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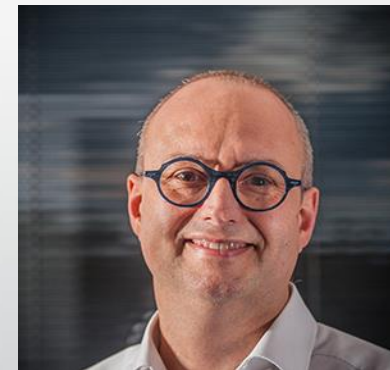
Project No: 3

Building Capacity for Research, Management and Control of Communicable and Non-Communicable Diseases

Team Leaders:



Dr. Elizabeth Omondi
(Interim Team Leader JOOUST)



Prof. Dr. John-Paul Bogers
(University of Antwerp)

Partners



JOOUST Project Members



Dr. Elizabeth Omondi (TL)
Nursing & Midwifery and
Public Health



Prof. Benson Estambale
Medical Microbiology



Ms. Damar Osok
Epidemiology & Public
Health



Dr. George Ayodo
Applied Epidemiology



Dr. Daniel Onguru
Public Health



Dr. Elijah Museve
Finance



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Health System
Strengthening and
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Flemish Project Members



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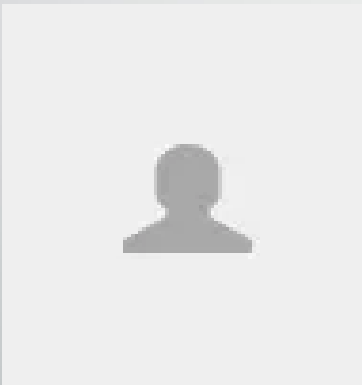
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Understanding the Local Context

- A total of 14 local county governments within the LVB in Kenya.
- Among the functions devolved to the local governments is health care.
- Local health systems are variable in capacity with regards to preventive, diagnostic and curative services.
- Organization of the health sector is important because:
 1. The variability of health systems determines service availability and access.
 2. Healthcare financing remains biased towards infectious disease and public health priorities like reproductive, maternal and child health.
 3. Top three causes of death are infectious diseases, cardiovascular diseases and cancer (dual epidemic).



Project Objectives

- **Medium-term (5 years) objectives are:**
 1. To determine the overall disease burden in the Lake Victoria Basin of Kenya;
 2. To establish state-of-the-art research and diagnostic molecular laboratories;
 3. To build capacity for early-stage researchers and mid-career professionals through short courses and post-graduate training;
- **Long-term (10-12 years) objectives are:**
 4. To build competencies of core healthcare workers for early recognition, diagnosis and management of targeted diseases;
 5. To build capacity of county governments to have sustainable and resilient health systems.
- **Above objectives will be achieved through implementation of three (3) sub-projects.**



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SP 1: Virally Induced Molecular Pathology

Aim: Improve diagnosis and surveillance for cervical and liver cancers and set up laboratory capacity for viral infections (e.g. COVID-19 and future emerging viral epidemics) in the Lake Victoria region of Kenya

- A mixed methods study that will;
 - i. Determine the presence of any geographical clustering of cervical and liver cancer cases through disease mapping
 - ii. Evaluate a cohort of confirmed cervical and liver cancer cases for the presence of oncogenic pathogens (biomedical assays)
 - iii. Assess health system readiness and capacity to screen, diagnose and manage cervical and liver cancers



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Cervical Cancer

- Leading cause of cancer-related death among women in Kenya
- Associated with HPV sub-types 16, 18 & 31
- Primary prevention using HPV vaccine
- Secondary prevention through screening



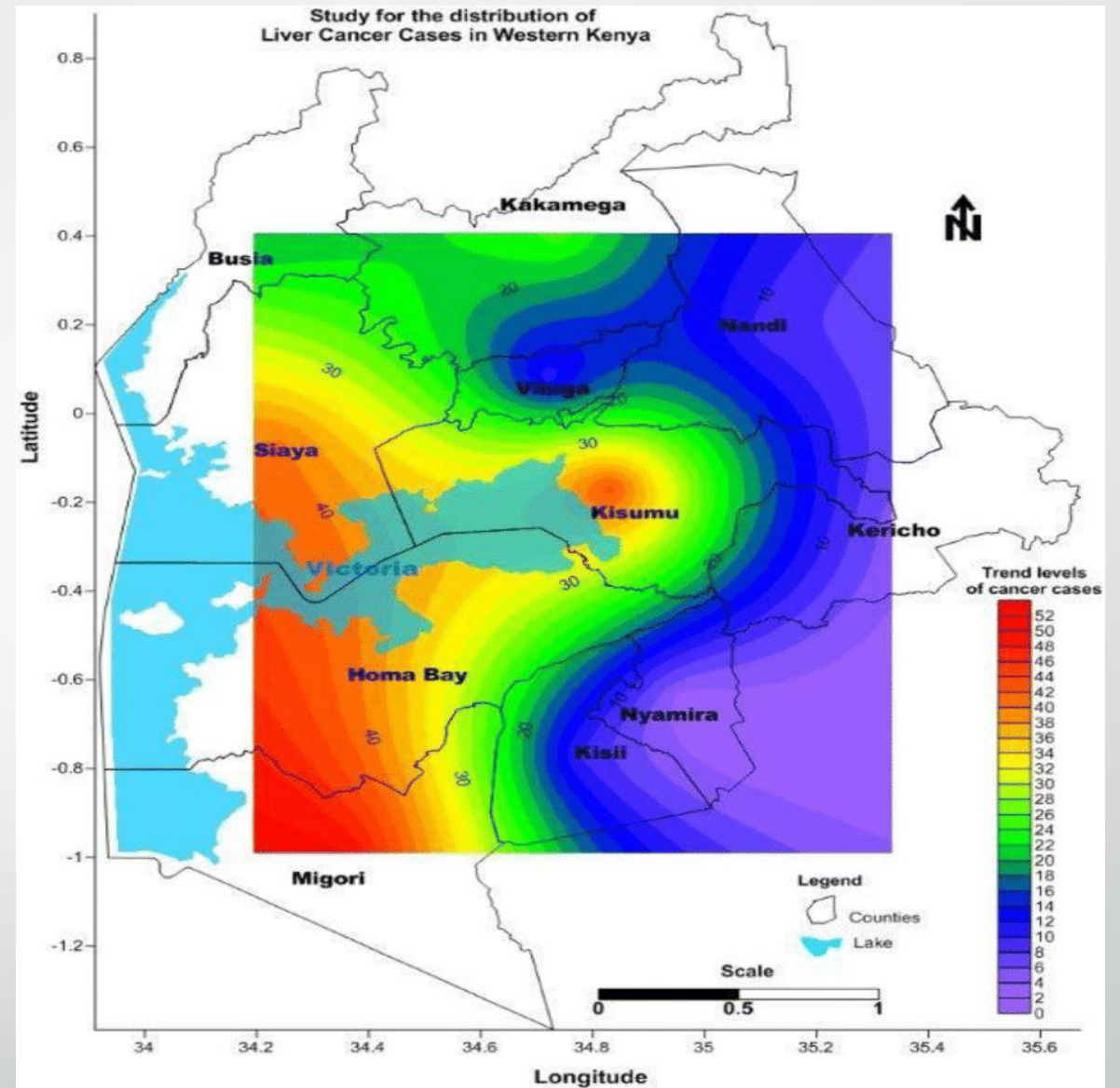
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Liver Cancer

- Most common type is hepatocellular carcinoma (HCC)
- Recent study suggests a high number of cases with concerns over underreporting
- Few facilities and health professionals able to diagnose and manage liver diseases
- Strong linkage with Hep B and C viral infections
- Also linked to Aflatoxin exposure
- Potentially preventable



SP 2: Health Systems Strengthening for Diabetes and Hypertension

Aim: Review of existing diabetes and hypertension care practices to identify health system challenges and effects on patient outcomes.

- Quality of care and access to care study to assess;
 - i. Availability of and access to medication for T2D and HT in the region
 - ii. Any interventions for self-management support, both at facility and community level



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SP 3: Environmental Health

Aim: Determine the impact of human activities on the environment within the LVB and how this influences population health.

- ❖ Environmental contamination (pollutants in food and environment) in relation to communicable and non-communicable diseases such as malaria, respiratory diseases and cancers.

Linkages with other JOOUST projects

- **Projects 1 & 5-** Environmental factors influencing health and disease (SPs 1 & 3)
- **Project 2-** Nutritional/dietary factors influencing health and disease (SPs 1, 2 & 3)
- **Project 4-** Integrated data management and GIS mapping (SPs 1, 2 & 3)



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MAIN PROJECT OUTPUTS

- **Key Output:** Established state-of-the-art research and diagnostic molecular laboratories
- **Secondary Output:** Prevalence and Incidence of diseases of interest
- **Capacity Building and Training:**
 1. Long-term- 3 PhDs in each Phase
 2. Medium-term- 5 Masters in each Phase
 3. Short-term- Short courses for health care professionals e.g. competency-based courses in Nursing and Midwifery
 4. Doctoral Training Programme (e.g. statistics, grant writing, medical writing, project management, presentation skills)
 5. Setting up a Nursing and Midwifery Training School



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Expertise/ Stakeholders needed for the successful Implementation

Expertise available

- Epidemiology
- Finance & Health Economics
- Health System Strengthening
- Internal Medicine
- Medical Microbiology
- Molecular Biology
- Molecular Pathology
- Nursing and Midwifery
- Public Health

Expertise sought

- Biostatistics
- Environmental Health
- Health Policy
- Laboratory Science
- Nutrition and Dietetics
- Oncology



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Interested in this project?

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**THANK
YOU**



KU LEUVEN



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