive for highly pathogenic avian influenza A(H5N1).	January 5, 2023	
	Samples from birds in Szabolcs-Szatmár-Bereg, Somogy, Tolna, Csongrád, Komárom-Esztergom, Fejér, Gyor-Moson-Sopron, Pest, Borsod-Abaúj-Zemplén, Budapest, Vas and Baranya were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	
Israel	Samples from poultry and birds in HaMerkaz and HaZafon were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023	
	Samples from poultry in HaDarom and Haifa were tested	January 4, 2023	

Places of Occurrence	Details	OIE Report Date	
	positive for highly pathogenic avian influenza A(H5N1).		
Italy	Samples from birds in Lombardia, Veneto, Emilia-Romagna, Friuli-Venezia Giulia, Umbria, Italian Exclusive Economic Zone and Sardegna were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023	
Korea	Samples from poultry in Chungcheongbuk-do, Chungcheongnam-do, Jeollabuk-do, Gyeongsangbuk-do, Jeollanam-do, Gyeongsangnam-do, Busan, Gyeonggi-do, Ulsan, Gangwon-do and Sejong were tested positive for highly pathogenic avian influenza A(H5N1).	January 4, 2023	
Austria	Samples from birds in Niederösterreich, Steiermark and Wien were tested positive for highly pathogenic avian influenza A(H5N1).	January 5, 2023	
Greenland	Samples from birds in Greenlandic Exclusive Economic Zone were tested positive for highly pathogenic avian influenza A(H5N1).	January 5, 2023	
Honduras	Samples from birds in Atlántida were tested positive for highly pathogenic avian influenza A(H5N1).	January 5, 2023	
France	Samples from poultry and birds in Normandie, Grand Est, Centre-Val de Loire, Île-de-France, Bretagne, Auvergne-Rhône-Alpes, Hauts-de-France, Occitanie, Pays de la Loire, Provence-Alpes-Côte d'Azur and Nouvelle-Aquitaine were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	
	Samples from birds in Bourgogne-Franche-Comté were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	
Panama	Samples from birds in Panamá Oeste and Panamanian Exclusive Economic Zone were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	
Romania	Samples from birds in Neamţ, Teleorman and Suceava were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	
Slovenia	Samples from birds in Obalno-kraška, Podravska and Pomurska were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023	

Places of Occurrence	Details	OIE Report Date
Switzerland	Samples from birds in Ticino, Zürich and Thurgau were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023
United Kingdom	Samples from poultry and birds in England, Scotland, Wales and Northern Ireland were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023
	Samples from poultry in Isle of Man were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023
United States of America	Samples from poultry and birds in Florida, Oregon, Kansas, California, Colorado, Washington, Montana, Idaho, Missouri, Minnesota, New York, Wisconsin, South Dakota, Pennsylvania, Nebraska, Arkansas, Tennessee, Maine, Utah, Mississippi, Kentucky, Ohio, New Hampshire and Maryland were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023
	Samples from poultry in Queens County, Indiana, Iowa, North Dakota, Michigan and Delaware were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023
	Samples from birds in Arizona, West Virginia, New Mexico, Texas, North Carolina, Oklahoma, Alabama, Vermont, Alaska, Wyoming, New Jersey, Virginia, Illinois and Massachusetts were tested positive for highly pathogenic avian influenza A(H5N1).	January 6, 2023
Nigeria	Samples from poultry in Osun, Delta, Bayelsa, Lagos, Kano, Plateau, Rivers, Ogun, Edo, Gombe, Kaduna, Kogi, Bauchi, Federal Capital Territory, Niger, Katsina, Zamfara, Anambra, Ebonyi, Kebbi, Oyo, Jigawa, Adamawa, Borno and Nassarawa were tested positive for highly pathogenic avian influenza A(H5N1).	
Taiwan	Samples from poultry in Kaohsiung City, Yunlin County, Tainan City, Yilan County, Changhua County and Chiayi County were tested positive for highly pathogenic avian influenza A(H5N1).	January 7, 2023
South Africa	Samples from poultry in KwaZulu-Natal were tested positive for highly pathogenic avian influenza A(H5N1).	January 9, 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 January 9, 2023)

	Human cases		Poultry cases / o	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)
Albania	-	-	H5	16/08/2022 (H5N8)	-	-
Algeria	-	-	Н5	12/12/2022 (H5N1)	-	-
Austria	-	-	-	-	H5	05/01/2023 (H5N1)
Belgium	-	-	Н5	30/12/2022 (H5N1)	Н5	20/07/2022* 06/01/2023 (H5N1)
Canada	-	-	Н5	04/01/2023 (H5N1)	Н5	16/12/2022* 04/01/2023 (H5N1)
Chile	-	-	-	-	H5	16/12/2022 (H5N1)
Colombia	-	-	-	-	H5	19/12/2022 (H5N1)
Cyprus	-	-	-	-	H5	09/12/2022 (H5N1)
Czech Republic	-	-	Н5	03/01/2023 (H5N1)	-	-
Denmark	-	-	H5	02/01/2023 (H5N1)	H5	22/12/2022 (H5N1)
Ecuador	-	-	Н5	28/11/2022 (H5) 31/12/2022 (H5N1)	-	-
Egypt	-	-	Endemic (H5)	Endemic (H5N1)	-	-
Faroe Islands	-	-	-	-	H5	21/12/2022 (H5N1)
Finland	-	-	-	-	Н5	12/10/2022 (H5N5) 09/11/2022 (H5N1)
France	-	-	Н5	06/01/2023 (H5N1)	H5	06/01/2023 (H5N1)
Germany	-	-	Н5	04/01/2023 (H5N1)	H5	06/01/2023 (H5N1)
Greenland	-	-	-	-	H5	05/01/2023 (H5N1)
Honduras	-	-	-	-	H5	05/01/2023 (H5N1)
Hong Kong Special Administrative Region	-	-	-	-	Н5	12/12/2022 (H5N1)
Hungary	-	-	Н5	06/01/2023 (H5N1)	Н5	06/01/2023 (H5N1)
Iceland	-	-	Н5	23/11/2022 (H5N1)	H5	29/12/2022 (H5N1)
India	-	-	Н5	07/11/2022 (H5N1)	-	-
Indonesia	-	-	Endemic (H5)	Endemic (H5N1)	-	-
Ireland	-	-	Н5	09/12/2022 (H5N1)	Н5	03/01/2023 (H5N1)
Israel	-	-	H5	04/01/2023 (H5N1)	H5	04/01/2023 (H5N1)

	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)
Italy	-	-	Н5	07/12/2022 (H5N1)	H5	04/01/2023 (H5N1)
						23/12/2022*
Japan	-	-	H5	28/12/2022 (H5N1)	H5	08/11/2022 (H5N2)
						28/12/2022 (H5N1)
Kazakhstan	-	-	-	-	H5	04/08/2022*
Korea	-	-	H5	04/01/2023 (H5N1)	-	-
Latvia	-	-	-	-	H5	27/12/2022 (H5N1)
Mainland China						
Guangxi	Н5	30/07/2022 (H5N6)				
Gualigai	113	22/09/2022 (H5N1)	_	-	-	-
Hunan	Н5	02/11/2022 (H5N6)	-	-	-	-
Qinghai	-	-	-	-	H5	29/07/2022 (H5N1)
Mexico	-	-	H5	30/12/2022 (H5N1)	Н5	19/11/2022 (H5N1)
Moldova	-	-	H5	26/12/2022 (H5N1)	-	-
Netherlands	-	-	H5	28/11/2022 (H5N1)	H5	24/12/2022 (H5N1)
Niger	-	-	H5	02/01/2023 (H5N1)	-	-
Nigeria	-	-	H5	07/01/2023 (H5N1)	H5	24/11/2022 (H5N1)
North Macedonia	-	-	-	-	H5	09/11/2022 (H5N1)
						29/11/2022 (H5N1)
Norway	-	-	H5	30/12/2022 (H5N1)	H5	23/12/2022*
						29/12/2022 (H5N5)
Panama	-	-	-	-	H5	06/01/2023 (H5N1)
Peru	-	-	H5	22/12/2022*	H5	18/11/2022*
Philippines	-	-	H5	15/09/2022 (H5N1)	-	-
Poland	-	-	H5	28/12/2022 (H5N1)	H5	23/12/2022 (H5N1)
Portugal	-	-	Н5	01/10/2022 (H5N1)	H5	23/11/2022 (H5N1)
Reunion	-	-	Н5	13/10/2022 (H5N1)	H5	12/10/2022 (H5N1)
Romania	-	-	-	-	H5	06/01/2023 (H5N1)
Russia	-	-	Н5	14/11/2022 (H5N1)	H5	08/12/2022 (H5N1)
Serbia	-	-	Н5	04/11/2022 (H5N1)	H5	14/11/2022 (H5N1)
Slovenia	-	-	-	-	H5	06/01/2023 (H5N1)
South Africa	-	-	H5	14/11/2022 (H5N2)	H5	13/12/2022 (H5N1)

	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)
				09/01/2023 (H5N1)		
Spain	H5	13/10/2022 (H5N1)	H5	22/12/2022 (H5N1)	H5	19/12/2022 (H5N1)
Sweden	-	-	-	-	Н5	29/12/2022 (H5N1)
Switzerland	-	-	-	-	H5	06/01/2023 (H5N1)
Taiwan	-	-	Н5	27/12/2022 (H5N2) 07/01/2023 (H5N1)	Н5	04/07/2021 (H5N1)
United Kingdom	-	-	Н5	06/01/2023 (H5N1)	Н5	28/10/2022 (H5N8) 06/01/2023 (H5N1)
United States of America	-	-	Н5	26/10/2022 (H5N4) 06/01/2023 (H5N1)	Н5	06/01/2023 (H5N1)
Venezuela	-	-	-	-	Н5	02/12/2022 (H5N1)
Vietnam	Н5	05/10/2022*	Н5	26/10/2022 (H5N1)	-	-

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