



**NHS SCOTLAND GLOBAL CITIZENSHIP PROGRAMME
HEALTH PROJECTS/PARTNERSHIPS AND INITIATIVES TEMPLATE**

Project/Partnership or Initiative Title:

1. Control of schistosomiasis transmission in a newly established small holder irrigation scheme – Collaboration with Bairly and Thomson
Tackling infection to benefit Africa (TIBA) – Collaboration with Mutapi and Woolhouse and other 9 countries; Uganda, Sudan, Kenya, Tanzania, Rwanda, Zimbabwe, South Africa, Botswana and Ghana
2. Water sanitation and hygiene (WASH) behaviors and practices in rural South Africa: A case study of Ingwavuma area in uMkhanyakude district of KwaZulu-Natal province, South Africa.

Overall Goal(s) and Objective(s) of Partnership/Project/Initiative:

The Small Holder Irrigation Project was intended to bring engineers and health practitioners together for control of schistosomiasis in newly established irrigation schemes. The engineers were influenced to design structures that minimized stagnation of water and allow periodic drying of canal and night storage dams to dessicate snails while health practitioners ensured that there were appropriately located toilets in the irrigation plots and at homesteads to reduce contamination of the environment. Boreholes were provided to provide safe water. Agriculturalists were influenced to design cropping regimes that allowed periodic drying of certain parts of the irrigation schemes – the so-called block irrigation system

TIBA's aims are as follows:

- i. Improve the diagnosis and surveillance of infectious diseases in resource-poor settings. Diagnostics development is focussed on the provision of portable kits employing biomarkers, electrochemical and bio-sensors or sequencing technologies. Surveillance research includes optimising technologies, surveillance system design and eHealth.
- ii. Improve the deployment of existing drug treatments and enhance local capacity to develop new ones.
- iii. Improve the deployment of existing vaccines and enhance local capacity to develop new ones.
- iv. Improve the management of both endemic and emerging infections by i) strengthening health systems, with special attention to ethics and governance; ii) improving policy development and implementation (e.g. drug procurement, local licensing, regulatory harmonization); iii) enhancing capacity to respond to infectious diseases emergencies, while protecting capacity to manage endemic diseases concurrently.

Water sanitation and hygiene (WASH) behaviours and practices in rural South Africa

Research Question

The main research question for the proposed study is “**How are WASH behaviour’s and practices influenced by psychosocial, contextual and institutional factors in Ingwavuma, uMkhanyakude district?**” To find answers to this main question several sub questions have been posed:

1. What is the population’s access to and utilization of improved WASH facilities in Ingwavuma and hand washing behaviours?
2. How does institutional factors influence WASH in Ingwavuma?
3. How does psychosocial and contextual factors influence WASH?
4. What is the appropriate WASH intervention framework for Ingwavuma community?

Key UK Colleagues and Partners you were/are working with:

University of Edinburgh
University of Edinburgh
Hydraulics Research, UK
Hydraulics Research, UK

International Partners and when Project/Partnership/Initiative was established:

The suggested proposal will join an established project which is collaboration with colleague’s in the context of an NIHR grant called TIBA (Tackling Infections to Benefit Africa). The project involves 9 African countries including South Africa.

The proposal will consider the impact of the irrigation scheme to control schistosomiasis on children and women’s mental health and wellbeing. The above projects are already established. Our plan will be to use my expertise in mental health and wellbeing to assess impact of such an intervention on family wellbeing. Collaboration in the 1990s was in the context of controlling schistosomiasis in small holder irrigation schemes using environmental and engineering methods. This involved designing irrigation with appropriate disease mitigation structures and providing safe water for farmers.

Country where activity will take/has taken place:

1. The small holder irrigation scheme project was in Zimbabwe and the TIBA project is in 9 African countries listed above in collaboration with University of Edinburgh
2. South Africa

Which of the 17 sustainable development goals (SDGs) to transform our world does your work contribute to:



Funding Source(s):

TIBA funds were obtained in a competitive manner through responding to an NIHR call Small holder irrigation project funds were provided by Hydraulics Research, the Ministry of Health for Zimbabwe and the Ministry of Agriculture for Zimbabwe.

Description of Partnership/Project/Initiative. Please can you tell us about the following:

a) How did the partnership/ project come about? What was the evidence of need?

TIBA partnership arose from many years of individual collaborations on vector borne diseases. The University of Edinburgh identified 8 other African partners and developed the proposal jointly.

For the small holder irrigation project, the ministry of Agriculture, Zimbabwe secured funding from Hydraulics Research to implement a small holder irrigation project. Health specialists raised the issue of health concerns with engineers and agriculturalists during the design and operations of the project. Monitoring of schistosomiasis over time is planned.

b) In which areas were/are you working, eg, Education/ Service Improvements/ Workforce Developments/ Service improvements/ Policy or other area?

Health system strengthening

c) What activities have happened so far/are planned?

The Small holder irrigation project ended in late 1990. A grant to evaluate the effectiveness of the designs, was awarded 10 years later (in 2000) from British Overseas Development Agency. TIBA started in 2017 and we hosted an Annual General Meeting in May 2018 which brought together all the 9 participating countries, stakeholders and funding agencies. This was hosted in Durban South Africa.

d) What are the changes you hope to achieve?

The Small holder irrigation project changed the lives of poor marginalized communities by making them more productive in healthier environment

TIBA is making impact at policy level and at community level by contributing to national, regional and international policies and guidelines and reducing population risk to neglected tropical diseases.

Were there resources/supports that would have been helpful?

The ecohealth (ecoproblem) approach is used, which puts health/problem in the centre to address that in the context of the total environment including social/cultural/political. The major challenge associated with this approach is limited funding as the approach requires genuine engagement with communities and stakeholders who may have divergent expectations.

In developing your work, which principles of THET partnership working did you meet and how (principles are listed below)? [if you used another model please can you outline this]

All the 8 principles

What have you gained from doing this work?

- Leadership and management skills
- Communication and teamwork
- Clinical skills
- Policy awareness and experience
- Academic skills
- Patient experience and dignity
- Personal resilience, satisfaction and interest

Other:

Next Steps

Discussions as to how to incorporate assessment of wellbeing in the current project are ongoing
The use of **global wellbeing** questionnaires such as **Strength and Difficulties Questionnaires** before and after intervention will be a way forward.
Number of cases of schistosomiasis before and after intervention.
Measurement of **Quality of life** for children and mothers.
Measurement of **General functioning** e.g. school attendance (where school are readily available)

Where can more information be found?

www.ukzn.ac.za

Key Documents

Publications are attached

Key Contact Details:

Name: Dr Gracia Mwimba

Email: graciadembo.mwimba@nhs.net

Consent

Consent has been given to share in the Directory of Health Partnerships, available on the Scottish Global Health Co-ordination Unit website and at events and networking opportunities.