

Situation report period covered: 21 April to 4 May 2023

This report provides an update of the high pathogenicity avian influenza (HPAI) situation, according to the information submitted through the World Animal Health Information System of the World Organisation for Animal Health (WAHIS) between 21 April and 4 May 2023.

Seasonal trend

Using data reported to the World Organisation for Animal Health (WOAH) between 2005 and 2019 by 76 affected countries and territories for 18,620 outbreaks in poultry, we carried out a Seasonal and Trend decomposition using Loess (STL) analysis to determine the seasonal pattern of the disease (detailed methodology presented in Awada et al., 2018¹). Based on the data reported to WOAH, spread is lowest in September, begins to rise in October, and peaks in February. Figure 1 shows the global seasonal pattern of HPAI in poultry and the red rectangle indicates where we currently are in the cycle based on the period covered in “recent updates” below.

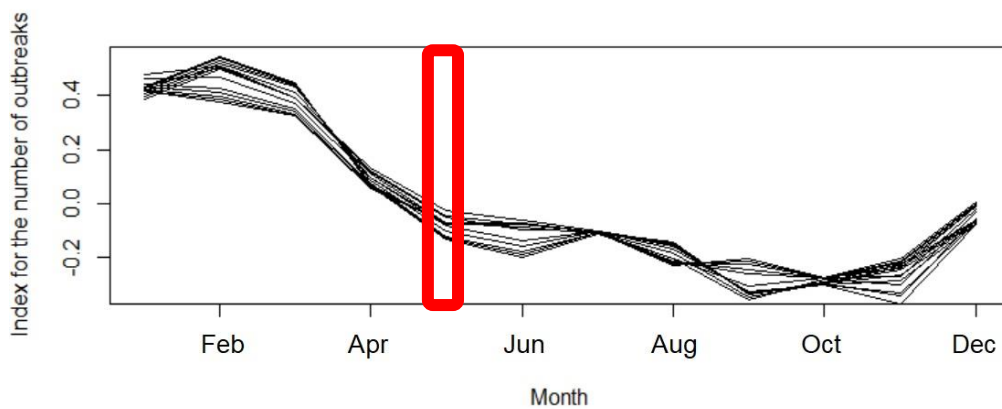


Figure 1. Seasonal trend in global HPAI incidence in poultry

Recent updates (21/04/2023-04/05/2023)

To describe the current disease situation of HPAI in poultry and in non-poultry birds, this section covers: (a) a list of new events² which started during the 2-week period (reported through immediate notifications); (b) information on events that started before the 2-week period but were still ongoing during that period; (c) the geographic distribution of new outbreaks³ that started during the 2-week period and d) events which started before the 2-week period but were reported during the 2-week period. The different subtypes of HPAI circulating during the 2-week period are also listed below. This information is based on the immediate notifications and follow-up reports received by WOAH.

HPAI in poultry**New events by world region (reported through immediate notifications)****Europe****H5N1**

A recurrence started in Denmark (Veterinary Inspection Unit South) on 24 April 2023

A recurrence started in Czech Republic (Moravskoslezský) on 30 April 2023 (Clade 2.3.4.4b; Lineage: Fully Eurasian)

Africa, Americas, Asia, and Oceania

No new events reported

¹ Awada L, Tizzani P, Noh SM, Ducrot C, Ntsama F, Caceres P, Mapitse N and Chalvet-Monfray K, 2018. Global dynamics of highly pathogenic avian influenza outbreaks in poultry between 2005 and 2016—focus on distance and rate of spread. *Transboundary and Emerging Diseases*, 65, 2006–2016. <https://doi.org/10.1111/tbed.12986>

² As defined in [Article 1.1.2](#) of the WOAH Terrestrial Animal Health Code, an “event” means a single outbreak or a group of epidemiologically related outbreaks of a given listed disease or emerging disease that is the subject of a notification. An event is specific to a pathogenic agent and strain, when appropriate, and includes all related outbreaks reported from the time of the initial notification through to the final report. Reports of an event include susceptible species, the number and geographical distribution of affected animals and epidemiological units.

³ As defined in the [glossary](#) of the WOAH Terrestrial Animal Health Code, an “outbreak” means the occurrence of one or more cases in an epidemiological unit.

On-going events for which there were new reported outbreaks, by world region (reported through follow-up reports):

Africa

Subtype H5

South Africa

Americas

Subtype H5

Argentina

Subtype H5N1

Canada (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American)

Europe

Subtype H5N1

Hungary and Italy

Asia, and Oceania

No new outbreaks reported in the on-going events, or no on-going events

New outbreaks and associated subtypes

During the period covered by this report, a total of 12 new outbreaks in poultry were reported by seven countries (Argentina, Canada, Czech Republic, Denmark, Hungary, Italy, South Africa). Details are presented in Figures 2 and 3.



Figure 2. Distribution of HPAI new outbreaks in poultry, and corresponding subtypes

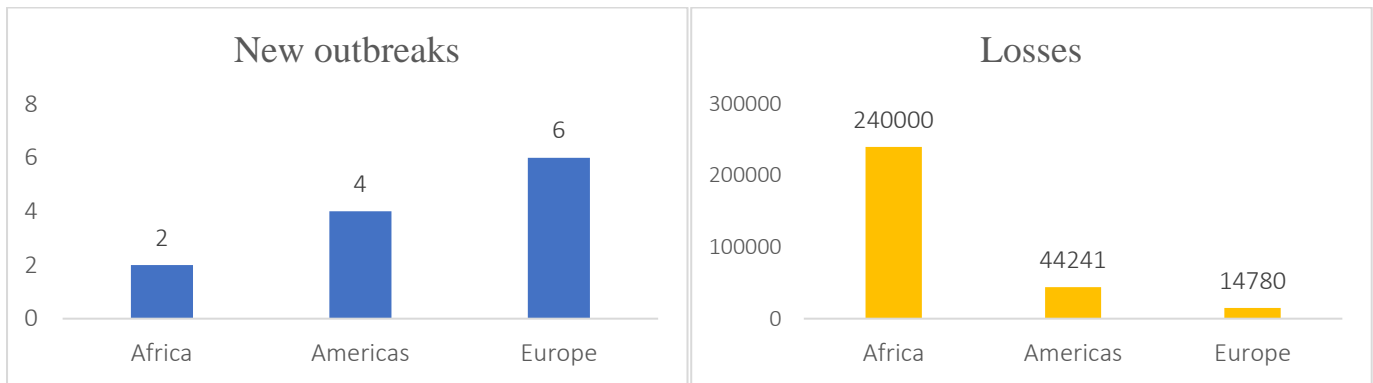


Figure 3. Number of new outbreaks and associated losses by geographical region (losses include animals dead and killed and disposed of within outbreaks – they do not include culling around outbreaks)

Events which started before the 2-week period but were reported during the 2-week period (reported through immediate notifications)

Americas

H5

The first occurrence in the area of Maule started in Chile on 6 April 2023

Africa

H5

A recurrence in South Africa (Western Cape) started on 18 April 2023

Asia, Europe, and Oceania

No events reported

HPAI in non-poultry

New events by world region (reported through immediate notifications)

Africa, Asia, Americas, Europe, and Oceania

No new events reported

On-going events for which there were new reported outbreaks, by world region (reported through follow-up reports):

Americas

H5 in birds

Argentina

Europe

H5N1 in birds

Austria, Czech Republic (Clade 2.3.4.4b - Lineage: Fully Eurasian), Germany, Lithuania, Poland, Sweden, United Kingdom

Africa, Asia, and Oceania

No new outbreaks reported in the on-going events, or no on-going events.

New outbreaks

During the period covered by this report, a total of 13 outbreaks in non-poultry were reported by eight countries (Argentina, Austria, Czech Republic, Germany, Lithuania, Poland, Sweden, United Kingdom). All outbreaks were reported for birds. Details are presented in Figures 4 and 5.



Figure 4. Distribution of HPAI new outbreaks in non-poultry animals, and corresponding subtypes. All new outbreaks reported during the 2-week period were in birds.

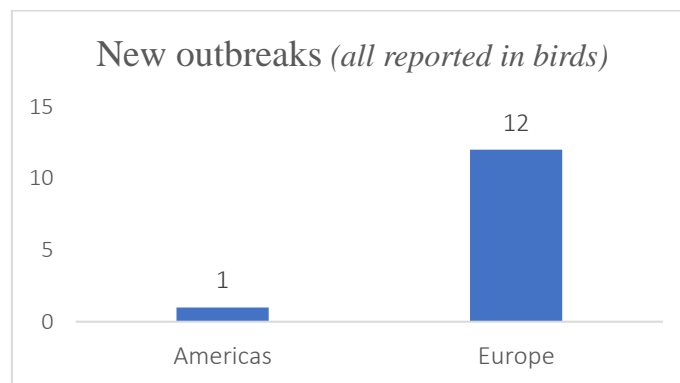


Figure 5. Number of new outbreaks by geographical region

Events which started before the 2-week period but were reported during the 2-week period (reported through immediate notifications or through emails)

Africa

H5 in birds

A recurrence started in South Africa (Gauteng and Western Cape) on 8 March 2023

Americas

H5N1 in mammals

Occurrences in marine mammals (Chilean dolphin [*Cephalorhynchus Eutropia*] and Burmeister's porpoise [*Phocoena spinipinnis*]) started in Chile (Antofagasta, Atacama, Maule) on 27 March 2023

Asia

H5N1 in mammals

An occurrence in unusual host (red fox [*Vulpes vulpes*]) started in Japan (Hokkaido) on 12 April 2023

Europe

H5N1 in birds

A recurrence started in Lithuania (Alytaus) on 16 March 2023

A recurrence started in Norway (Vestland) on 17 April 2023

H5N1 in mammals

An occurrence in unusual host (grey seal [*Halichoerus grypus*], *South American coati* [*Nasua nasua*] and *red fox* [*Vulpes vulpes*]) started in Germany (Mecklenburg-Vorpommern, Niedersachsen, Schleswig-Holstein) on 1 April 2023

Oceania

No events reported

Epidemiological background

High pathogenicity avian influenza (HPAI) is caused by influenza A viruses in the family Orthomyxoviridae. Since its identification in China (People's Rep. of) in 1996, there have been multiple waves of intercontinental transmission of the H5Nx Gs/GD lineage virus. HPAI has resulted in the death and mass slaughter of more than 316 million poultry worldwide between 2005 and 2021, with peaks in 2021, 2020 and 2016. During each of the years 2006, 2016, 2017 and 2021, more than 50 countries and territories in the world were affected with HPAI. In addition, up to now, humans have occasionally been infected with subtypes H5N1 (around 870 cases reported, of which half died), H7N9 (around 1,500 cases reported, of which about 600 died), H5N6 (around 80 cases reported, of which about 30 died), H9N2 (around 80 cases reported, of which 2 died) and sporadic cases have been reported with subtypes H3N8, H7N4, H7N7 and H10N3^{4,5,6,7,8}.

Key messages

The current HPAI epidemic season continues with 12 outbreaks being reported in poultry and 13 in non-poultry birds over the 2 weeks covered by the report, mainly in Europe, and also in the Americas and Africa. Nearly 300,000 poultry birds died or were culled worldwide during the 2 weeks period. Based on the HPAI seasonal pattern, the number of outbreaks in animals is expected to have passed the peak and decline. There has been a slight decrease since the previous periodic reports.

The World Organisation for Animal Health (WOAH) recommends that countries maintain their surveillance efforts, biosecurity measures at farm level, and continue timely reporting of avian influenza outbreaks in both poultry and non-poultry species.

WOAH also stresses the importance of reporting outbreaks of avian influenza in unusual hosts, as the virus has been increasingly detected in mammals in recent months, a situation that should be monitored. The occurrence of HPAI in terrestrial and marine mammals notified during this 2-week period by countries in Americas, Asia and Europe is noteworthy.

High quality of information is key to support early detection and rapid response to potential threats to both animal and public health.

WOAH resources

- [Avian influenza portal](#)
- [Self-declared disease status](#)
- [World Animal Health Information System \(WAHIS\)](#)
- [WOAH Statement on avian influenza and mammals](#)
- Preliminary FAO/WHO/WOAH Joint Rapid Risk Assessment - Human infection with influenza A(H5N1), Cambodia (2023)
- One health Joint plan of action (2022 – 2026)
- [Technical meeting on HPAI vaccination, GF-TAD Americas, March 2023](#)
- Press inquiries: media@woah.org

OFFLU resources

- [OFFLU annual report 2022](#)

⁴ Chen H. 2019. H7N9 viruses. Cold Spring Harb Perspect Med doi: 10.1101/cshperspect.a038349

⁵ WHO. Influenza (Avian and other zoonotic), 2018, available at [https://www.who.int/news-room/fact-sheets/detail/influenza-\(avian-and-other-zoonotic\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(avian-and-other-zoonotic))

⁶ WHO. Cumulative number of confirmed human cases for avian influenza A(H5N1) reported to WHO,

2003-2022, 25 November 2022, available at https://cdn.who.int/media/docs/default-source/influenza/human-animal-interface-risk-assessments/2022_nov_tableh5n1.pdf?sfvrsn=babfcad1_1&download=true

⁷ Yang L, Zhu W, Li X, Chen M, Wu J, Yu P, Qi S, Huang Y, Shi W, Dong J, Zhao X, Huang W, Li Z, Zeng X, Bo H, Chen T, Chen W, Liu J, Zhang Y, Liang Z, Shi W, Shu Y, Wang D. 2017a. Genesis and spread of newly emerged highly pathogenic H7N9 avian viruses in mainland China. J Virol doi: <https://doi.org/10.1128/JVI.01277-17>

⁸ WHO. Avian Influenza Weekly Update Number 892, https://cdn.who.int/media/docs/default-source/wpro---documents/emergency/surveillance/avian-influenza/ai_20230421.pdf?sfvrsn=5bc7c406_24#:~:text=Between%2014%20April%20to%2020%20April%202023%2C%20no%20cases%20of,in%20the%20Western%20Pacific%20Region.

- [OFFLU Statement on high pathogenicity avian influenza caused by viruses of the H5N1 subtype](#)
- [OFFLU avian influenza matching \(AIM\) pilot study](#)
- [OFFLU avian influenza VCM report for WHO vaccine composition meetings \(February 2023\)](#)

Other relevant resources

- [WHO, Human infection with avian influenza A\(H5\) viruses](#)
- [Influenza at the human-animal interface summary and assessment, April 2023](#)
- [Epidemiological Alert Outbreaks of avian influenza and human infection caused by influenza A\(H5\) public health implications in the Region of the Americas](#)
- [WHO, Influenza at the human-animal interface, Summary and risk assessment, from 4 March to 24 April 2023](#)