

## CURRICULUM VITAE



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Date of Birth: Dec. 30, 1962

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### EDUCATION

**2007 – 2012:** PhD (Epidemiology). **University of Amsterdam, Amsterdam, The Netherlands** (*Improving Drug Regimens and Implementation Strategies for Malaria Prevention in Pregnant Women in Western Kenya*)

**2000 – 2001:** Master's in international/Public Health  
**University of Copenhagen, Copenhagen, Denmark**

**1990 – 1991:** Higher National Diploma in Medical Laboratory Sciences (Bsc eq.) Parasitology/Entomology option), **Kenya Medical Training College, Nairobi Campus, Kenya**

**1984 -1987:** Diploma in Medical Laboratory sciences, **Kenya Medical Training College Nairobi Campus, Kenya**

## **SUMMARY**

I am a public health specialist with more than 20 years of experience in malaria research and programmatic work and training in biomedical sciences, public health and epidemiology. I have planned and conducted numerous studies including epidemiological studies, operations research and clinical trials and produced results with important policy implications. For a period of about 15 years, I have worked with the Kenya National Malaria Control Program including writing up major sections of the Kenya National Malaria Strategy (Malaria in pregnancy and Malaria elimination). Over the years led the implementation and evaluation of the uptake of malaria control interventions in Kenya and other sub-Saharan African countries, especially for malaria in pregnancy. Globally, I have been a member of the Malaria in Pregnancy Consortium and the WHO-RBM Malaria in Pregnancy Technical Working Group since 2009. I have conducted consultancies for WHO in support of malaria programmes for various countries (Republic of Kenya, Republic of South Sudan and the State of Eritrea) in the areas of malaria epidemiology, malaria epidemic preparedness/response, malaria elimination and development of malaria Global Fund Proposals. I 'am certified with United States Department of Health and Human Services, 2007 as Health Researcher and a recipient of Superior Honours Award, Centers Diseases Control and Prevention and Kenya Medical Research Institute, 2007. Beginning 2019 to date, on staff of the Maseno University School of Medicine as a senior lecturer-teaching public Health and Epidemiology, Biostatistics, Parasitology, Research Methodology and Technical Writing.

**Areas of Research Interest:** Malaria Epidemiology, Malaria in pregnancy, antenatal and delivery care, Disease surveillance and outbreak investigations, Epidemic preparedness and response.

## **RELEVANT WORK EXPERIENCE**

**2019 to date**

**Maseno University**

**Senior lecturer, Medical Laboratory Science, School of Medicine, Maseno University, Kenya**

Beginning 2019, teaching: Public health and epidemiology, Biostatistics, Medical Parasitology, Research methodology/Technical Writing and me

**2002-2016**

**(Centers for Disease Control and Prevention-CDC/Kenya Medical Research Institute-KEMRI) Malaria Epidemiology Section**

In 2002 I joined the Centers for Disease Control and Prevention (CDC)/Kenya Medical Research Institute (KEMRI) as a research officer in malaria branch, developing to a senior research officer in 2009 and rising to head of the malaria epidemiology section from February 2010.

**Responsibilities:** Coordinating and implementing epidemiologic studies, operations research projects, and clinical trials, and representing KEMRI/CDC in the Technical Working Groups within the Ministry of Health's National Malaria Control Programme and in the global Malaria in Pregnancy Consortium.

**Previous Work:** mainly focused studies on malaria epidemiology and provided day-to-day supervision of clinical trials to assure smooth implementation including: writing protocols and moving those protocols through ethical clearance, drafting standard operating procedures (SOPs), supervision and supportive mentorship of staff, junior scientists, and clinical trial staff (nurses, clinical officers, counselors, laboratory personnel and administrative staff), assuring adherence to standard operating procedures (SOPs) and protocols, cleaning and analyzing data, presenting research findings in stakeholder meetings in local and international conferences and writing manuscripts for publications. I also oversee overall implementation of malaria control programmes. Managed staff of 50-60 personnel depending on the number of epidemiological studies on the ground.

### **CONSULTANCY WORK (Malaria Programming Work):**

- 1. Global Fund to Fight Aids, Malaria and Tuberculosis:** Contracted by the Global Fund to assess the quality and coverage of the WHO Malaria Test, Treat and Track strategy as implemented by the State of Eritrea (January to February 2020).
- 2. Ministry of health, Kenya:** Consultant for writing up of the Kenya Malaria Strategy 2019-2023 (chapter on malaria in pregnancy and sub-regional malaria elimination)- (June 2018- January 2019).
- 3. World Health Organization- WHO Eritrea Country Office and MOH, State of Eritrea (2016-2017)**

Reviewed and updated malaria country profile and revised key malaria regulations and legislation policy documents. Specifically:

- Wrote the framework for sub-regional malaria elimination in Eritrea
- Supported the development of malaria Global Fund Proposal.
- Supported the development of the Eritrean Malaria Strategic Plan.
- Reviewed and updated malaria country profile.
- Developed malaria policy, regulations and legislation in line with epidemiological and socio-economic context.
- Revised and updated Eritrean malaria epidemic forecasting and preparedness manual.
- Produced malaria transmission risk maps.
- Developed malaria early warning systems using disease data, climate information, vegetation indices and other factors of malaria transmission.

#### **4. World Health Organization- WHO South Sudan Country Office and MOH Republic of South Sudan (2015-2016)**

Conducted malaria epidemic investigation, capacity building for MOH personnel/stake-holders and to update malaria epidemic guidelines for South Sudan. Specifically:

Conducted a desk/consultative review of the 2015 malaria upsurge in South Sudan and documented lessons learnt

- Reviewed the malaria epidemic response plan and suggested improvements for the future
- Developed supportive supervision manual for epidemic preparedness and response including tools for pre-season, during season and post-season assessments
- Developed a standard annual calendar of malaria activities highlighting timing of pre-season preparedness activities in relation to other activities
- Advised on the minimum standards for each of the stages of the epidemic preparedness and response cycle (i.e. forecasting, early warning, preparedness, detection, response and post-epidemic evaluation)
- Provided advice on most ideal method to use for malaria epidemic thresholds given that both the mean+2SD and third quartile methods are in use
- Established criteria for discriminating true malaria upsurges from increased number of cases due to other factors such as improved reporting, concentrating health facilities, displacement, etc.
- Reviewed epidemic preparedness and response guidelines and proposed areas to be updated
- Mapped partners in malaria control in order to identify those with comparative advantage in supporting epidemic preparedness and response interventions to establish a better coordination and command control structures
- Designed a format for simple weekly/monthly bulletin that highlights malaria trends and response activities being carried out
- Recommend measures for preparedness (and other) activities for the 2016 malaria season

#### **5. World Health Organization-WHO Kenya Country Office and MOH, Republic of Kenya**

Mid-term Review of the Kenya National Malaria Strategy, specifically:

- Reviewed relevant documents (including the Kenya National Malaria Strategy 2009-2017, the mini-Malaria Program Review Report, implementation guidelines, partners' reports, etc) and summarized the key achievements, failures and recommendations;
- Conducted a review of published and unpublished literature on the implementation of malaria in pregnancy control strategies in Kenya;

- Compiled the Mid Term Review Report for malaria in pregnancy strategies;
- Facilitated and recorded the malaria in pregnancy thematic area discussions and used the information to enrich the thematic area report;
- Prepared the initial draft text of the revised Kenya National Malaria Strategy.

**USAID/PMI/Ministry of Health, Republic of Kenya (2010-2013)-Ministry of Health, Republic of Kenya**

Evaluation of the uptake of intermittent Preventive treatment for malaria in pregnancy in Kenya Specifically:

- Conducted repeat cross-sectional surveys to assess the proportion of women receiving intermittent preventive treatment for malaria in pregnancy using sulfadoxine-pyrimethamine
- Assessed the proportion of pregnant women achieving the recommended antenatal care visits
- Formulated strategies to improve uptake of intermittent preventive treatment for malaria in pregnancy
- Designed simplified memo's, job-Aids and algorithms for point of care use to improve uptake of these interventions

**1997–2000: District Coordinator-Kenyan-Danish Health Research Project Ministry of Health, Division of Vector-borne Diseases, Kenya**

The Kenyan-Danish Health Research Project: coordinated a multi-disciplinary research project comprising of anthropology, parasitology, health education, educational psychology, nutrition, health systems research and maternal/child health at the district level. Specific responsibilities included:

- Coordinated field activities for the organization
- Prepared minutes of meetings, field reports and provided relevant equipment and consumables for researchers at the field level
- Ensured friendly relationships are maintained and further strengthened with the local community
- Informed the study population of the planned and on-going research activities, and provided feedback on the research findings.

**1992–1996: Coordinator- Community based primary health care programs Ministry of Health, Division of Vector-borne Diseases, Kenya**

- Implemented and coordinated activities of a number of community-based primary health care programs among them the UNICEF-sponsored Bamako initiative project, which resulted in establishing 30 community pharmacies (where bednets were made available at subsidized prices at the community level), in Siaya County, Kenya.
- These tasks, done within the District Health Management Team (DHMT), led to a considerable experience and insight in to organization

and management of health service provision by the MOH at the district level.

- Gained considerable experience in malaria control activities especially with regard to treatment of bed nets with insecticides and performing bioassays to ensure quality of their residual effect.

**1987–1991: Officer In-charge- Bura irrigation scheme in Kenya’s Coast Province. Ministry of Health, Division of Vector-borne Diseases, Kenya**

- Coordinated routine surveillance of malaria, schistosomiasis and other intestinal helminths in settler community and school children
- Compiled regular reports and recommendations to the head of vector-borne diseases in Kenya and
- Supervised technicians and auxiliary staff, maintenance of stores, and compiling regular reports to the national Director, Division of Vector-borne Diseases.

**Selected Grants & Funding**

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1. From 2002 to date. KEMRI/CDC Research Station, Kisumu, Kenya Malaria Epidemiology Section Chief. Co-investigator and co-grant holder in studies to assess alternative strategies to malaria prevention in pregnant women in view of the intensification of antifolate resistance to sulfadoxine-pyrimethamine, clinical trials and program evaluations at the KEMRI/CDC Research Station in Kenya (837,546 GBP).
2. From 2007 to date. GAP/CDC, Atlanta, USA. Principal investigator in a study to assess the effectiveness of daily cotrimoxazole on the prevention of placental malaria among pregnant HIV-infected women (252,274 GBP).
3. From 2009 to date. CDC, Atlanta, USA. Principal investigator in a study on antenatal and delivery care in rural western Kenya (186,536 GBP).
4. From 2010 to date. Bill and Melinda Gates Foundation. Co-principal investigator (Kenyan site) in a study to assess the safety and efficacy of mefloquine on the prevention of malaria in HIV-infected women taking cotrimoxazole prophylaxis (multi-centre trial) (398,736 GBP).