



**AfricaCDC**

Centres for Disease Control  
and Prevention



# Vector-Borne Diseases in Africa

## One Health Perspective and Priorities

**One Health Surveillance and Control of  
VBDs in Northern Africa: Round table**

**Date: 23-24 April 2026**

**Presenter: Mallion Kangume**

**Technical Lead Zoonotic Diseases Program,  
Africa CDC**

# Presentation outline

Vector-borne diseases in Africa

Drivers: Climate change, urbanization, human–animal interaction

A One Health Perspective on Zoonotic Risks

One Health Response Priorities for prevention and control

# Burden of Vector-Borne Diseases (VBDs)

> 17% of  
Infectious  
diseases  
globally

Over  
700,000  
Deaths per  
annum

Highest burden region

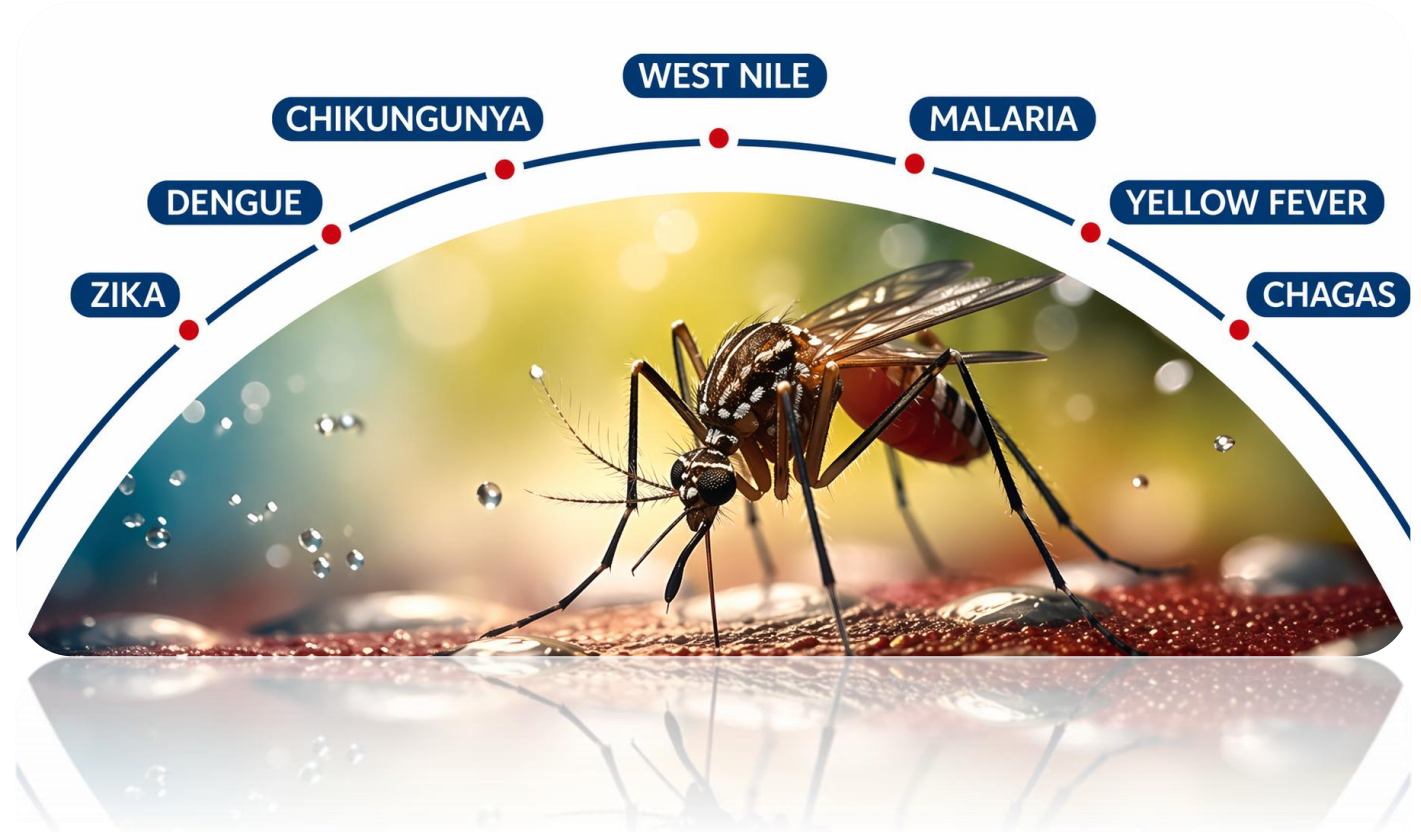
Highest Vector-borne  
disease burden



**AFRICA**

# Major VBDs in Africa

- Malaria
- Dengue
- Rift Valley Fever
- Trypanosomiasis
- Leishmaniasis
- Yellow Fever



# Major VBDs in Africa

## Mosquito-borne



**Malaria: Major killer disease especially in children under 5yrs**

Dengue, yellow fever, chikungunya, RFV, West Nile fever, Ika: Recurrent and emerging threats

Vectors: Aedes, Anopheles and Culex mosquitoes

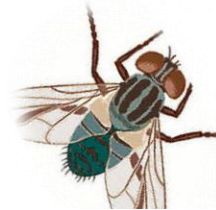
## Other vectors



**Ticks:** Crimean-Congo haemorrhagic fever, Lyme, Anaplasmosis, tick paralysis



**Sandflies:** Leishmaniasis



**Tsetse Fly:** Human African Trypanosomiasis



**Snail-borne** schistosomiasis remains important where water and sanitation gaps persist

# Key drivers of emergence and spread

## Climate Change



Global warming, floods, rainfall shifts alter vector lifecycles and seasonality

## Land use Change



Biodiversity loss shift ecological balances hence expands contact between vectors, pathogens and humans

## Detection Gaps



Miscalculation of dengue as malaria obscures the real burden and delays response

## Water systems



Poorly designed irrigation and standing water increases mosquito breeding

## Housing vulnerability



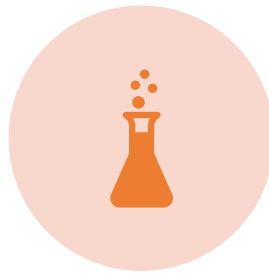
Inadequate housing and weak environmental sanitation increase exposure to indoor and peri-domestic vectors

Inter-connectedness

# Challenges in Africa



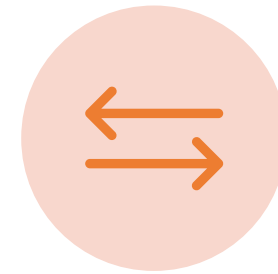
WEAK  
SURVEILLANCE



LIMITED  
LABORATORIES

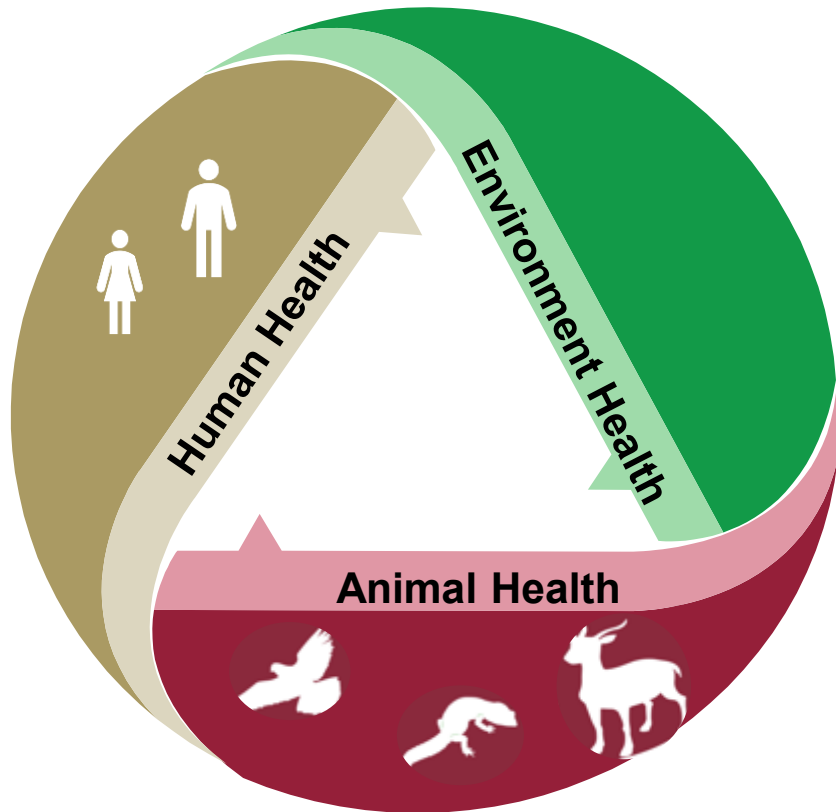


CLIMATE  
CHANGE



CROSS-BORDER  
MOVEMENT

# One Health



“

One Health is a collaborative, multisectoral and transdisciplinary approach used to attain optimal health outcomes for people, animals, plants, and their shared environment.

*Africa CDC framework for One Health Practice in NPHIs, 2020*

”



# Objectives of the Framework

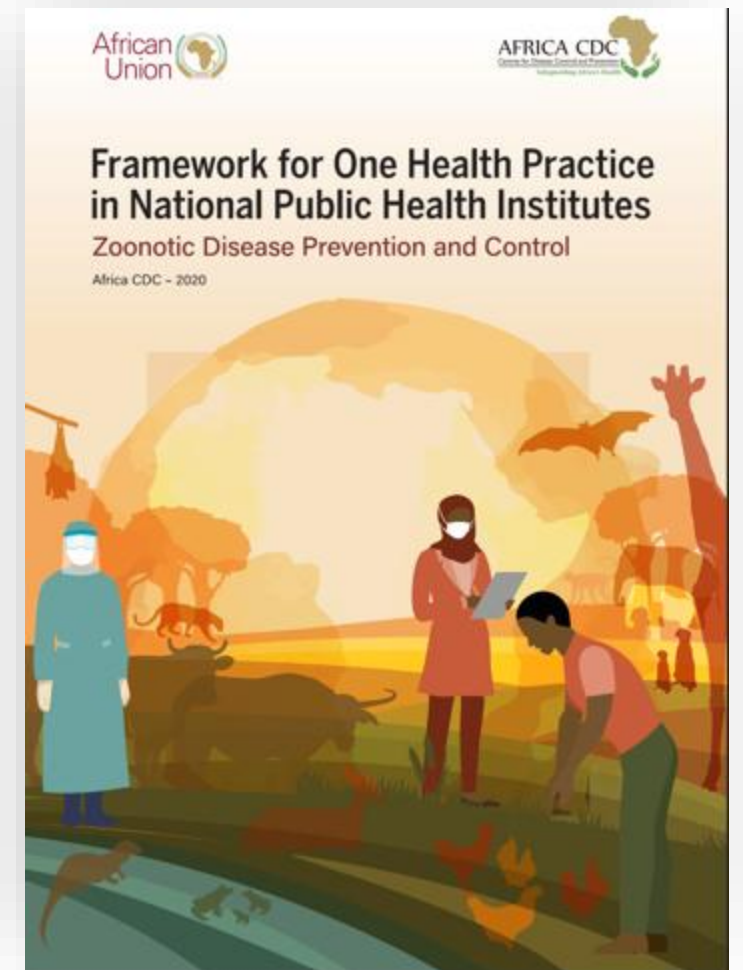
Support and collaborate with key stakeholders across all relevant sectors to strengthen One Health coordination, collaboration and communication

Develop and strengthen surveillance systems and data-sharing mechanisms with all relevant stakeholders

Strengthen laboratory systems and networks to ensure early detection, surveillance, and response to priority zoonotic diseases using a OH approach

Ensure effective and coordinated public health emergency preparedness and response using a One Health approach

Strengthen and support workforce development using a One Health approach to prevent and control priority zoonotic diseases



# AU OH Coordination Group on ZD

- **Establishment:** June 2022 to coordinate and oversee the development of a continental AU One Health zoonotic disease strategy
- **Membership:** High-level reps from AU bodies - Africa CDC, AU-IBAR, STRC, NEPAD, PANVAC, SEBE, DARBE, HHS, IAPSC, CIDO.
- **Operations:** Task force will convene biannually (in-person/virtual); Secretariat co-hosted by Africa CDC and AU-IBAR to provide support in terms of logistics and information resources to assist with operations of meetings, groups and individuals as required.

## AU inaugurates One Health Coordination Group on Zoonotic Diseases

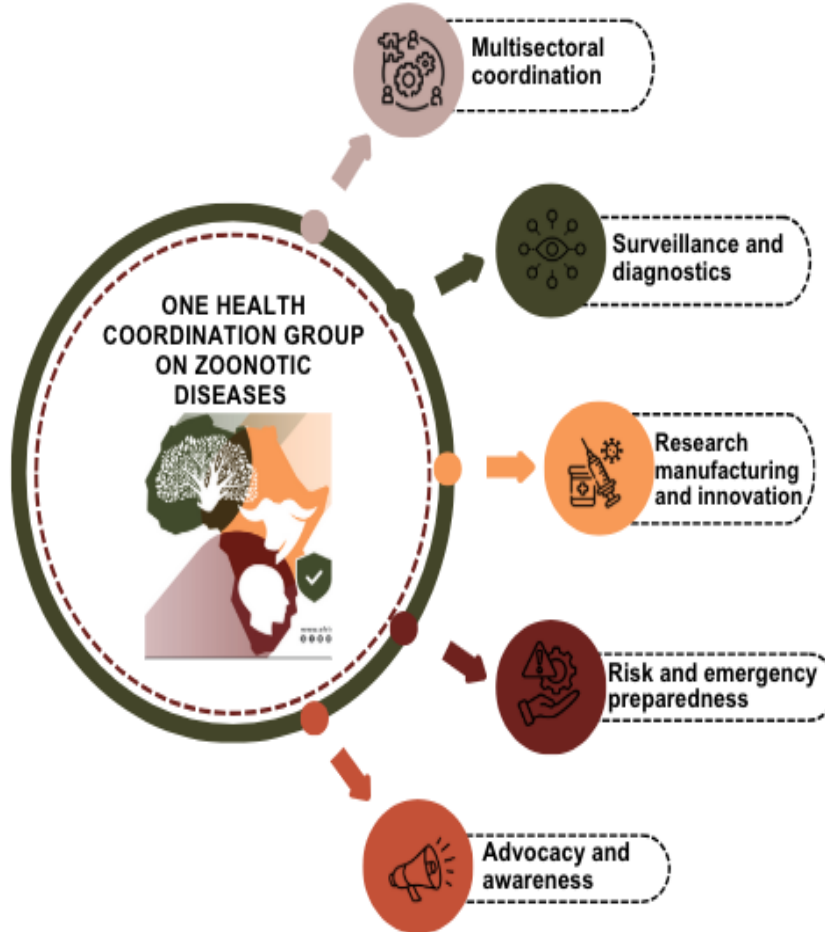
📅 5 July 2022



### MANDATE

- Develop the AU One Health Strategy for zoonotic diseases
- Develop a road map for the implementation of One Health Strategy for zoonotic diseases.
- Undertake an inventory of Zoonotic Disease Prevention and Control related activities
- Advocate for domestic financing, coordinated resources and investments
- Support AU members on OH policies, legal instruments and enabling governance structures

# Plan of Action: Five Strategic Goals



Improve governance of One Health Multisectoral Coordination Mechanisms for zoonotic disease control at regional and national levels.

Strengthen and coordinate integrated diagnostics and surveillance systems in Member States.

Build resilience against zoonotic diseases by strengthening capacity in research and innovation; promoting local manufacturing and prequalification, and ensuring availability and access to quality vaccines, therapeutics and diagnostics for zoonotic diseases.

Support risk reduction, emergency preparedness, and response to zoonotic diseases.

Support advocacy and increase awareness for better prevention and control of zoonotic diseases

# AFRICA CDC'S NICHE IN CLIMATE CHANGE AND HEALTH

These dimensions can apply across the human health, animal, and environment sectors



## Building resilience and adaptation

This involves promoting climate-smart health systems (improving WASH and health waste management)  
Enhancing early warning systems  
Strengthening health systems to respond to climate-related emergencies.



## Research and innovation

Support research and innovation to better understand the health impacts of climate change in Africa  
To develop effective strategies to mitigate and adapt to its effects.  
To generate evidence and knowledge that can inform policy



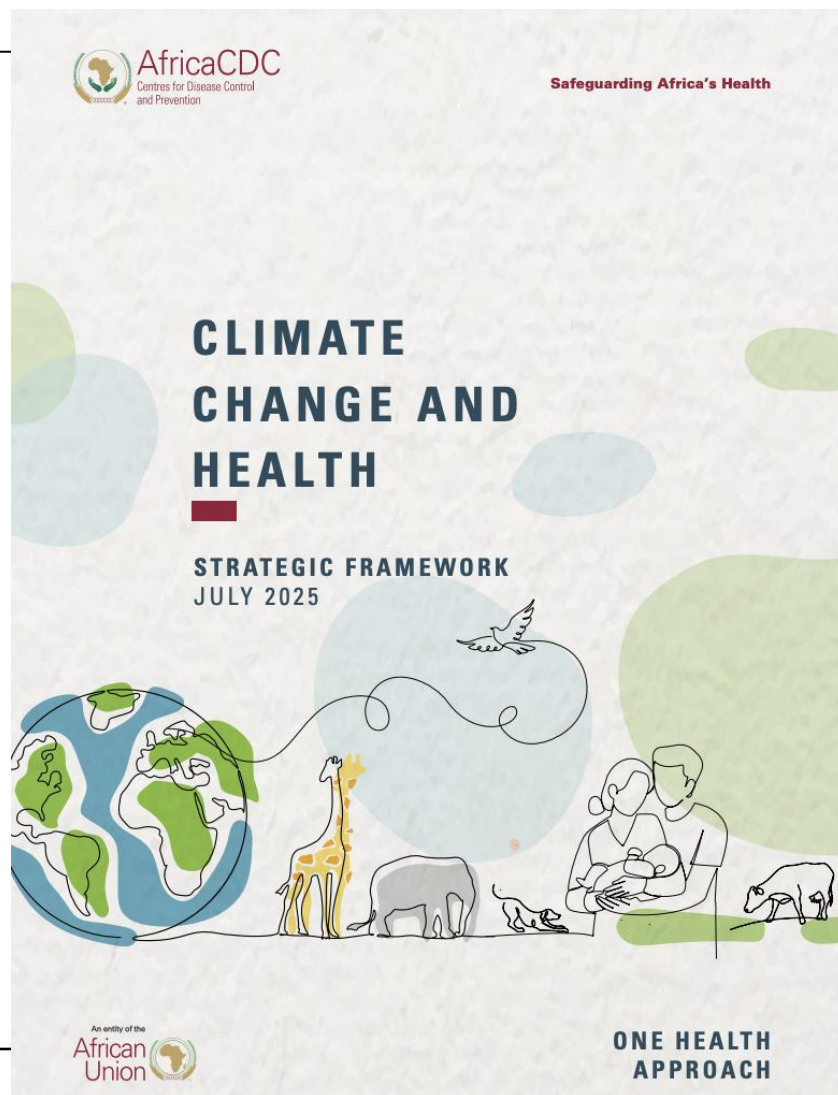
## Advocacy and awareness-raising

Raising awareness among policymakers, health professionals, communities, and the public about the links between climate change and health



## Partnership and collaboration:

Fostering partnerships and collaboration among governments, civil society, the private sector, and other stakeholders to address the health impacts of climate change in Africa.,  
Mobilize resources and coordinate efforts to address the impact of climate change on health



**Link to the Strategy**

**<https://africacdc.org/download/climate-change-and-health-strategic-framework-2025/>**

# One health response Priority Actions



**Integrated surveillance:** Combine human case detection, entomology, environmental monitoring and climate signals.



**Expand vector control:** Target hotspots such as informal settlements, irrigation zones and flood-prone areas



**Improve laboratory Systems:** Strengthen laboratory confirmation and differential diagnosis for febrile illnesses



**One health governance:** Enhance coordination involving Health, agriculture, water, environment and local authorities



**Environmental management:** Reduce breeding sites through drainage, waste control, water storage management and community action.



**Vaccines:** Use available vaccines and outbreak response tools, including for yellow fever and some malaria settings.

# Recommendations



INSTITUTIONALIZE  
ONE HEALTH



INVEST IN EARLY  
WARNING



COMMUNITY  
ENGAGEMENT



REGIONAL  
COLLABORATION



# THANK YOU

Africa Centres for Disease Control and Prevention (Africa CDC),  
P.O. Box 3243, Addis Ababa, Ethiopia, Ring Road, 16/17,  
Tel: +251 (0) 11 551 77 00, Fax:+251 (0) 11 551 78 44

[www.africacdc.org](http://www.africacdc.org)

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