

WOAH Data Integration Department (DID) initiatives and projects

Accelerating the Operationalisation of the One Health Joint Plan of Action (OHJPA) in Veterinary Services in the European Region

18-20 November 2025 - Athens, Greece

Paolo Tizzani
Data Integration Department - WOAH



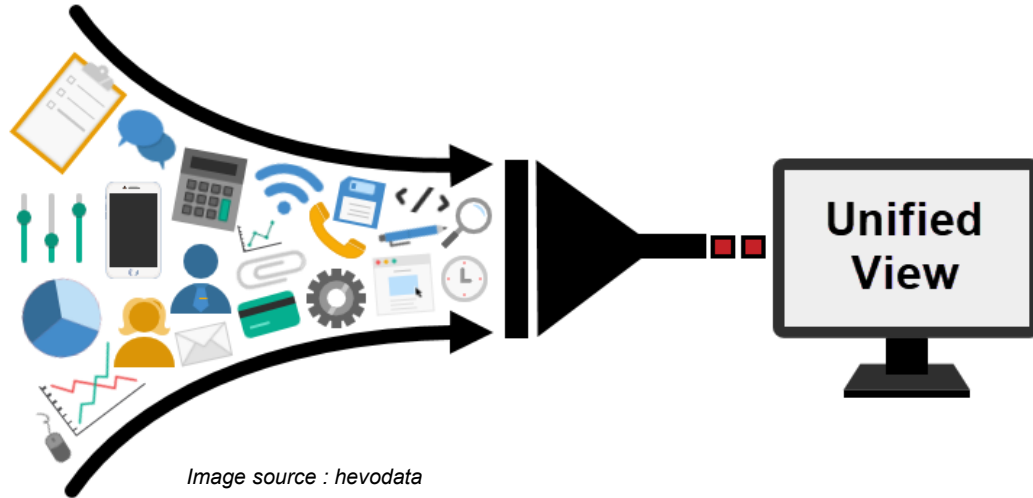
World
Organisation
for Animal
Health

Organisation
mondiale
de la santé
animale

Organización
Mundial
de Sanidad
Animal

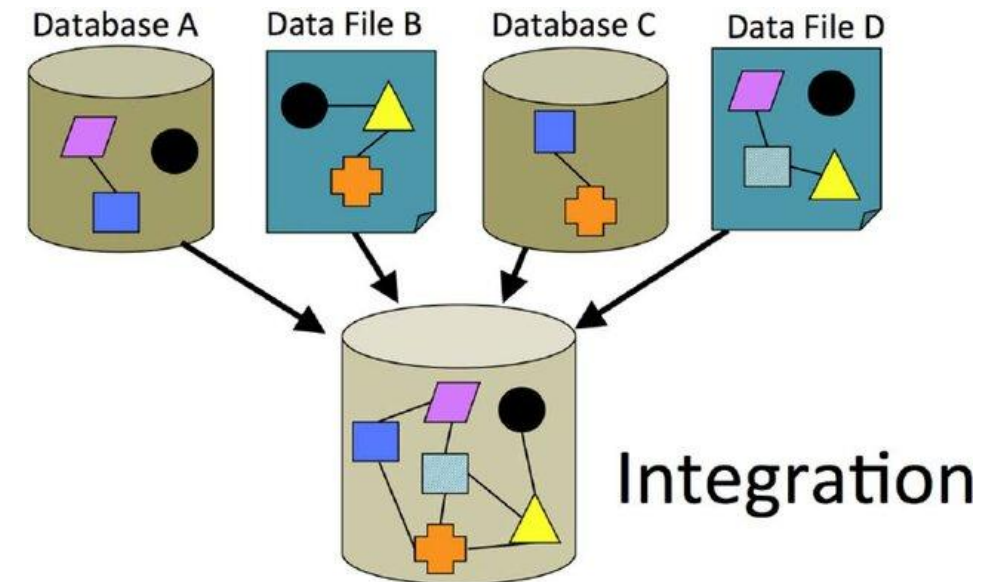
What is data integration?

Microsoft definition

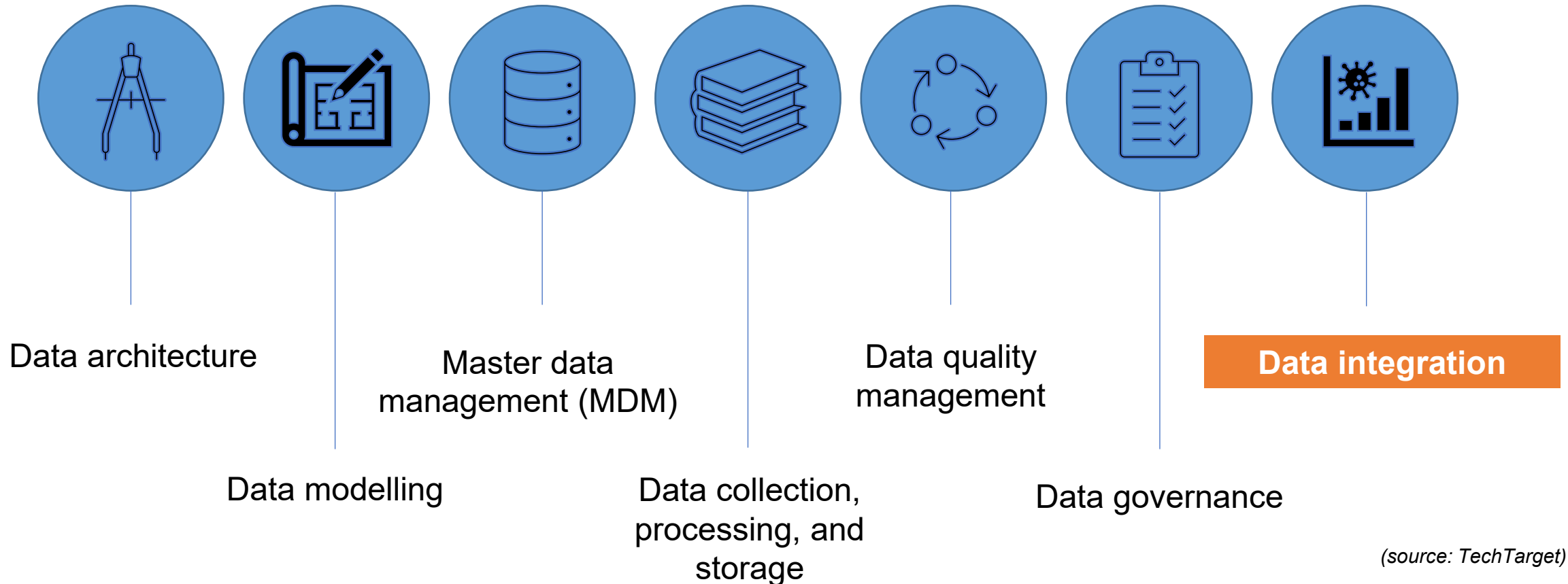


- **All types of data**, considering its growth, volume, and all its varying formats
- Allows us to **see eye-to-eye on situations, to support decisions**
- Part of data management

The process for combining data from several **disparate sources** to provide users with a **single, unified view**

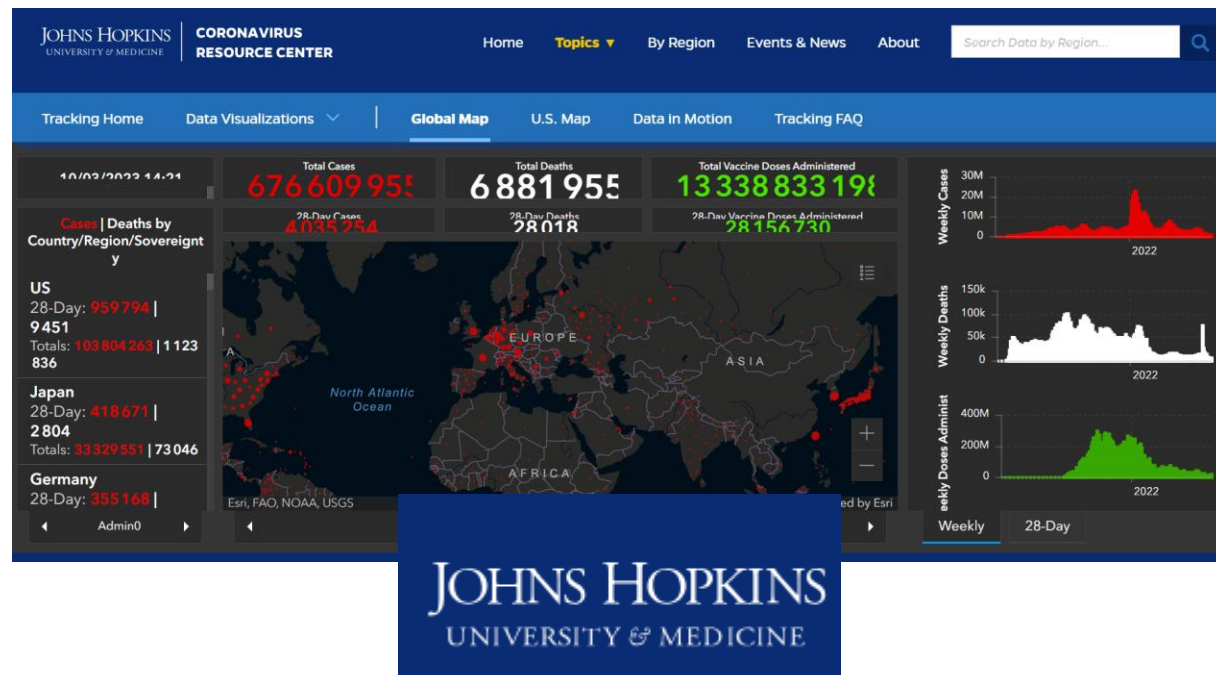


- WOAHA data integration will require an **effective and transparent implementation of all pillars of data management**, with adequate budget, tools, human resources, and skills
- A **progressive approach** and a **certain level of flexibility** will be required to adjust the work and priorities to future needs and to further develop cross-sectoral work, while including all relevant actors in the process



It has emerged as a **critical need to support decision making** in public health during the epidemics of the past decade and even more so during the recent pandemic (COVID-19)

WOAH also recognises the importance and need for data integration



Extensive data integration effort described in [International Journal for Equity in Health](#)



Vision & Highlights





Vision

- WOA's Statistics Office & Transversal department
- Promoting state-of-the-art methods and tools
- Empowering colleagues

- Data Science Lab

Workstreams

- Epidemic Intelligence
- Observatory



Data Science Lab



Tools, methods, processes

- Identify opportunities and develop methods to modernize, streamline, accelerate and automate processes.
- Explore AI use cases relevant to WOAHA and develop tools.

Data science training

- Class-format training sessions, July-October 2025
- Workshop series focused on business cases, Nov-Dec 2025



Epidemic Intelligence



Periodic situation report

- Regular situation reports on hot-topics
 - African Swine fever
 - Highly pathogenic avian influenza
 - Aquatic animal diseases
 - Wildlife
- Progressive automation
- Potential extension to One Health topics

AFRICAN SWINE FEVER (ASF) Situation Report 69

Period covered: September 2025

This report provides an update of the ASF situation, according to the information shared with WOAH.

HIGH PATHOGENICITY AVIAN INFLUENZA (HPAI) Situation Report 75

Period covered:
September 2025

This report provides an update of the high pathogenicity avian influenza (HPAI) situation, according to the information submitted to the World Organisation for Animal Health.



Epidemic intelligence framework

- WOAH Epidemic intelligence framework
- Exploring use of AI to improve the framework
- Assessment of sensitivity of surveillance systems



Building the World Organisation for Animal Health (WOAH) framework for Epidemic Intelligence

Document for internal purposes (WOAH only)

This work was made possible thanks to the contribution of the following departments, technical units, Regional and Sub-Regional Representations

Coordination

Data Integration Department – Paolo Tizzani (lead), Lina Awada, Laure Weber-Vintzel

WOAH Epidemic Intelligence Core Group

Antimicrobial Resistance and Veterinary Products Department – Andrés García Campos and Delfy Góchez

Foresight Advisor – Tianna Brand

Preparedness and Resilience Department – Claire Cayol and Madison Wimmers

Science Department – Mariana Delgado

World Animal Health Information and Analysis Department – Itala Gizo and Colin Basler

WOAH Epidemic Intelligence Extended Group

GF-TADs Coordinator – Alexandre Fedlaevsky

One Health Coordinator – Chadia Wannous

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Regional Representation for Africa – Serge Eugene Mpouam

Regional Representation for Asia and the Pacific – Jacqueline Lusat and Shohel Urushizaki

Regional Representation in Moscow – Marina Sokolova

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Sub-Regional Representation for Central Asia – Dmitry Morozov

Sub-Regional Representation for Eastern Africa – Viola Chemis

Sub-Regional Representation for North Africa – Francesco Valentini

Sub-Regional Representation for South-East Asia – Bolortuya Purevsuren

Sub-Regional Representation for Southern Africa – Tenzin

Sub-Regional Representation in Brussels – Denise Dubois



Improving tools for One Health intelligence



EIOS fosters a global public health intelligence collaboration, uniting stakeholders and leveraging open-source data for early detection and response to public health threats under a One Health, all-hazards approach. WHO leads this multi-stakeholder initiative under its Health Emergencies Programme. As a global collaboration, the EIOS initiative is governed by a Coordination Group with representatives from various organisations; **WOAH** is one of the organisations.

CATEGORIES

All OIE Categories
(473 of 473)

Any of these selected categories

All OIE Categories
(473 of 473 categories selected)

Animal Related
(3 of 3 categories selected)

Biological
(144 of 144 categories selected)

Chemical
(76 of 76 categories selected)

Disasters
(11 of 11 categories selected)

Diseases From J-Q
(1 of 1 categories selected)

Health Systems
(6 of 6 categories selected)

Immunity
(4 of 4 categories selected)

Measures
(6 of 6 categories selected)

Nuclear
(4 of 4 categories selected)

Outcomes
(7 of 7 categories selected)

Populations
(12 of 12 categories selected)

Product Safety
(1 of 1 categories selected)

Symptoms
(16 of 16 categories selected)

zAll Hazards Threats (optional)
(182 of 182 categories selected)

Filtering

9.8k

26.4M

132k

140k

3.07k

142k

10.9k

0

776

987k

296k

0

190k

909k

Combine more selected categories in AND

Daily screening of the web for
WOAH-listed and emerging diseases

26,000 sources

723 disease categories

Just over 100 languages

150,000 – 200,000 news/year

Communication between WOAHA and
its Members

The screenshot displays the EIOS Monitoring 2.0.3 interface. On the left, there's a sidebar with 'CATEGORIES' and a list of 18 categories with their respective counts. The main area shows a 'Board Info' section with 'WOAH' as the owner and 'EIOS Daily Digest' as the board. Below this is a 'Board Filters' section with a 'Text Search' bar. A 'Time Filter' section shows a line graph of activity over time, with a peak around 11/1/2025. The main content area lists several articles, each with a title, a brief description, and a 'View' button. The articles include topics like 'Exploring the Milky Way: Unveiling the Largest and Most Detailed Radio Image Yet', 'Equine Influenza Case Confirmed at Ohio Fairgrounds', '4-New-2025 Australian scientists uncover secrets of yellow fever University of Queensland Peer-reviewed Publication University of Queensland', 'Uptick in Hand, Foot and Mouth Disease reported in U.S.', '2nd escaped monkey shot and killed by civilian, leaving 1 monkey still on the loose after Mississippi crash', 'Protecting the environment and jobs in Upper Smoky', and 'South Africa: 2025 Foot and Mouth Disease'.



Example - Avian influenza monitoring systems in WOAH

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Global – last 3 years – 263k articles



The Balearic Islands avoid a total lockdown of birds and adapt measures against avian flu

The Ministry of Agriculture has banned livestock markets in 14 at-risk municipalities, but allows open-air breeding under special conditions.

The danger of bird flu is spreading: 14 localities in Olt under surveillance

Alina Mitran

1 In Play

Published: 13.11.2025 01:02

The sanitary and veterinary authorities are warning of the danger of avian influenza outbreaks, after confirmation of cases, including in farms in Europe. 14 localities in Olt County are under surveillance.

Europe – last 3 years – 105k news



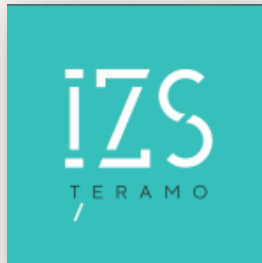
Avian influenza drives up egg prices and producers fear speculation: "There will be no supply problems".

The price of eggs and, to a lesser extent, chicken, is once again a cause for concern because of the effect they have on the cost of the shopping basket. This is nothing new; a few months ago, the increase in cases of avian flu, especially in other European countries and in the United States, had a knock-on effect on a foodstuff considered a staple. Even more so when its consumption has skyrocketed significantly in recent years. Radiography of egg consumption: 143 per person per year and a purchase that is growing despite soaring prices. Now, the upsurge of this virus - which has forced the slaughter in Spain of nearly three million laying hens, in a universe of almost 45 million animals - has generated a new earthquake among the different actors in the food chain, with calls to avoid price speculation and messages that seek to guarantee that there will be no problems of shortages. The key measure to try to curb the impact of avian flu has come this week because, since Monday, the Ministry of Agriculture, Fisheries and Food confined all poultry in areas considered special risk and surveillance, after detecting 14 outbreaks of this virus in Spain. In total, almost 2,000 municipalities in Andalusia, Aragon, Castilla y Leon, Catalonia, Navarra or the Balearic Islands, among others. A level of surveillance that will be maintained and that also includes other prohibitions, such as the breeding of ducks and geese with other poultry or that the latter cannot be given water from reservoirs to which wild birds may have had access. The objective is to stop the virus that not only affects Spain, but also other European countries. For example, in Germany almost 60 outbreaks have already been detected; in Poland, 17; and in France and Italy, 10 and 16, respectively, according to data published by the Ministry. The derivative is that the prices of eggs and, less so, those of chicken, are on the rise. The figures for the rise in the cost of these commodities may vary depending on the source, although the trend is the same. If you look at the data published by the Ministry of Agriculture - which is updated weekly - from the beginning of the year to the first days of November, the price of a dozen free-range eggs has risen by more than 28% so far this year. Meanwhile, the price of a dozen Class M eggs from caged hens has increased by 35%; and the same amount of organic eggs, by 24%. At the same time, chicken (in its different variants) is, on average, 6.7% more expensive.

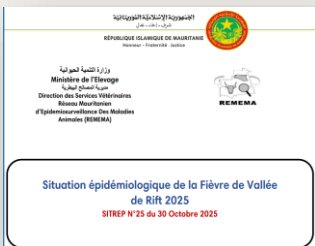
AI Use Cases – RVF example

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Data integration from
multiple sources



API



AI use:

- Summary of news from different sources
- News title translation
- Assisting in coding



Rstudio
Integrate information
and produce report

Epidemic intelligence Report

RIFT VALLEY FEVER (RVF) IN GABON, MALI, MAURITANIA, SENEGAL

Epidemic intelligence report 4

AUTHOR:
World Organisation for Animal Health (WOAH) - Data
Integration Department

PUBLISHED:
November 3, 2025

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- Period Covered
- Outbreak Summary
- Quantitative data
- Rift Valley Fever (RVF) Surveillance Report – data provided by Mauritania (as of 25 October 2025)
- Media attention (number of news in blue and trend in red)
- Summary of the epidemic intelligence update
- Epidemiological Update
- Impact (Trade, Risk and Border Control)
- Key messages for risk management and public health authorities

Official data and other sources

Outbreak Summary

The figure below illustrates the distribution of outbreaks reported for RVF ongoing events in the area. Currently three events are ongoing in the concerned countries.

Senegal

- One event reported on 21 September 2025 (1 immediate notification and 2 follow-up reports) with 17/170 for disease recurrence with 25 outbreaks reported

Mauritania

- One event reported on 3 October 2025 for unexpected change in disease epidemiology (1 immediate notification and 1 follow-up report – last update 24/10) with 25 outbreaks reported

Gambia - One event reported on 29 October 2025 for the first occurrence in a zone (1 immediate notification) with 1 outbreak reported

The map shows outbreaks reported to WOAH (in red) and additional outbreaks appearing in FAO's EMPRES-i database (in blue).



Based on the information provided, the following data is available: [Click here](#) to view the data. The information was last updated on 10/30/2025. The information was last updated on 10/30/2025.

PROVNA data



National reports

Rift Valley Fever (RVF) Surveillance Report – data provided by Mauritania (as of 25 October 2025)

Animal Health Situation

Confirmed Outbreaks

91 suspected outbreaks reported via KoboToolbox.

36 confirmed positive by ONAGLP lab, including 8 asymptomatic viral circulation cases (from active surveillance).

35 outbreaks tested negative.

Epidemiological Observations

Geographic Concentration: Southern and southwestern Wilayas (Bakel, Tiris, Mout Gharbi, Assaba, Gorgol) are hotspots due to:

- High pastoral density. Cross-border livestock movement.
- Seasonal Transhumance: Movement between wet and dry zones facilitates virus spread.
- Climate Conditions: Excessive rainfall has created stagnant water bodies, favoring mosquito vector proliferation.

Actions taken

- Activation of One Health and surveillance committees.
- Daily S&Hs and vigilance circulars to meat inspectors and private vets.
- Strict meat inspection protocols in slaughter areas.

Media scanning (EIOS)

Media attention (number of news in blue and trend in red)



Summary of the epidemic intelligence update

Epidemiological Update

Senegal

Animals

- The World Organisation for Animal Health (WOAH) reports rising RVF cases in Senegal and Mauritania, linked to recent floods. It calls for international cooperation and One Health strategies to manage the transboundary zoonotic threat.

Humans

- Public awareness remains low despite 277 RVF cases and 22 deaths. The Ministry of Health emphasizes the need for improved communication and preventive measures, especially in urban areas.

Mauritania

Animals

- In Matam, herders express concern over delayed vaccine delivery for RVF. The disease poses serious risks to livestock and humans, especially during the rainy season. Authorities have committed to supplying vaccines, but no timeline has been provided.

Humans

- As of October 28, Senegal has recorded 328 confirmed cases of Rift Valley Fever (RVF), including 25

AI Use Cases – RVF example

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Data integration from multiple sources



WAHIS

EIOS



API



AI use:

- Summary of news from different sources
- News title translation
- Assisting in coding

AI allows to:

• Save human resources

• Increase accuracy and efficiency

• Improve data analysis and facilitate data interpretation

Rstudio
Integrate information and produce report

Epidemic intelligence Report

RIFT VALLEY FEVER (RVF) IN GABON, MALI, MAURITANIA, SENEGAL

Epidemic intelligence report 4

Author: World Organisation for Animal Health (WOAH) - Data Integration Department
Publication date: November 3, 2025

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- [Introduction](#)
- [Rift Valley Fever \(RVF\) Surveillance Report - data provided by Mauritania \(as of 25 October 2025\)](#)
- [Data integration](#)
- [Summary of the epidemic intelligence update](#)
- [Key messages](#)
- [References](#)

Official data and other sources

Outbreak Summary

The figure below illustrates the distribution of outbreaks reported for RVF, spanning across the area. Only three are ongoing in the concerned countries.

Outbreaks

- One event reported on 3 October 2025 for unexpected change in disease epidemiology (17 cases) and 1 following report - one update (24/10) with 25 outbreak reported.

Genetic - One event reported on 20 October 2025 for the first occurrence in a new 17 km² territory (confirmed with 1 outbreak reported).

The map shows outbreaks reported (RVF) (in red) and additional outbreaks appearing in FACS (in blue).

Figure 1: Map of the distribution of outbreaks reported for RVF, spanning across the area.

Figure 2: Map of the distribution of outbreaks reported for RVF, spanning across the area.

Figure 3: Map of the distribution of outbreaks reported for RVF, spanning across the area.

Figure 4: Map of the distribution of outbreaks reported for RVF, spanning across the area.

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Figure 9: Map of the distribution of outbreaks reported for RVF, spanning across the area.

Figure 10: Map of the distribution of outbreaks reported for RVF, spanning across the area.

Figure 11: Map of the distribution of outbreaks reported for RVF, spanning across the area.

Figure 12: Map of the distribution of outbreaks reported for RVF, spanning across the area.

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Humans

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Observatory and One Health approach

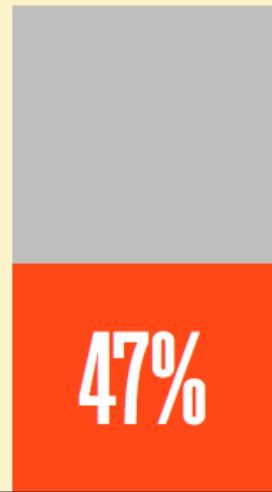
Implementation of WOAH standards: the
Second Observatory Monitoring Report





Immediate notifications for zoonotic diseases

Between 2005 and 2023,



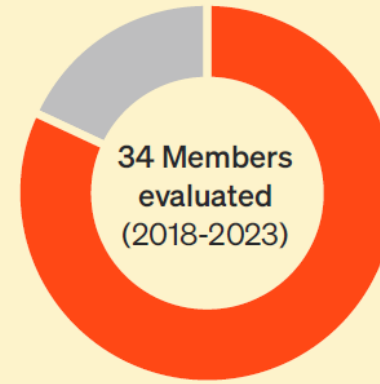
of immediate notifications about WOAHA-listed diseases (2,172 out of 4,629)

of immediate notifications about emerging diseases (124 out of 182)

were considered to have **zoonotic potential** according to the scientific information reviewed in 2024.

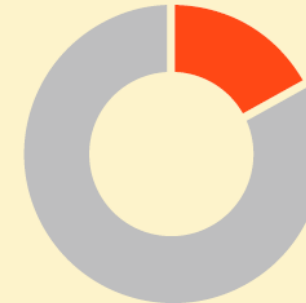
Source: WAHIS

Members capacity for One Health



82%

maintained **formal external coordination mechanisms** with clearly described procedures or agreements for national level activities such as One Health.



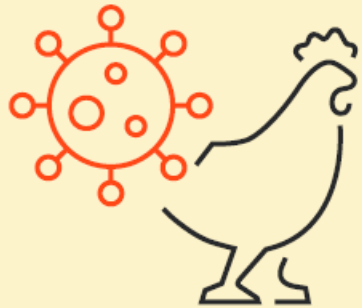
17%

had agreements in place for most activities, uniformly implemented throughout the country or territory, **including at sub-national or provincial level.**

Source: PVSIS



Between 24 September 2021 and 25 September 2023:



94

Members notified WOAHA through the World Animal Health Information System (WAHIS) about the presence of HPAI in domestic or wild birds.



80%

of them were able to share the virus sequence data through public health sector or to open database.

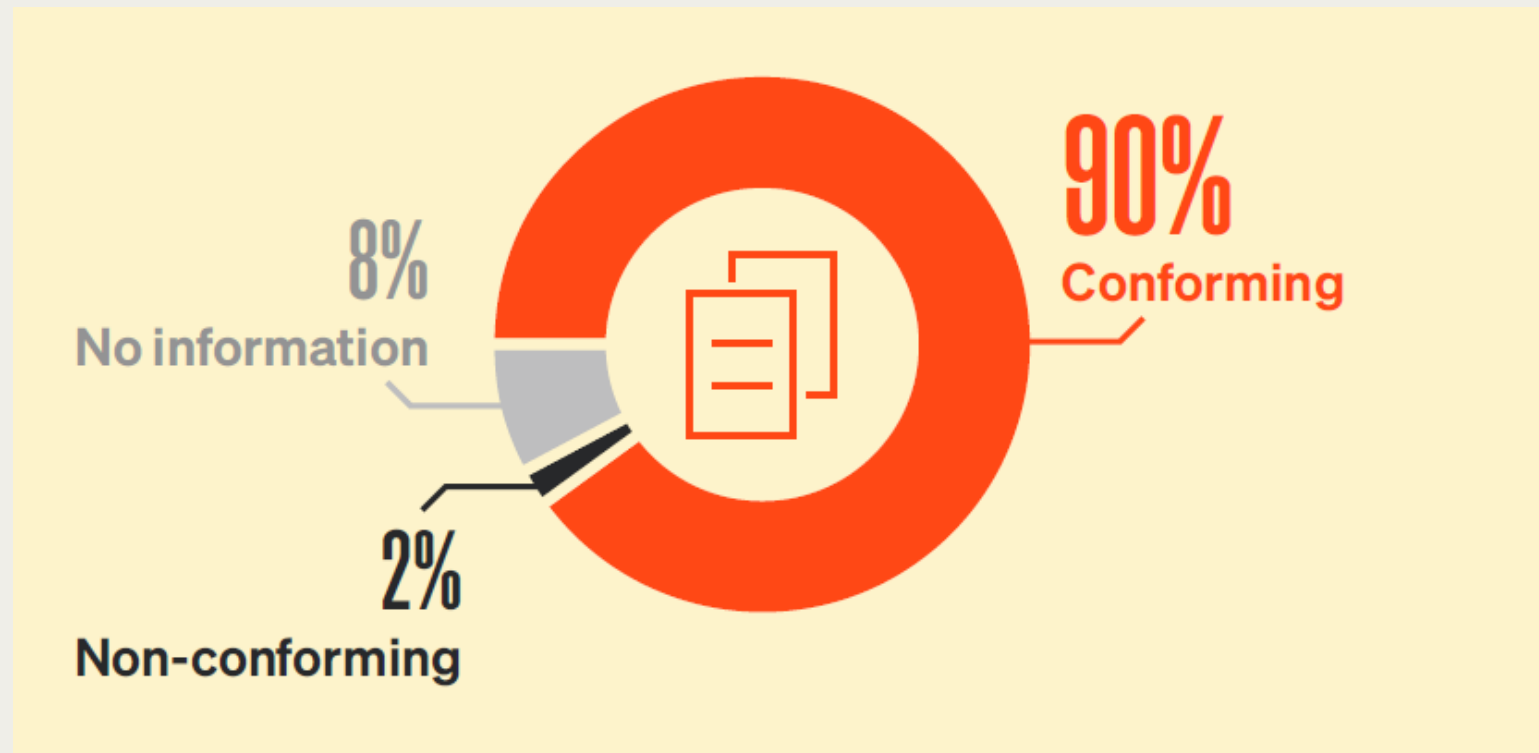
The action encouraged by OFFLU (FAO-WOAH) network to enhance vaccine production.





Between 2007 and 2023, there were **1,035** SPS notifications to WTO about new or modified regulations referring to WOAHA standards, aiming to **protect humans from animal diseases**.

Out of these notifications...



Thank you

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