

# Moses Adriko Bilharzia and Worm Control, Uganda Ministry of Health, Uganda

# **PRESENTATION OUTLINE**

- Background/Geographic al location of Vector Control Division, Uganda.
- Long term scientific goals of Vector Control Division, Uganda.
- Main research questions of Vector Control Division, Uganda.
- Main research question of your project (be it at any level, from cloning a gene, identifying how drug resistance spread to epidemiology)
- Unique skills or expertise that someone else might benefit from.
- Collaboration skill/resources that someone else might have will promote your project.
- Difficulties do you face in doing research in your local area?

### **UGANDA COUNTRY PROFILE**



## **BACKGROUND OF VECTOR CONTROL DIVISION**

- Started in 1901 with emphasis on malaria transmission & vector control especially in urban areas and other communicable diseases.
- Vector Control Division involved in diverse disease control / elimination programmes activities throughout the country:
  - ✓ Bilharzia and Worm Control Programme(BWCP)
  - ✓ National Sleeping Sickness Control Programme (HAT)
  - ✓ Programme to Eliminate Lymphatic Filariasis (PELF)
  - ✓ National Onchocerciasis Control Programme (NOCP)

✓ Other activities include :

- Epidemiology/Risk factors for Leishmaniasis
- General vector / pest control activities / consultations

### **SCIENTIFIC GOALS**

# Focuses on reducing disease through periodic, large-scale population treatment with Praziquantel combined with Health Education.

#### **Objectives:**

 Elimination of morbidity due to schistosomiasis to as a public health problem

Goals:

- To implement MDA in 100% of districts implementing.
- To achieve at least 75% therapeutic coverage during annual MDA in school-age children and high-risk communities.
- To eliminate heavy intensity infections of schistosomiasis in school-age children and highrisk communities.

### Schistosomiasis in Uganda



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### **RESEARCH QUESTIONS**

#### **Main Research Questions for BWCP**

- What factors affecting Praziquantel uptake in endemic districts in Uganda
- What is the level of available WASH activities in relation to control and prevention of schisto and STH in endemic districts.
- How best can a schisto programme targeting school age children-sufficiently reach the non-enrolled children.
- What factors affecting proper and timely reporting of SAEs
- What is the level of community awareness about schistosomiasis and STH transmission, prevention and control

### **Project Research Questions**

- What is the best way to monitor schistosome infections and drug efficacy?
- Has drug resistance been selected for?
- What is the potential for the spread of drug resistance?
- What other factors drive transmission?
- Is a standardized multi-parallel-PCR assay more sensitive diagnostic tool for detecting STH and *Schistosoma mansoni* prevalence compared to the Kato-Katz stool test in the face of elimination stage after MDA stoppage for LF?
- What is efficacy of MEBZ and ALB against STH after several years of MDA?

# SCHEMATIC ORGANIZATION OF FIELD SURVEYS IN UGANDA

#### **Opportunities/ Capacities for collaboration**

#### Personnel

- ✓ Senior Technical Staffs
- ✓ Junior Staffs
- ✓ District Program
- coordinators.
- ✓ Village Hereith Teams

#### Equipments

- ✓ Microscopes
- ✓ Freezers for sample storage
- ✓ PCR Machine
- ✓ Elizer plate reader
- ✓ HB Photometers
- ✓ Haematology Analyzer
   Machine

#### Office Space

✓ Laboratory Space■Vehicles for field Activities.

#### Research Collaborations Skills

Molecular studies on Helminths.
Parasitology work on Helminths
Immunology of Helminthes .
Medical Malacology



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### **CHALLENGES FOR RESERARCH IN UGANDA**

- Lack of resources for incountry technical capacity building and support operational research for schisto.
- Lack of resources to collect Sanitation-related indicators (Hand washing, measuring faecal contamination of environments).
- High Operational Costs in the Hard-to-reach Areas (Islands).
- Poor Latrine/ toilet coverage in all landing sites & Islands – (Contribute to high re-infections).
- Missing Link with WASH partners on schisto.

### Morbidity due to Bilharzia







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To many other friends & long-term colleagues in Schistosomiasis control research

#### Snail-borne diseases



...with some new friends



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