

WOAH Updates - Global HPAI situation and current standards and recommendations regarding AI surveillance and vaccination

28th Annual Meeting of the National Reference Laboratories for AI and ND of EU Member States, Verona, Italy, 20 -21 September 2022

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de la santé
animale

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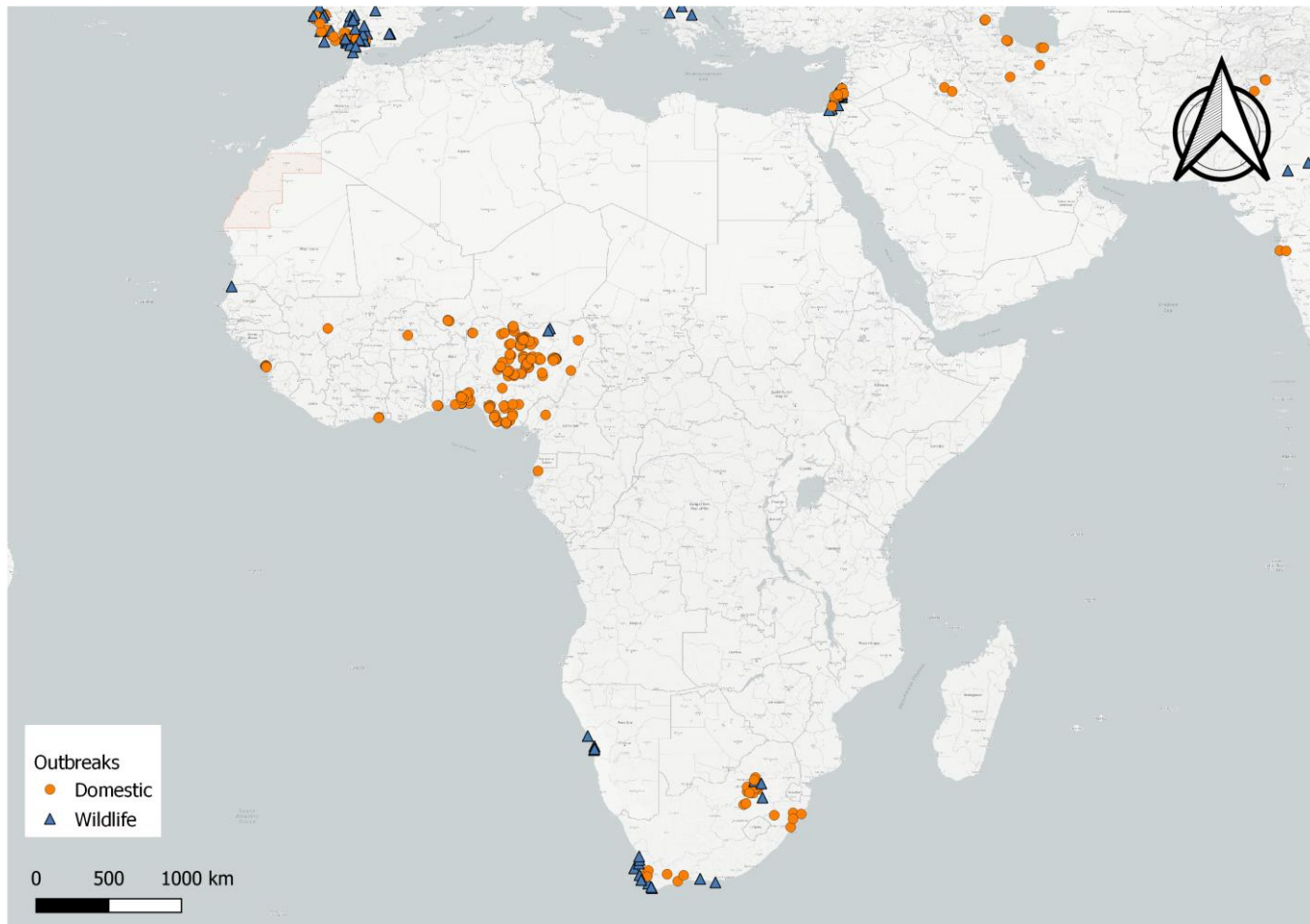
Global situation of HPAI

October 2021 to August 2022:

1. Since the emergence of the A/Goose/Guangdong/1/96 (Gs/Gd) lineage of HPAI, H5Nx clades have been steadily evolving constituting an antigenically and genetically broad series of isolates
2. There have been multiple waves of intercontinental transmission of the H5Nx lineage viruses (H5N1, H5N2, H5N3, H5N4, H5N5, H5N6, H5N8)
3. In 2021 - 2022, the AI epidemic continued to threaten both animal and human health worldwide.
4. Multiple HPAI outbreaks caused predominantly by H5N1 HPAI virus, plus other subtypes including H5N8, have occurred in poultry, zoological collections and wild birds
5. During the period a record high number of detections were reported with millions of poultry affected as well as wild birds throughout the continents of Europe, Asia, Africa and North America.

HPAI – Africa

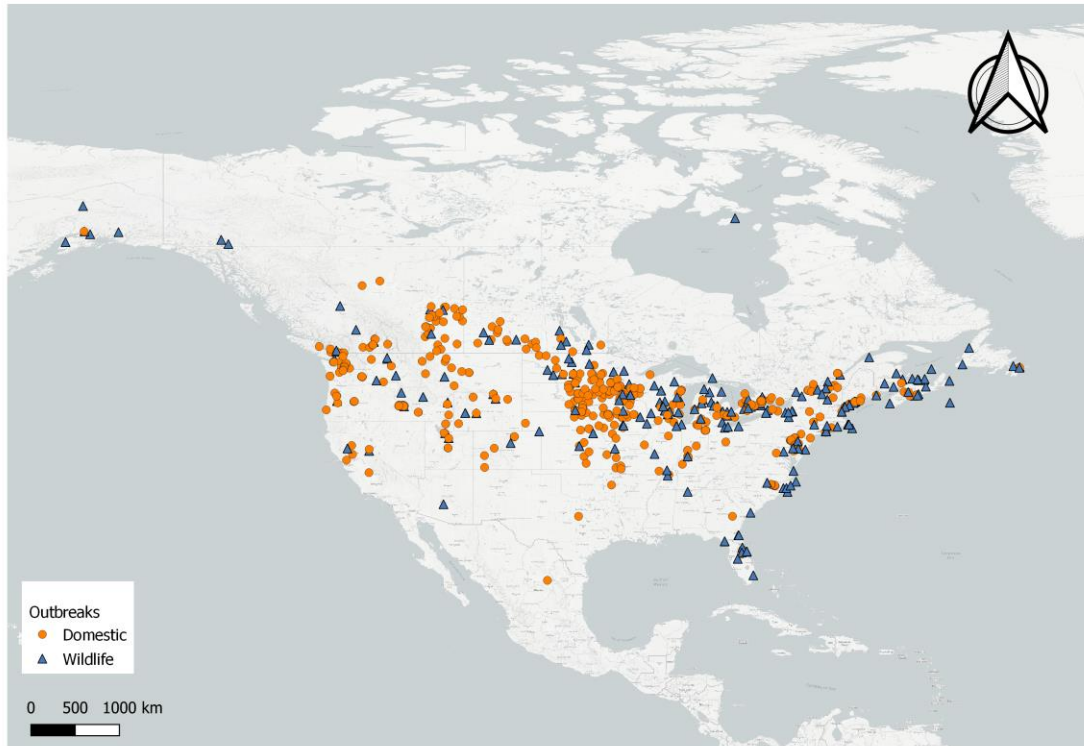
Oct 2021 – 2 Sept 2022



1. 13 Members reported HPAI events
2. Subtype – H5N1
3. 269 outbreaks were reported: 241 in domestic birds and 28 in wildlife.
4. Benin, Burkina Faso, Cameroon, Cote D'Ivoire, Gabon, Guinea, Mali, Namibia, Niger, Nigeria (188), Senegal, South Africa (35), Togo (2)
5. Nigeria is a regional hotspot of HPAI since 2006 and remained the most affected country in sub-Saharan Africa
6. There is persistent circulation of the virus in West Africa and Southern Africa



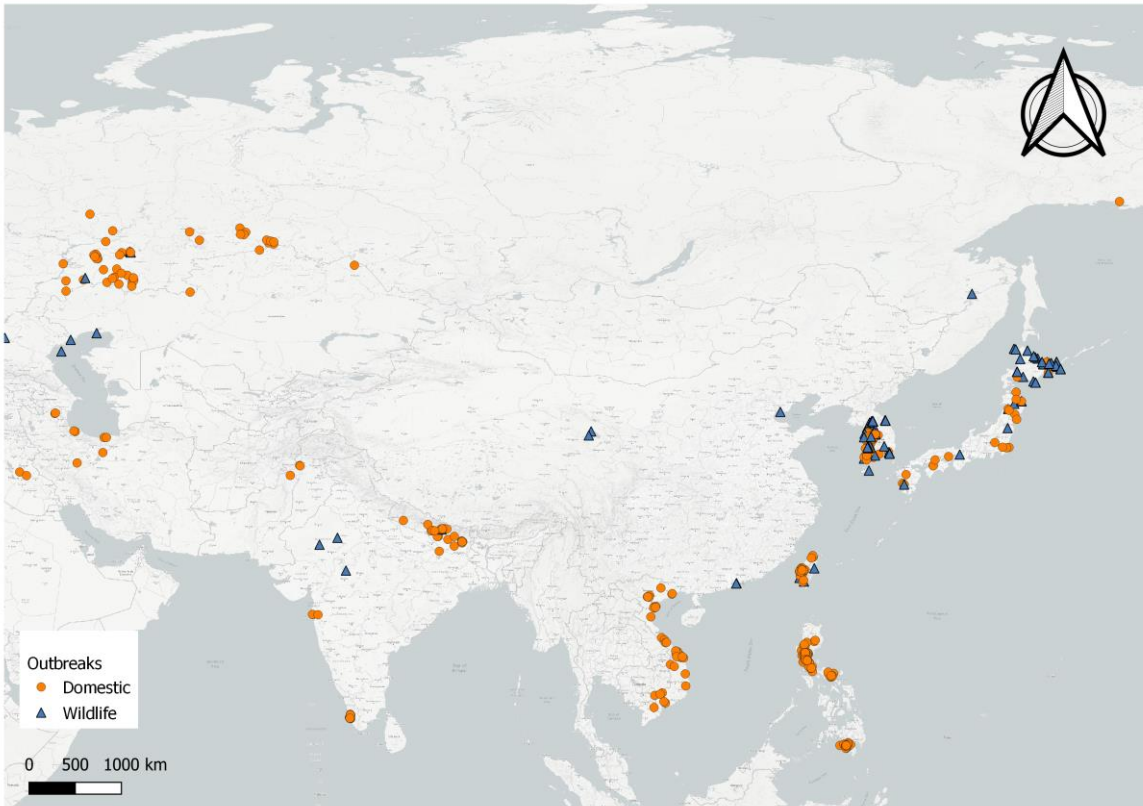
HPAI - Americas Oct 2021 – 2 Sept 2022



1. 3 Members reported HPAI events (Canada, USA, Mexico)
2. The region was impacted by the worst avian influenza epidemic wave ever registered since 2005
3. During this period, 759 outbreaks were reported: 516 in domestic birds and 243 in wildlife. H5N1 was the subtypes reported in the vast majority of the outbreaks, and only one outbreak was reported for HPAI H7N3
4. Genetic analysis of H5N1 viruses currently circulating in Americas belong to clade 2.3.4.4b. and closely related to Eurasian lineage. Suggesting the viruses have been introduced by wild bird migration into the American continent.

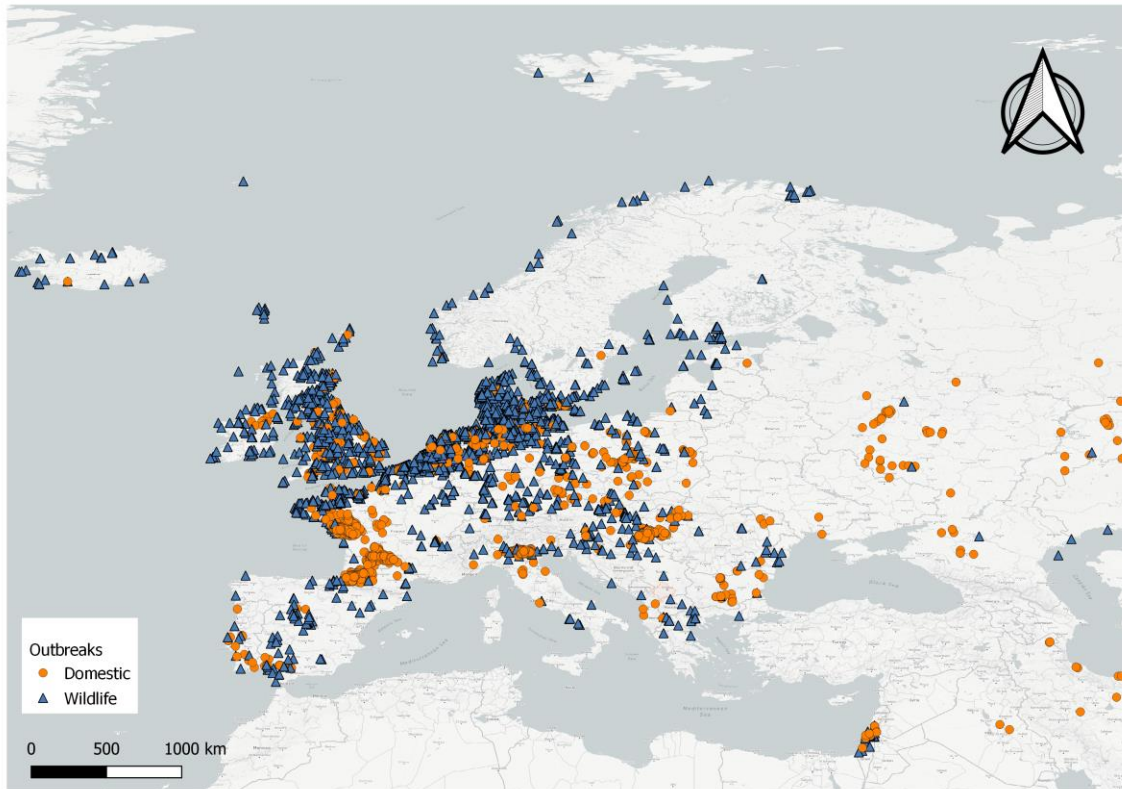


HPAI – Asia and Oceania Oct 2021 – 2 Sept 2022



1. 14 Members reported HPAI events
2. Subtypes – H5N1, H5N2, H5N5, H5N6, H5N8
3. 677 outbreaks were reported: 476 in domestic birds and 201 in wildlife.
4. China, Chinese Taipei (38), Hong Kong, India (25), Iran, Iraq, Israel (77), Japan (25), Kazakhstan, Rep. of Korea (47), Nepal (34), Pakistan, Philippines (176), Vietnam (39)
5. HPAI H5N1 epidemic in Asia continues. India, Philippines, Nepal reported several outbreaks of HPAI H5N1 in poultry; Japan, Rep. Korea notified cases of H5N1 in domestic birds and wild bird species.

HPAI – Europe Oct 2021 – 2 Sept 2022



1. 38 Members reported HPAI events.
2. During this period, 5439 outbreaks were reported: 2635 in domestic birds and 2804 in wildlife. 46 million birds culled in the affected establishments.
3. Most detections in poultry were reported by France (1416), Italy (316), Hungary (291), UK (134). And most detections in wild birds were reported by Germany (891), Netherlands (506), UK (376).
4. The 2021–2022 epidemic is larger than the 2020–2021 epidemic and appears to be the largest so far in Europe.
5. The predominant subtype A(H5N8) in the 2020–2021 epidemic season was replaced by subtype A(H5N1) in the current 2021–2022 epidemic.
6. Genetic analysis of H5N1 viruses currently circulating in Europe belong to clade 2.3.4.4b.



WOAH standards and recommendations on Avian influenza surveillance and vaccination

Revised Standards related to Avian influenza viruses adopted at 88th General Session - May 2021

Chapter 1.3 Diseases: Infections and infestations listed by the WOAH

Terrestrial Code Chapter 10.4: Infection with high pathogenicity avian influenza viruses

Glossary definition for 'Poultry'

Terrestrial Manual Chapter 3.3.4: Avian influenza (including infection with high pathogenicity avian influenza viruses)



Code Chapter 1.3 - Diseases, infections and infestations listed by the WOAH.....Article 1.3.6 (avian diseases)

1. Infection with high pathogenicity avian influenza viruses
2. Infection of birds other than poultry, including wild birds, with influenza A viruses of high pathogenicity
3. Infection of domestic and captive wild birds with low pathogenicity avian influenza viruses having proven natural transmission to humans associated with severe consequences



HPAI Chapter 10.4.

1. New and revised recommendations on principles of surveillance for avian influenza,
2. Surveillance for early warning of high pathogenicity avian influenza,
3. Surveillance for demonstrating freedom from infection with high pathogenicity avian influenza,
4. Surveillance of wild bird populations,
5. Monitoring of low pathogenicity avian influenza in poultry populations.



HPAI Chapter 10.4.

Article 10.4.1. General provisions (extract)

The use of vaccination against avian influenza **may be recommended under specific conditions**. Any vaccine used should comply with the standards described in the Terrestrial Manual. Vaccination **will not affect the high pathogenicity avian influenza status of a free country or zone if surveillance supports the absence of infection**, in accordance with Article 10.4.28., in particular point 2.



HPAI Chapter 10.4.

Article 10.4.1. General provisions (extract)

Vaccination can be used as an effective complementary control tool when a stamping-out policy alone is not sufficient. Whether to vaccinate or not should be decided by the Veterinary Authority on the basis of the avian influenza situation as well as the ability of the Veterinary Services to implement the vaccination strategy, as described in Chapter 4.18.



HPAI Chapter 10.4.

Article 10.4.3. free status (extract)

Surveillance should be adapted to parts of the country or existing zones depending on historical or geographical factors, industry structure, population data and proximity to recent outbreaks or **the use of vaccination**.



HPAI Chapter 10.4.

Article 10.4.7. Import of birds (extract)

If the poultry have been vaccinated against avian influenza viruses, **the nature of the vaccine used and the date of vaccination** should be stated in the international veterinary certificate.

Idem for parent flocks of day-old chicks and hatching eggs.



HPAI Chapter 10.4.

Article 10.4.26 Principles of surveillance

[Surveillance] principles are also **necessary to support vaccination programmes...**

... investigation of the presence of antibodies against influenza A viruses that have been detected in poultry and **are not a consequence of vaccination**



HPAI Chapter 10.4.

Article 10.4.28 – Surveillance vaccination

The level of flock immunity required to prevent transmission depends on the flock size, composition (e.g. species) and density of the susceptible poultry population. Based on the epidemiology of avian influenza in the country, zone or compartment, a decision may be reached to vaccinate only certain species or other poultry subpopulations.



HPAI Chapter 10.4.

Article 10.4.28 – Surveillance vaccination

In all vaccinated flocks tests should be performed to **ensure the absence of virus circulation**. The tests should be repeated at a **frequency that is proportionate to the risk** in the country, zone or compartment. The use of sentinel poultry may provide further confidence in the absence of virus circulation.



HPAI Chapter 10.4.

Article 10.4.28 – Surveillance vaccination

Member Countries **seeking the demonstration of freedom** from high pathogenicity avian influenza in vaccinated population should refer to the chapter on avian influenza in the [*Terrestrial Manual*](#).

Evidence to show the effectiveness of the [*vaccination*](#) programme should also be provided.



**OFFLU
contribution to
WHO Vaccine
Composition
Meeting
February 2022:**



1. Epidemiological data (avian/swine), sequences, antigenic data
2. AI - 939 H5, H7 and H9 sequences were contributed by the APHA (UK), WUR (Netherlands), IZSve (Italy), ARRIAH (Russia), QIA (Republic of Korea), NVL (Viet Nam), Institute Pasteur (Cambodia), CFIA (Canada), FLI (Germany), USDA (USA), AHRI (Egypt), HVRI (China), ANSES (France) and ICAR-NIHSAD (India)
3. SI - 397 H1 and H3 sequences were contributed from the APHA, (UK), IZSLER (Italy), CFIA (Canada), Anses (France), and Veterinary Diagnostic Laboratory, Iowa (USA).
4. Antigenic characterisations were undertaken by OFFLU contributing laboratories
5. Updates to the recommendations for the development of new candidate vaccine viruses for pandemic preparedness
6. Reports available at www.offlu.org



Avian influenza and Wildlife

Risk management for people working with wild birds

1. <https://www.woah.org/app/uploads/2022/08/avian-influenza-and-wildlife-risk-management-for-people-working-with-wild-birds.pdf>
2. Provide guidance to people who handle wild birds on measures to reduce disease risks associated with avian influenza virus strains. The guidance takes a One Health approach by considering the health of wildlife, poultry and people



In Conclusion:

1. A record high number of detections were reported with millions of poultry affected as well as wild birds throughout Europe and North America in 2021 – 2022
2. WOAHA continues to promote surveillance, monitoring and notification that has proven so valuable in maintaining an active situational awareness of the international epidemiology of AI
3. Updates of WOAHA international standards and recommendations relating to avian influenza surveillance and vaccination
4. OFFLU continues to contribute animal influenza data to WHO for updating the recommendations for the development of new candidate vaccine viruses for pandemic preparedness

Thank you

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