WOAH and OFFLU updates and future activities on HPAI

Dr Gounalan Pavade
Science department
World Organisation for Animal health (WOAH)

17 – 19 December 2024
Regional HPAI Middle East Coordination meeting
Amman, Jordan

Co-funded by the European Union

WOAH international standards

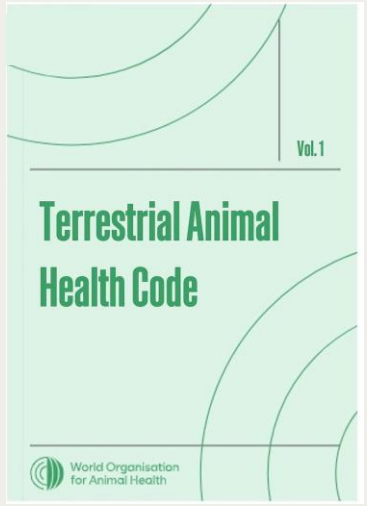
WOAH establishes standards for the improvement of animal health and welfare and veterinary public health worldwide, including the prevention of disease spread through international trade of animals and animal products.

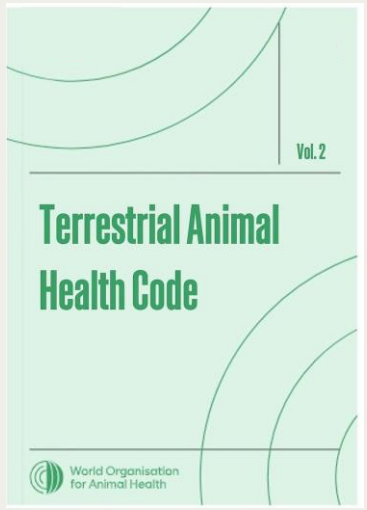
WOAH is recognised by the WTO SPS Agreement as the international standard setting organisation for animal health and zoonoses.

WOAH standards contribute to a **science based trading system** by supporting **international harmonisation.**

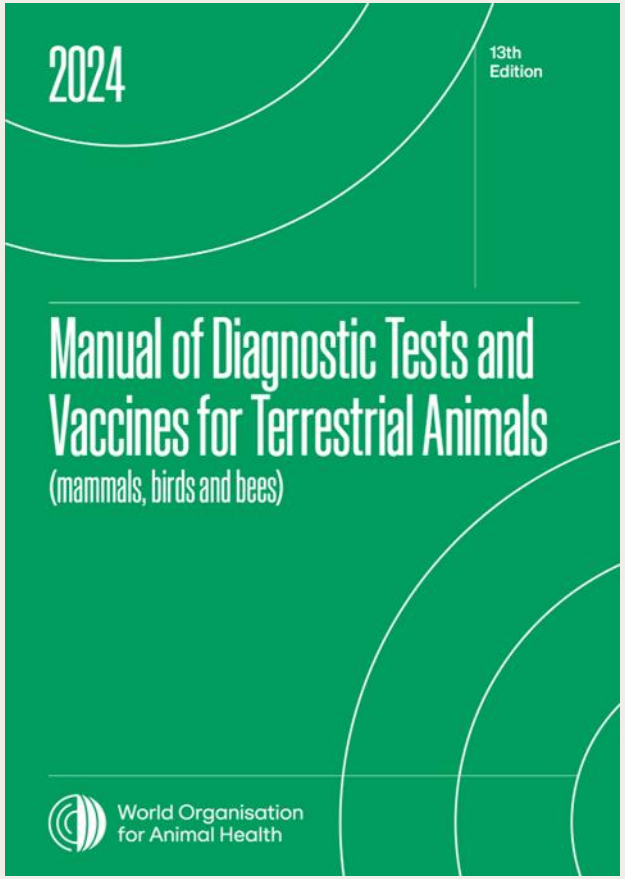
WOAH international Standards

Codes

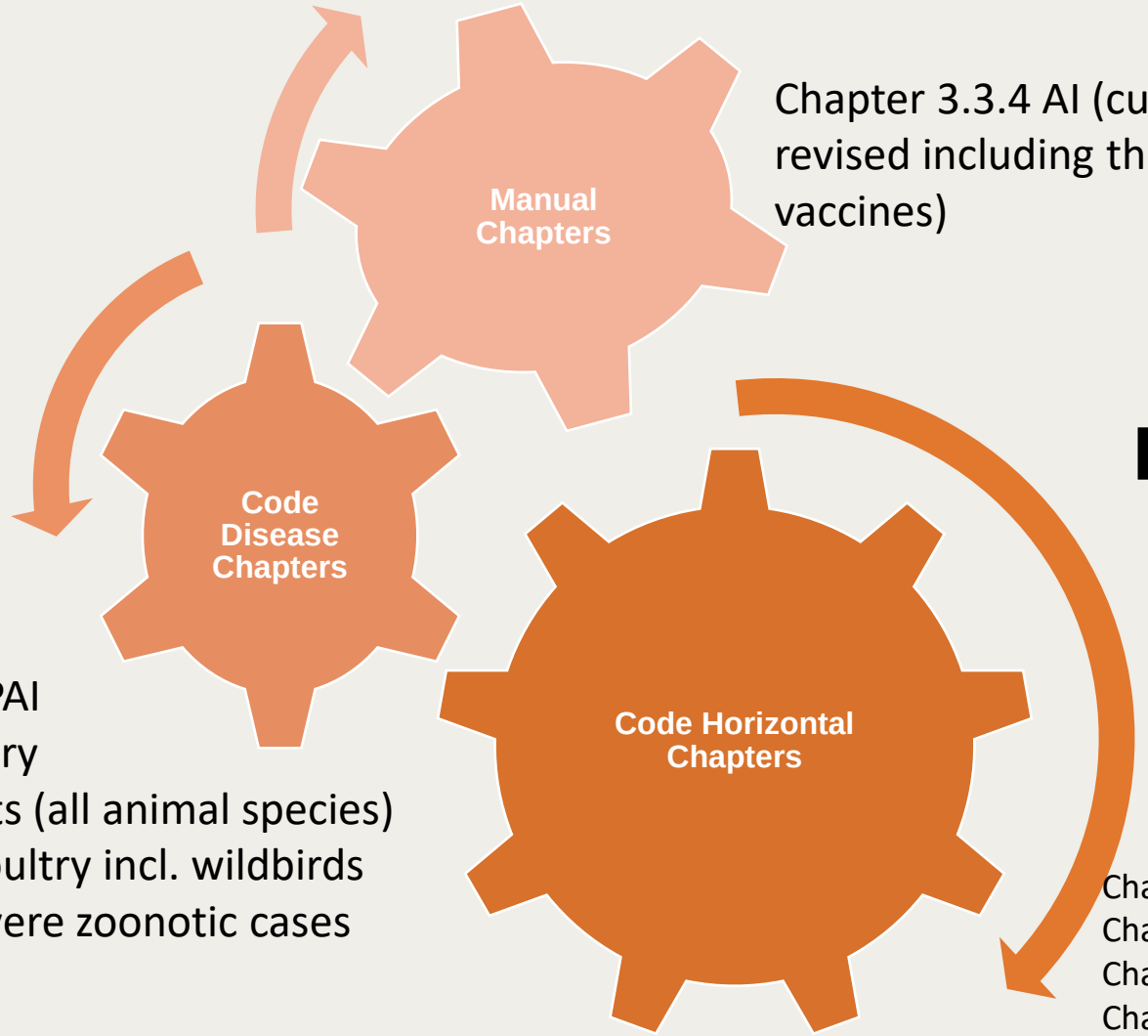




Manuals



WOAH international standards for avian influenza



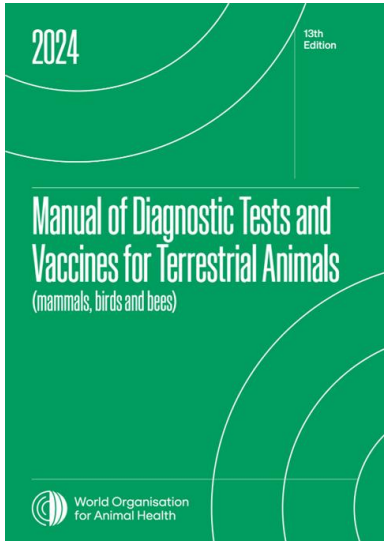
Chapter 3.3.4 AI (currently being revised including the section on vaccines)

Chapter 10.4 HPAI
- HPAI in poultry
- Unusual hosts (all animal species)
- HPAI non- poultry incl. wildbirds
- LPAI with severe zoonotic cases

Chapters 1.4 AH Surveillance
Chapter 4.18 Vaccination
Chapter 4.4 Zoning and Compartmentalisation
Chapter 4.5 Application of Compartmentalisation
Chapter 4.19 Official control programmes

Member Country context

WOAH international standards (Terrestrial Manual)



Terrestrial Manual

Chapter 3.3.4

B. DIAGNOSTIC TECHNIQUES

Table 1. Test methods available for the diagnosis of avian influenza and their purpose

Method	Purpose					
	Population freedom from infection	Individual animal freedom from infection prior to movement	Contribute to eradication policies	Confirmation of clinical cases	Prevalence of infection – surveillance	Immune status in individual animals or populations post-vaccination
Detection of the agent[(a)]						
Virus isolation	+	+++	+	+++	+	–
Antigen detection	+	+	+	+	+	–
Real-time RT-PCR	++	+++	++	+++	++	–
Detection of immune response						
AGID	+ (Influenza A)	+ (Influenza A)	++ (Influenza A)	+ (convalescent)	++ (Influenza A)	++ (Influenza A)
HI	+++ (H5 or H7)	++ (H5 or H7)	+++ (H5 or H7)	++ (convalescent)	+++ (H5 or H7)	+++ (H5 or H7)
ELISA	+	+	++	+ (convalescent)	++	++

Avian Influenza

- **Notifications and Situation reports**
  - Through WAHIS, Members report HPAI events in poultry and non-poultry including wild birds and zoonotic LPAI having severe consequences.
  - Monthly situation reports to highlight AI situation at both global and regional level
- **International standards**
  - Science-based standards, guidelines and recommendations issued by WOAH are designated as the international reference in dealing with AI
  - Terrestrial Code chapter on avian influenza (Version adopted May 2021)
  - Terrestrial Manual chapter on avian influenza (Version adopted May 2021) – being updated now
  - Wildlife working group guidelines
- **Reference Centres**
  - Network of 13 Reference Laboratories and 4 Collaborating Centres provides policy advice, strategy design and technical assistance for the control and eradication of these viruses
  - Laboratory twinning projects on avian influenza

Avian Influenza

- OFFLU
  - WOAH/FAO global network of expertise on animal influenza functioning since 2005
  - Effective collaboration between animal health experts and human health sector
  - collaborate with the WHO for pandemic preparedness
- GF-TAD
  - HPAI task force in collaboration with FAO
  - GFTAD HPAI global strategy for 10 years launched and ready for publication
- Communications
  - Press releases/advocacy materials etc

WOAH's response – Animal Health Forum on Avian Influenza

90th General Session
World Organisation for Animal Health
World Assembly
Paris, 21-25 May 2023
GS

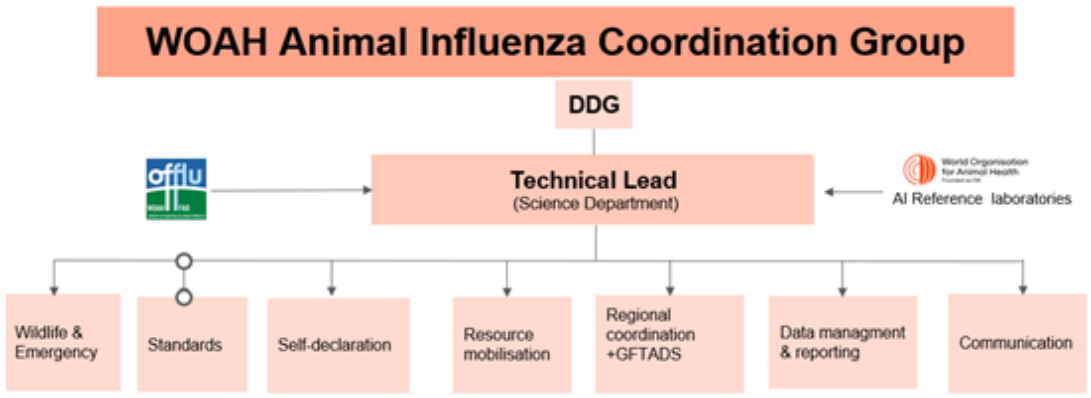
The HPAI Animal Health Forum offered an opportunity for Delegates and subject matter experts to have open discussions and agree on how to best tackle HPAI.

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

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

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

Implementation framework
(May 2023 – May 2025)



1st year achievements of the implementation of Resolution 28

- All the 19 recommendations of Resolution 28 have at least one related activity underway.
- Of the 29 SMART indicators, 16 (55.2%) have already been achieved within the first year of implementing the framework.

OUTCOMES	1st YEAR ACTIVITIES	OUPUTS
Outcome 1 Global and regional **surveillance and monitoring** systems for **early detection and prevention** in domestic and wild animals are enhanced.	- Global OFFLU proficiency testing programme - 200 focal points trained on notification - Contributions of zoonotic influenza data to WHO Vaccine Composition Meetings - 18 Situation reports - Working group on wildlife – Guidelines for mammals	**Improved global intelligence on HPAI in domestic and wild animals**
Outcome 2 **Tools for the prevention and control** of HPAI, including vaccination, are optimized and disseminated, and the development of new tools is accelerated.	- At least 12 meetings on HPAI - OFFLU avian influenza matching project (AIM) reports published - Ongoing to draft – Surveillance guidelines for smallholder poultry settings (backyard) - Guidelines on zoning and compartmentalization	**Use of current tools to prevent and control HPAI**
Outcome 3 **Safe international trade** is being facilitated by the correct implementation of up to date and science-based standards and guidance.	- Revision of Terrestrial Manual - Chapter 3.3.4 - WOAH Policy paper of avian influenza vaccination	**Facilitation of safe trade using up-to-date and science-based standards and guidance**
Outcome 4 Global and regional **coordination** on avian influenza is achieved.	- GF TADs Global Strategy on HPAI launched - Regional GF-TAD meetings - Star IDAZ – research roadmaps	**Effective global and regional coordination in the control of HPAI**

Policy brief

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

December 202

Executive summary

Since 2005, avian influenza has had a staggering toll, with over 500 million birds lost to the disease worldwide [1]. Its devastating impact extends beyond domestic and wild birds, threatening livelihoods, food security and public health. The recent shift in the disease's ecology and epidemiology has heightened global concern as it has spread to new geographical regions. It has also caused unusual die-offs in wild birds and led to an alarming increase in mammalian cases. The rapidly evolving nature of avian influenza and **changes in its patterns of spread** [2] 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.

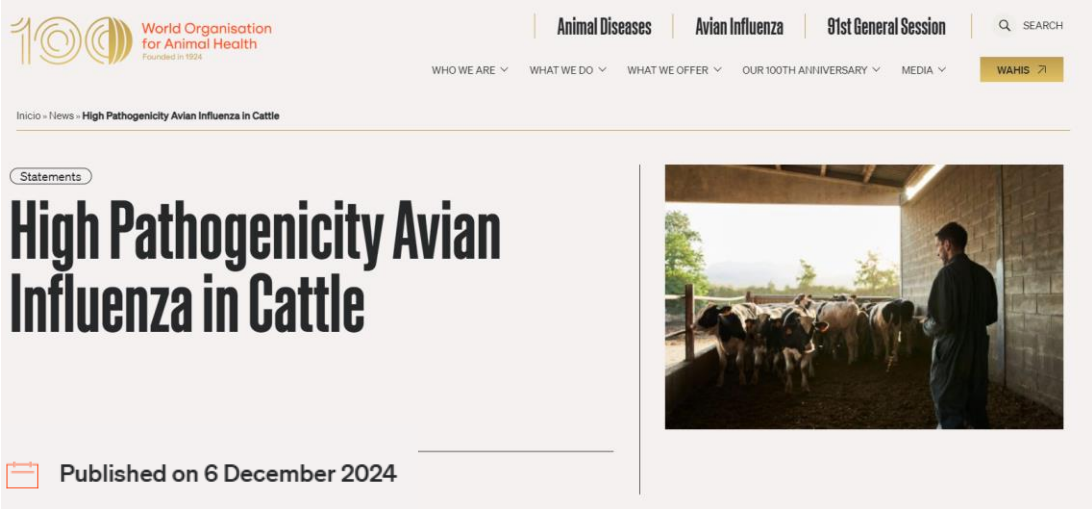
© wilkoski

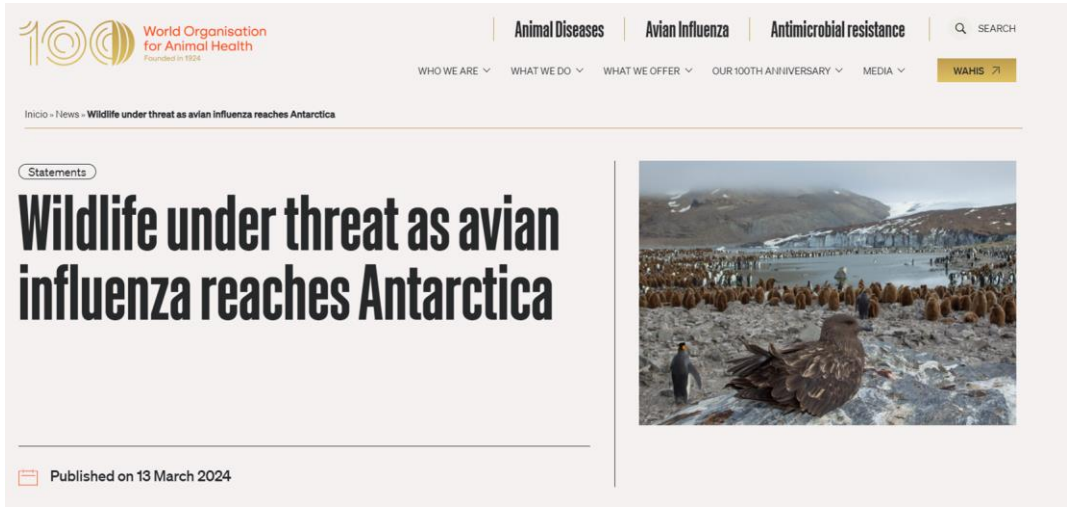
What WOAH Standard says. Chapter 10.4

Key points

- Vaccination is a complementary control tool when a stamping out policy alone is not sufficient
- Vaccination is decided by the Veterinary Authority
- It does not affect the HPAI disease status
- Surveillance should demonstrate absence of virus circulation
- The effectiveness of the vaccination programme should be certified
- The *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* provides the standards for high quality avian influenza vaccines

Statements on avian influenza





Food and Agriculture Organization of the United Nations

World Health Organization

World Organisation for Animal Health
Founded as OIE

Updated joint FAO/WHO/WOAH assessment of recent influenza A(H5N1) virus events in animals and people

Assessment based on data as of 18 July 2024

14 August 2024

Key points

At the present time, based on available information, FAO-WHO-WOAH assess the global public health risk of influenza A(H5N1) viruses to be low, while the risk of infection for occupationally exposed persons is low to moderate depending on the risk mitigation measures in place. Transmission between animals continues to occur and, to date, a limited number of human infections have been reported. Although additional human infections associated with exposure to infected animals or contaminated environments are likely to continue to occur, the overall public health impact of such infections at a global level is minor.

The situation is constantly evolving, and risks must continue to be assessed regularly

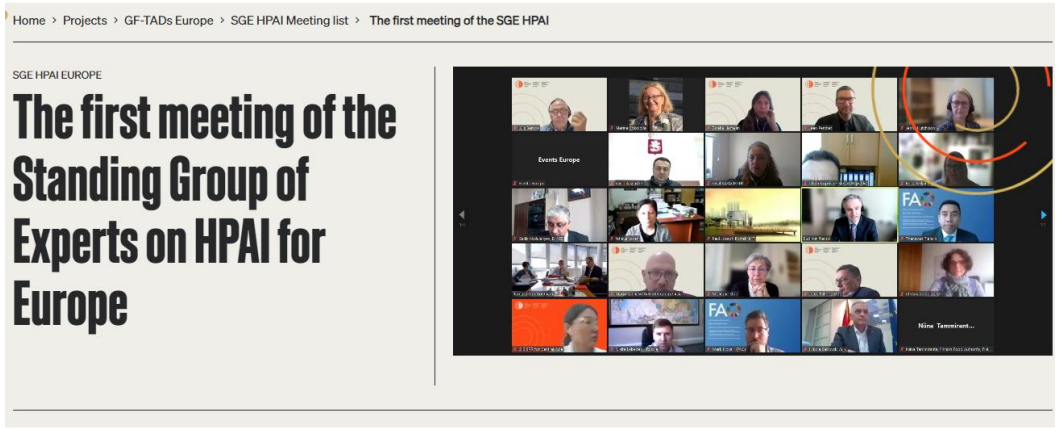
FAO/WHO/WOAH continue to monitor and collaborate

Regional groups on Avian Influenza

Supporting coordination and exchange of information between neighbouring countries, experts and international/regional organisations

Information, presentations and material available on regional WOAH website

Second meeting of the SGE HPAI - Americas



The first meeting of the SGE HPAI - WOAH – Europe

Avian Disease Workshop for Asia Pacific 2024 - WOAH - Asia

October 22-23, 2024 - *WOAH, Paris*

WOAH- IABS meeting October

International Alliance for Biological Standardization

Vaccination and Surveillance for High Pathogenicity Avian Influenza in poultry: Current Situation and Perspectives

This workshop discussed how to implement surveillance in vaccinated populations to ensure safe and fair trade and will also touch upon further aspects of HPAI vaccination.

The workshop will be reviewing all the existing data with participation by a wide variety of stakeholders (WHO, OFFLU, FAO, WTO, governments, poultry breeding and biological companies, animal welfare organizations, human health, scientists, etc) and will be concluded by a panel establishing recommendations.

Agenda

Conclusions and recommendations available at: iabs.org/~documents/route%3A/download/2542/

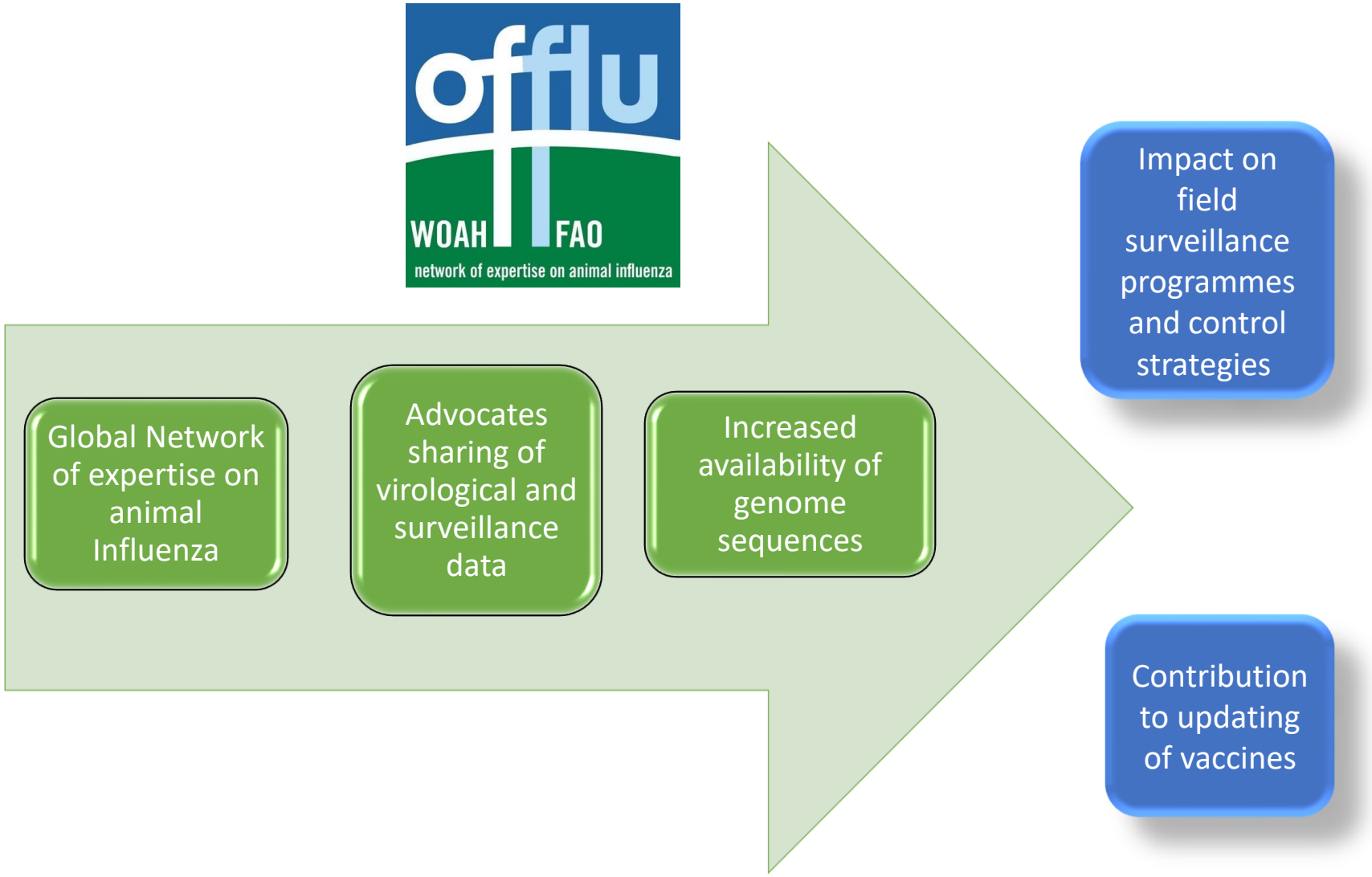
OFFLU updates

OFFLU's core aims

- To share and offer technical advice, training and veterinary expertise to international organisations and Member Countries to assist in the prevention, diagnosis, surveillance, and control of animal influenza.
- To exchange scientific data and biological materials (including virus strains) within the network, analyse such data, and share information with the wider scientific community.
- To collaborate with the WHO on issues relating to the animal-human interface, including pandemic preparedness for early preparation of human vaccines.
- To highlight influenza surveillance and research needs, promote their development and coordination.

STAR-IDAZ
International Research Consortium on Animal Health

Joint WOAH-FAO network of scientific expertise on animal influenzas (OFFLU)



Joint WOAH-FAO network of scientific expertise on animal influenzas OFFLU

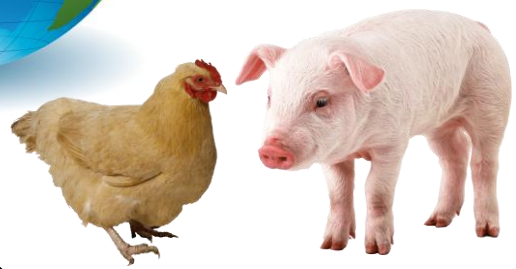
Reference laboratories
Influenza Experts

OFFLU Technical working groups:
Avian Influenza
Wildlife group
Human animal interface
Poultry vaccination
Applied epidemiology
Socioeconomics
Equine Influenza
Swine Influenza

Network promoting the sharing of information (and sequence data)

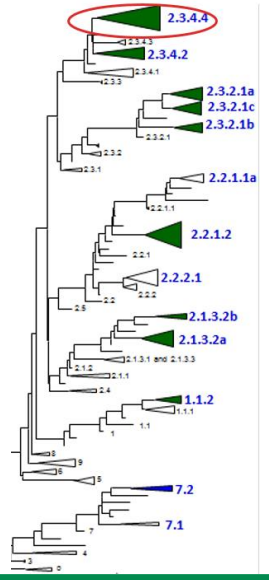
OFFLU GLOBAL TECHNICAL MEETING HAPPENED IN JULY 2024 to revise ToR of groups and future plan of action

OFFLU-WHO collaboration for vaccine composition meetings



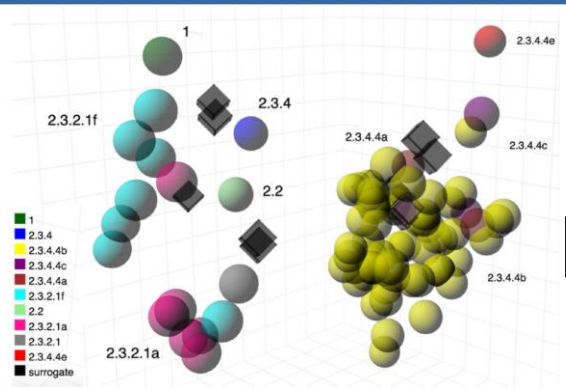
Step 1:

Epidemiological and genetic analysis



Step 2:

Evaluate antigenic changes of significance to candidate vaccine viruses (CVV)



Step 3:

- OFFLU data package presented
- Discussed in the context of zoonotic human influenza cases
- WHO VCM zoonotic report
- Updates to CVVs

OFFLU SWINE INFLUENZA REPORT
JANUARY 2023 TO JUNE 2023

SCOPE
In this document we present a summary of H1 and H3 swine influenza A virus evolution.

World Organisation for Animal Health
Founded as OIE

World Health Organization

OFFLU call for VCM contributions

- Sharing of data and biological materials for the VCM is only for analysis and discussion at VCM and does not affect other use of that material intended by the submitting country; i.e. research or other use in animal health sector, publications, etc.
- Timely confirmation and assistance with genetic and antigenic characterization of outbreak or newly emergent viruses
- Could give assistance with collating epidemiological and characterization data for official notifications of disease outbreaks by the country of origin (e.g. to national authorities, WOAH, regional network)

Useful links

- OFFLU summary report from the WHO vaccine composition meeting, September 2024 https://www.offlu.org/wp-content/uploads/2024/09/OFFLU-Summary-S24.pdf

- WHO FAQs https://cdn.who.int/media/docs/default-source/influenza/who-influenza-recommendations/vcm-northern-hemisphere-recommendation-2024-2025/202402_frequently-asked-questions.pdf?sfvrsn=88eb9509_4

What OFFLU are doing

Surveillance

- International reference laboratories
- Intersectoral collaboration
- Capacity building and addressing challenges faced with HPAI control

Viral monitoring

- Viral characterisation
- Monitoring spread
- Fitness for purpose diagnostic testing

Guidelines

- Updating surveillance guidelines where necessary
- Scientific research on knowledge gaps
- Guidance and reccomendations for countries

OFFLU Avian Influenza Matching (AIM) project

OBJECTIVE:

To provide up-to date information to the poultry sector, governments, and poultry vaccine manufacturers on antigenic characteristics of circulating avian influenza viruses including comparisons with vaccine antigens. This information will facilitate selection of appropriate vaccines for poultry and updating of poultry vaccine antigens in places where vaccines are being used.

TIMELINES:

- ❑ AIM pilot study started in December 2022
- ❑ AIM pilot report published in October 2023 (https://www.offlu.org/wp-content/uploads/2023/11/OFFLU-AIM-REPORT-2023.pdf)
- ❑ AIM webinar (https://www.youtube.com/watch?v=CPdiaY4tf_k)
- ❑ AIM 2nd technical report published in July 2024 (https://www.offlu.org/wp-content/uploads/2024/07/OFFLU-AIM-Technical-report_Final-1.pdf)
- ❑ AIM Executive summary report (October 2024) https://www.offlu.org/wp-content/uploads/2024/11/OFFLU-Avian-Influenza-Vaccine-Matching-final-clean.pdf

Avian Influenza Matching (AIM) for poultry vaccines: Developing linkages

Webinar organised on 10 July

https://www.fao.org/animal-health/news-events/events/detail/offlu-avian-influenza-matching-(aim)-for-poultry-vaccines/en

Food and Agriculture Organization of the United Nations

World Organisation for Animal Health
Founded as OIE

AIM can help you but we need to work together

We would like to establish dialogue at regional country level concerned with poultry vaccination

- Veterinary authorities
- Vaccine manufacturers
- Representatives of poultry industry ; producers

We recognize different vaccine approaches by AIM highly relevant to all including inactivated vaccines

Long term vision establish country or regional level vaccine strain selection systems for improved control through vaccination

Our task is not to tell you what to use but give you the information and how you can use it

Stakeholder application of OFFLU AIM outputs

Early warning of antigenic drift in wild birds, a region/country

Trigger for post vaccination monitoring in country

Trigger for vaccine trials to be carried out

Trigger to stregnthen surveillance

Spread of a new clade or variant --> Vaccine update

- ✓ **Standardised testing**
- ✓ **Saving countries money**
- ✓ **Saving time**
- ✓ Impartial data

OFFLU AVIAN INFLUENZA MATCHING (OFFLU AIM) GUIDE TO ASSESSING ANTIGENIC CHARACTERISTICS OF AVIAN INFLUENZA VIRUSES

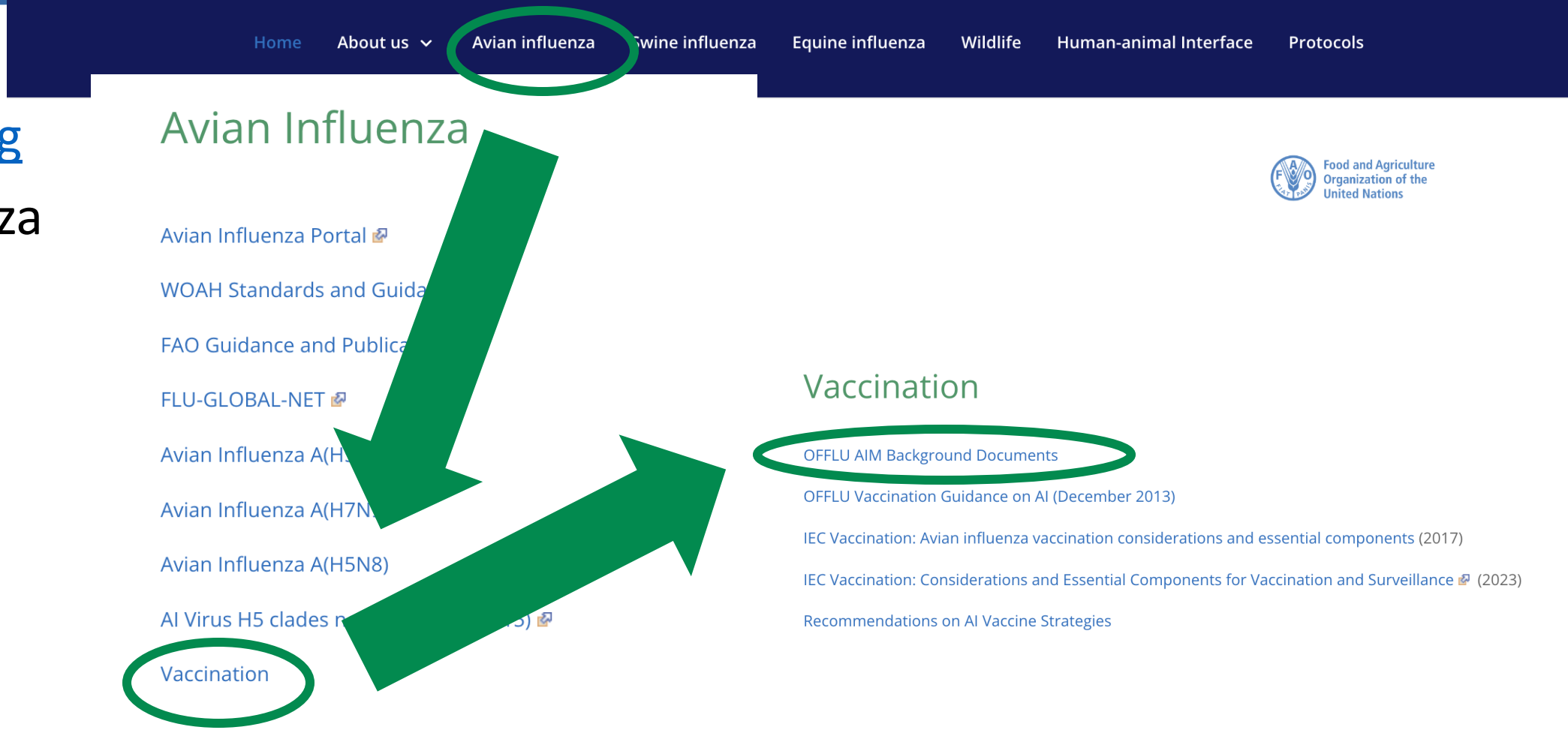
Updated June 2024

Scope: This report provides information for national/sub-national level laboratories on how to assess antigenic characteristics of avian influenza viruses.

Where do I find the documents?

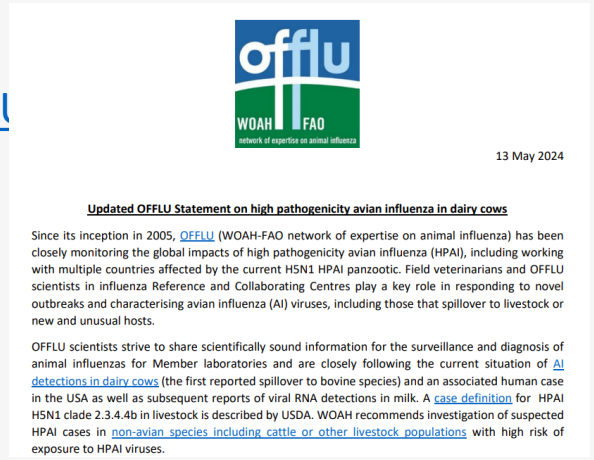
https://www.offlu.org/index.php/offlu-aim-background-documents/

- www.offlu.org
- Avian Influenza
- Vaccination
- OFFLU AIM



OFFLU outputs www.offlu.org

OFFLU annual report 2023
https://www.offlu.org/wp-content/uploads/2024/02/OFFLU_Annual_Report_2023.pdf

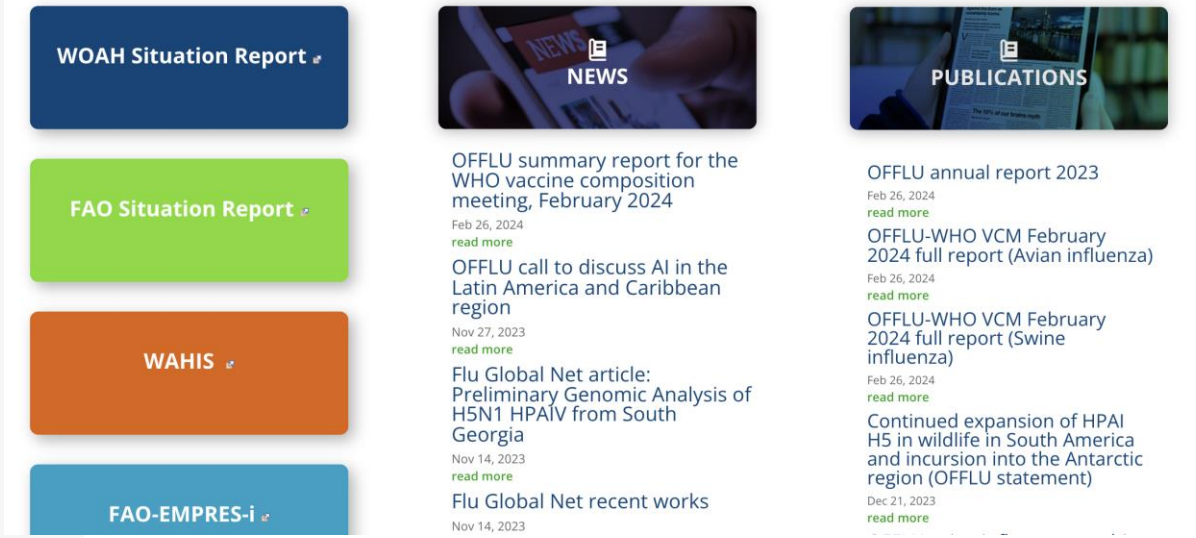

13 May 2024

Updated OFFLU Statement on high pathogenicity avian influenza in dairy cows

Since its inception in 2005, OFFLU (WOAH-FAO network of expertise on animal influenza) has been closely monitoring the global impacts of high pathogenicity avian influenza (HPAI), including working with multiple countries affected by the current H5N1 HPAI panzootic. Field veterinarians and OFFLU scientists in influenza Reference and Collaborating Centres play a key role in responding to novel outbreaks and characterising avian influenza (AI) viruses, including those that spillover to livestock or new and unusual hosts.

OFFLU scientists strive to share scientifically sound information for the surveillance and diagnosis of animal influenzas for Member laboratories and are closely following the current situation of AI detections in dairy cows (the first reported spillover to bovine species) and an associated human case in the USA as well as subsequent reports of viral RNA detections in milk. A case definition for HPAI H5N1 clade 2.3.4.4b in livestock is described by USDA. WOAH recommends investigation of suspected HPAI cases in non-avian species including cattle or other livestock populations with high risk of exposure to HPAI viruses.

Tool for Influenza Pandemic Risk Assessment (TIPRA)



Contact: secretariat@offlu.org

Conclusion

- Avian influenza continues to heavily impact all regions of the world including Antarctica, leading to the significant economic losses incurred due to mass culling of birds and impact on biodiversity.

- WOAH develops and publishes international animal health standards, which countries commit to adopt into their national legislation. The Terrestrial Code recognises that the use of vaccination will not affect the HPAI status of a free country or zone if surveillance support the absence of infection. The Terrestrial Manual provides the standards for high quality avian influenza vaccines.

- Poultry vaccination cannot longer be excluded from the available control alternatives. It should be considered as complementary tool, if implemented according to international standards.

- OFFLU network provide up-to date information on characteristics of circulating avian influenza viruses including comparisons with vaccine antigens which is useful for update of poultry vaccine antigens.

- GF-TADs revised ten-year global strategy of HPAI released. WOAH also collaborates with quadripartite partners, FAO, UNEP and WHO at the human-animal-plant-environment interface.

Thank you

12, rue de Prony, 75017 Paris, France
T. +33 (0)1 44 15 19 49
F. +33 (0)1 42 67 09 87

woah@woah.org
www.woah.org

Facebook
Twitter
Instagram
LinkedIn
YouTube
Flickr

World Organisation for Animal Health
Founded as OIE

Organisation mondiale de la santé animale
Fondée en tant qu'OIE

Organización Mundial de Sanidad Animal
Fundada como OIE

Co-funded by the European Union