



Pan-African Network for Rapid Research , Response and Preparedness for Infectious Diseases Epidemics



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1. Objectives and organisation of PANDORA
2. Activities
3. Challenges



1. EDCTP Call RAI2016E- Award 2017

PANDORA ID-NET is a 'ONE Human and Animal HEALTH' multidisciplinary consortium of 24 partner institutions (15 African and 9 European) derived from 9 African and 4 European countries.
Coordinator: FCRM, Rep of Congo

PANDORA

Pan-African Network For Rapid Research, Response
and Preparedness for Infectious Diseases Epidemics

UCL
UK

RVC
UK

Chatham House
UK

IRD
France

INMI
Italy

Emergency
Italy

Njala University
Sierra Leone

KUNST
Ghana

University of Ghana
Ghana

NCDC
Nigeria

IRRUA
Nigeria

CERMEL
Gabon

Lead Institution
FRCM
Republic of Congo

Charité
Germany

BNITM
Germany

Eberhard Karls Universität
Tübingen
Germany

University of Khartoum
Sudan

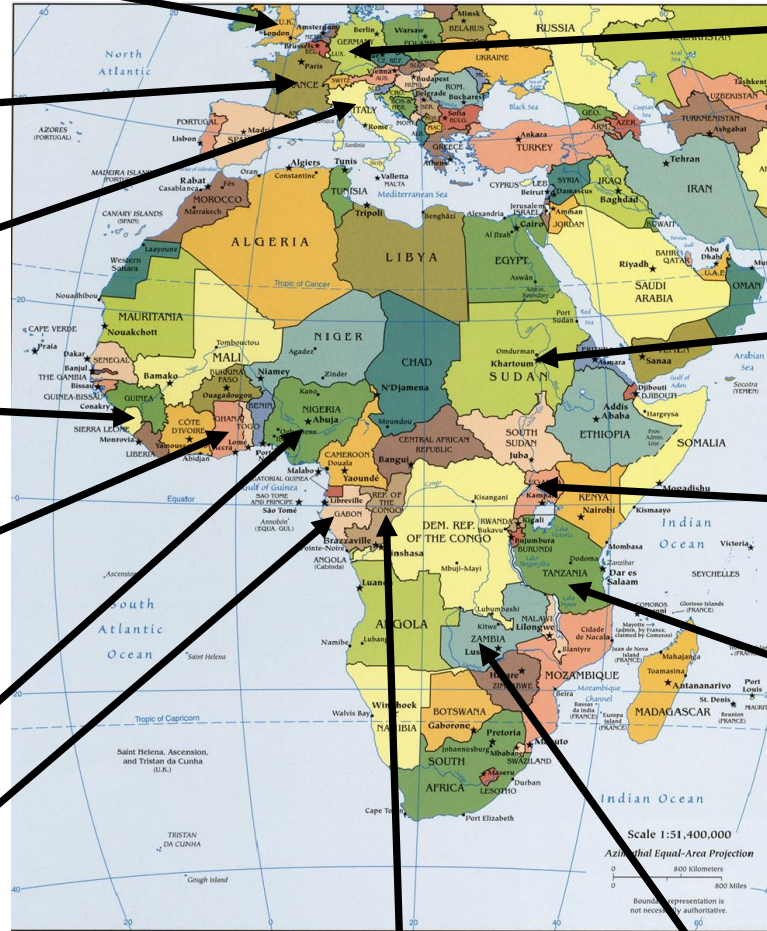
UNHRO
Uganda

IHI
Tanzania

NIMR
Tanzania

SUA
Tanzania

HerpeZ
Zambia



OSH, 20/05/2021



Overall Aim

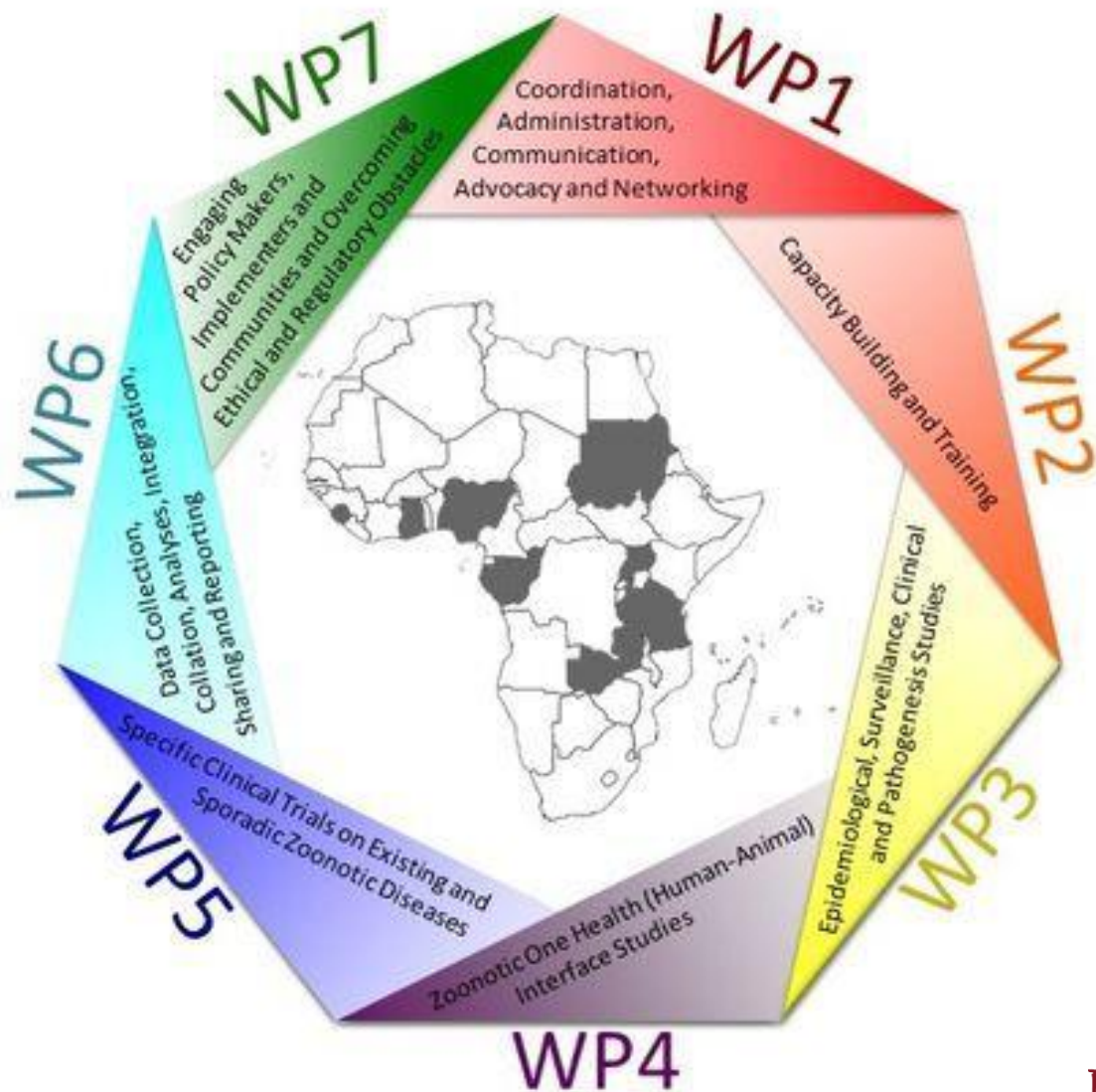
To strengthen regional and pan-African capacities and systems for enabling rapid and effective response to emerging and re-emerging infectious diseases threats arising from within Africa, or those imported from overseas.



Specific objectives

- To develop and setup robust ‘ready to go outbreak rapid response teams, at each of the four African regions (West, Central, East and Southern Africa)
- To strengthen capacities for conduct of research (multidisciplinary operational, anthropological, social science)
- To train and empower scientists, healthcare workers, laboratory personnel, clinical trialists, ethicists and social scientists
- To engage stakeholders and global public health agencies at the highest level during all stages of our program.





OSH, 20/05/2021



Implementation - Activities

- **Areas:**
 - Human Health
 - Animal health
 - Ethics and social sciences
 - Policy makers and community involvement
- **Cross-cutting activities**
 - Epidemiology and surveillance
 - Laboratory
 - Training and improvement of infrastructure
 - Dissemination and information



Key Actions & synergies

- To strengthen networks with existing agencies already active in this field to ensure synergy and maximum collective benefit (Regional health organizations (OCEAC, WAHO, etc.) International organization (WHO/AFRO, NEPAD, AFRICA-CDC))
- Between outbreaks, to conduct epidemiological studies

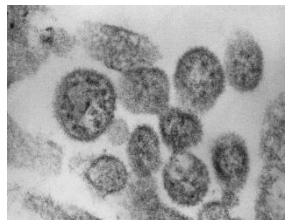


Pilot epidemiological + intervention studies in Lassa fever endemic communities



Prior Community Engagement activities

- RVC Njala IRRUA seed activities (MSc and Post Doc) in Sierra Leone and Nigeria to explore potential gaps in research on socioecological drivers for LFV July/August 2018
- Identified poor epidemiological knowledge and absence of serological tools especially of domestic animals and LFV.
- Identified Target 2-3 communities in Sierra Leone (Bambara) and Nigeria () for specific research and pilot interventions.



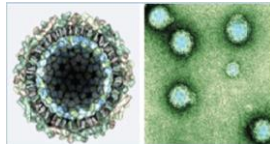
OSH, 20/05/2021

Proposed Surveillance study – Sierra Leone and Nigeria – Pilot interventions on risk factors.

- Validate range of screening tests for antibody from range of species. Focus on LIPS.
- Testing bio-banked sera from animals and humans.
- Exploring epidemiology in target sites through **serology of peridomestic animals and humans.**

Chikungunya in Congo

>10,000 cases confirmed in Brazzaville
– 23rd January 2019



Chikungunya
Chikungunya is transmitted through the bite of the Aedes Aegypti and the Aedes Albopictus Mosquito. The word is from Hindi or Malay.

Symptoms
• Sudden onset of fever, joint pain, muscle pain, headache, rash, and fatigue.
• Symptoms last for 2-12 days.
• In some cases, joint pain can last for weeks or months.

Prevention
• Use mosquito nets and repellents.
• Eliminate mosquito breeding sites.
• Wear long-sleeved shirts and long pants.
• Avoid mosquito bites.

It is a mosquito borne viral disease caused by Chikungunya virus

The virus is transmitted to humans by Aedes Aegypti mosquito.

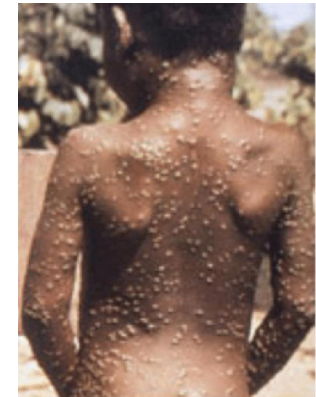
Chikungunya comes from the word "kungunya" in Makonde language which means "that which bends up" or "contoured"

The person affected with Chikungunya walks with a stooped posture due to the joints pain

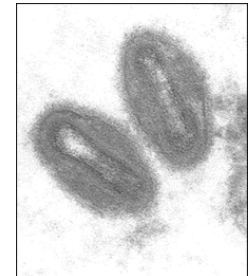
- Surveillance
- Entomology
- Serology
- Rapid testing
- Sequencing
- Socioecology

Monkeypox in Nigeria

2018: 76 cases reported, 37 confirmed



- Surveillance
- Serology



First Responder Training workshops in Zambia - 2018



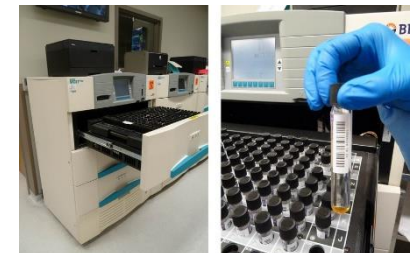
Site assessments- Republic of Congo -2018



Health care workers training in 2019: sites in Gabon



MinION training



TB diagnostics training

Assay validation training 2019



Ethics and Community engagement



**Study on diagnostics for
adult viral encephalitis
Include social science aspects**



Engaging with policy makers



**Ethics committee members and regulatory
authorities training workshop in Brazzaville
– for evaluation of research protocols in
emergency situations: June 2018**



Face to COVID-19 pandemic

- First cases mid March
- Lockdown End of March
- All PANDORA staff involved in the national response committees
- All PANDORA labs involved in diagnostic
- Sero-epidemiological studies
- SARS-COV-2 sequencing
- Therapeutic and vaccine Clinical trials in European PANDORA sites

In Africa (19th May)

- 4.709 921 cases
- 127 001 Deaths

<https://africacdc.org/covid-19>

Stronger and better coordination and collaboration

- Africa-Centers for Diseases Control
- WHO (World Health Emergency Programme)
- WHO/AFRO
- Regional networks and initiatives
 - For sharing protocols, Data, reagents , SOPs, training support

3. Challenges

- Poor communication with the population
- Poor Local health research capacities
- Supply difficulties (reagents, protective equipment, lab equipment)
- Training urban and local healthworkers
- Development of disease-surveillance programs focused on humans livestock and wildlife
- Poor involvement of social scientists
- Limited data provided and published
- Monitoring variants emergence and spread
- Sequencing capacity limited but being increased
- Follow up of vaccine effectiveness in the different countries

For long-term sustainability of on-going efforts, there is a need to increase political commitment and more investments in ONE-HEALTH activities accross the continent to meet the challenges of future infectious diseases outbreaks.



**MERCI BEAUCOUP POUR VOTRE ATTENTION
THANK YOU FOR YOUR ATTENTION**

