

Past and current tendencies and statistics in the reporting of wildlife diseases to WOAAH and the non-Listed Disease technical cards



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World
Organisation
for Animal
Health

Organisation
mondiale
de la santé
animale

Organización
Mundial
de Sanidad
Animal

6th cycle Training of National Wildlife Focal Points

6e cycle de formation des Points focaux nationaux pour la faune sauvage

Africa Region Afrique

World Organisation for Animal Health

Organisation mondiale de la santé animale



Author Introduction Auteur(s)

- Reporting wildlife diseases to WOAHA
 - Reporting listed diseases
 - Reporting non-listed diseases
- Statistics on reporting wildlife diseases to WOAHA
- A concrete help in reporting non-Listed diseases: the Technical cards

Reporting wildlife diseases to WOA





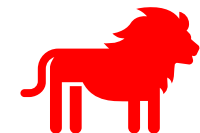
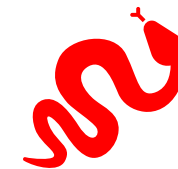
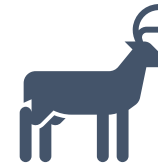
- Reporting wildlife diseases to WOA

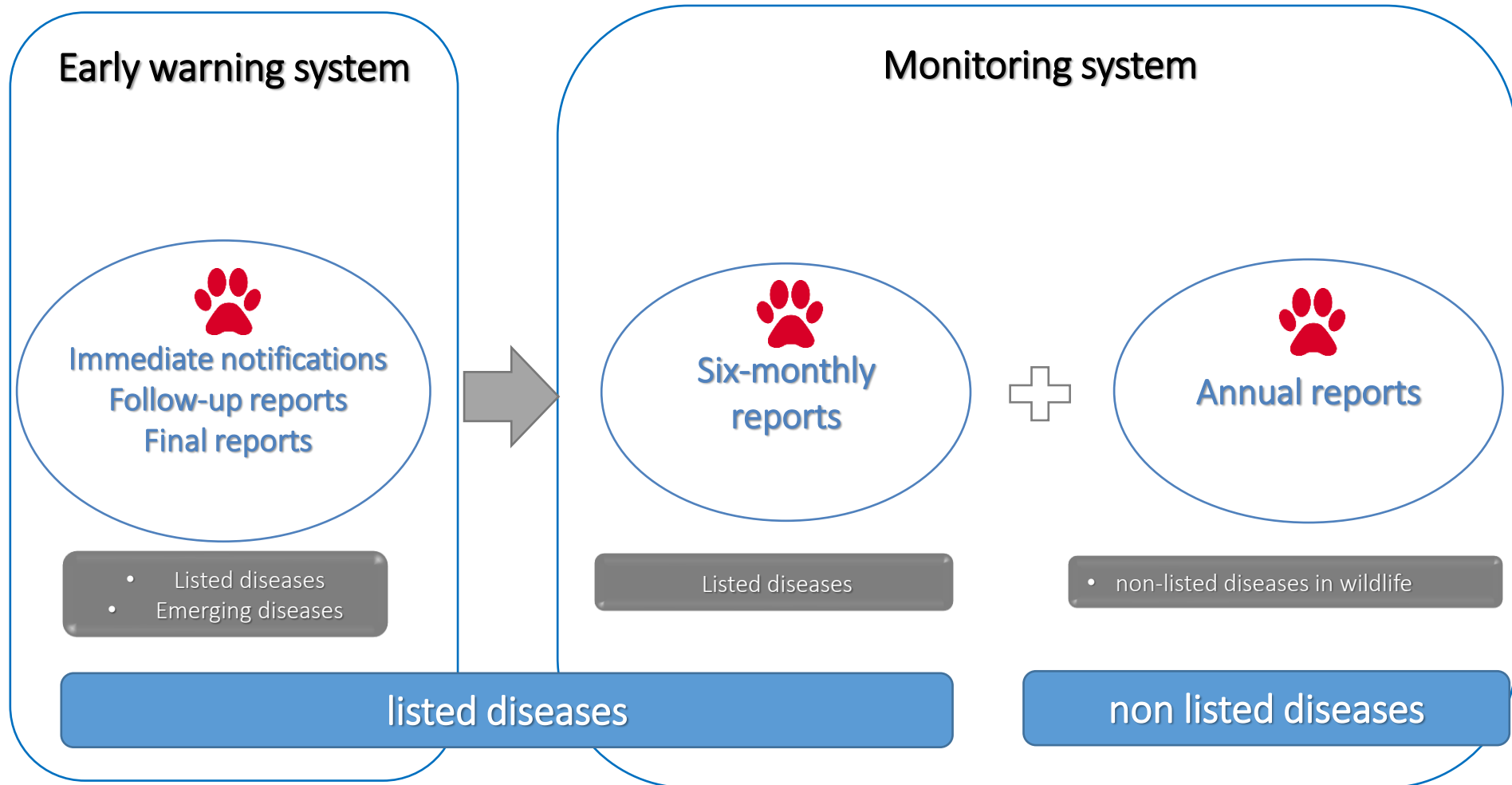
**117 Listed diseases
Domestic animals
and wildlife**

**Emerging
diseases**

**182 Members
+
24 territories**

**53 non Listed
diseases in
wildlife**

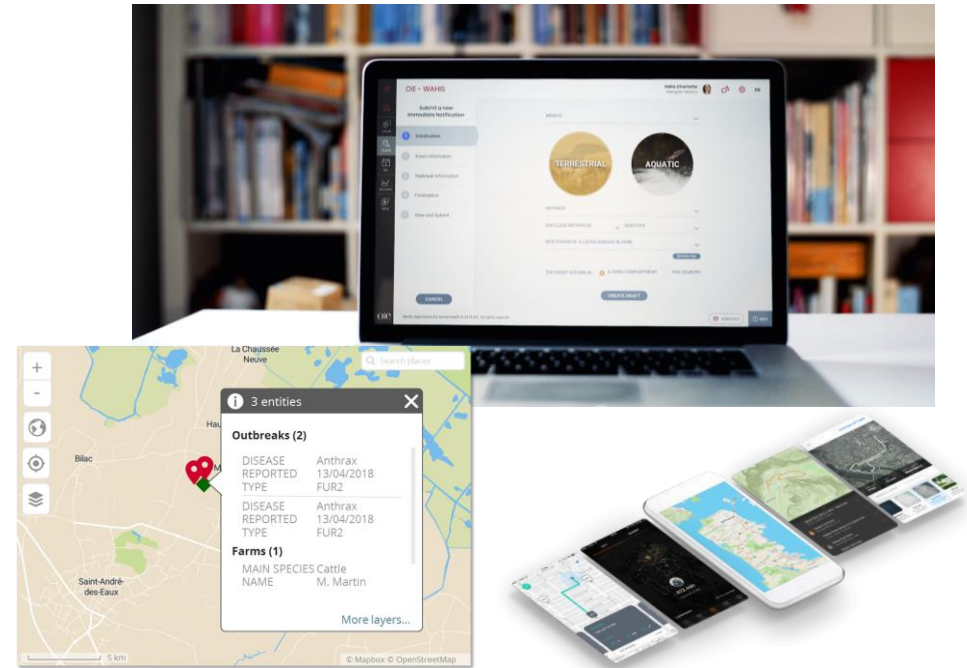






Reporting LISTED diseases

- User friendly, intuitive, time-efficient
- High resolution dynamic mapping
- Interoperability, integration and connectivity with other data and systems
- Open access of OIE-WAHIS data



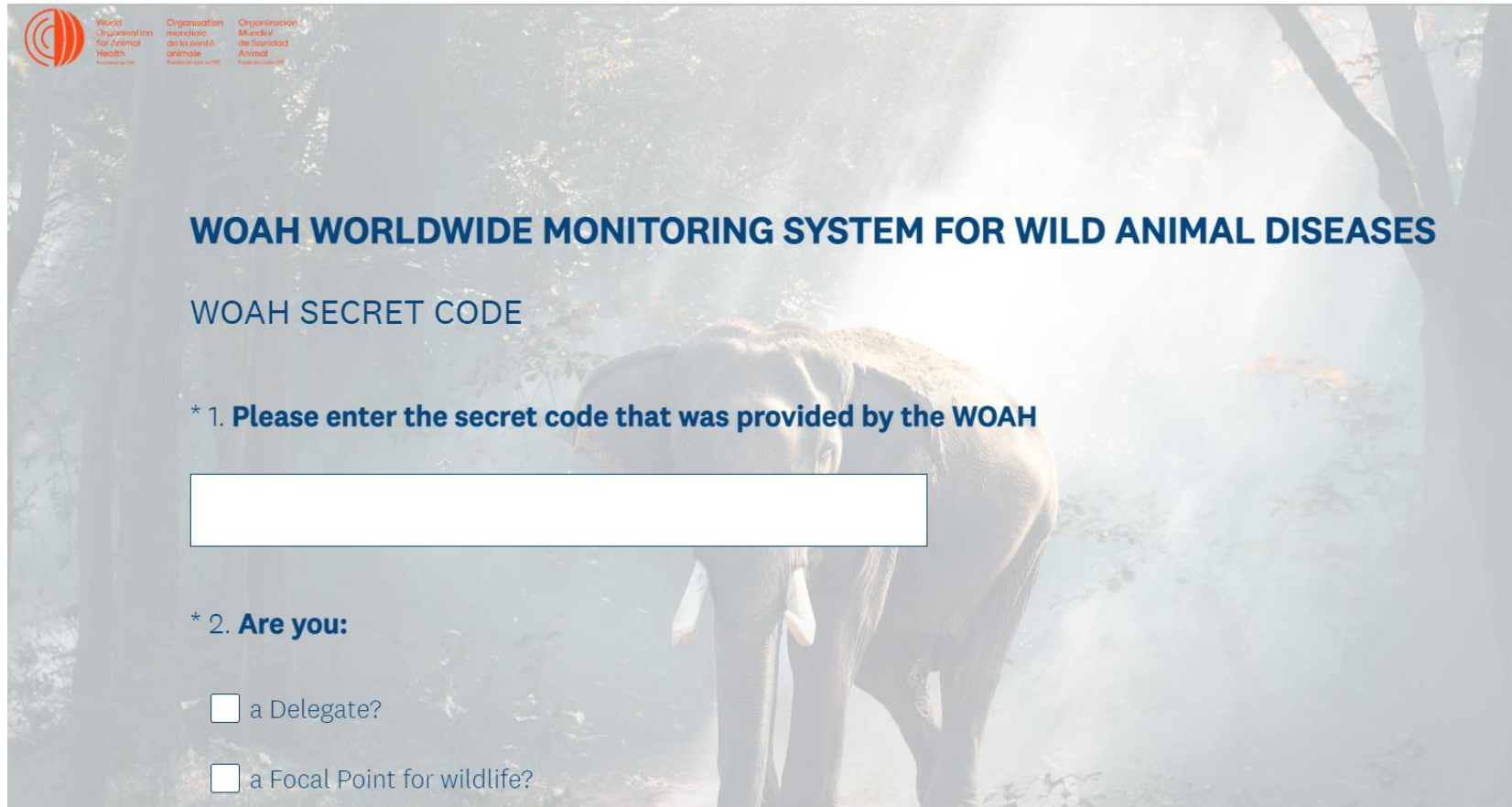
<https://wahis.woah.org>




Facilitating reporting, promoting the use of data



Reporting **NON LISTED** diseases

[WOAH WORLDWIDE MONITORING SYSTEM FOR WILD ANIMAL DISEASES Survey \(surveymonkey.com\)](https://surveymonkey.com)

The image shows a survey form titled "WOAH WORLDWIDE MONITORING SYSTEM FOR WILD ANIMAL DISEASES". The form is set against a background image of an elephant in a forest. At the top left, there are three logos: the WOAH logo, the Organisation for Animal Health logo, and the Organización Mundial de Sanidad Animal logo. The main title is in bold blue text. Below the title, it says "WOAH SECRET CODE". The first question is "* 1. Please enter the secret code that was provided by the WOA", followed by a white input box. The second question is "* 2. Are you:", with two radio button options: "a Delegate?" and "a Focal Point for wildlife?".

WOAH WORLDWIDE MONITORING SYSTEM FOR WILD ANIMAL DISEASES

WOAH SECRET CODE

* 1. **Please enter the secret code that was provided by the WOA**

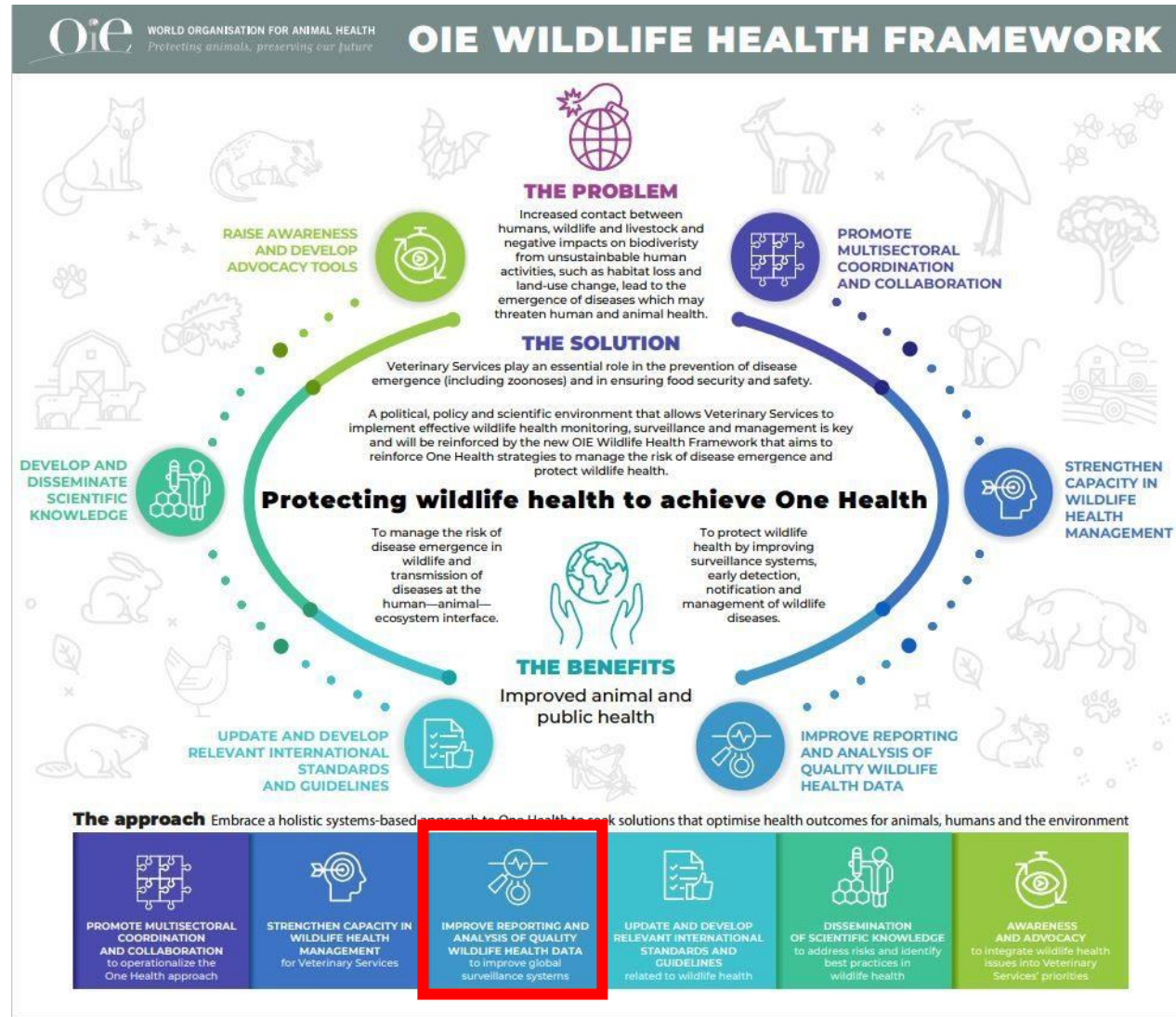
* 2. **Are you:**

a Delegate?

a Focal Point for wildlife?



- Wildlife Health Framework



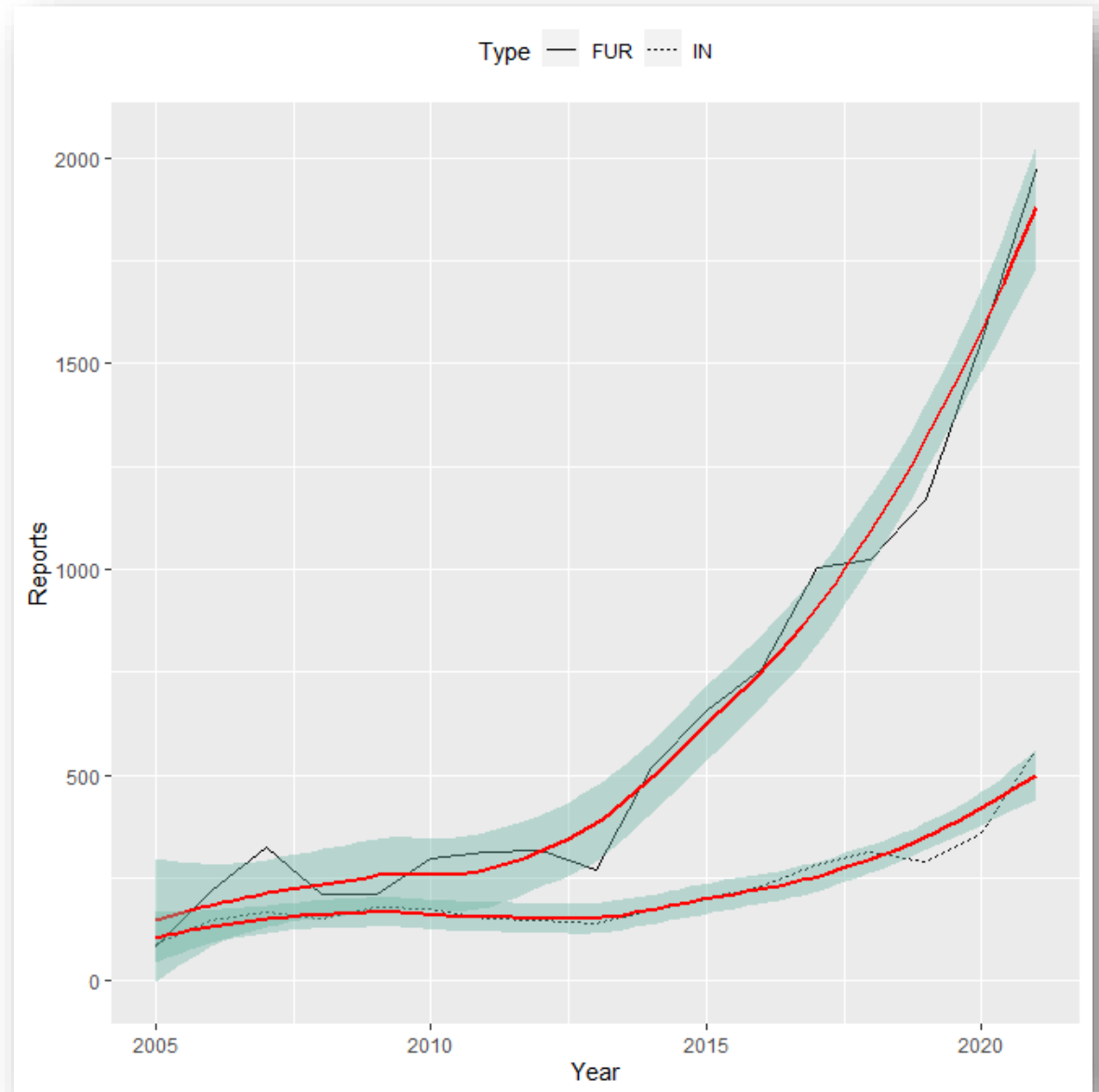
Statistics on reporting wildlife diseases to WOAAH





Reporting LISTED diseases

- **4,054 IN** (alert messages - yearly average 226)
- **11,297 follow-up reports** (yearly average 628)





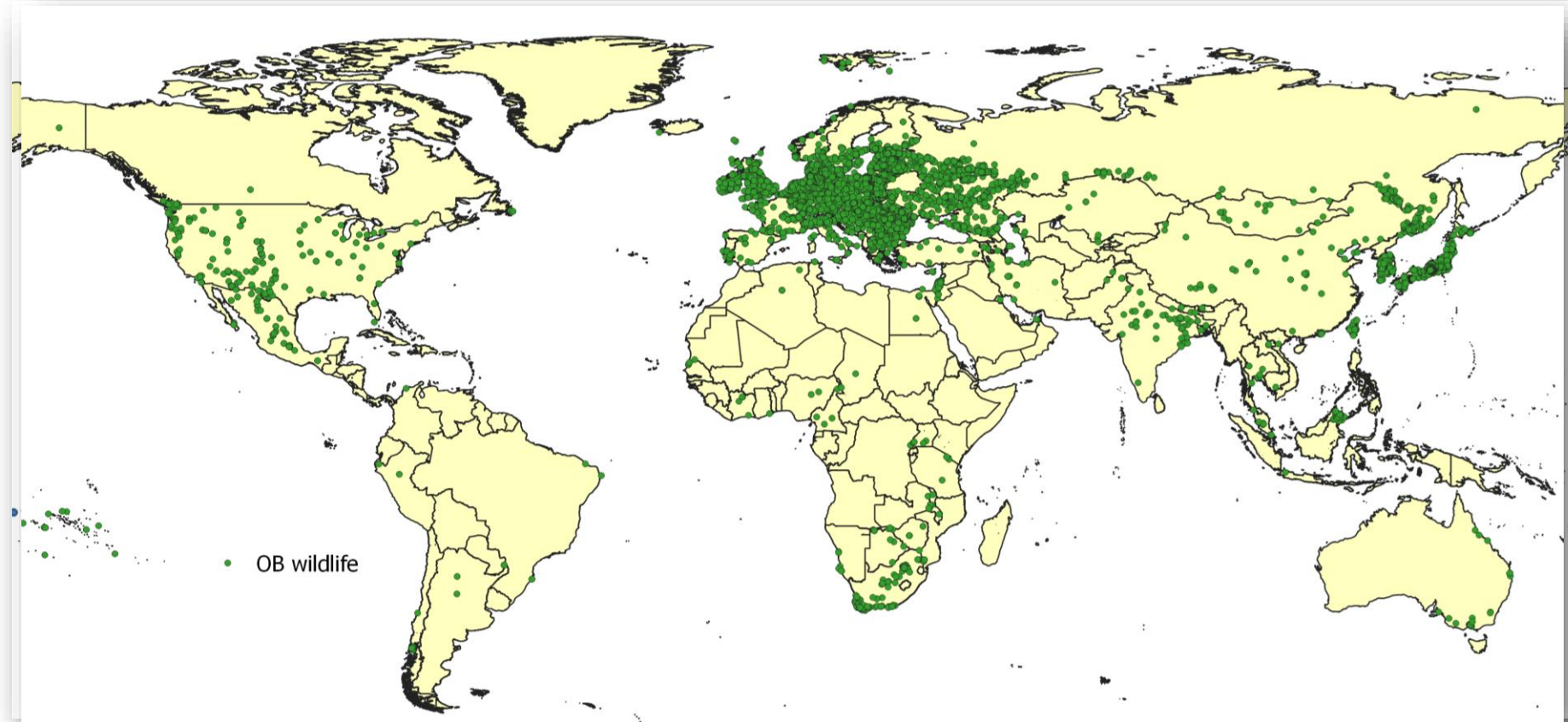
Reporting LISTED
diseases

**32,716 outbreaks
(early warning
system)**

**31% of all the OB in
the database**

**ASF and HPAI top
reported**

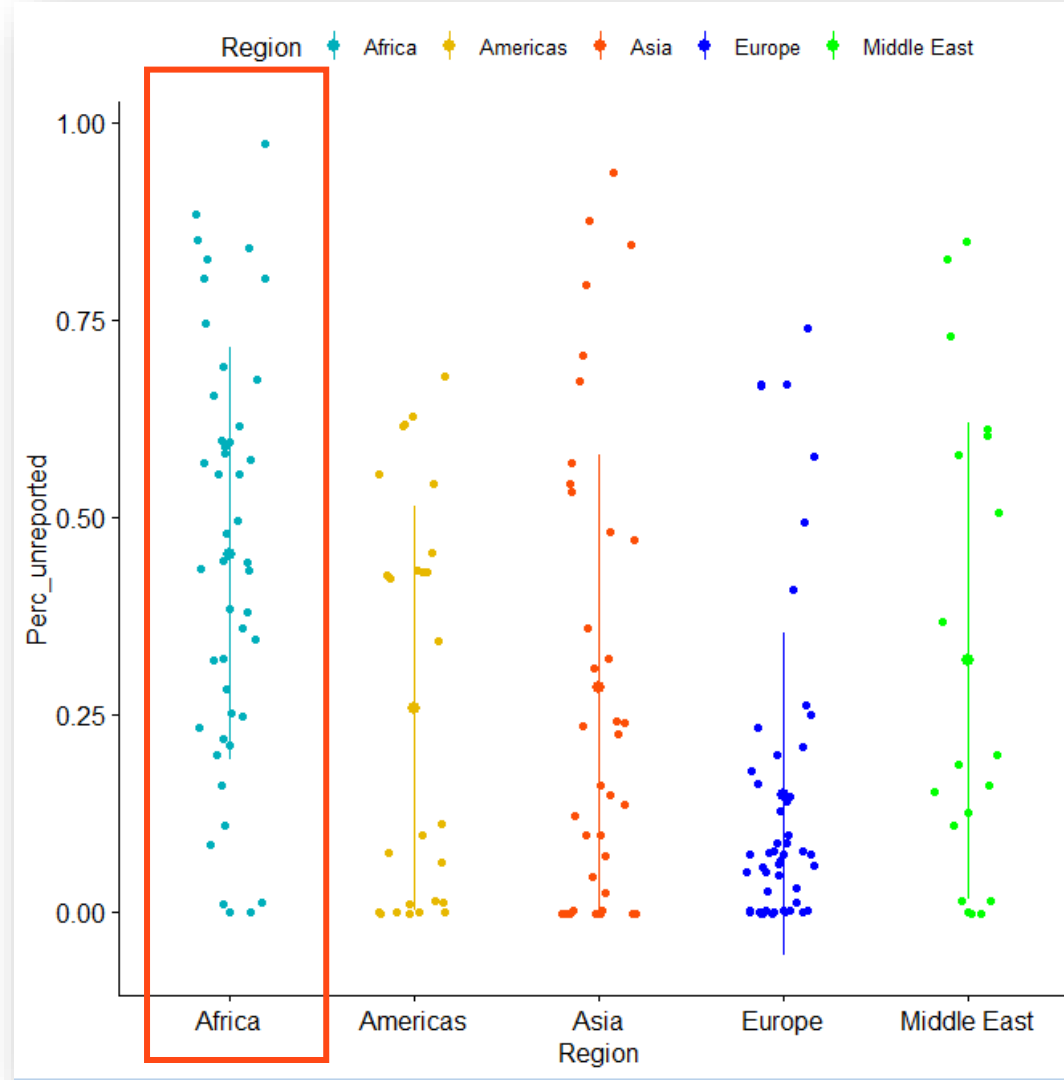
447 species





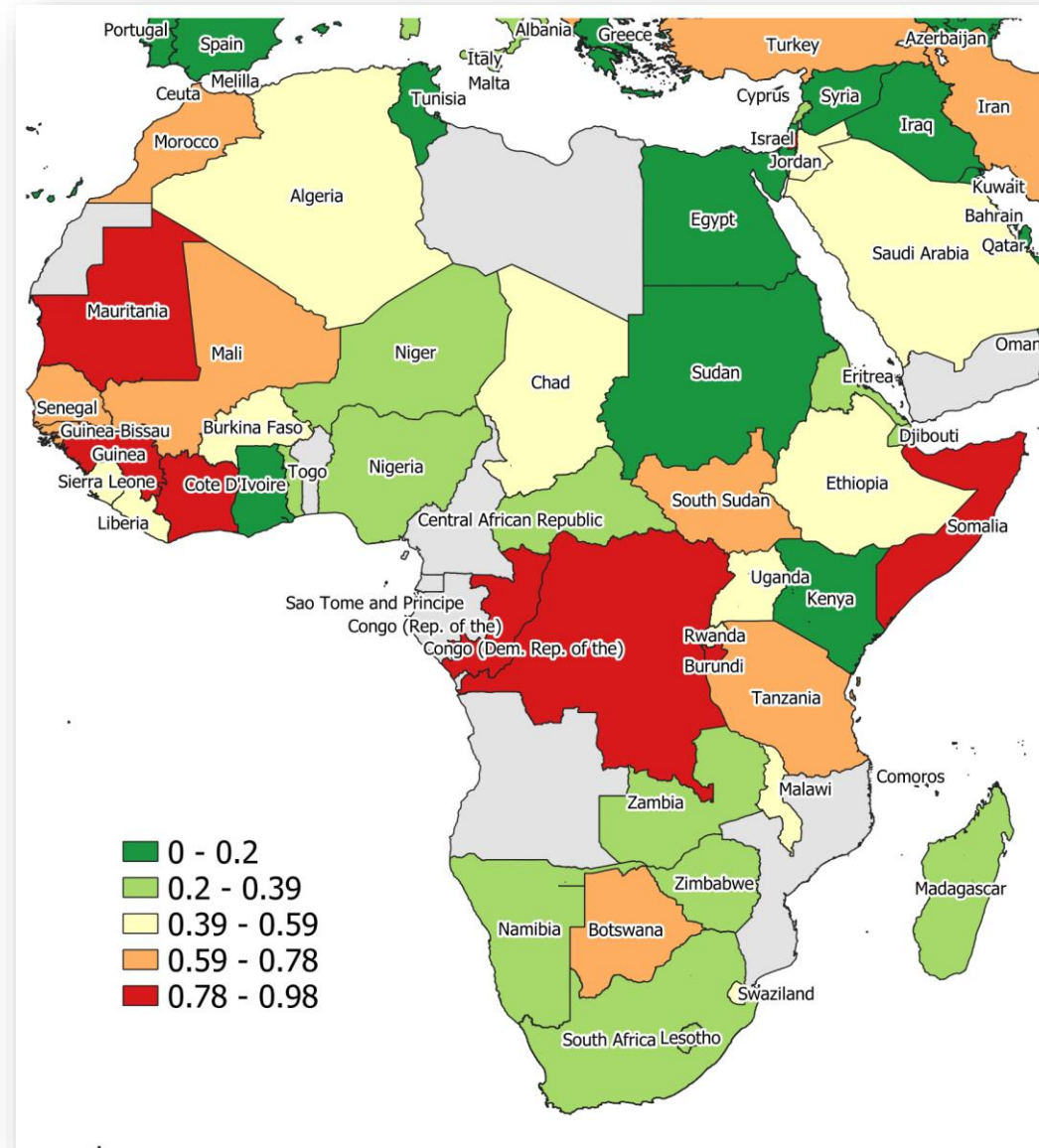
- Performances in reporting **listed diseases**
- Percentages listed diseases in wildlife with no information provided

Region	%
Africa	45%
Americas	26%
Asia	28%
Europe	15%
Middle East	32%
Total	29%





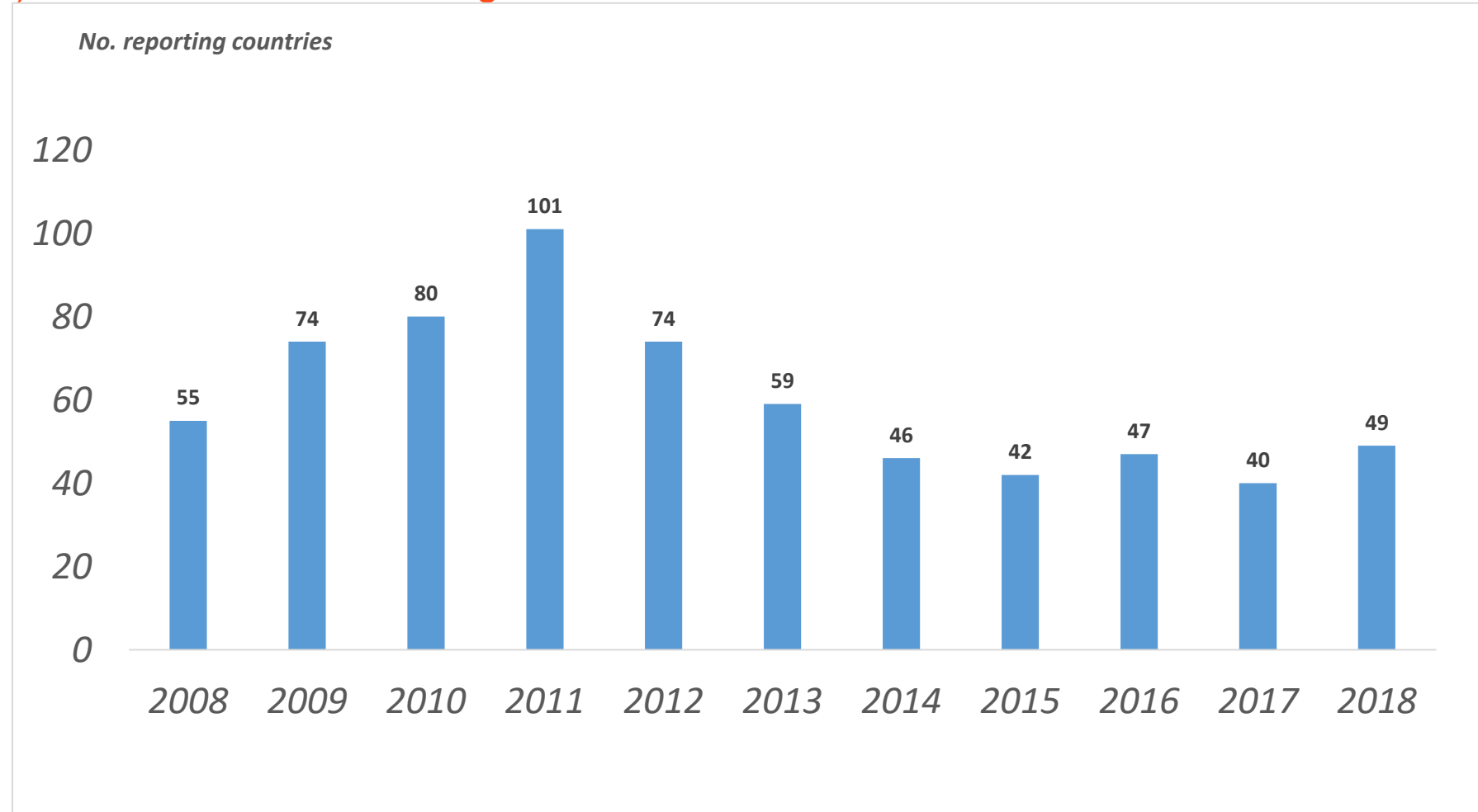
- Performances in reporting **listed diseases**
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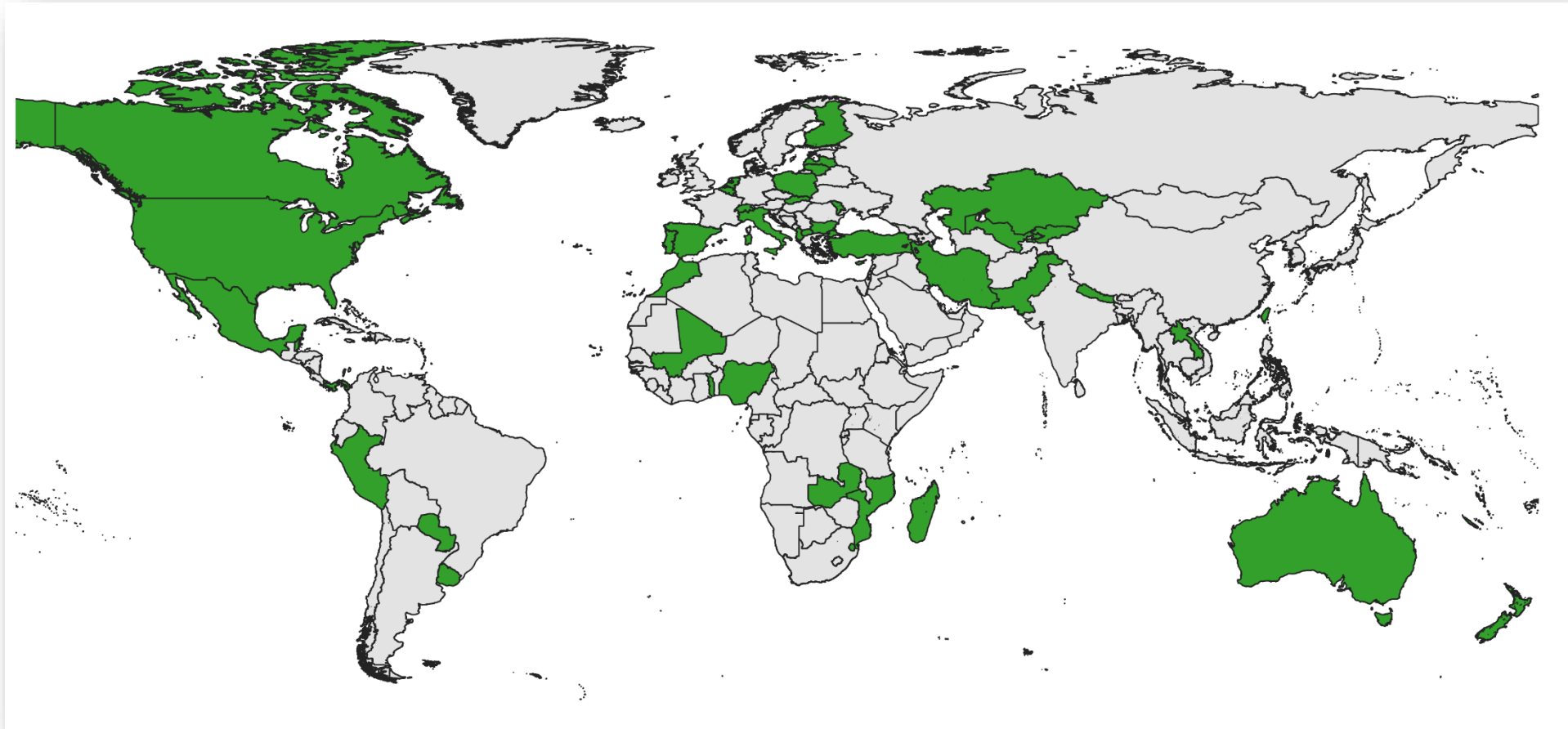
Reporting NON LISTED diseases

- Reporting trend (2008 - 2018) – No. countries submitting reports





Reporting NON LISTED diseases



A concrete help in reporting non-Listed diseases: the Technical cards





Reporting NON LISTED diseases

World Organisation for Animal Health
Founded as OIE

Animal Diseases | Monkeypox | Avian Influenza | COVID-19 | SEARCH

WHO WE ARE ▾ | WHAT WE DO ▾ | WHAT WE OFFER ▾ | MEDIA ▾ | WAHIS ↗

Agent causing chronic wasting disease (CWD)

Agent causing chronic wasting disease (CWD) is a non WOAH-listed disease in wildlife reported by Members to the WOA, through the voluntary annual report. The purpose of this report is to share information about possible threats to animal and public health, as well as to protect biodiversity, and therefore, this report should not imply any trade consequences.

Technical disease card

https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-diseases/?tax_diseases=non-listed-affecting-wildlife

CHRONIC WASTING DISEASE

[Aetiology](#) [Epidemiology](#) [Diagnosis](#) [Prevention and Control](#)
[Potential Impacts of Disease Agent Beyond Clinical Illness](#) [References](#)

AETIOLOGY

Classification of the causative agent

Chronic wasting disease (CWD) is a contagious prion disease of free-ranging and captive deer, elk, and moose. The cellular prion protein (PrP^C) serves as the normal host-encoded cellular prion protein. It is when PrP^C directly binds to the misfolded isoform PrP^{Sc} that PrP^C adopts the disease-associated conformation. Normal prion proteins can be found most abundantly in the brain and spinal cord.

CWD is a member of the transmissible spongiform encephalopathy (TSE) family of prion diseases, and it is believed there are multiple strains within the United States as well as a strain unique to Norway.

Resistance to physical and chemical action

Temperature:	Highly resistant to heat and radiation (UV, microwave, ionising); inactivation by autoclaving at 134°C (273°F) for 18 minutes at 30 lb/in ² is suitable, but parameters may vary pending type of sample contaminated.
pH:	Bioavailability of the CWD prion in soil is greater when pH>6.6.
Chemicals/Disinfectants:	Highly resistant to chemical inactivation and few disinfectants effectively inactivate them; primarily, 50% concentrated household bleach with a contact time of 30-60 minutes or sodium hydroxide for 60 minutes are recommended, but concentrations and contact times may vary pending the type of sample contaminated.
Survival:	Remains viable for long periods in fluids, faeces and tissues; persists in soil; partially resistant to protease digestion and can accumulate within neurones, eventually causing neuron death.

EPIDEMIOLOGY

Hosts

- It is known to affect multiple cervid species including but not limited to: elk (*Cervus canadensis*), moose (*Alces alces*), mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), and reindeer (*Rangifer tarandus*).

Transmission



Reporting NON LISTED diseases

Notification procedure: Why report, Where to report, What to report and How to report

Why report on disease in wildlife

Protecting wildlife health through disease monitoring, early detection of disease threats, and transforming global animal disease data (reported to WOA) by its Member Countries) into something which can be used to better manage wildlife health is a key focus of WOA's [Wildlife Health Framework](#). Through the framework, WOA aims to supporting Members improve surveillance systems, early detection, notification, and management of wildlife diseases.

Surveillance for pathogens in wildlife is critical to inform prevention and management of pathogen transmission at the human-livestock-wildlife interface. Find out more in the 2-page document on Wildlife Surveillance (Hyperlink: https://www.woah.org/fileadmin/Home/Eng/International_Standards_Settings/docs/pdf/WGWildlife/OIE_Guidance_Wildlife_Surveillance_Feb2015.pdf)

Reporting on disease in wildlife helps in build trust and confidence both regionally and globally, by demonstrating:

- Transparency, a holistic and progressive approach to animal health and One Health,
- There is robust surveillance in place.

Reporting of disease in wildlife falls into multiple streams of reporting to WOA (see below):

1. Reporting to WOA-WAHIS on listed diseases in terrestrial or aquatic animal species (e.g. some amphibian diseases),
2. Reporting on *emerging diseases* in wildlife subject of a notification as per Terrestrial Animal Health Code chapter 1.1, including those on WOA register of emerging diseases (hyperlink: https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-diseases/?tax_diseases=emerging-diseases). *Emerging disease* means a new occurrence in an animal of a disease, infection or infestation, causing a significant impact on animal or public health resulting from a change of a known pathogenic agent or its spread to a new geographical area or species; or a previously unrecognised pathogenic agent or disease diagnosed for the first time.
3. Voluntary reporting on non-WOA-listed disease of wildlife (via WAHIS-Wild).

Why report on the voluntarily non-WOA-listed diseases of wildlife?

The WOA Working Group in Wildlife (WG), during their meeting in [March 2020](#), see Appendix I), summarised the following on voluntary reporting:

The purpose of voluntary reporting

- Document new or unexpected occurrences of infectious or non-infectious causes of mortality or morbidity in wildlife which are not reported to WOA as an emerging disease or as a WOA listed disease to improve situational awareness and transparency;
- Generate knowledge on the presence/absence of infectious or non-infectious agents in wildlife to identify current and potential sanitary risks and trends.

WOA WAHIS-Wild provides validated information on diseases in wildlife, therefore voluntary reporting also provides:

- Knowledge of disease distribution which helps identify trends that will inform risk analysis linked to WOA listing of diseases;
- Identification of potential health threats to natural resources and biodiversity conservation, food production systems and livestock, as well as public health;
- A way for WOA to become a valuable source of information for the legal, sustainable use of wildlife.

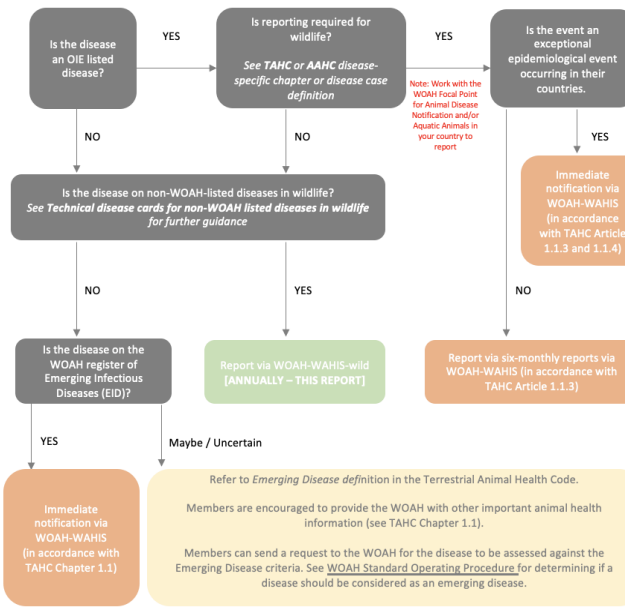
The goals of voluntary reporting were noted as being consistent with and support the following WOA mission objectives:

- Ensure transparency in the global animal disease situation;
 - Collect, analyse and disseminate veterinary scientific information;
 - Encourage international solidarity in the control of animal diseases;
 - Provide a better guarantee of food of animal origin and promote animal welfare through a science-based approach.
- Supporting actions of WOA and its Members by voluntary reporting*
- Helps WOA members reduce unnecessary barriers to trade based on scientific evidence, demonstrating transparency.
 - Raises the assurance that a country's veterinary surveillance system is working, which contributes to positive Performance of Veterinary Services and Joint External Evaluation assessments and helps Members meet international reporting obligations for other agreements such as the Global Health Security Agenda, the International Health Regulations, or the Convention on Migratory Species.
 - Makes Members aware of what is happening in neighbouring countries, which helps preparedness for potential introduction of disease.

Where to report: WOA-WAHIS or WAHIS-Wild?

1. Use the WOA webpage on Animal Diseases: <https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-diseases/> and use the filter to find WOA-listed, non-WOA-listed and Emerging disease lists.
2. To report on diseases that are WOA-listed or subject of a notification as per Terrestrial Animal Health Code chapter 1.1, work with the WOA Focal Point for Animal Disease Notification and/or Aquatic Animals in your country to report to WOA-WAHIS.
3. To voluntarily report on non-WOA-listed disease of wildlife (via WOA WAHIS-Wild). **USE THE GUIDELINES BELOW.**

Decision Tree for Reporting Terrestrial or Aquatic Disease of Wildlife to WOA



Tip 1: Reporting of a WOA listed disease in wildlife may be "blocked" in WOA-WAHIS (e.g. it is not possible to report on the disease in wildlife). These diseases can be reported via WOA WAHIS-Wild. Examples: Equine Influenza, Newcastle Disease.

Tip 2: Some diseases (e.g. avian influenza) are WOA listed and a non-listed disease of wildlife. WOA-WAHIS or WAHIS-Wild reporting will be dependent on the disease pathotype and/or host species infected.

What to report - Voluntary reporting of diseases in wildlife

- Reporting of WOA-listed disease in wildlife may be "blocked" in WOA-WAHIS (e.g. it is not possible to report on the disease in wildlife). These diseases can be reported via WOA WAHIS-Wild.
- Some diseases (e.g. avian influenza) are WOA-listed and a non-listed disease of wildlife. WOA-WAHIS or WAHIS-Wild reporting will be dependent on the disease pathotype and/or host species infected.

Use the [Terrestrial Animal Health Code](#), [Aquatic Animal Health Code](#) and the [WOA-listed and non-WOA-listed disease Technical disease cards](#) for further guidance when reporting. See below for some examples.

Disease	WOAH Listed Disease (Report to WOA-WAHIS)	WOAH Non-Listed disease of Wildlife (Voluntary reporting to WOA-WAHIS-Wild)
Avian Influenza	High pathogenicity avian influenza viruses (H5 and H7) detected in wild birds. TAHC: "...infection with influenza A viruses of high pathogenicity in birds other than poultry, including wild birds, should be notified in accordance with Article 1.1.3."	Low pathogenicity avian influenza serotypes) detected in all wild birds.
Rabies / Lyssaviruses	Rabies virus TAHC: "...a case is any animal infected with rabies virus (Rabies virus, the taxonomic prototype species in the Lyssavirus Genus formerly referred to as "classical rabies virus, genotype-1")." should be notified in accordance with Article 1.1.3.	Lyssaviruses other than Rabies virus voluntarily reportable in wildlife.
Newcastle disease (ND) /Avian Paramyxovirus serotype 1	Infection of velogenic ND in poultry is an WOA-listed notifiable disease. It is not possible to report ND in wild animals in WOA-WAHIS. (e.g. reporting is "blocked" for wild animal reporting)	Velogenic and lentogenic strains of Paramyxovirus serotype 1 is voluntarily reportable in non-poultry.
Salmonella	<i>S. abortusovus</i> (sheep and goats); <i>S. pullorum</i> (Pullorum disease of chickens); <i>S. gallinarum</i> (Fowl typhoid) [still updating]	Salmonella enterica (all serotypes)
Equine Influenza (EI)	EI is a WOA notifiable disease in domesticated equids. It is not possible to report EI in wild animals in WOA-WAHIS. (e.g. reporting is "blocked" for wild animal reporting)	EI is voluntarily reportable in wildlife.
Infection with <i>Pseudogymnosacus destructans</i> in bats (White-nose Syndrome)	Not WOA listed disease	Voluntarily reportable in wildlife

What to report - Voluntary reporting of diseases in wildlife

For the purpose of [voluntary reporting](#), Wildlife includes wild animals, feral animals (inclusive of birds, mammals / marine mammals, reptiles, amphibians, marine and freshwater wildlife. See further information below.

Terrestrial Animal Health Code Glossary Definitions

ANIMAL - means a mammal, reptile, bird or bee.

WILDLIFE - means [feral animals](#), [captive wild animals](#) and [wild animals](#).

FERAL [ANIMAL] - means an animal of a domesticated species that lives without direct requiring human supervision or control.

WILD [ANIMAL] - means an animal that has a phenotype unaffected by human selection and lives independently without requiring human supervision or control.

CAPTIVE WILD [ANIMAL] - means an animal that has a phenotype not significantly affected by human selection but that is captive or otherwise lives under or requires direct human supervision or control.

Aquatic Animal Health Code Glossary Definitions

AQUATIC ANIMALS - means all viable life stages (including [eggs](#) and [gametes](#)) of fish, molluscs, crustaceans and amphibians originating from [aquaculture establishments](#) or from the wild.

Human Supervision & Control	Phenotype selected by humans	
	YES = Domestic(ated)	NO = Wild
YES = captive	Domestic animals = livestock (incl. poultry), companion animals	Captive wild animals = small game farms, zoo animals, exotic pets.
NO = Free-ranging	Feral animals = dogs, cats etc. that have escaped from human supervision and established in the natural environment.	Free-ranging wild animals = without supervision all year round.

Further information regarding recognized factors relevant to diagnostic capacities (including laboratory techniques and staff competencies) for wild versus domesticated species are outlined in the OIE Working Group in Wildlife (WG) meeting report from [June 2021](#).



Conclusions

- **Opportunities:**
 - *Legal framework and standards on animal diseases*
 - *Centralized and standardized reporting system for diseases in wildlife*
 - *Effort from WOAHA to support countries' reporting. What can we do better?*
- **Gaps and challenges:**
 - *Significant differences within and among regions in reporting behaviour*
 - *Sensitivity of the system for some diseases*
 - Surveillance activities at country level
 - Communication gaps among relevant stakeholders / institutions
 - Disease prioritization



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Thanks for your
attention

United Republic of Tanzania



République Unie de la Tanzanie

Ministry of Livestock and Fisheries
Ministère de l'Élevage et Pêches



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