

Epidemiological Update Avian Influenza A(H5N1) in the Americas Region

4 March 2025

Global Context

In 2020, the highly pathogenic avian influenza (HPAI) virus¹ subtype H5N1 of clade 2.3.4.4b caused an unprecedented number of deaths in wild birds and poultry in numerous countries in Africa, Asia, and Europe (1). In 2021, this virus spread through major waterfowl flyways to North America and, in 2022, to Central and South America (1). By 2023, outbreaks in animals were reported from 14 countries and territories, mainly in the Americas (1, 2).

In recent years, there has been an increase in the detection of the influenza A(H5N1) virus in non-avian species worldwide, including terrestrial and marine mammals, both wild and domestic (companion and production). Since 2022, 19 countries on three continents, including the Americas, have reported outbreaks in mammals to the World Organization for Animal Health (WOAH) (3).

Historically, since the beginning of 2003 and as of 20 January 2025, 964 human cases of avian influenza A(H5N1), including 466 deaths (48% case fatality), were reported to the World Health Organization (WHO) from 24 countries globally (4).

Summary of the situation in the Americas Region

Since 2022 and as of epidemiological week (EW) 8 of 2025, a total of 19 countries and territories in the Americas Region reported 4,713 animal outbreaks² of avian influenza A(H5N1) to WOAH (3), representing 325 additional outbreaks since the last epidemiological update published by the Pan American Health Organization/World Health Organization (PAHO/WHO) on 24 January 2025 (5). Further details on outbreak identifications in domestic and wild mammals and birds in Argentina, the Plurinational State of Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Ecuador, the Falkland Islands, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, the United States of America, Uruguay, and the Bolivarian Republic of Venezuela can be found in **Tables 1 and 2** and **Figures 1 and 2** (3).

¹ Broadly speaking, the multiple strains of avian influenza virus can be classified into two categories according to the severity of disease presentation in poultry: low pathogenic avian influenza viruses (LPAIV) and highly pathogenic avian influenza viruses (HPAIV).

² Please note that current figures represent the number of outbreaks, which may include multiple epidemiologically linked records and updates in reported case counts for each outbreak. This may result in lower counts than those reported in previous publications. These figures reflect only officially verified outbreaks reported to WOAH, ensuring accuracy according to WOAH standards.

A total of 74 human infections caused by avian influenza A(H5) have been reported in four countries in the Americas between 2022 and 25 February 2025, with three additional cases reported since the last epidemiological update published by PAHO/WHO (5). Seventy-one cases were reported in the United States, including the three most recent cases (6), one case in Canada was confirmed on 13 November 2024 (7), one case in Chile was reported on 29 March 2023 (8), and one case in Ecuador was reported on 9 January 2023 (9).

Since the beginning of 2024 and as of 25 February 2025, 71 human cases have been reported in Canada and the United States, of which 53 were reported between October 2024 and February 2025 (6, 7, 10).

Situation by country and/or territory of outbreaks in birds in 2025

Since the beginning of 2025 and as of EW 8, a total of six countries and territories in the Americas Region (Argentina, Canada, the Falkland Islands, Panama, Peru, and the United States) reported 120 outbreaks of avian influenza in domestic and/or wild birds to WOAH. Of these outbreaks, 119 occurred in domestic birds and one in wild birds (**Table 2**) (3).

A summary of the situation in countries and territories in the Americas Region that reported outbreaks of avian influenza A(H5N1) in birds during 2025, as of EW 8, is presented below in alphabetical order.

In **Argentina**, between EW 1 and EW 8 of 2025, one outbreak of avian influenza A(H5) was confirmed in backyard poultry in the province of Chaco (3).

In **Canada**, between EW 1 and EW 8 of 2025, seven HPAI A(H5N1) outbreaks in poultry have been reported to WOAH, in the provinces of British Columbia, Ontario and Quebec (3).

In the **Falkland Islands**, between EW 1 and EW 8 of 2025, an outbreak of avian influenza was detected in wild birds (11).

In **Panama**, between EW 1 and EW 8 of 2025, an outbreak of HPAI A(H5N1) in domestic poultry was reported to WOAH. The outbreak was identified in the province of Chiriqui (3).

In **Peru**, between EW 1 and EW 8 of 2025, WOAH was notified of an outbreak of HPAI A(H5) in backyard domestic poultry in the department of Cajamarca (3).

In the **United States**, between EW 1 and EW 8 of 2025, 109 outbreaks of avian influenza A(H5) virus in commercial poultry and/or backyard poultry have been reported to WOAH in 32 states of the country³ (3). During the same period, more than 115 detections were recorded in wild birds (12).

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³ Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Virginia, and Washington.

Situation by country and/or territory of mammalian outbreaks in 2025

Since the beginning of 2025 and as of EW 8, one country in the Region, the United States, has notified WOAH of outbreaks in mammals (3).

In the **United States**, between EW 1 and EW 8, 2025, 38 outbreaks in wild (n= 4) and domestic (n= 34) mammals have been reported to WOAH in 12 states⁴ (3). Following the first notification in the country of influenza A(H5N1) in dairy cattle in March 2024, outbreaks have been identified in 17 states⁵, affecting 976 dairy herds as of 25 February 2025. In 2025, as of 25 February 2025, 56 cases were reported in dairy cattle in four states: Arizona (n= 1), California (n= 47), Michigan (n= 1), and Nevada (n= 7) (13).

Situation by country and/or territory of human cases between 2024 and 2025

Since the beginning of 2024 and as of 25 February 2025, 71 human cases of avian influenza A(H5N1) have been reported in the Americas Region, in Canada (n= 1) and the United States (n= 70) (6, 7). The following is a summary of the situation in Canada and the United States with respect to human infections with avian influenza A(H5N1).

On 14 November 2024, **Canada** confirmed its only human case of influenza A(H5N1), in a teenager from British Columbia, initially reported on 9 November. Genomic sequencing linked the virus to the outbreak in poultry in the region (clade 2.3.4.4b, genotype D1.1) and detected the E627K mutation in the PB2 gene, associated with increased replication in mammals. The source of infection is still unknown, and no additional cases have been reported (7).

In the **United States**, since March 2024 and as of 25 February 2025, 70 human cases of influenza A(H5N1) have been confirmed in California (n= 38), Colorado (n= 10), lowa (n= 1), Louisiana (n= 1), Michigan (n= 2), Missouri (n= 1), Nevada (n= 1), Ohio (n= 1), Oregon (n= 1), Texas (n= 1), Washington (n= 11), Wisconsin (n= 1), and Wyoming (n= 1). Of these cases, 41 have been linked to exposure to sick or infected dairy cattle, 24 are linked to exposure to commercial poultry farms, and for two cases, exposure was related to other animals such as backyard poultry, wild birds, or other mammals. The source of exposure for two cases in California and one case in Missouri could not be determined (**Table 3**). As of 25 February 2025, human-to-human transmission of avian influenza A(H5N1) virus has not been reported (6). It should be noted that the United States had reported one additional case of influenza A(H5N1) in April 2022.

In the United States, cases of influenza A(H5N1) are detected through routine national influenza surveillance and targeted surveillance for exposed persons. To date, six of the 70 cases have been detected through routine surveillance, while 64 of the 70 cases have been detected through targeted surveillance. Since 24 March 2024 and as of 25 February 2025, targeted surveillance efforts for avian influenza A(H5) have monitored more than 15,200 persons for exposure to infected animals; more than 830 of them have been tested and 64 have tested positive (6).

⁵ California, Colorado, Idaho, Iowa, Kansas, Michigan, Minnesota, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, South Dakota, Texas, Utah, and Wyoming.

⁴ California, Colorado, Delaware, Illinois, Iowa, Kansas, Louisiana, Michigan, Nevada, Oregon, Pennsylvania, and South Dakota.

Table 1. Number of outbreaks in domestic and wild birds and mammals in the Americas Region reported to WOAH between 2022 and EW 8 of 2025.

Country/Territory	Number of	In po	oultry In m		nammals	
	outbreaks	Wild	Domestic	Wild	Domestic	
Argentina	147	Yes	Yes	Yes		
Bolivia	38	Yes	Yes			
Brazil	166	Yes	Yes	Yes		
Canada	545	Yes	Yes	Yes	Yes	
Chile	259	Yes	Yes	Yes		
Colombia	71	Yes	Yes			
Costa Rica	10	Yes	Yes			
Cuba	1	Yes	Yes			
Ecuador	37	Yes	Yes			
Falkland Islands	22	Yes		Yes		
Guatemala	1	Yes				
Honduras	4	Yes				
Mexico	86	Yes	Yes			
Panama	10	Yes	Yes			
Paraguay	5		Yes			
Peru	372	Yes	Yes	Yes		
United States	2,912	Yes	Yes	Yes	Yes	
Uruguay	25	Yes	Yes	Yes		
Venezuela	2	Yes	Yes			
Total	4,713					

Source: Adapted from World Organization for Animal Health. Avian Influenza. Paris: WOAH; 2025 [cited 25 February 2025]. Available from: https://wahis.woah.org/#/event-management; and Falkland Islands Department of Agriculture. Avian Influenza Information; Stanley: IFAD; 2025 [cited 25 February 2025]. Available from: https://falklands.gov.fk/agriculture/avian-influenza.

Table 2. Avian influenza outbreaks in birds and mammals in the Americas Region during 2025, as of 25 February.

Country / Towards w	Number of	In poultry		In mammals	
Country/Territory	outbreaks	Wild	Domestic	Wild	Domestic
Argentina	1		Yes		
Canada	7		Yes		
Falkland Islands	1	Yes			
Panama	1		Yes		
Peru	1		Yes		
United States	147		Yes	Yes	Yes
Total	158				

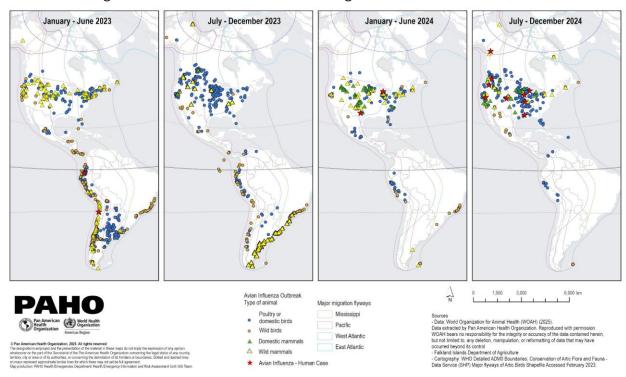
Source: Adapted from World Organization for Animal Health. Avian Influenza. Paris: WOAH; 2025 [cited 25 February 2025]. Available from: https://wahis.woah.org/#/event-management; and Falkland Islands Department of Agriculture. Avian Influenza Information; Stanley: IFAD; 2025 [cited 25 February 2025]. Available from: https://falklands.gov.fk/agriculture/avian-influenza.

Table 3. Cases of avian influenza A(H5) infections in humans in the United States beginning in 2024 and as of 25 February 2025.

State	Linked to livestock	Linked to poultry farms	Other animal exposure	Origin unknown	Total by State
California	36	0	0	2	38
Colorado	1	9	0	0	10
lowa	0	1	0	0	1
Louisiana	0	0	1	0	1
Michigan	2	0	0	0	2
Missouri	0	0	0	1	1
Nevada	1	0	0	0	1
Ohio	0	1	0	0	1
Oregon	0	1	0	0	1
Texas	1	0	0	0	1
Washington	0	11	0	0	11
Wisconsin	0	1	0	0	1
Wyoming	0	0	1	0	1
Total	41	24	2	3	70

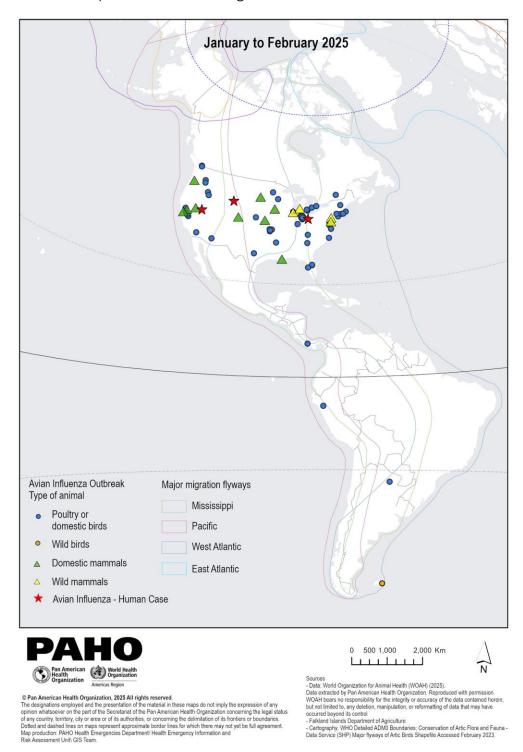
Source: U.S. Centers for Disease Control and Prevention. Avian Influenza H5. Atlanta: CDC; 2025 [cited 25 February 2025]. Available from: https://www.cdc.gov/bird-flu/situation-summary/index.html.

Figure 1. Historical avian influenza outbreaks and main migratory flyways of wild birds by type of animal during 2023 and 2024 in the Americas Region.



Source: Adapted from World Organization for Animal Health. Avian Influenza. Paris: WOAH; 2025 [cited 25 February 2025]. Available from: https://wahis.woah.org/#/event-management; and Falkland Islands Department of Agriculture. Avian Influenza Information; Stanley: IFAD; 2025 [cited 25 February 2025]. Available from: https://falklands.gov.fk/agriculture/avian-influenza.

Figure 2. Avian influenza outbreaks by species and main migratory routes of wild birds, during 2025, as of 25 February in the Americas Region.



Source: Adapted from World Organization for Animal Health. Avian Influenza. Paris: WOAH; 2025 [cited 25 February 2025]. Available from: https://wahis.woah.org/#/event-management; and Falkland Islands Department of Agriculture. Avian Influenza Information; Stanley: IFAD; 2025 [cited 25 February 2025]. Available from: https://falklands.gov.fk/agriculture/avian-influenza.

Recommendations for Member States

While avian influenza outbreaks largely affect animals, they pose continuing risks to public health. The Pan American Health Organization/World Health Organization (PAHO/WHO), together with the Food and Agriculture Organization of the United Nations (FAO) and the World Organization for Animal Health (WOAH), urge Member States to work collaboratively and intersectorally to preserve animal health and protect human health (1, 2, 14, 15).

The sporadic cases of avian influenza A(H5N1) 2.3.4.4b clade virus detected in humans are mostly associated with direct contact with infected animals and contaminated environments. Current evidence reflects that the virus does not appear to be transmitted from one person to another. However, it is imperative to strengthen intersectoral surveillance to detect any possible changes in this situation (2).

PAHO/WHO urges Member States to strengthen surveillance in both animals and humans through an integrated approach, ensuring timely detection of cases to monitor possible changes in the epidemiology of the virus (16). In this regard, it is recommended that epidemiological surveillance for avian influenza A(H5N1) be strengthened in populations at higher risk of exposure, including agricultural workers, veterinarians, health and laboratory personnel, by systematically identifying the signs. These include respiratory disease, conjunctivitis, or encephalitis in people with recent exposure to infected animals, as well as cases of severe acute respiratory infection (SARI) or pneumonia in travelers coming from areas where influenza A(H5N1) has been detected. It is also recommended to monitor clusters of SARI or atypical symptoms in family, work, or social settings. To this end, it is essential to implement surveillance in health facilities and at-risk populations, with notification and response protocols. In addition, it is recommended to actively monitor people at risk of exposure (in areas with confirmed animal outbreaks) and to strengthen the immediate notification of suspected events, ensuring a rapid and coordinated response (16-18).

Research continues to determine the risk to humans from consuming raw or unpasteurized milk contaminated with influenza A(H5N1) virus. The FAO and WHO recommend consuming pasteurized milk because of the potential health risks associated with various zoonotic pathogens (15). There is no evidence to suggest that influenza A(H5N1) or other avian influenza viruses can be transmitted to humans through the consumption of properly prepared and cooked poultry or eggs (18).

WOAH has specific recommendations on the avian influenza situation in birds and mammals. These recommendations advise countries to maintain an intensified surveillance of the disease in domestic and wild birds, preventing the spread of the disease through the implementation of biosecurity measures (19).

PAHO/WHO urges Member States to work collaboratively and intersectorally to preserve animal health and protect public health. It is essential that preventive measures for avian influenza be implemented at the source, protocols for detection, notification and rapid response to outbreaks in animals be established, surveillance for both animal and human influenza be strengthened, epidemiological and virological investigations be carried out in relation to animal outbreaks and human infections, genetic information about viruses be shared, thereby fostering collaboration between animal and human health settings, effectively communicating risk , and ensuring preparedness for a potential influenza pandemic at all levels (20, 21).

Detailed information on the key recommendations for Member States with a One Health approach, which include coordination for intersectoral surveillance and response, as well as prevention measures and risk communication, can be found in the <u>epidemiological update</u> published by the Pan American Health Organization / World Health Organization (PAHO/WHO) on 24 January 2025, available from: https://www.paho.org/en/documents/epidemiological-update-avian-influenza-ah5n1-americas-region-24-january-2025 (5).

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Useful links

- Pan American Health Organization / World Health Organization. Influenza A(H5N1) in the Americas Region. Washington, D.C.: PAHO/WHO; 2025. Available from: https://shiny.paho-phe.org/h5n1/.
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