

Situation report period covered: 15 September to 5 October 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 15 September and 5 October 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.

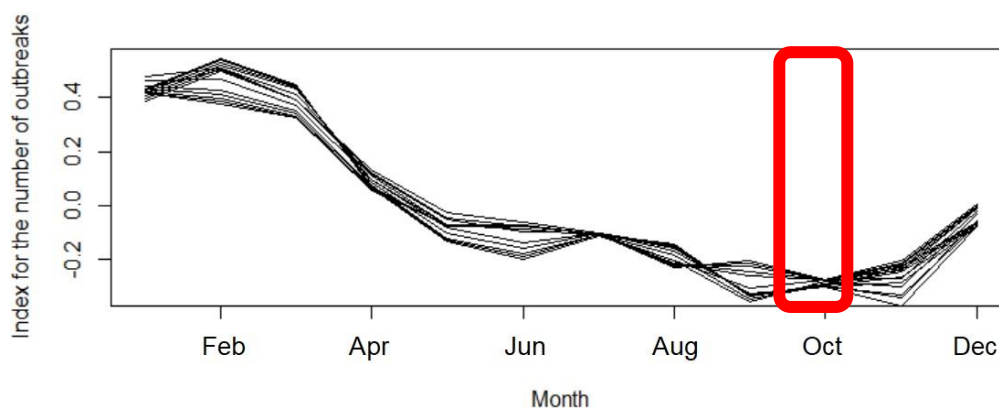


Figure 1. Seasonal trend in global HPAI incidence in poultry

Recent updates (15/09/2023-05/10/2023)

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 3-week period (reported through immediate notifications); (b) information on events that started before the 3-week period but were still ongoing during that period; (c) the geographic distribution of new outbreaks³ that started during the 3-week period and d) events which started before the 3-week period but were reported during the 3-week period. The different subtypes of HPAI circulating during the 3-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)****Asia****H5N1**

A recurrence started in Israel (HaZafon) on 27 September 2023

Europe**H5N1**

A recurrence started in Denmark (Veterinary Inspection Unit East) on 26 September 2023

Africa, Americas, 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

H7N6

South Africa

Americas

H5N1

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

Asia, Europe 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 9 new outbreaks in poultry were reported by four countries (Canada, Denmark, Israel, and South Africa). Details are presented in Figures 2 and 3.



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

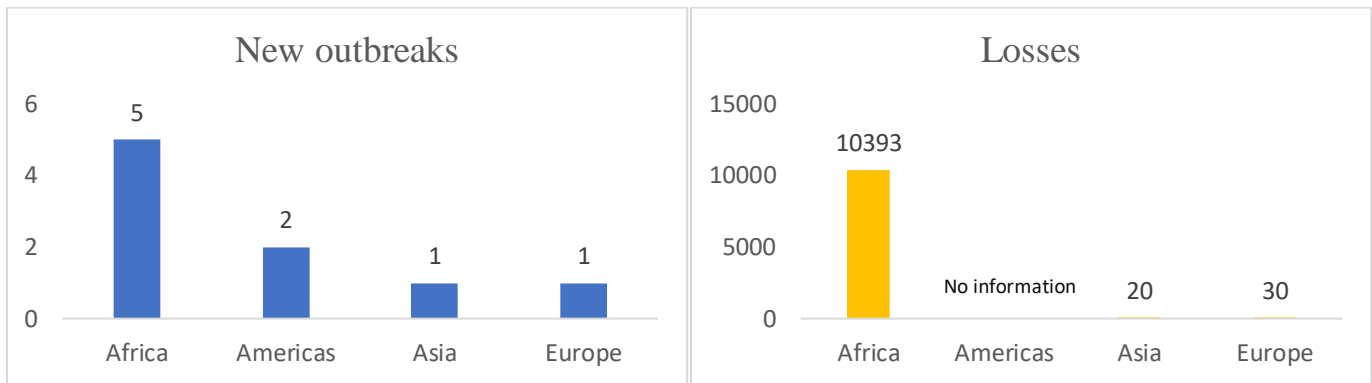


Figure 3. Number of new outbreaks and associated losses by geographical region (losses include animals dead and killed and disposed of within outbreaks – they do not include culling around outbreaks). Affected countries in the Americas did not communicate information on losses.

Events which started before the 3-week period but were reported during the 3-week period (reported through immediate notifications)

Americas

H5N1

A recurrence started in Canada (Alberta) on 7 September 2023 (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North America).

Africa, Asia, Europe, and Oceania

No events reported

HPAI in non-poultry

New events by world region (reported through immediate notifications)

Americas

H5N1 in non-poultry birds

A recurrence started in Canada (Alberta) on 20 September 2023 (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American)

H5N1 in mammals

An event started in Brazil (Rio Grande do Sul) on 1 October 2023 in South American sea lion (*Otaria flavescens*).

Asia

H5N1 in non-poultry birds

A recurrence started in Israel (HaZafon) on 21 September 2023.

Europe

H5 in non-poultry birds

The occurrence of a new strain started in Faeroe Islands (Eysturoyar) on 26 September 2023.

H5N1 in non-poultry birds

A recurrence started in Germany (Sachsen) on 26 September 2023

H5N5 in non-poultry birds

The occurrence of a new strain started in Iceland (Hálshreppur and Icelandic Exclusive Economic Zone) on 17 September 2023.

Africa, 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

H5N1 in non-poultry birds

Brazil

Europe

H5N1 in non-poultry birds

United Kingdom

H5N5 in non-poultry birds

Norway

Africa, Asia, and Oceania

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

Other new cases in mammals by world region (reported through emails)

Europe

H5N1 in mammals

In Denmark, the disease was confirmed in 9 harbor seals (*Phoca vitulina*) found dead.

New outbreaks

During the period covered by this report, a total of 16 outbreaks in non-poultry birds and mammals were reported through WAHIS by eight countries and territories (Brazil, Canada, Faeroe Islands, Germany, Iceland, Israel, Norway, United Kingdom). Details are presented in Figures 4 and 5.

The outbreaks reported by Denmark in harbor seals are not shown in Figures 4 and 5, since the information was provided by email and not all details were available (such as the outbreaks' geolocations).



Figure 4. Distribution of HPAI new outbreaks in non-poultry animals reported through WAHIS, and corresponding subtypes.

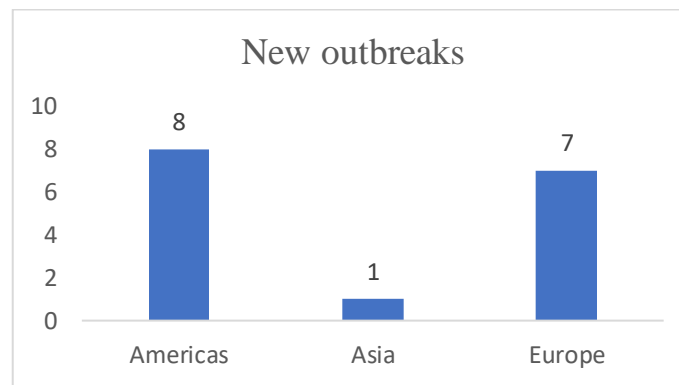


Figure 5. Number of new outbreaks reported through WAHIS by geographical region

Events which started before the 3-week period but were reported during the 3-week period (reported through immediate notifications or through emails)

Africa

H7N6 in non-poultry birds

A recurrence started in South Africa (Gauteng) on 2 September 2023

Americas, Asia, Europe, and Oceania

No events reported

Other cases in mammals by world region (reported through emails)

Europe

H5N1 in mammals

Samples were collected from one dead otter (*Lutra lutra*) in United Kingdom (Wiltshire) on 17 January 2023 and were tested positive.

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 9 outbreaks being reported in poultry and 16 in non-poultry birds and mammals over the 3 weeks covered by the report, in Africa, Americas and Europe. About 10,000 poultry birds died or were culled worldwide during the 3 weeks period. Based on the previous HPAI seasonal patterns, the number of outbreaks in animals is expected to have passed the peak and be relatively low and this is what we are seeing for poultry outbreaks worldwide.

WOAH however 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.

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 914, https://cdn.who.int/media/docs/default-source/wpro---documents/emergency/surveillance/avian-influenza/ai_20230922.pdf?sfvrsn=5f006f99_120

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. Over the 3 weeks covered by the report, cases in mammals were reported to WOAH by Brazil, Denmark and United Kingdom.

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

Recent news

- [OFFLU ad-hoc group on HPAI H5 in wildlife of South America and Antarctica: Southward expansion of high pathogenicity avian influenza H5 in wildlife in South America: estimated impact on wildlife populations, and risk of incursion into Antarctica](#)
- [OFFLU's annual report: tackling animal influenza through data sharing](#)
- [WOAH's Animal Health Forum reshapes avian influenza prevention and control strategies](#)
- [WOAH Statement on avian influenza and mammals](#)
- [OFFLU statement: Infections with Avian Influenza A\(H5N1\) virus in cats in Poland](#)

WOAH resources

- [Avian influenza portal](#)
- [Self-declared disease status](#)
- [World Animal Health Information System \(WAHIS\)](#)
- [Q & A: Avian influenza in cats](#)
- [Animal Health Forum on avian influenza : policy to action: The case of avian influenza – reflections for change](#)
- [Strategic challenges in the global control of high pathogenicity avian influenza](#)
- [Resolution adopted in WOAH General Session 2023: Strategic challenges in the global control of HPAI](#)
- [Preliminary FAO/WHO/WOAH Joint Rapid Risk Assessment - Human infection with influenza A\(H5N1\), Cambodia \(2023\)](#)
- [One health Joint plan of action \(2022 – 2026\)](#)
- [The first meeting of the Standing Group of Experts on HPAI for Europe, May 2023](#)
- [Technical meeting on HPAI vaccination, GF-TAD Americas, March 2023](#)

Awareness tools

- [Avian influenza: understanding new dynamics to better combat the disease](#)
- [Avian influenza: why strong public policies are vital](#)
- [Video: Avian influenza threatens wild birds across the globe](#)

Press inquiries: media@woah.org

OFFLU resources

- [OFFLU annual report 2022](#)
- [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 \(September 2023\)](#)

Other relevant resources

- [Cumulative number of confirmed human cases for avian influenza A\(H5N1\) reported to WHO, 2003-2023](#)
- [WHO, Human infection with avian influenza A\(H5\) viruses](#)
- [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 15 July to 30 August 2023](#)
- [Vaccination of poultry against highly pathogenic avian influenza – part 1. Available vaccines and vaccination strategies](#)