

**Situation report period covered: 31 March to 20 April 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 31 March and 20 April 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<sup>1</sup>). 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.

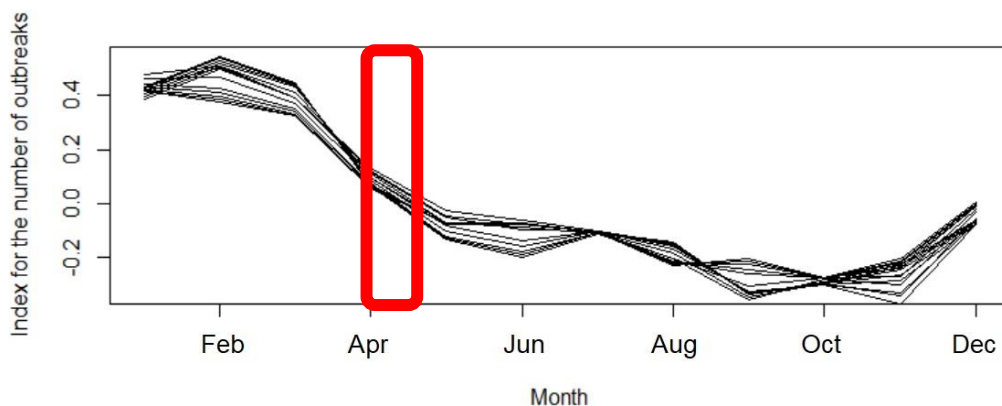


Figure 1. Seasonal trend in global HPAI incidence in poultry

**Recent updates (31/03/2023-20/04/2023)**

To describe the current disease situation of HPAI in poultry and in non-poultry birds, this section covers: (a) a list of new events<sup>2</sup> 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<sup>3</sup> 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****H5N1**

A recurrence started in Germany (Baden-Württemberg) on 6 April 2023

**Africa, Americas, Asia, and Oceania**

No new events reported

<sup>1</sup> 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>

<sup>2</sup> 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.

<sup>3</sup> 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):

**Americas**

Subtype H5

Argentina

Subtype H5N1

Canada (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American), Chile (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American), United States of America

**Asia**

Subtype H5N1

Japan and Korea (Rep. of) (Clade: 2.3.4.4b - Lineage: Reassortment Eurasian and North American)

**Europe**

Subtype H5N1

Hungary and Italy

**Africa, 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 48 new outbreaks in poultry were reported by nine countries (Argentina, Canada, Chile, Germany, Hungary, Italy, Japan, Korea (Rep. of), and United States of America). Details are presented in Figures 2 and 3.

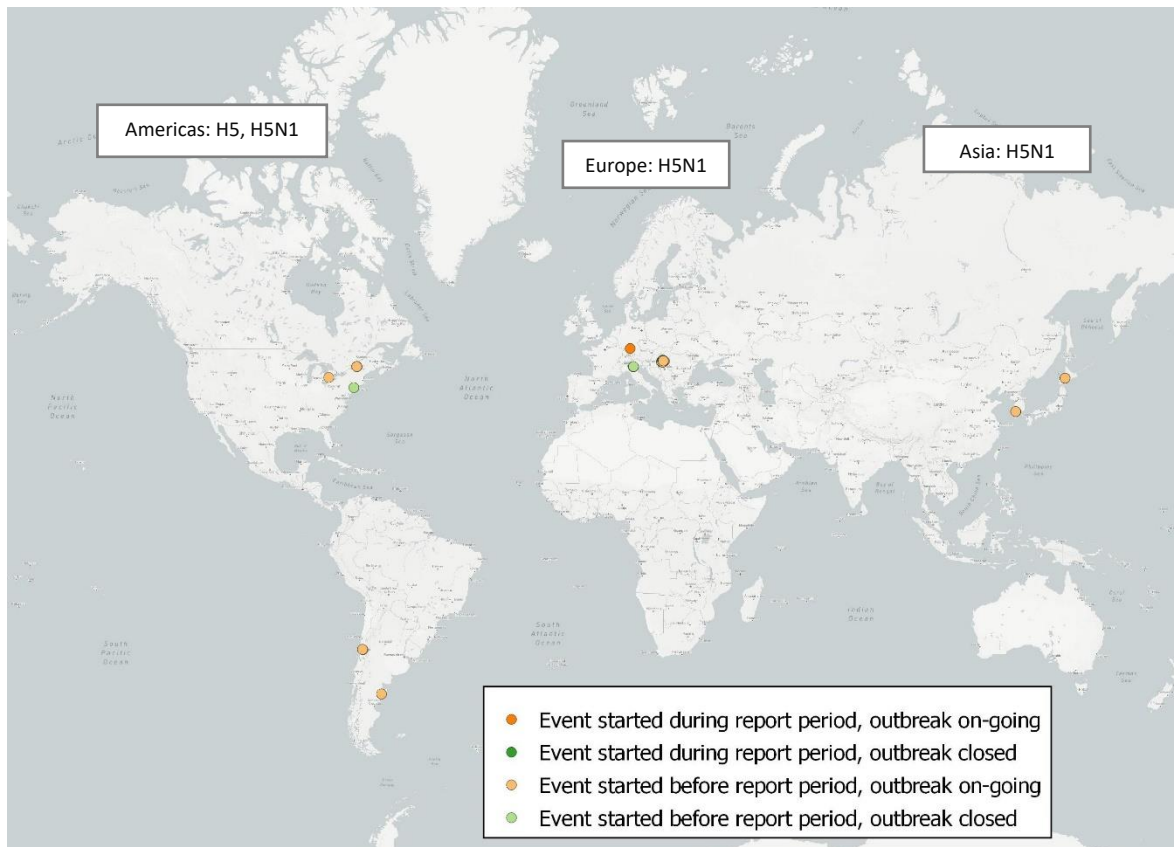


Figure 2. Distribution of HPAI new outbreaks in poultry, and corresponding subtypes

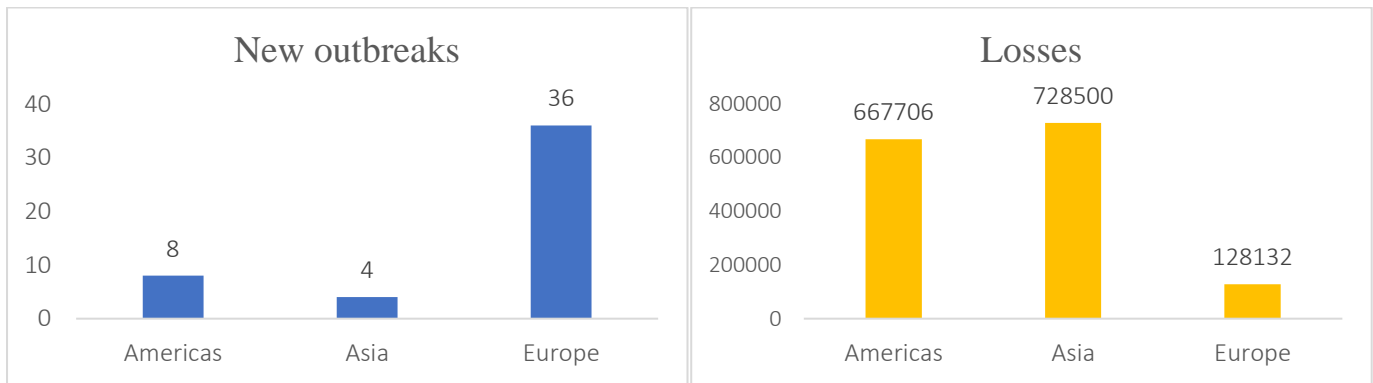


Figure 3. Number of new outbreaks and associated losses by geographical region (losses include animals dead and killed and disposed of within outbreaks – they do not include culling around outbreaks)

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

##### Americas

###### H5N1

The first occurrence in the area of Valparaíso started in Chile on 29 March 2023

##### Europe

###### H5N1

The first occurrence in the area of Veliko Tarnovo started in Bulgaria on 30 March 2023 (Clade 2.3.4.4b; Lineage: Fully Eurasian)

##### Africa, Asia, and Oceania

No events reported

## HPAI in non-poultry

#### New events by world region (reported through immediate notifications)

##### Europe

###### Subtype H5N1

A recurrence started in Lithuania (Marijampoles) on 7 April 2023

##### Africa, Asia, Americas 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

Argentina, and Uruguay

###### H5N1

United States of America

##### Europe

###### Untyped

Belgium

###### H5N1

Austria, Belgium, Czech Republic (Clade 2.3.4.4b - Lineage: Fully Eurasian), Hungary, Italy, Netherlands, Russia, 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 33 outbreaks in non-poultry were reported by 12 countries (Argentina, Austria, Belgium, Czech Republic, Hungary, Italy, Lithuania, Netherlands, Russia, United Kingdom, United States of America, Uruguay). Details are presented in Figures 4 and 5.



Figure 4. Distribution of HPAI new outbreaks in non-poultry birds, and corresponding subtypes.

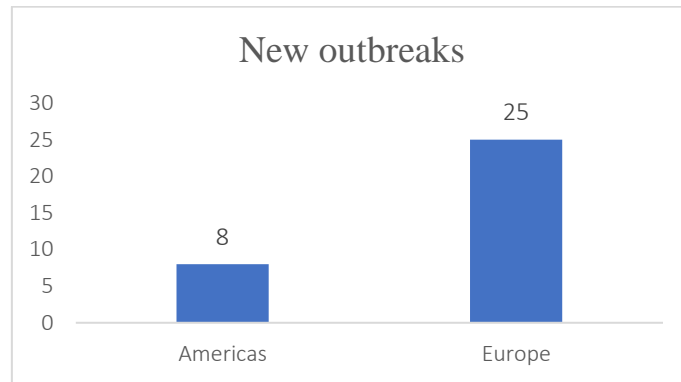


Figure 5. Number of new outbreaks by geographical region

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

**Africa**

H5N1

The first occurrence started in Gambia (Western) on 25 March 2023

**Asia**

H5N8

A recurrence started in Japan (Kagoshima) on 20 March 2023

**Europe**

H5N1

A recurrence started in Sweden (Lomma) on 24 March 2023

A recurrence started in Norway (Møre Og Romsdal) on 28 March 2023

**America, and 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<sup>4,5,6,7,8</sup>.

### Key messages

The current HPAI epidemic season continues with 48 outbreaks being reported in poultry and 33 in non-poultry birds over the 3 weeks covered by the report, mainly in Europe, and also in the Americas and Asia. About 1.5 million poultry birds died or were culled worldwide during the 3 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. However, the first occurrence of HPAI in non-poultry birds in Gambia at the end of March is noteworthy and shows that the disease is still spreading to new areas. On 27 March 2023, official health authorities of China (People's Rep. of) notified the World Health Organization (WHO) of one confirmed case of human infection with an avian influenza A(H3N8) virus. This is the third reported case of human infection with an avian influenza A(H3N8) virus; reported by China (People's Rep. of). The patient had a history of exposure to live poultry before the onset of the disease, and a history of wild bird presence around their home<sup>9</sup>.

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. 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](mailto:media@woah.org)

### OFFLU resources

- [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](#)

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

<sup>5</sup> 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))

<sup>6</sup> 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=babfcd1\\_1&download=true](https://cdn.who.int/media/docs/default-source/influenza/human-animal-interface-risk-assessments/2022_nov_tableh5n1.pdf?sfvrsn=babfcd1_1&download=true)

<sup>7</sup> 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>

<sup>8</sup> WHO, Avian Influenza Weekly Update Number 891, [https://www.who.int/docs/default-source/wpro---documents/emergency/surveillance/avian-influenza/ai\\_20230414.pdf?sfvrsn=5f006f99\\_113](https://www.who.int/docs/default-source/wpro---documents/emergency/surveillance/avian-influenza/ai_20230414.pdf?sfvrsn=5f006f99_113).

<sup>9</sup> WHO, Avian Influenza A(H3N8) – China, <https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON456>

- [Epidemiological Alert Outbreaks of avian influenza and human infection caused by influenza A\(H5\) public health implications in the Region of the Americas](#)