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

15 October 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)*.

Historically, since the beginning of 2003 and as of 25 August 2025, 990 human cases of avian influenza A(H5N1), including 475 deaths (48% fatality rate), were reported to the World Health Organization (WHO) from 25 countries worldwide *(4)*.

Summary of the situation in the Americas Region

Since 2022 and as of epidemiological week (EW) 41 of 2025, a total of 19 countries and territories[2] in the Americas Region reported 5,063 outbreaks[3] of avian influenza A(H5N1) to WOAH *(3)*, representing 115 additional outbreaks since the last epidemiological update on avian influenza A(H5N1) published by the Pan American Health Organization/World Health Organization (PAHO/WHO) on 15 May 2025 *(3, 5)*.

Between 2022 and 14 October 2025, a total of 76 human infections caused by avian influenza A(H5), including two deaths, have been reported in five countries in the Americas, with one additional case since the last epidemiological update on avian influenza A(H5N1) published by

[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 United States of America, Guatemala, Honduras, the Falkland Islands, Mexico, Panama, Paraguay, Peru, 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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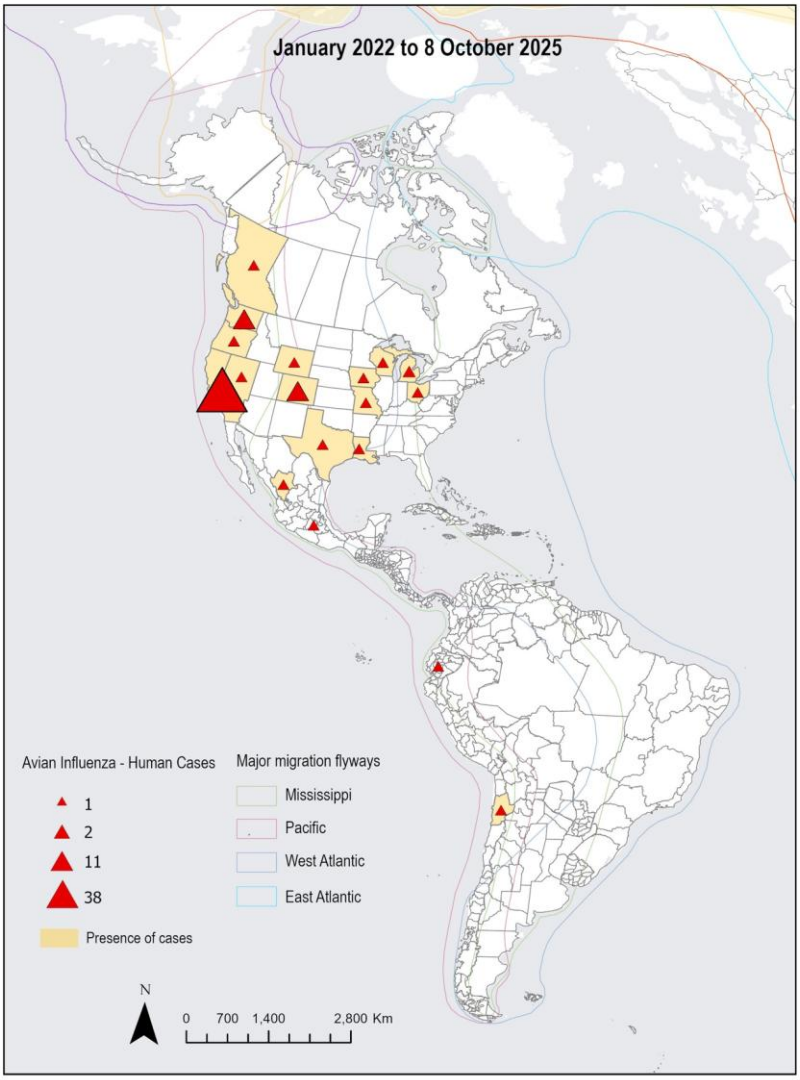
PAHO/WHO on 15 May 2025 (**Figure 1**) *(5-7)*. The most recent case of human infection with avian influenza A(H5) reported in the Americas Region was recorded in Mexico on 2 October 2025 *(6, 7)*, in addition to the case reported in Mexico on 2 April 2025 *(8-10)*. The remaining cases are distributed as follows: 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)*.

Figure 1. Human cases of avian influenza A(H5N1) in the Americas Region since 2022 and as of 8 October 2025.



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 41, 435 outbreaks of avian influenza have been reported to WOAH in domestic (n= 384) and/or wild birds (n= 51) in the following nine countries in the Americas Region: Argentina (n= 6), the Plurinational State of Bolivia (n= 1), Brazil (n= 19), Canada (n= 43), Guatemala (n= 1), Mexico (n= 8), Panama (n= 1), Peru (n= 22), and the United States (n= 334) (**Table 1**) *(3)*. Since the PAHO/WHO epidemiological update on avian influenza A(H5N1) on 15 May 2025, 105 additional outbreaks have been reported in birds *(5)*. In addition to these outbreaks, in 2025, as of 14 October, 3,227 detections of avian influenza A(H5N1) were recorded in wild birds in the United States, 333 detections in Canada, and 16 in the Falkland Islands *(15-17)*.

Among mammals

In 2025, as of EW 41, 77 outbreaks in wild (n= 15) and domestic mammals (n= 62) have been reported to WOAH in the United States and Canada (**Table 1**) *(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, affecting 1,080 dairy herds as of 14 October 2025 *(11, 15)*. Since the PAHO/WHO epidemiological update on avian influenza A(H5N1) on 15 May 2025, 27 additional dairy herds have been affected in the United States *(5)*.

Additionally, as of 14 October, 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 *(16)*.

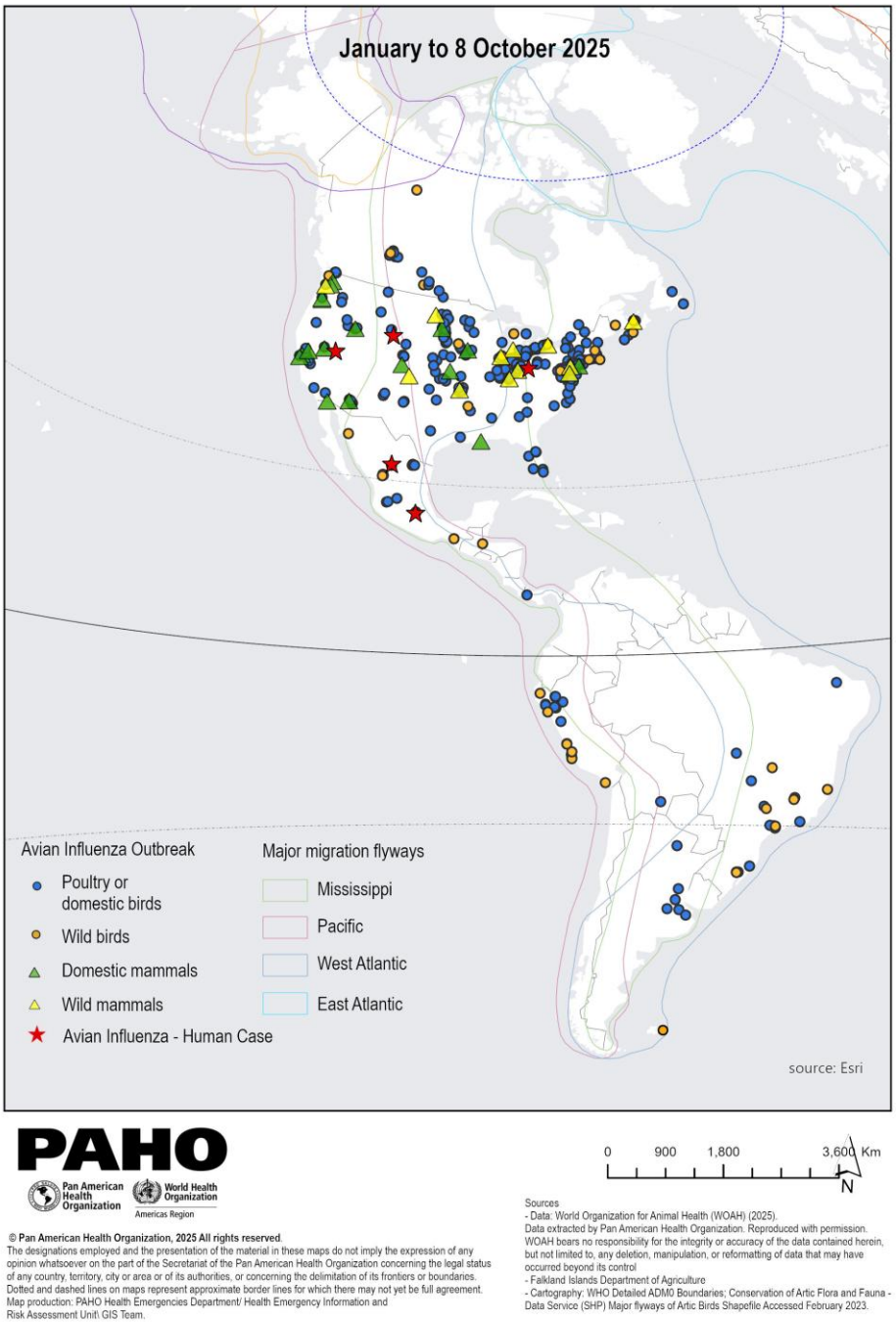
Table 1. Avian influenza outbreaks or detections in birds and mammals in the Americas Region in 2025, as of 14 October 2025.

Country/Territory	In birds		In mammals	
	Wildlife	Domestic	Wild	Domestic
Argentina		Yes		
Bolivia		Yes		
Brazil	Yes	Yes		
Canada	Yes	Yes	Yes	
Guatemala	Yes			
Falkland Islands	Yes			
Mexico	Yes			
Panama		Yes		
Peru	Yes	Yes		
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, 15-17)*.

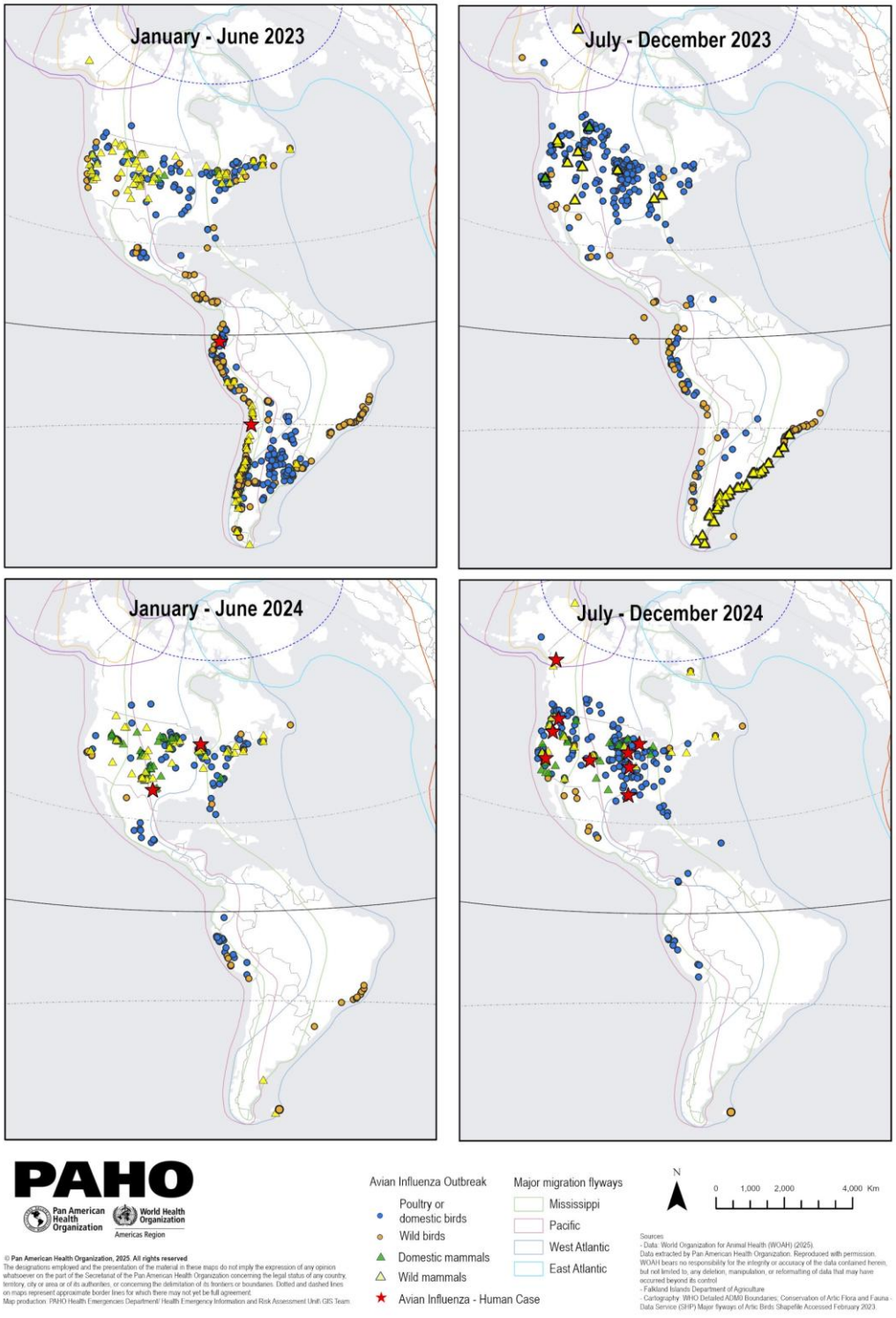
A geographic visualization of the outbreaks in animals, by type, in 2025, illustrating the main migratory flyways in the Americas Region is presented in **Figure 2**, and data for the period of 2023 through 2024 is shown in **Figure 3**.

Figure 2. Avian influenza outbreaks by species and main migratory flyways of wild birds by animal type in the Americas Region in 2025, as of 8 October 2025.



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, 6-17)*.

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, 6-17)*.

Situation by country of human cases in 2025

Since the beginning of 2025 and as of EW 41, five human cases of avian influenza A(H5) have been reported in the Americas Region, in Mexico (n= 2) and the United States (n= 3) (**Figure 2**) *(6-11, 18)*. Since PAHO/WHO's epidemiological update on avian influenza A(H5N1) in the Americas Region on 15 May 2025 *(5),* the most recent case of human infection was confirmed in Mexico on 30 September 2025 *(6, 7),* in addition to the case reported in Mexico on 2 April 2025. No new human cases have been reported in other countries in the Region.

Below is a summary of the second human case of influenza A(H5) reported in Mexico in 2025.

On 2 October 2025, **Mexico's** International Health Regulations (IHR) National Focal Point (NFP) notified PAHO/WHO of a laboratory-confirmed human infection caused by avian influenza A(H5) virus in Mexico City, the second confirmed human case in the country in 2025 *(6, 7)*. The case corresponds to a 23-year-old female with no history of seasonal influenza vaccination or recent travel *(6, 7)*. On 14 September 2025, she developed respiratory symptoms, including rhinorrhea and cough. Between 21 and 28 September, she developed fever and odynophagia, followed by hemoptysis and chest pain, and was hospitalized at the National Institute of Respiratory Diseases (INER per its acronym in Spanish). On 29 September, a bronchoalveolar lavage sample was taken, which tested positive for unsubtypeable influenza A. On 30 September, the presence of influenza A(H5) virus was confirmed by real-time RT-PCR. The case was treated with oseltamivir and discharged on 11 October. The sequencing result shows the presence of an avian influenza A(H5Nx) virus.

During the epidemiological investigation, 41 contacts were identified. Samples were taken from the identified contacts and they were given oseltamivir prophylaxis. All samples collected were negative for avian influenza *(6, 7)*.

A dog was identified as a pet at the case's residence, and several animals were found in the courtyard of the building, including a poultry bird and two pigeons, as well as bird droppings in several areas, including in a poorly sealed cistern that supplies water to all the apartments in the building. Samples were collected from the identified animals and analyzed by the Official Laboratory of the National Service for Agrifood Health, Safety, and Quality (SENASICA, per its acronym in Spanish), and tested positive for influenza A(H5). Environmental samples were also collected and are still being analyzed, as of the time of publication *(6, 7)*.

Recommendations for Member States

While avian influenza outbreaks largely affect animals, they pose ongoing risks to public health. PAHO/WHO, in conjunction with the Food and Agriculture Organization of the United Nations (FAO) and WOAH, urges Member States to work collaboratively and intersectorally to preserve animal health and protect human health *(1, 2, 19-21)*.

The sporadic cases of avian influenza A(H5N1) clade 2.3.4.4b 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. However, it is imperative to strengthen intersectoral surveillance to detect any possible changes in this situation *(22, 23)*.

Research is ongoing to determine the risk to humans from consuming raw or unpasteurized milk contaminated with the influenza A(H5N1) virus. The FAO and WHO recommend consuming pasteurized milk due to the potential health risks associated with various zoonotic pathogens

(19-21). There is no evidence to suggest that the influenza A(H5N1) virus or other avian influenza viruses can be transmitted to humans through the consumption of properly prepared and cooked poultry or eggs (*19-24)*.

WOAH has specific recommendations on avian influenza situation in birds and mammals. These recommendations advise countries to maintain heightened surveillance of the disease in domestic and wild birds, preventing the spread of the disease through the implementation of biosecurity measures *(25)*.

Recommendations for strengthening human-animal surveillance

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 *(26)*. 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(H5N1) *(26)*. 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 strengthen the immediate notification of suspected events, ensuring a rapid and coordinated response involving all sectors *(22, 24, 26)*.

Human samples must be collected by trained personnel in accordance with all biosafety standards, including the use of appropriate personal protective equipment (PPE) for respiratory viruses *(27)*. 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 *(28)*. 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) *(29)*.

A suspected or confirmed case of human infection with avian influenza A(H5N1) must be immediately reported to the Regional WHO IHR Focal Point, in accordance with Annex 2 of the IHR. This notification should be made through the National IHR Focal Point using the official IHR channel. The report must include available epidemiological and virological results. It is recommended that health ministries establish intersectoral communication protocols, notifying agricultural and environmental authorities of any suspected or confirmed human cases *(23, 30)*.

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

In response to an outbreak of avian influenza A(H5N1), it is essential to implement robust infection prevention and control (IPC) measures within healthcare settings. This includes reinforcing standard precautions, which aim to reduce pathogen transmission. Droplet transmission precautions must be applied for patients presenting with respiratory symptoms *(31)*. 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 *(27, 32)*.

The other group of individuals 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 *(19-22, 26, 27)*. This includes training on the correct use of PPE, respirator fit testing, and proper disposal or disinfection procedures *(27, 33)*. PAHO/WHO also urges Member States to establish intersectoral surveillance systems and ensure rapid notification and response protocols to contain outbreaks at their source *(34, 35)*.

PAHO/WHO urges Member States to work collaboratively and intersectorally to preserve animal health and protect public health. It is essential to implement preventive measures against avian influenza at its source, establish protocols for detection, notification, and rapid response to outbreaks in animals, strengthen surveillance of animal and human influenza, conduct epidemiological and virological investigations of animal outbreaks and human infections, share genetic information on viruses, thereby fostering collaboration between animal and human health settings, effectively communicating risk, and ensuring preparedness for a potential influenza pandemic at all levels *(30, 34, 35)*.

Detailed information on other key recommendations for Member States, such as clinical management and prophylaxis, including coordination with a One Health approach for intersectoral surveillance 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 *(30)*.

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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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