



**2<sup>nd</sup> Meeting of the Eastern Africa  
Sub-Regional Network for Rabies Control**

**10 – 12 October 2023 Addis Ababa, Ethiopia**

**Title: Surveillance and reporting of rabies data**

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# Surveillance and reporting of rabies data

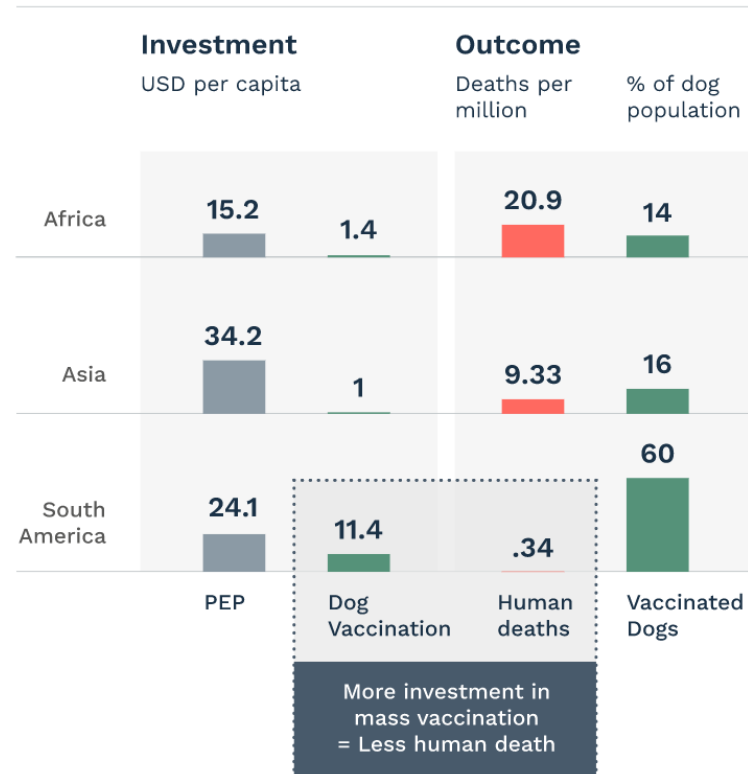
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Addis Ababa, Ethiopia  
10 – 12 October 2023



# Rabies control: A model for One Health implementation

Current spending on rabies underinvests in dog vaccination



- Proven success with One Health approach
- Cost of dog vaccination more cost-effective than human PEP; dog vaccination → **saved human lives**
- Reduced livestock and working animal losses → **saved livelihoods, improved food security**
- Reduced wildlife spill-overs → **healthier ecosystems**
- Responsible dog ownership and humane dog population management → **healthier cities, improved animal welfare**
- Contributes to the SDGs and ending neglect and inequality
- Strengthens links between human and veterinary health systems → building **systems** that can **address other endemic and emerging diseases**

# Why isn't rabies more of a priority?

- 'Public health authorities issue alert as cases of rabies increase'
- '...first rabies death, overseas traveller dies..'
- 'Fear of mass rabies outbreak...'
- '... surging risk of dogs arriving with rabies...attempt to prevent reintroducing canine variant...'
- '...struggles to arrest rabies outbreak'
- **99% fatal, 100% preventable**
- **Estimated 59 000 deaths each year**

**BUT →**

Reported number of human rabies deaths <sup>1</sup>							
2017	2016	2015	2014	2013	2012	2011	2010
No data	No data	No data	No data	No data	No data	No data	No data
0	0	0	0	No data	No data	No data	No data
18	24	12	7	No data	No data	No data	No data
No data	No data	No data	No data	No data	No data	No data	No data
No data	No data	No data	No data	No data	No data	No data	No data
No data	No data	No data	No data	0	0	No data	No data
No data	No data	0	0	0	0	0	0
No data	No data	No data	No data	No data	0	0	0
No data	No data	No data	No data	No data	No data	0	0
0	0	0	0	0	0	0	0
No data	No data	No data	No data	No data	No data	No data	No data
No data	No data	No data	No data	No data	0	0	0
0	0	0	0	0	0	0	0
No data	No data	No data	No data	No data	No data	No data	No data
No data	No data	No data	No data	No data	0	0	0
No data	0	0	0	0	1	2	No data

# How can rabies data help prioritise rabies?

- Poor rabies data → poor political will and investment
- Reliable data is needed to inform decision making and make a case for investment
- **Need to improve rabies surveillance and reporting to:**
  - **Highlight the true burden of rabies → support advocacy and awareness**
  - Measure progress and demonstrate success
  - Empower decision makers and inform resource needs and allocation



# What data should I collect?

- Not just collecting and reporting data for the sake of it – data collected by the country should help inform the national programme and monitor progress
- Explore available standards and guidance
  - Terrestrial Code Chapter 8.15
    - Suspected case definition: susceptible animal that shows any change in behaviour followed by death within ten days or that displays any of the following clinical signs: hypersalivation, paralysis, lethargy, abnormal aggression, abnormal vocalisation
    - Recommendations for what should be included in surveillance system
  - Minimum Data Elements
    - Key case definitions and essential data elements for tracking progress toward Zero by 30
    - Example tables, indicators
    - Available at [www.unitedagainstrabies.org](http://www.unitedagainstrabies.org)



Minimum Data Elements for Monitoring and Evaluation of National and International Rabies Control Programs.

Version 4, September 2023



United  
Against  
Rabies

# How do I collect this data?

Rabies – The Global Challenge

Rabies Roadmap and Resources

Events and Courses



The Rabies Roadmap  
Resources

© World Animal Protection

**1 every 9 minutes**

1 person dies from rabies every 9 minutes and almost half of them are children.

**99%**

Up to 99% of human rabies infections are caused by a bite from a rabid dog.



## Toolbox

From vaccination to education, we present a comprehensive online toolbox of guides, apps and other resources to help you plan, prioritise and implement your rabies control programmes.

[Find out more](#)



## Reference Laboratory network for rabies



### UAR Evaluation Matrix



#### Accessibility 9

Focuses on i) logistics for accessing and using the tool, ii) the platforms on which the tool runs (if applicable), iii) relevant costs, and iv) the level of user support that is provided by the developer/manufacturer.

#### Data collection and needs 8.3

Focuses on the type of data that is captured by the tool.

#### Data management and utility 8.9

Focuses on the data analysis and outputs provided by the tool

#### Data storage and protection 8

Focuses on data ownership, protection and storage.

#### Flexibility 8

Focuses on the interoperability of the tool and its adaptability for use in different contexts or scenarios.

#### Ease of use and training needs 8.7

Focuses on the training requirements, including the level of complexity and difficulty to navigate and understand the tool as well as the technical or operational skillsets that are required to use the tool.

#### Sustainability 10

Focuses on the different scenarios that indicate how sustainable the tool has been and whether it has been thoroughly field-tested for implementation.

Evaluations are performed using the 'UAR Evaluation Matrix', a rabies-specific tool evaluation instrument adapted from the FAO-WOAH-WHO Tripartite Surveillance and Information Sharing Operational Tool evaluation process and instrument.

# What do I do with this data?

## Data sharing is critical

- Competent authorities (especially between human and animal health sectors)
- Can facilitate by having a **national point of contact for rabies**
- Field → National → International
- Health authorities → WHO Global Health Observatory
- Veterinary Services → WOAH World Animal Health Information System
- **Note: There are some excellent tools available to help data collection and reporting – this data should still be reported internationally**



# Explore a World of Health Data



## Global Health Observatory

Data available in this portal help to monitor global and country progress towards achieving the targets for control and elimination, as defined by the new WHO road map 2021-2030.



## Progress Dashboards

These interactive dashboards display progress against the NTD road map 2021-2030 and provide epidemiological and programmatic information by country and by disease.



Rabies Indicator	2020 (estimate)	2030
# countries having achieved zero human deaths from dog-transmitted rabies	80/169 (47%)	155/169 (92%)
# countries having reduced mortality due to dog-transmitted human rabies by 50%	100/169 (59%)	169/169 (100%)
# countries having reached 70% vaccination coverage of dogs in high-risk areas	63/169 (37%)	154/169 (91%)

## WHY reporting rabies data is essential for eliminating human rabies deaths

- 1 Help us to understand the real burden of rabies and build awareness to end the suffering from this ancient disease
- 2 Measure progress and demonstrate success towards the Zero by 30 targets and goals
- 3 Enable collaboration across sectors at all levels
- 4 Inform resource needs
- 5 Empower national decision-making that meets local needs
- 6 Inform international policy decisions including global health guidance, international norms and standards
- 7 Advance scientific understanding of rabies transmission dynamics
- 8 Demonstrate ownership and maximize transparency in tracking global progress towards rabies elimination
- 9 End rabies and validate your success of zero human rabies death
- 10 Meet WHO Member State requirements

### SHARING RABIES DATA: commit to submit

Despite rabies being a notifiable disease in many countries, data collection and surveillance are often neglected.

**75%**

of the world's population is still at risk for rabies

**95%**

or more of human rabies infections are caused by exposures to a rabid dog

**100%**

of human rabies deaths are preventable

**YOUR DATA WILL HELP TO ELIMINATE RABIES**

## HOW to submit national rabies data to WHO

Visit our dedicated webpage to find out more

**Identify national focal point** who is in charge of the following steps:

**Collate national data**  
Collect rabies-related human and animal data from health facilities and local levels

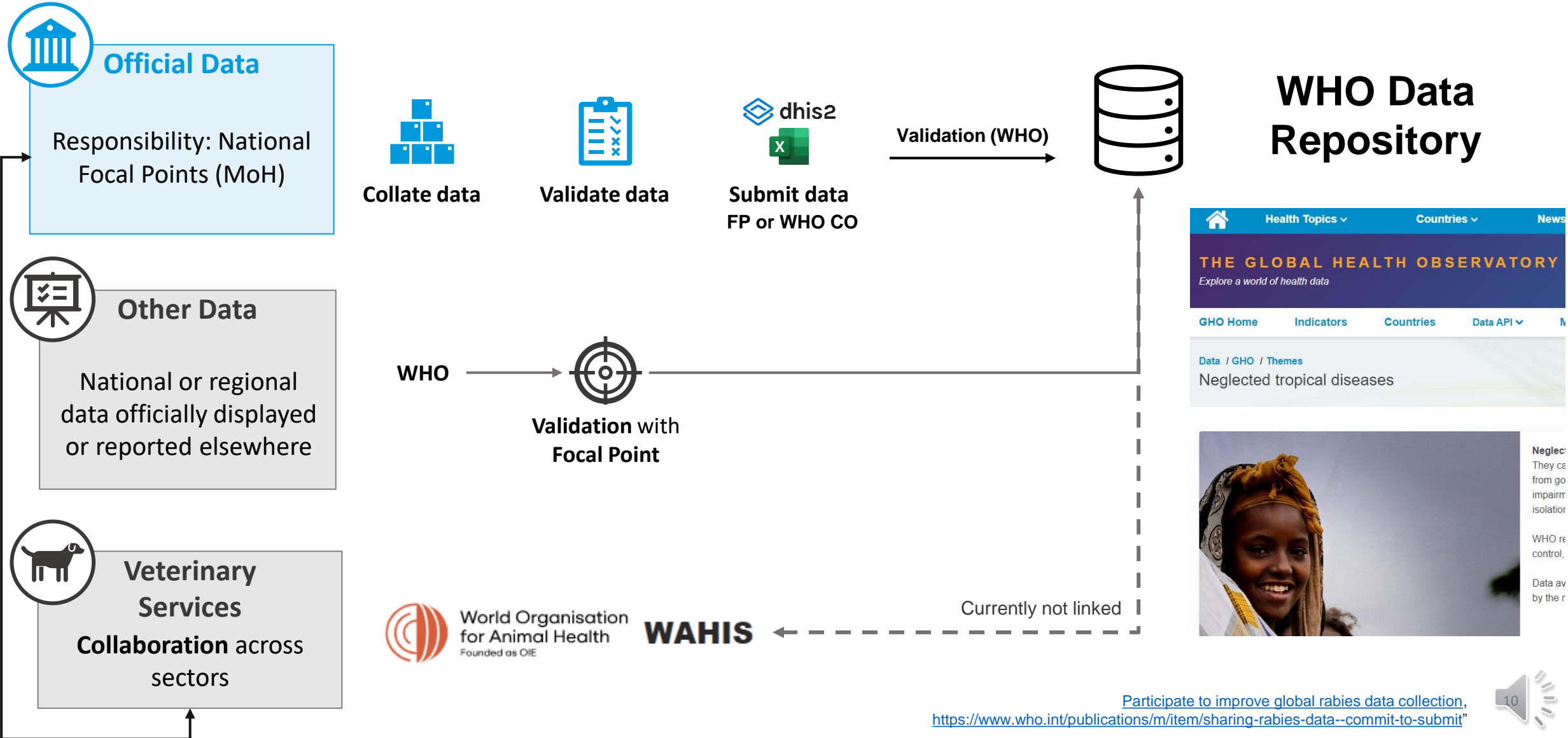
**Validate data**  
Aggregate national data and validate key indicators through the rabies focal point in the Ministry of Health

**Submit data**  
Communicate with your WHO Country and Regional offices and share the data annually (until the end of June)

**Which minimum key indicators does WHO collect?**

- Number of human rabies cases
- Number of rabies cases in dogs and other animals
- Number of people exposed to rabies-susceptible animals (WHO wound category II and III)
- Number of dogs in the country
- Number of people receiving rabies post-exposure prophylaxis (PEP)
- Number of dogs vaccinated against rabies

# Rabies Data entering WHO's Data Lake




# Submitting national rabies data

via WHO's online data platform

via Excel


**A** Upload data directly via the online portal

Human rabies data entry



Enter data on the human rabies data entry

Animal rabies data entry




Enter data on the animal rabies data entry

Human cases by gender:

Number of reported human rabies cases	Male	Female	Unknown
0			

**B** Or using an excel template via the 'Bulk Load' app



**Bulk Load**

Number of human rabies cases reported			
Clinical diagnosis	Laboratory diagnosis	Unknown diagnosis	

[WHO integrated data platform for rabies, DHIS2 bulk load reporting template](#)



Rabies Data and Information - Animal Health																	
COUNTRY (3-letter code):		REPORTING YEAR:		FOCAL POINT (WHO):		FOCAL POINT (MoA or other; please indicate):											
Total number of estimated dogs:		Disaggregated information (if available):		Ownershi													
Total number of dogs vaccinated against rabies:		Disaggregated information (if available):		Ownershi													
% of dog vaccination coverage:		#DIV/0!															
Animal rabies cases - Indicate the number of reported animal rabies cases																	
Total number of animal rabies cases:		Disaggregated information (if available):		Clinical diagnosis													
				Laboratory diagnosis													
				Unknown diagnosis													
Comment:																	
Rabies Data and Information - Human Health																	
COUNTRY (3-letter code):		REPORTING YEAR:		FOCAL POINT (WHO):		FOCAL POINT (MoH or other; please indicate):											
Human rabies cases - Indicate the number of human rabies cases reported																	
Total number of human rabies cases:		Disaggregated information (if available):		Gender:		Male		Female		Unknown							
				Age:		<5 years		5-14 years		≥15 years		Unknown					
				Diagnosis:		Clinical		Laboratory		Unknown							
Animal exposures in humans - Indicate the number of reported animal exposures (i.e. patients with wound category II and III*) in humans																	
Total number of animal exposures in humans:		Disaggregated information (if available):		Gender:		Male		Female		Unknown							
				Age:		<5 years		5-14 years		≥15 years		Unknown					
				Category:		I		II		III		Unknown					
				Animal:		Dog		Cat		Bat		Wildlife		Livestock		Unknown	
Humans receiving PEP- Indicate the number of people receiving post-exposure prophylaxis (PEP)																	
Total number of people receiving PEP:		Disaggregated information (if available):		Gender:		Male		Female		Unknown							
				Age:		<5 years		5-14 years		≥15 years		Unknown					
				Category:		I		II		III		Unknown					
Comment:																	

\* WHO wound categories are defined as follows:  
 Cat I The skin is still intact; animal licks on intact skin, touching or feeding animals. This is not an exposure.  
 Cat II The skin is broken but there is no bleeding; minor scratches or abrasions, nibbling of uncovered skin.  
 Cat III The skin is broken and the wound is bleeding, mucous membranes or broken skin has been contaminated with saliva or direct contact with wild animals - including bats - has occurred.  
[World Health Organization, WHO expert consultation on rabies, third session \(2015\)](#)



# Update on GAVI's Vaccine Investment Strategy

- WHO supported developing the case to **include rabies PEP in GAVI's Vaccine Investment Strategy 2018** for 2021–2025
- Implementation was temporarily put on hold to focus on pandemic response
- **Gavi will now start rolling out the support** for a one-week, three-dose rabies PEP and programme planning has started



The screenshot shows the Gavi VaccinesWork website. At the top, there is a blue navigation bar with the Gavi logo, a 'Back to main site' link, and language options 'EN | FR'. Below this is a white header with the 'VaccinesWork' logo and a menu of links: 'About', 'COVID-19', 'Stories', 'News', 'History', 'Emerging Threats', and 'Opinions'. A search icon is also present. The main content area features a blue 'Making Vaccines Work' button and three topic tags: 'Hepatitis', 'Rabies', and 'Diphtheria'. The article title is 'From rabies to hepatitis: Gavi to start rolling out new vaccines to lower-income countries'. The sub-headline reads: 'The pandemic meant several new Gavi vaccine programmes in lower-income countries had to be paused. Following a Board decision this week, these programmes are back on.' The article is dated '28 June 2023', has a '7 min read' duration, and is written by 'Gavi Staff'.



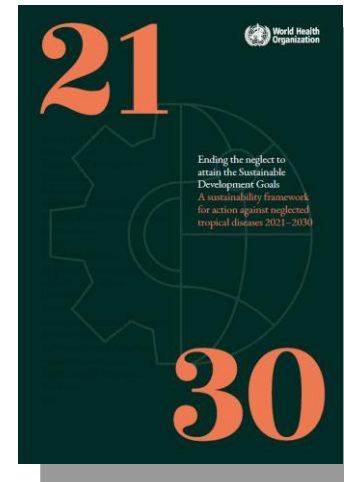
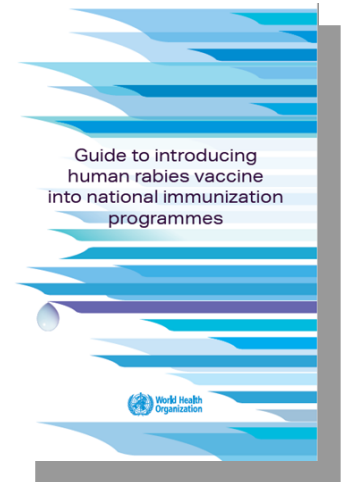
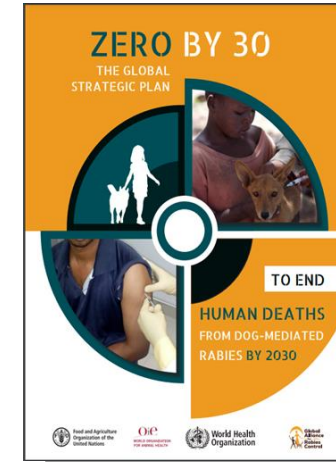
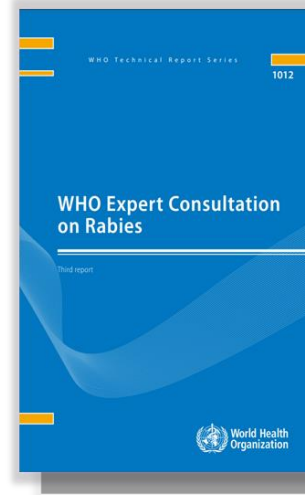
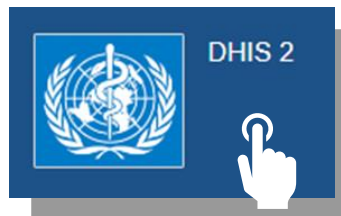
# Resources

- [WHO – Rabies webpage](#)
- [Open WHO Course – Rabies & One Health](#) (including **new module** on IBCM)
- [Open WHO Course – One Health in action against NTDs](#)
- [Rabies Vaccines – WHO position paper](#)
- [Global Market Study – Human rabies vaccines](#)
- Laboratory techniques in rabies, [volume 1](#) & [volume 2](#)

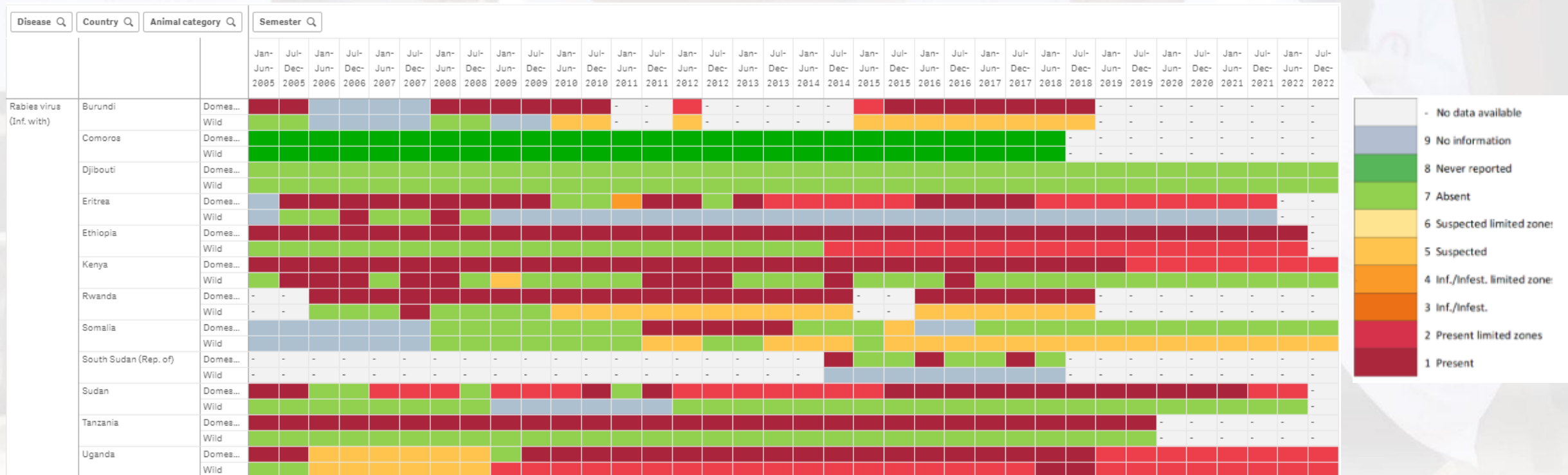
## Rabies and Surveillance

- [Improving Data on Rabies – WHO’s call for Data](#)
- [WHO Toolkit for Routine Health Information Systems Data](#)
- [WHO Global Health Observatory](#)
- [WHO NTD Roadmap Tracker](#)
- [WHO NTD Country profiles](#)
- WHO NTD Disease Dashboards (in development)

## Excel Reporting Template



# World Animal Health Information System





# How do we submit data to WAHIS?



## What do we submit?

- Early warning system for immediate management of alert notices
  - ‘Event’ means single outbreak or group of epidemiologically related outbreaks of given listed disease – for rabies this is the occurrence of one or more cases in an epidemiological unit
- **Monitoring system**
  - Six-monthly reports (Members can choose to enter data in WAHIS every month during six-month period)

## How do we submit?

- WAHIS provides a platform for collection, submission and access of all data provided by countries
- Notification by focal points, under responsibility of the Delegate

# Key points

- Reliable data is **critical** to prioritise rabies and demonstrate progress
- Data should be **useful and inform** national programme
- Data needs to be **shared** across sectors, and **reported** to Competent Authorities and mandated intergovernmental organisations (WHO and WOAH)
- There are experts, tools and technical resources available to support data collection and reporting



# Thank you!

**Contact:**

Dr Rachel Tidman  
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# Commit to Submit – share your rabies data

For more information, please contact:

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Veterinary Public Health, Vector Control and Environment  
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