Situation report period covered: 6 to 30 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 6 and 30 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., 2018[1]). 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.

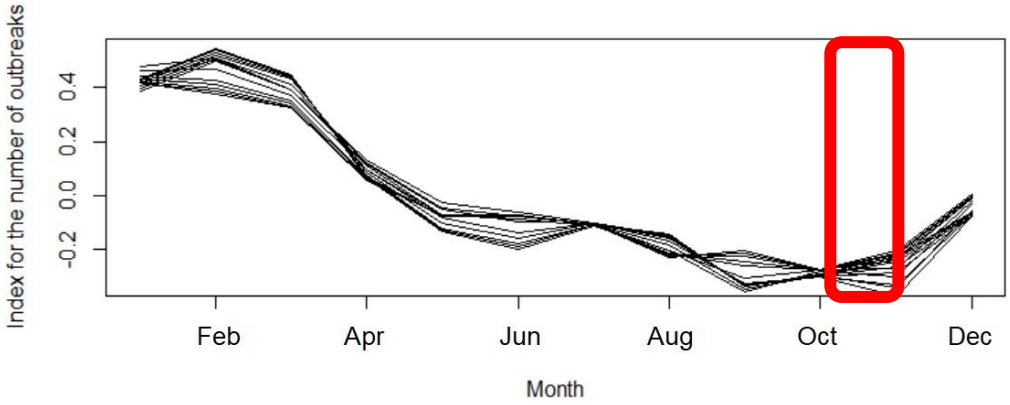

Figure 1. Seasonal trend in global HPAI incidence in poultry

Recent updates (06/10/2023-30/10/2023)

To describe the current disease situation of HPAI in poultry and in non-poultry birds, this section covers: (a) a list of new events[2] 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 outbreaks[3] 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)

Europe

H5

A recurrence started in Bulgaria (Pazardzhik and Veliko Tarnovo) on 24 October 2023

H5N1

Two recurrence started in Poland:

- One in Łódzkie on 6 October 2023
- The other in Zachodniopomorskie on 13 October 2023

A recurrence started in Russia (Komi) on 9 October 2023

A recurrence started in United Kingdom (Scotland) on 20 October 2023

[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.

A recurrence started in Romania (Teleorman) on 25 October 2023
Africa, Americas, Asia, and Oceania
No new events reported.

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, United States of America
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 28 new outbreaks in poultry were reported by eight countries (Bulgaria, Canada, Poland, Romania, Russia, South Africa, United Kingdom and United States of America). Details are presented in Figures 2 and 3.

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

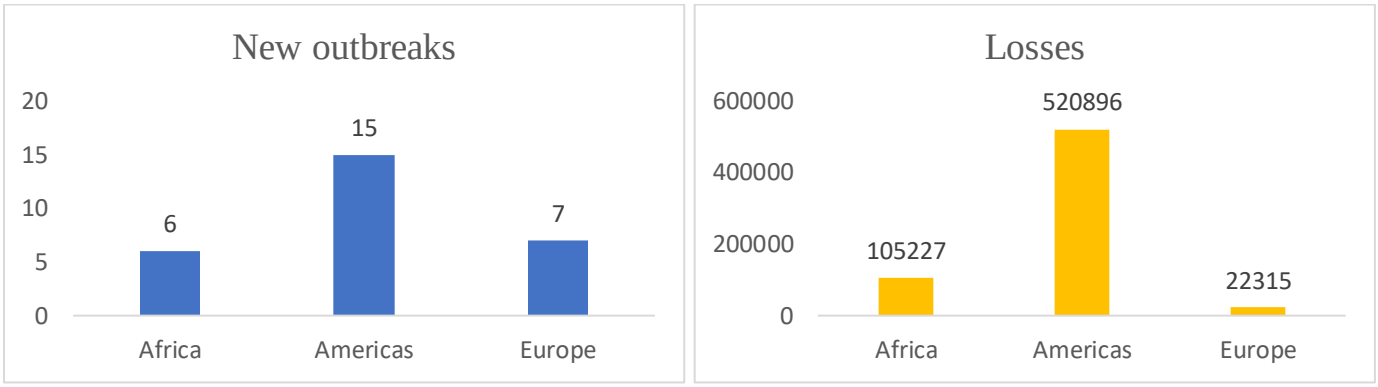

Figure 3. Number of new outbreaks and associated losses by geographical region (losses include animals dead and killed and disposed of within outbreaks – they do not include culling around outbreaks).

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

Africa
H7
The first occurrence of the disease started in Mozambique (Inhambane) on 29 September 2023
Americas, 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
The disease occurred for the first time in South Georgia and the South Sandwich Islands on 7 October 2023
Europe
H5N1 in non-poultry birds
A recurrence started in Austria (Niederösterreich) on 20 October 2023
A recurrence started in Romania (Neamț) on 25 October 2023
Africa, Americas, Asia, 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 mammals
Argentina
H5N1 in non-poultry birds
Brazil, Canada, United States of America
H5N1 in mammals
Brazil
Asia
H5N1 in non-poultry birds
Israel (Clade 2.3.4.4b - Lineage: Fully Eurasian), Japan
Europe
H5 in non-poultry birds
Faeroe Islands
H5N1 in non-poultry birds
Norway, Serbia (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American), Spain, United Kingdom
H5N5 in non-poultry birds
Norway
Africa, 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 32 outbreaks in non-poultry birds and mammals were reported through WAHIS by 14 countries and territories (Argentina, Austria, Brazil, Canada, Faeroe Islands, Israel, Japan, Norway, Romania, Serbia, South Georgia and the South Sandwich Islands, Spain, United Kingdom, United States of America). Details are presented in Figures 4 and 5.

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

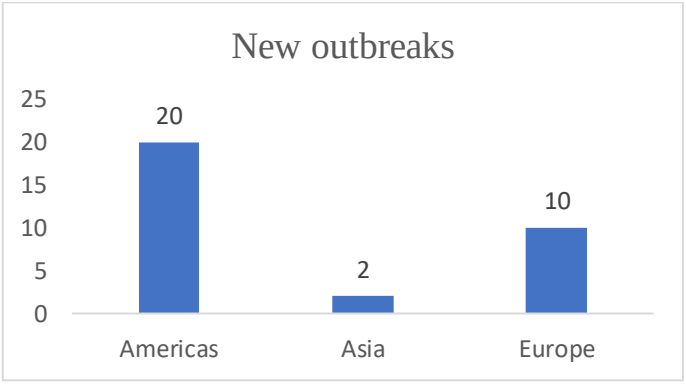

Figure 5. Number of new outbreaks reported through WAHIS by geographical region

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

Americas

H5 in non-poultry birds

A recurrence started in Uruguay (Canelones) on 13 September 2023
The first occurrence in the area of Yaracuy started in Venezuela on 19 September 2023
H5N1 in non-poultry birds
A recurrence started in Mexico (Jalisco) on 2 October 2023
H5N5 in non-poultry birds
Canada reported the new strain in Nova Scotia, with a start date on 16 February 2023
Asia
H5 in non-poultry birds
A recurrence started in Japan (Hokkaido) on 4 October 2023
H5N1 in non-poultry birds
A recurrence started in India (Maharashtra) on 5 September 2023
Europe
H5N1 in non-poultry birds
A recurrence started in Sweden (Nyköping) on 1 July 2023
A recurrence started in Serbia (Grad Beograd) on 5 October 2023 (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American)
A recurrence started in United Kingdom (Wales) on 5 October 2023
H5N5 in non-poultry birds
A recurrence started in United Kingdom (England) on 25 September 2023
Africa, and Oceania
No new events reported.

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

Europe
H5N1 in mammals
Samples were collected from three dead otters (*Lutra lutra*) in United Kingdom (Cumbria, Nottinghamshire and County Durham) on 14 January 2022, 23 May 2022 and 16 January 2023 and were tested positive.

Self-declarations of freedom submitted during the 3-week period

In accordance with the provisions of the *Terrestrial Animal Health Code*, Members may wish to self-declare the freedom of their country, zone or compartment from HPAI. A Member wishing to publish its self-declaration for disease-freedom, should provide the relevant documented evidence of compliance with the provisions of the Code.

No Member submitted a self-declaration for HPAI during the three weeks covered by this report.

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 28 outbreaks being reported in poultry and 32 in non-poultry birds and mammals over the 3 weeks covered by the report, in Africa, Americas, Asia and Europe. Nearly 650,000 poultry birds died or were culled worldwide during the 3 weeks period, mostly in the Americas, and significant wildlife mortality

[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)
[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

was reported in Argentina, with the death of 300 Southern elephant seal (*Mirounga leonine*) due to HPAI. We observe during the weeks covered in the report an increase in subtype diversity, with reports of subtypes H5N1, H5N5 and H7N6.

WOAH 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 Argentina, Brazil and United Kingdom.

A very concerning event is the first occurrence of HPAI in South Georgia and the South Sandwich Islands on 7 October 2023. Indeed, at the end of August 2023, OFFLU experts highlighted the substantial risk of HPAI southwards spread to Antarctica and its offshore islands, due to the spring migration of wild birds from South America to breeding sites in the Antarctic. Experts highlighted that the negative impact of HPAI on Antarctic wild birds and mammal populations could be immense, both because of their likely susceptibility to mortality from this virus, and their occurrence in dense colonies of up to thousands of pinnipeds and hundreds of thousands of birds, allowing efficient virus transmission. It is very worrying to see that the disease has progressed in this direction over the last few weeks.

Experts highlighted that although little can be done to stop HPAI from spreading to Antarctica and causing mortality in Antarctic wild birds and mammals, there are several detection and response options possible. These include surveillance and accurate documentation of HPAI-associated mortality events, and following guidelines to reduce risk of human-mediated virus spread.

WOAH recommends that countries maintain their surveillance efforts, biosecurity measures at farm level and preventive measures, and continue timely reporting of avian influenza outbreaks in both poultry and non-poultry species.

On 23 October 2023, the OFFLU avian influenza matching (OFFLU-AIM) report was published on the OFFLU website. The goal of this report is to provide improved information on antigenic characteristics of avian influenza viruses to support vaccination programs against avian influenza. It will also assist countries utilising vaccines to stay informed about potentially significant changes in the antigenic characteristics of circulating strains. This information is also of value for countries considering introduction of vaccination as an additional preventive/control measure.

Recent news

- OFFLU avian influenza matching (OFFLU-AIM) report
- 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