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

24 November 2025

Global Context

In 2020, the highly pathogenic avian influenza (HPAI) virus[1] subtype H5N1 clade 2.3.4.4b caused an unprecedented number of deaths among wild birds and poultry in numerous countries in Africa, Asia, and Europe *(1)*. In 2021, this virus spread through the main migratory routes of waterfowl to North America and, in 2022, to Central and South America *(1)*. By 2023, outbreaks in animals had been reported by 14 countries and territories, mainly in the Americas *(1, 2)*.

In recent years, there has been an increase in the detection of A(H5N1) viruses in non-avian species worldwide, including terrestrial and marine mammals, both wild and domestic (companion and production). Since 2022, 22 countries on three continents, including the Americas, have reported outbreaks in mammals to the World Organization for Animal Health (WOAH) *(3)*.

Between early 2003 and 29 September 2025, 991 human cases of avian influenza A(H5N1) were reported to the World Health Organization (WHO), including 476 deaths (48% case fatality rate), in 25 countries worldwide *(4)*.

Summary of the situation in the Americas Region

Between epidemiological week (EW) 16 of 2022 and EW 45 of 2025, a total of 19 countries and territories[2] in the Americas Region reported 5,136 outbreaks[3] of avian influenza A(H5N1) *(3)*, representing 73 additional outbreaks since the last Pan American Health Organization/World Health Organization (PAHO/WHO)epidemiological update on avian influenza A(H5N1) published 15 October 2025 *(3, 5)*.

Between 20 April 2022 and 18 November 2025, a total of 75 human infections caused by avian influenza A(H5N1), including two deaths, have been reported in five countries in the Americas, with no additional cases since the last PAHO/WHO epidemiological update on avian influenza on 15 October 2025 (**Figure 1**) *(5-7)*. Human cases of avian influenza A(H5N1) in the Americas

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

[2] 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.

[3] 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.

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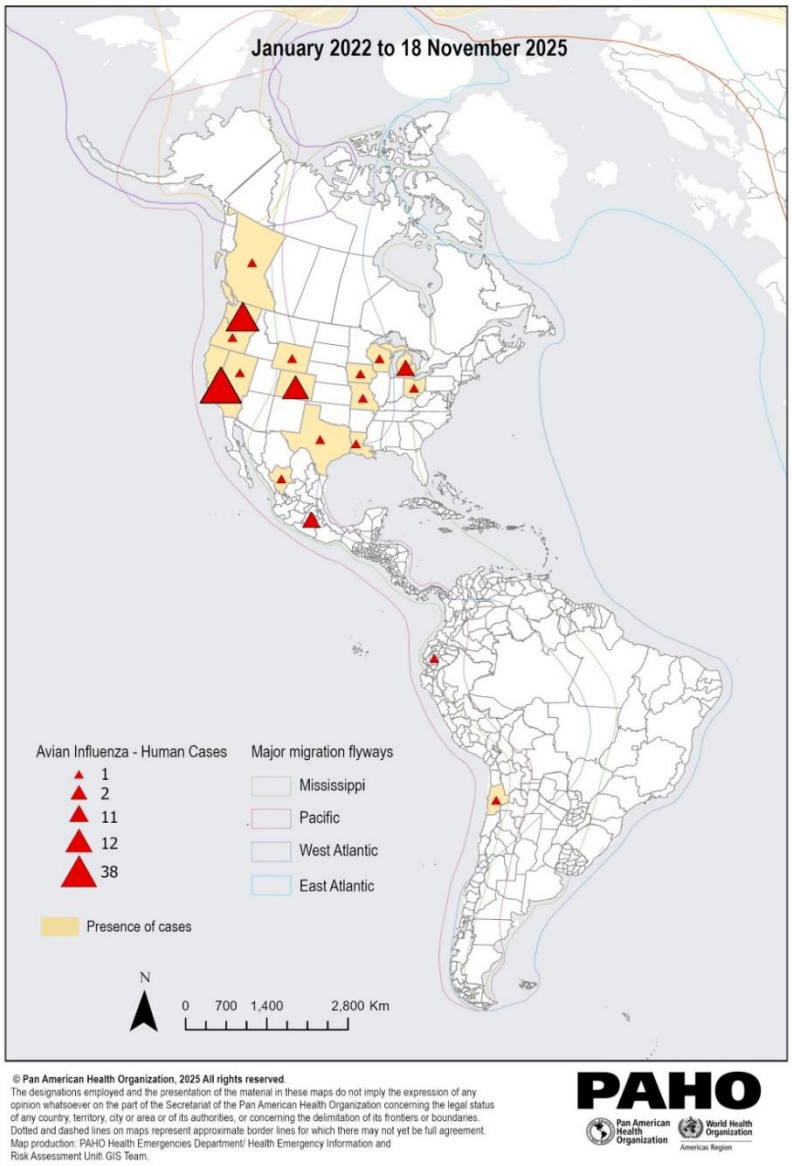
Region are distributed as follows: one case in Mexico reported on 2 April 2025 *(8-10)*, 71 cases in the United States of America—one in 2022 and 70 since 2024 *(11)*, one case in Canada confirmed on 13 November 2024 *(12)*, one case in Chile reported on 29 March 2023 *(13)*, and one case in Ecuador reported on 9 January 2023 *(14)*.

In addition to these confirmed cases of H5N1, the most recent cases of human infection with avian influenza A(H5) reported in the Americas Region were recorded in: Mexico on 2 October 2025 *(6, 7)*, which was a case of H5N2 and represents the second human case of H5N2 identified in Mexico *(15)*, and in the United States on 14 November 2025, which is pending characterization *(16)*.

Figure 1. Human cases of avian influenza A(H5) in the Americas Region since 2022 and as of 18 November 2025.



Note: Two of the human cases reported in Mexico correspond to avian influenza A(H5N2).

Source: Adapted from information publicly available in Ministries of Health and official national agencies web pages *(6-14)*.

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

Among birds

In 2025, as of EW 45, 508 outbreaks of avian influenza have been reported to WOAH in domestic (n= 453) and/or wild birds (n= 55) in nine countries in the Americas Region: Argentina (n= 6), the Plurinational State of Bolivia (n= 1), Brazil (n= 19), Canada (n= 61), Guatemala (n= 1), Mexico (n= 8), Panama (n= 1), Peru (n= 22), and the United States (n= 389) (**Table 1**) *(3)*. During the same period in 2024, a total of 364 outbreaks were reported in domestic (n= 302) and/or wild birds (n= 62) *(3)*. Since the PAHO/WHO epidemiological update on avian influenza on 15 October 2025, 73 additional outbreaks in birds have been reported *(5)*. In addition to these outbreaks, as of 18 November 2025, there were 3,932 detections of avian influenza A(H5N1) in wild birds in the United States, 367 detections in Canada, and 239 in the Falkland Islands *(17-19)*.

Among mammals

In 2025, as of EW 45, 77 outbreaks in wild (n= 15) and domestic mammals (n= 62) have been reported to WOAH between the United States and Canada (**Table 1**) *(3)*. In the same period in 2024, a total of 751 outbreaks in wild (n= 40) and domestic mammals (n= 711) were reported *(3)*. Since the first notification of influenza A(H5N1) in dairy cattle in March 2024 in the United States, outbreaks have been identified in 18 states,[4] affecting 1,082 dairy herds as of 18 November 2025 *(11, 17)*. Since the PAHO/WHO epidemiological update on avian influenza A(H5N1) on 15 October 2025, two additional dairy herds have been affected in the United States *(5)*.

In addition, as of 18 November, the Canadian Food Inspection Agency (CFIA) has reported 20 detections in wild mammals in Canada in 2025 through their High Pathogenicity Avian Influenza - Wildlife Dashboard *(18)*.

Table 1. Avian influenza outbreaks or detections in birds and mammals in the Americas Region in 2025, as of 18 November 2025.

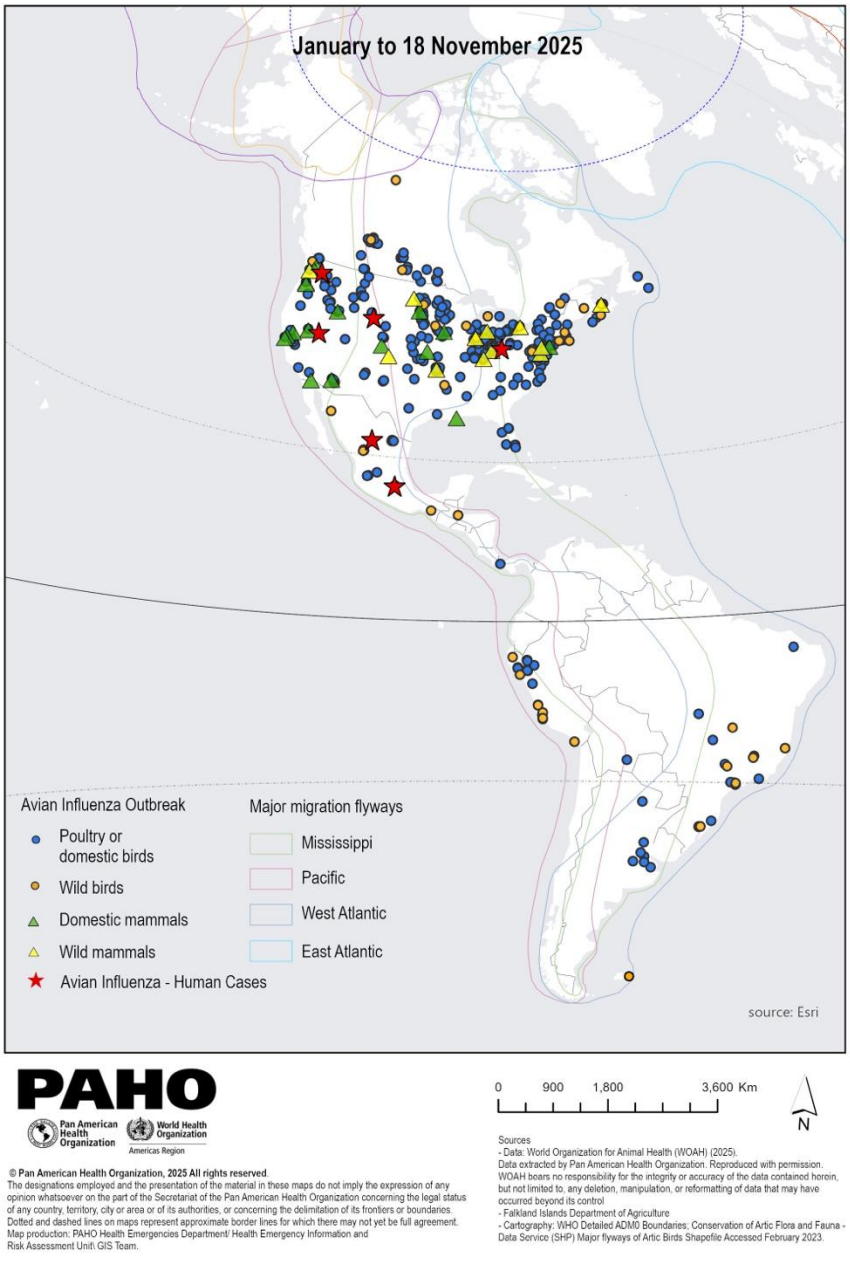
Country/Territory	In birds		In mammals	
	Wild	Domestic	Wild	Domestic
Argentina	No	Yes	No	No
Bolivia	No	Yes	No	No
Brazil	Yes	Yes	No	No
Canada	Yes	Yes	Yes	No
Guatemala	Yes	No	No	No
Falkland Islands	Yes	No	No	No
Mexico	Yes	No	No	No
Panama	No	Yes	No	No
Peru	Yes	Yes	No	No
United States	Yes	Yes	Yes	Yes

Source: Adapted from data published by the World Organization for Animal Health and data published online by Ministries of Health and official national agencies *(3, 17-19)*.

[4] Arizona, California, Colorado, Idaho, Iowa, Kansas, Michigan, Minnesota, Nebraska, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, South Dakota, Texas, Utah, Wyoming

A geographic visualization of outbreaks in animals, by type, in 2025, illustrating the main migratory routes in the Americas Region is presented in **Figure 2**, and data for the period of 2023 to 2024 is shown in **Figure 3**.

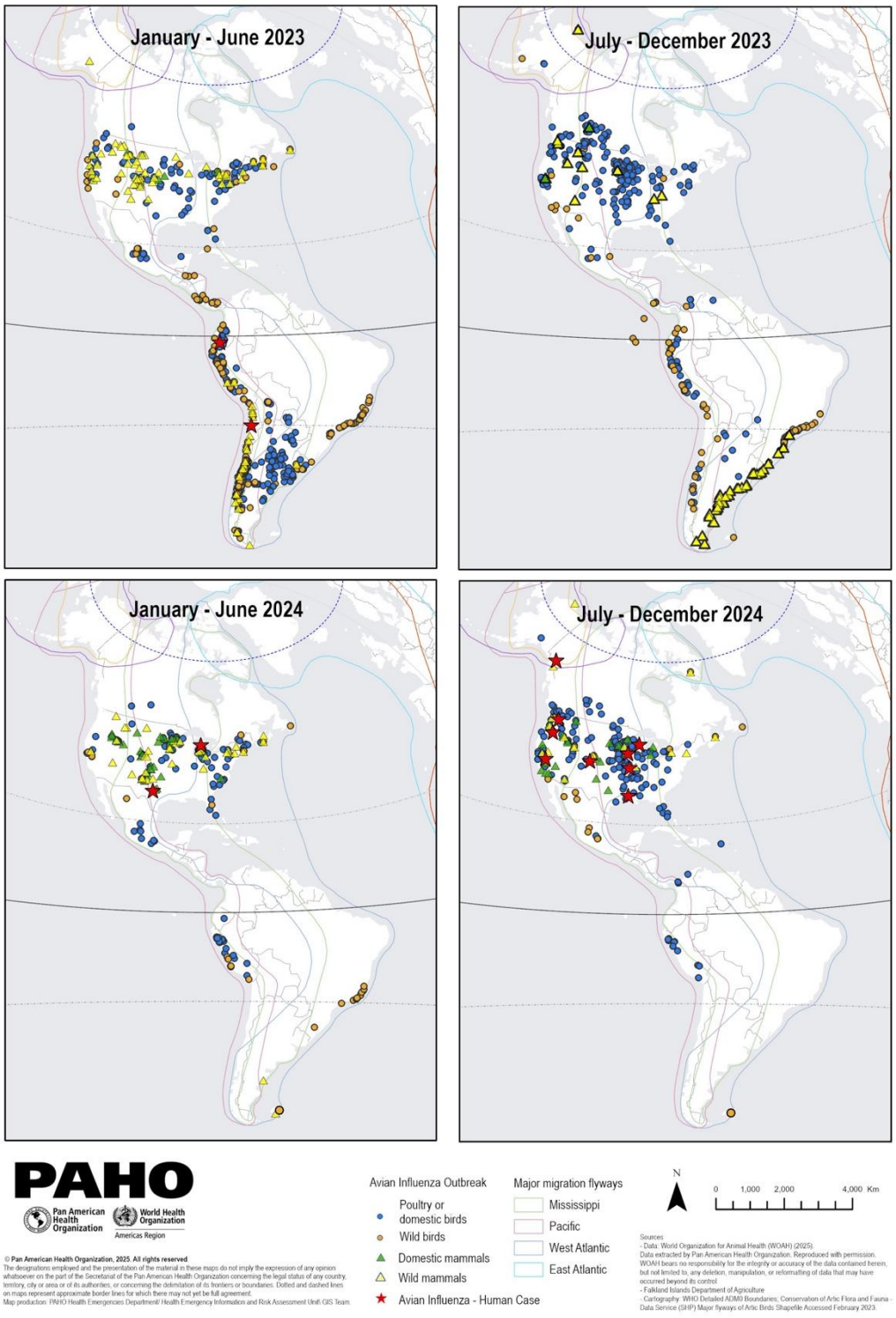
Figure 2. Avian influenza outbreaks by species and main migratory routes of wild birds by animal type in the Americas Region in 2025, as of 18 November 2025.



Note: Two of the human cases reported in Mexico correspond to influenza A (H5N2).

Source: Adapted from data published by the World Organization for Animal Health and data published online by Ministries of Health and official national agencies *(3, 6-19)*.

Figure 3. History of avian influenza outbreaks and main migratory flyways of wild birds by animal type, in 2023 and 2024 in the Americas Region.



Source: Adapted from data published by the World Organization for Animal Health and data published online by Ministries of Health and official national agencies *(3, 6-19)*.

Situation by country of human cases in 2025

Since the beginning of 2025 and as of EW 45, four human cases of avian influenza A(H5N1) have been reported in the Americas Region, in Mexico (n= 1) and the United States (n= 3) (**Figure 2**) *(6-11, 19)*. Since the PAHO/WHO epidemiological update on avian influenza A(H5N1) in the Americas Region on 15 October 2025 *(5)*, the most recent case of human infection of influenza A(H5) was confirmed in the United States on 14 November 2025 *(16)*.

The case previously reported in Mexico on 30 September 2025 *(6, 7)*, which had been initially classified as avian influenza *A(*H5), was ultimately confirmed as avian influenza A(H5N2) (**Figure 2**), being the second human case of H5N2 identified in Mexico *(15)*.

The most recent confirmed human case of influenza A(H5) corresponds to a case reported on 14 November 2025 by the **United States of America** in the State of Washington *(16)*. The case corresponds to an individual aged 18 years or older with underlying medical conditions. In November, the case went to the hospital and began treatment. The investigation identified that the case owned backyard poultry. Epidemiological investigations into the case's exposure history remain ongoing.

Recommendations for Member States

PAHO/WHO, jointly with the Food and Agriculture Organization of the United Nations (FAO) and WOAH, urges Member States to work in a coordinated and intersectoral manner to preserve animal health and protect human health *(1, 2, 20-23)*.

The sporadic cases of avian influenza A(H5) detected in humans are mostly associated with direct contact with infected animals and contaminated environments. Current evidence suggests that the virus does not appear to be transmitted from person to person in a sustained manner. However, it is imperative to strengthen intersectoral surveillance to detect any possible changes in this situation *(24, 25)*. There is no evidence to suggest that the influenza A(H5) virus or other avian influenza viruses can be transmitted to humans through the consumption of properly prepared and cooked poultry or eggs *(20-26)*.

WOAH has specific recommendations on the avian influenza situation in birds and mammals. These recommendations advise countries to maintain intensified surveillance of the disease in domestic and wild birds, preventing disease spread through the implementation of biosecurity measures *(27)*.

Recommendations for strengthening surveillance at the human-animal interface

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 *(28)*. Epidemiological surveillance of avian influenza A(H5N1) should be strengthened in populations at higher risk of exposure, including agricultural workers, veterinarians, health care workers, and laboratory personnel, by systematically identifying signals. 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 from areas with detected avian influenza A(H5) (*28)*. Monitoring clusters of SARI or cases with atypical symptoms in family, work, or social settings is also recommended. The implementation of surveillance in health facilities and at-risk populations, with notification and response protocols, is essential. It is recommended to actively monitor people at risk of exposure (in areas with confirmed animal outbreaks) to reinforce immediate

notification of suspected events, ensuring a rapid and coordinated response that involves all sectors *(24, 25, 28)*.

Human samples should be collected by trained personnel in accordance with all biosafety standards, including the use of appropriate personal protective equipment (PPE) for respiratory viruses *(29)*. Upon identifying suspected human cases of avian influenza A(H5N1), a respiratory swab sample (and a conjunctival swab if the patient presents conjunctivitis) should be taken and sent to National Influenza Centers (NICs) and National Reference Laboratories (NRLs) for analysis *(30)*. For more information, refer to these publications on respiratory specimen collection and the laboratory testing algorithm for samples from patients with suspected avian influenza A(H5N1) *(31)*.

A suspected or confirmed case of human infection with avian influenza A(H5), in accordance with Annex 2 of the International Health Regulations (IHR), should be immediately notified to the WHO Regional IHR Focal Point via the National IHR Focal Point using the official IHR channel. The report should include available epidemiological and virological findings. It is recommended that Ministries of Health establish intersectoral communication protocols to notify agricultural and environmental authorities of any suspected or confirmed human cases (*25, 32)*.

PAHO/WHO reinforces the need for coordinated surveillance between the human, animal, and environmental health sectors, with clear responsibilities for wildlife, common definitions of suspected cases, and established flows for notification and sample shipment. PAHO/WHO also suggests using tools that facilitate rapid reporting from the field and strengthening communication with farmers and producers to improve early detection. In domestic animals, differentiated actions are recommended according to risk, including awareness campaigns in poultry farming, information exchange between sectors, updated risk maps, and surveillance of high- and low-pathogenicity subtypes, along with specific strategies for pigs and dairy cattle, such as sampling milk tanks in priority areas *(25)*.

Additionally, PAHO/WHO recommends strengthening intersectoral genomic surveillance to detect possible rearrangements among circulating viral strains in a timely manner, such as those already documented in the region *(33, 34)* and in other parts of the world *(35)*. Coordinated analysis between the human, animal, and environmental sectors allows for the interpretation of these events, the anticipation of changes in risk, and the guidance of timely actions and a rapid response to zoonotic influenza events.

Clinical management *(36-38)*

When infections caused by avian influenza A(H5) are suspected, PAHO/WHO recommends conducting an initial triage of patients, applying infection prevention and control precautions, classifying patients according to the severity of their condition, and ensuring timely hospital care and management of complications.

With regard to antiviral treatment and prevention among persons exposed to zoonotic influenza virus, PAHO/WHO recommends the following:

- Antiviral treatment of patients with severe influenza (including infection with new influenza A associated with high mortality or unknown risk of severe disease):
  - conditional recommendation for the use of oseltamivir in treatment,
  - conditional recommendation against the use of peramivir,
  - conditional recommendation against the use of zanamivir.

- Antiviral treatment of patients with non-severe influenza:

    - conditional recommendation for the use of baloxavir in patients with non-severe influenza and high risk of progression to severe disease.

Persons exposed to zoonotic influenza virus associated with high mortality or unknown risk of severe disease:

- for asymptomatic persons exposed to zoonotic influenza viruses associated with high mortality in humans or those with an unknown risk of causing severe disease, illness in the previous two days, administration of baloxavir, laninamivir, oseltamivir, and zanamivir is suggested (conditional recommendation).

Operational infection prevention and control (IPC) measures in healthcare and agricultural settings

In response to an outbreak of avian influenza A(H5), it is essential to implement robust infection prevention and control (IPC) measures within healthcare settings. This includes reinforcing standard precautions, which aim to reduce the transmission of pathogens. Droplet transmission precautions should be applied for patients with respiratory symptoms *(39)*. Additionally, based on risk assessment, airborne transmission precautions should be implemented during aerosol-generating procedures, using appropriate PPE to prevent transmission to healthcare workers. These measures should be in place when the patient enters the facility, making early triage critical *(29, 40)*.

The other group of people at risk of infection includes those directly or indirectly exposed to infected birds or other animals, whether domestic, wild, or captive, such as workers involved in animal handling, slaughter, or cleaning and disinfection of affected farms. Therefore, it is recommended that good agricultural practices and strict hygiene protocols be implemented, and that appropriate PPE be used to prevent zoonotic transmission *(21-24, 28, 29)*. These include training on the correct use of PPE, respirator fit testing, and proper disposal or disinfection procedures *(29, 41)*. There are currently several H5 influenza vaccines authorized for use in humans during the interpandemic period for the prevention of severe disease in people at high risk of infection. The WHO is reviewing recommendations for the use of these vaccines in at-risk populations *(42, 43)*.

Detailed information on other key recommendations for Member States, including intersectoral coordination and response, as well as prevention measures and risk communication, can be found in the epidemiological update published by PAHO/WHO on 24 January 2025, Available from https://www.paho.org/en/documents/epidemiological-update-avian-influenza-ah5n1-americas-region-24-january-2025 *(32)*.

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Useful links

- Pan American Health Organization/World Health Organization. Informe sobre el Grupo de Expertos para la CIPCIZA - Reunión de grupos de trabajo: Vigilancia, Laboratorio y Evaluación de riesgos intersectorial. Washington, D.C.: PAHO/WHO; 2025. Available from: https://www.paho.org/es/documentos/informe-sobre-grupo-expertos-para-cipciza-reunion-grupos-trabajo-vigilancia-laboratorio.
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