

Outcomes of WOAHA General Session discussions on avian influenza vaccination (2023)

WOAHA-IABS meeting on vaccination and surveillance for HPAI in poultry (2024) and

WOAHA General Session discussion on veterinary vaccines and vaccination (2025)

Dr Gounalan Pavade

26 – 28 August 2025

Senior Scientific Coordinator
(Avian influenza), WOAHA HQ

Sapporo, Japan



Part 1 - WOAHA General Session (2023) – Animal Health Forum on Avian Influenza



The **HPAI Animal Health Forum** offered an opportunity for Delegates and subject matter experts to have open discussions and agree on how to best tackle HPAI.



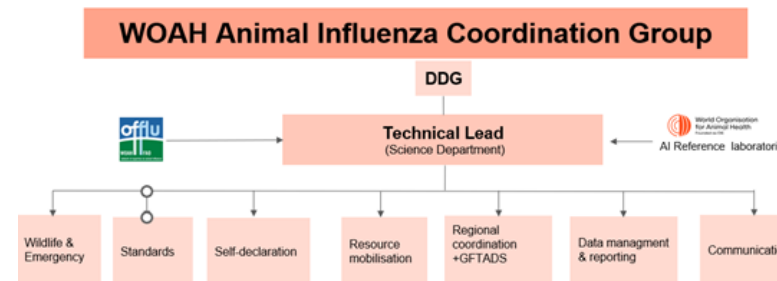
Technical Item:
Strategic challenges in the global control of high pathogenicity avian influenza



Resolution 28:
Strategic Challenges in the Global Control of High Pathogenicity Avian Influenza



Policy to Action: The case of Avian Influenza – Reflections for Change



WOAH General Session (2023) – Resolution no: 28 – Key recommendations on AI vaccination

RECOMMENDATIONS

1. **Members**, in consultation with the poultry sector may consider the implementation of vaccination **as a complementary disease control tool** that is based on sound surveillance and takes into account local factors such as circulating virus strains, risk assessment and vaccination implementation conditions.
2. **Members** **adopt vaccine best practices (stewardship)** and reassess on an ongoing basis the use of appropriately field matched vaccine strains and the continuing need for update of vaccines.
3. **Members** respect and implement the adopted WOAH standards and **recognise compliant use of vaccination without negative consequences on trade**, when the vaccination programme is supported by vaccination monitoring and disease surveillance systems that can demonstrate the effectiveness of vaccination and absence of infection.
4. **WOAH**, with the support of its Reference Laboratories and OFFLU, provide up-to-date information to Members, the poultry sector and vaccine manufacturers on the **genetic and antigenic characterisation of circulating virus strains**, including comparison with existing vaccines, to infer levels of protection.
5. **Members** ensure the **use of authorised vaccines** manufactured according to WOAH standards that are effective against circulating strains and regularly share information related to the effectiveness of the vaccination programme and their surveillance system to inform changes in vaccination strategies and policy.
6. **WOAH**, in partnership with other international organisations and the private sector, **develop guidance considering different production systems**, to support the implementation of standards, such as on biosecurity, surveillance including vaccinated populations, and on the implementation of vaccination, Zoning and Compartmentalization

Avian influenza vaccination: why it should not be a barrier to safe trade

Since 2005, over 500 million birds lost to the disease worldwide. Its devastating impact extends beyond domestic and wild birds, **threatening livelihoods, food security and public health**.

The rapidly evolving nature of avian influenza and changes in its patterns of spread require a review of existing prevention and control strategies. To effectively contain the disease, protect the economic sustainability of the poultry sector and reduce potential pandemic risks, all available tools must be reconsidered – including vaccination



Key facts

-  The epidemiology of avian influenza is evolving: the disease is gradually losing its seasonal nature, and high pathogenicity strains are circulating in wild birds.
-  This intensified circulation increases the likelihood of virus evolution and spillover to new species, including mammals, posing a risk to human health.
-  All available science-based disease control tools must be considered. In certain epidemiological contexts, vaccination can be an effective complement to other control strategies.
-  If properly implemented, vaccination should not be a barrier to safe trade.
-  Wider use of vaccination stimulates research innovation, improving the quality of available vaccines.

Considering vaccination as part of available avian influenza control measures

Responsibilities of countries opting for poultry vaccination

Policy recommendations

Decision-making

Monitoring and evaluation

International cooperation, including trade



Part 2 - WOAHI-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)



World Organisation
for Animal Health



International Alliance for
Biological Standardization

Paris, France

October 22 & 23, 2024



Vaccination and Surveillance for HPAI in Poultry: Current Situation and Perspectives

Overall objective of the meeting: How to implement surveillance in vaccinated populations to ensure safe and fair trade?

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 1: Introduction to the meeting including objectives and expected outcomes

- Between 2023 and 2024, the H5Nx Gs/GD lineage of HPAI has seen substantive changes in ecology and epidemiology including spread across six continents; negatively impacting a diverse and large number of wild birds and mammal species including, mainly carnivores and dairy cattle; mammal-to-mammal transmission in dairy cattle, sea lions and elephant seals; and genetic changes indicating increased risk to mammals including humans
- Biosecurity and stamping-out have not been fully effective at preventing and controlling the panzootic
- WOAHA Code supports use of vaccination as a complementary tool in prevention and control of HPAI, and should not impact HPAI freedom when supported by appropriate surveillance
- The primary barriers to increasing uptake of vaccines include the potential for non-acceptance of poultry and poultry products by importing countries, the undefined requirements in the WOAHA Code for appropriate surveillance to demonstrate HPAI freedom in vaccinated populations and limited global availability of vaccines

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 2: Tools for monitoring and surveillance in vaccinated poultry populations

- Molecular diagnostics (RT-PCR) will continue to be the primary test for sensitive, specific detection of HPAIV infections in both vaccinated and non-vaccinated poultry.
- Virological surveillance of dead or moribund birds is an established, sensitive surveillance system for detecting early infection and confirming HPAI freedom in vaccinated poultry.
- Sampling of environmental matrices for virological surveillance presents potentially sensitive and cost-effective opportunity for early HPAI detection in vaccinated flocks.
- Sero-surveillance, including DIVA-compatible vaccines, can at best only be part of a carefully balanced surveillance strategy in vaccinated poultry.
- The continuous evolution of HPAI viruses requires robust genomic and antigenic surveillance to track changes in real-time. Strengthening international collaboration, as well as data and virus and genomic sequence sharing, will facilitate development and deployment of efficacious vaccines and timely updates to vaccine formulations and programs.

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 3: Field experiences on surveillance in vaccinated populations

- New vaccination programs/projects presented: a) France : Vaccination in ducks, b) Netherlands : small scale field trial in layers, c) Uruguay : Vaccination program chickens
- Long running programs: a) Indonesia, b) China, c) Hongkong
- Based on the experience of several countries, HPAI vaccination with appropriate surveillance can be an effective and successful tool in controlling HPAI outbreaks and stopping transmission.
- Second and third doses of vaccines (i.e. booster vaccinations) may be required for protection over the long production cycle of some poultry species
- Vaccination should be accompanied by biosecurity measures, movement controls and stamping-out of infected flocks.

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 3: Field experiences on surveillance in vaccinated populations

- Risk-based virological surveillance (e.g. targeting clinically-affected or dead birds) is more cost-effective and efficient than random sampling of healthy birds. When appropriate risk-based surveillance may be combined with environmental surveillance (e.g. drinker biofilm, boot swabs, wastewater samples, etc.).
- Serological surveillance for demonstration of HPAI virus freedom may not be useful under certain situation; e.g. presence of H5/H7 LPAI viruses in the field, the concurrent use of LPAI vaccines, inactivated whole virus vaccine being used, etc. In addition, even with a highly specific DIVA serological test, false positive will regularly appear leading to unnecessary suspicion of infection which would need further testing.
- Serological monitoring can inform the success of the vaccination process by determining if the vaccinated birds have a uniform, protective immune response
- Surveillance for identifying antigenic changes in circulating HPAI virus strains, via wild bird and poultry surveillance, and using such information for timely updating of vaccines are crucial for a successful HPAI vaccination program in domestic poultry.

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 4: Surveillance and Trade: Risk Assessment

- The effectiveness of methods for surveillance needs to be reconsidered:
 - Non-vaccinated sentinels are no longer a useful surveillance tool in vaccinated populations.
 - Surveillance using molecular diagnostics on environmental material needs to be more fully developed and validated
- Because of a shortage of government personnel, surveillance samples collected by private field veterinarians or trained people should be accepted under an accreditation program
- Field viruses from surveillance should be shared with the national and WOAH reference laboratories for genomic and antigenic analysis to assess protection of available inactivated vaccines, and update as needed
- WOAH guidelines are well-developed and implemented for HPAI-free compartments, especially for poultry genetics, but importing country acceptance needs additional transparency and communication on the process

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 4: Surveillance and Trade: Risk Assessment

- The requirements in the WOAH Code for appropriate surveillance to demonstrated HPAI freedom in vaccinated populations should be clearly defined
- EFSA Recommendation is to take up to 15 dead birds for testing from vaccinated flocks no more than 72 h before movement, the discussion indicated that we need to have different surveillance programs, including sample types, for different poultry species and production types
- Surveillance must be quick, sensitive, personnel efficient, and cost effective
- Surveillance must include vaccinated and nonvaccinated flocks to obtain field viruses for genomic and antigenic analysis for assuring vaccines are effective
- Surveillance programs must be flexible for developing and adopting new methods, including easier sample collection.
- Because of shortage of government personnel, private laboratories should be approved by the competent authorities in the member state for testing and utilizing a certification and auditing program.

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 5: Surveillance and Trade: Risk Management

- Provide assurance for science-based control strategies
 - Use WOAH international standards
 - Interact with scientists, establish mechanisms, relationships
- Continue to define the right levels of control based on outcomes
- Undertake/ increase targeted research addressing uncertainty in surveillance and biosecurity to reassure trade partners
- Requirement for a platform developed by WOAH and its partners on new tools and effective vaccines approved by members
- WOAH and its partners to review and, where necessary, develop guidelines to support countries in biosecurity, surveillance and vaccination standards in support of safe trade

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 5: Surveillance and Trade: Risk Management

Compartments

- Strengthen existing standards or create them (WOAH Members and WOH)
- Engage in international coordination mechanisms among trade partners at international level (WTO and Member States)
- Increased sharing of experience and approaches (Industry and Member States)- importance of learning from others on issues of compartments
- Accelerate re-certification processes (Member States)

Other

- Ensure continuity in vaccine supply so that ambitions in vaccinations can be realized.

WOAH-IABS meeting on vaccination and surveillance for HPAI in poultry (2024)

Session 5: Surveillance and Trade: Risk Management

Compartments

- Strengthen existing standards or create them (WOAH Members and WOH)
- Engage in international coordination mechanisms among trade partners at international level (WTO and Member States)
- Increased sharing of experience and approaches (Industry and Member States)- importance of learning from others on issues of compartments
- Accelerate re-certification processes (Member States)

Other

- Ensure continuity in vaccine supply so that ambitions in vaccinations can be realized.

Part 3 - WOAHA General Session (2025) – Resolution no: 29

Veterinary Vaccines and Vaccination. From science to action – reflections for change

CONCLUSIONS

- ❑ The control of terrestrial and aquatic **animal diseases faces growing and intersecting challenges** due to increased risks from antimicrobial resistance, climate change, food security pressures, societal concerns regarding animal welfare and sustainable animal production, as well as endemic, emerging and transboundary infectious diseases including zoonoses
- ❑ Effective disease control **requires a combination of measures**, including biosecurity, movement control, zoning and compartmentalisation, surveillance, and effective communication strategies. Within these, vaccination can serve as valuable complementary tool.
- ❑ Vaccines, where available, are one of the **most cost-effective and impactful tools for the prevention, control, elimination and eradication** of animal diseases, with demonstrated contributions to animal health, animal welfare, public health, biodiversity preservation, and sustainable food systems, within a One Health framework.
- ❑ For certain diseases, vaccines, along with other measures, are an **important risk mitigation tool for the safe trade** of animals and animal products
- ❑ Limited availability and access of quality vaccines, and **use of substandard and falsified vaccines pose a significant risk** to Members in achieving the intended outcomes of vaccination programmes
- ❑ Veterinary vaccines, along with other preventive measures, can significantly **reduce the need for antimicrobials in animals**, thereby playing a critical role in the containment of antimicrobial resistance (AMR), as committed by Heads of State and Government and representatives of States and Governments, when adopting the [79th United Nations General Assembly \(UNGA\) political declaration on AMR](#)

WOAH General Session (2025) – Resolution no: 29

Veterinary Vaccines and Vaccination. From science to action – reflections for change

CONCLUSIONS

- ❑ Despite their benefits, **veterinary vaccines remain under utilised due to challenges** in their development, production, registration, procurement, logistics for storage, transport and handling, accessibility, implementation and monitoring, particularly in low- and middle-income countries (LMICs)
- ❑ Vaccine adoption is **significantly influenced by prevailing socio-economic and political factors**, including community trust and buy-in, effective communication, equitable access and recognition as a public good, trade considerations, and the level of public-private partnerships.
- ❑ Adoption of vaccination sometimes leads to **unjustified trade restrictions**, which can be addressed through transparent communication as well as implementation and recognition of international standards.
- ❑ WOAH provides **international standards and guidelines on vaccine quality, vaccination and surveillance strategies**, vaccine banks and strategic reserves, safe international trade of vaccinated animals and their products, and plays a key role in fostering collaboration among Members, stakeholders, and scientific partners
- ❑ The 2025 Animal Health Forum, based on the Technical Item, and under the theme “Veterinary Vaccines and Vaccination. From science to action – reflections for change” has **provided new insights and priorities for action to better integrate vaccination** into animal health systems

WOAH General Session (2025) – Resolution no: 29

Veterinary Vaccines and Vaccination. From science to action – reflections for change

RECOMMENDATIONS

- ❑ WOAHP promotes international collaboration on vaccine research and development, including through public private partnerships, as well as mutual recognition agreements including the registration of novel vaccine platforms and biotechnology
- ❑ WOAHP develops and updates international standards for the vaccine safety, efficacy, integration of new technologies and, when applicable, safe trade of vaccinated animals and their products, ensuring global recognition and trust.
- ❑ WOAHP works to develop Target Product Profiles (TPPs) for vaccines against priority animal diseases, including those where vaccination could reduce the need for antimicrobials.
- ❑ WOAHP, in collaboration with relevant stakeholders, assesses the inclusion of provisions for aquatic animal vaccines in the Aquatic Animal Health Code and Manual, ensuring that aquatic animal vaccination is recognised, standardised, and harmonised
- ❑ WOAHP and its Members promote the appropriate implementation of the Nagoya Protocol, including through the development of technical guidance, pathogen emergency access protocols, and national legislation that supports disease surveillance, control and vaccine innovation.
- ❑ WOAHP completes the deployment of the global alert system on substandard and falsified veterinary products to strengthen vaccine quality oversight and support the removal of these vaccines from circulation

WOAH General Session (2025) – Resolution no: 29

Veterinary Vaccines and Vaccination. From science to action – reflections for change

RECOMMENDATIONS

- ❑ WOA^H and its Members improve national procurement processes, in coordination with vaccine manufacturers, including reviewing national and regional frameworks and evaluate the need to expand or create regional vaccine banks or strategic reserves to meet future need
- ❑ WOA^H and its Members continue to consider and advocate, when appropriate and based on a risk analysis, for the strategic use of vaccination as a complementary tool to contribute towards sustainable disease control.
- ❑ WOA^H Reference Centres support Members by providing expertise to assess the quality of vaccines, define effective vaccination strategies aligned with WOA^H standards, and implement effective monitoring systems to promote sustainable disease control strategies, including at regional level.
- ❑ WOA^H updates the list of priority diseases for which vaccines could reduce antimicrobial use, and support Members to achieve their commitment to ensure that animal vaccination strategies are defined with an implementation plan by 2030
- ❑ WOA^H and its Members convene regular dialogue between public and private sectors to support progress towards these recommendations and consider actions necessary for advancement

Thank you

Acknowledgements: Dr Arjan Stegeman,
Chairman of WOAHI-IABS meeting and
Scientific Committee

Dr Gounalan Pavade

Senior scientific coordinator

g.pavade@woah.org

