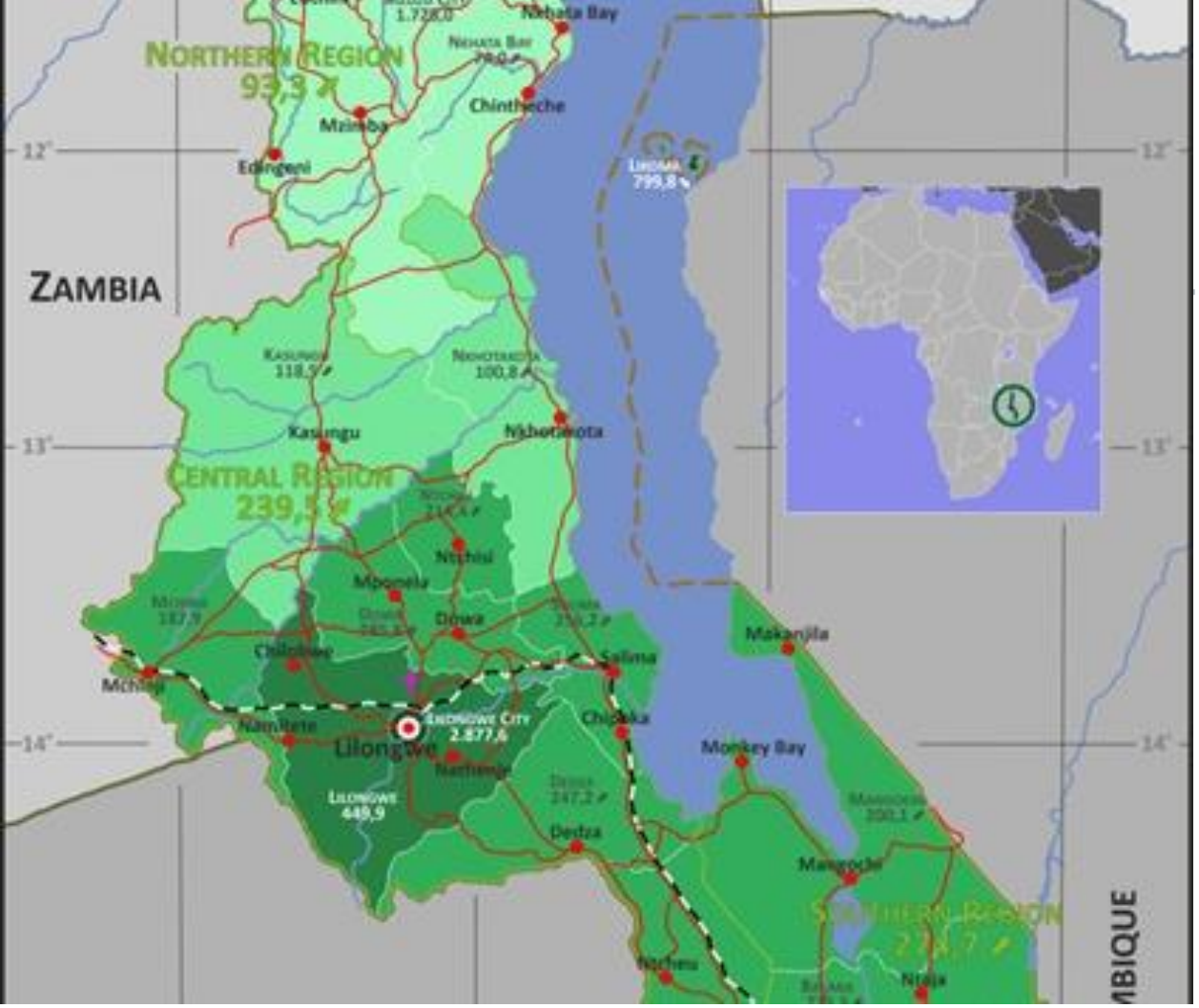

United Against Rabies

# Strengthening One Health digital data management using a Rabies use case: Operationalising a rabies strategic plan

United Against Rabies

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2025 United Against Rabies Meeting
7 – 9 October 2025, Bangkok, Thailand

# Presentation outline

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- Background and Rationale
- Situation and Challenges
- Why Rabies
- The Rabies Use Case Approach
- Steps taken and Achievements
- Lessons Learned and Recommendations

# Background and Rationale

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- Rabies as a Public Health Problem
  - Rabies is a major public health threat in Malawi and the region.
  - Dog-mediated transmission is the most common cause, especially in rural areas.
  - Despite being preventable, rabies remains underreported and often fatal.
  - Few partners involved in the control of rabies

World Organisation for Animal Health Founded as OIE

MISSION RABIES

**COUNTRY PARTNERSHIP PROJECT WORKSHOP**
**2nd - 6th MAY 2025, SUNBIRD CAPITAL HOTEL, LILONGWE - MALAWI**

- Current partners and support to global initiatives
  - Implementing partners  Mission rabies, WHO, FAO, WOAH, Lilongwe Society for the Protection and Care of Animals, Center for Community Empowerment Initiatives

# Current Situation and Challenges on Rabies control and surveillance

- **Challenges which were noted to hinder surveillance and control of rabies**:

- Fragmentated and siloed data
  - collection and use across sectors and organisations is siloed with little to no sharing of findings

- There are discrepancies in data definitions
  - Different systems and organizations define, collect and interpret rabies data differently which has facilitated to several gaps in data and data quality

- Data availability and analysis
  - Holistic, coherent, analyzed data not available for decision making which has limited collaboration initiatives

# Why Rabies

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- Clear One Health Relevance: Involves human, animal, and environmental health sectors, showcasing true One Health collaboration.
- Well-Defined Transmission Pathway: Dog-mediated rabies is the primary source, making surveillance and intervention more targeted.
- Rabies-related data is already being collected by various sectors, offering an opportunity to integrate and harmonize.
- High Mortality but 100% Preventable: has a high fatality rate highlights the urgent need for coordinated surveillance and rapid response.
- Scalable Lessons for Other Zoonoses:Success in rabies integration builds a model for expanding to other One Health threats (e.g., anthrax, AMR, brucellosis).

# The Rabies Use Case Approach

- **To address rabies challenges in Malawi, the following were the possible solutions identified**:
  - Support semantic Interoperability: Collaborate with stakeholders to discuss, align and agree on rabies data definitions and standards
  - Support data integration of rabies data into one government owned platform, e.g. One Health Surveillance Plan (OHSP), for improved decision making
  - Support development of a rabies dashboard: Use the standardized and integrated data to enhance analysis and visualization of rabies data for decision making

# Rabies Use Case Approach

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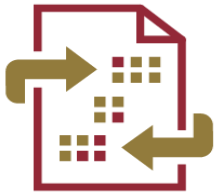
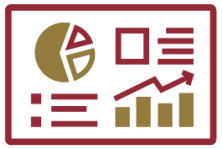
**Phase I**



**Agreed list of key rabies indicators** for rabies surveillance and management in Malawi amongst stakeholders using existing data

**Standardization of data definitions and terminologies** used by the different sectors and stakeholders



**Data sharing agreements** between the relevant stakeholders to integrate rabies data from disparate systems for holistic rabies monitoring in Malawi

**Phase II**

**Data integration and configuration of a rabies dashboard** with agreed key rabies indicators and consideration of rabies models

# Steps taken and Achievements

- Rabies data mapping and data source analysis
- Conducted an understanding on reporting processes, data definitions used and identified potential challenges & possible areas of improvement
- Reached an agreement with stakeholders on use of key indicators (Minimum Data Elements by United against Rabies) and understanding of decision making which can be targeted
- Reached an agreement with government partners to share data between DAHLD and PHIM

# Cont’d

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- Developed and validated the data code book for the computed MDE indicators and conceptualisation of additional analysis to improve decision making
- Developed dashboards on OHSP and Superset for above MDE & additional analysis
- Conducted a validation workshop the of mock-ups
- Conducted the User Assessment Test
- Trained administrators and end users of the system

# Critical role of partners in rabies control

- Rabies control/ elimination requires multi-sectoral and cross-border coordination.
    - **OVR-CVL ( Malawi) partnership** has helped to build laboratory diagnostic capacity through training, reagents supply, development of guidelines and tools and interlaboratory benchmarking.
    - Mission Rabies supports with mass dog vaccinations covering almost half of the country, rabies surveillance (IBCM), awareness campaigns, field and laboratory staff training, research to understand rabies dynamics
    - Academic and research partnerships eg Norwegian Veterinary Institute contribute **implementation research** and innovations

# Lessons Learned and Recommendations

**Lessons Learnt**:

Importance of political will and institutional collaboration

- Establishment of a National Rabies Task Force was important
- Defining minimum data elements critical for common understanding and surveillance
- Need for standardized data formats and sustained training
- Great mechanisms for ongoing data governance and platform maintenance

**Way forward**

- Expand the rabies integration to district levels
- Strengthen analytics and early warning functionalities
- Incorporate community-based reporting systems
- Advocate for policy frameworks to sustain One Health digital platforms

- THANK YOU