

Irine Okanda

Jaramogi Oginga Odinga University of Science and Technology, Kenya

Irine Okanda is a postgraduate student at the Jaramogi Oginga Odinga University of Science and Technology (JOUST) pursuing a master's degree in Epidemiology and Biostatistics. She holds a Diploma and a bachelor's degree in Community Health and Development from Jaramogi Oginga Odinga University of Science and Technology. Irine works as a Research Scientist at Kenya Medical Research Institute with a focus on strategies for prevention and control of malaria research. She has over 13 years of research experience that started with HIV and later Malaria infection. Currently, she is working on a qualitative study on a framework for improving the uptake of malaria vaccines.

In the past, she successfully coordinated a baseline evaluation survey on the feasibility of the malaria vaccine in western Kenya. In addition, she supervised a study that looked at the Impact of the Malaria vaccine on all causes of under 5 mortalities in the same region. Following her interest in developing her career, she received an EPI fellow European Developing Countries Clinical Trials Partnership (EDCTP) award that supported her master's study on "Integrated malaria prevention measures for children under five years" in Epidemiology and Biostatistics. Also, she has received a Hamish Ogston Young Career Grant award which supports part of her PhD study on understanding the low uptake of the malaria vaccine.

Irine submitted the list manuscript to the African Journal of Health Sciences for publication:

2023 - Irene Okanda, Erick Okuto, Moses Sadia, Emily Abuonji, Alice Lakati, Patrick Owili, and George Ayodo. The Uptake of RTS, S/AS01E Vaccine, and risk of malaria infection due to non-compliance among children aged 6-36 months in Western Kenya (Accepted)

2023 - Emily Abuonji, Dickens Omondi, Irene Marete, Irene Okanda, Antony Juma, Patrick Owili and George Ayodo. Household-based Factors associated with Viral Load Suppression among Adolescents living with HIV in Western Kenya - (Accepted)

Project

Effect of Malaria Vaccine (Rts, S) and Insecticide Treated Nets (Itn) on the Incidence of Malaria Infection Among Children 2-4 Years in Western Kenya

Background: Malaria remains a leading killer of infants and children under 5 years of age worldwide. In Kenya, it causes high morbidity and mortality, with over 70% of the population being at risk of the infection. Despite the implementation of several strategies, including chemotherapy, insecticide-treated mosquito nets (ITNs); indoor residual spraying (IRS); accurate diagnosis, and prompt treatment with artemisinin-based combination therapies (ACTs); malaria vaccine (RTS, S/AS01E) etc, malaria continues to persist as a significant public health concern, especially to the susceptible children under the age of five years. Our recent study demonstrated that there is a lack of optimum use of the malaria vaccine and this may apply to other interventions. Consequently, this study wants to understand the interaction of the prevention strategies. Specifically, the study will evaluate the use of LLINs and uptake of RTS, S vaccine uptake, determine the incidence of malaria infection, and finally to associate the combined use of the ITNs and uptake of RTS, S with the incidence of malaria infections among children aged 2-4 years.

Methods: The study site is the Muhoroni sub-county and the study population will be children 2-4 years in the sub-county. Children will be stratified as per the community unit; a random sampling method will be used to select 249 children from all the strata based on the number of eligible children. Caretakers of the 249 children will then be visited in their households with the guide of CHVs to be enrolled in the Study. This study will employ a quantitative cross-sectional approach. The structured questionnaire and data abstraction will be used to collect data from caretakers on Malaria vaccine uptake and ITN use among children 2-4 years in the Muhoroni sub-county. Malaria tests will be conducted using malaria RDT test kit. Data will be collected using Kobo collect, descriptive and analytic analysis will be done using STATA software. Ethical approval will be obtained from the ethical review board of JOOUST and NACOSTI in Kenya.

Expected Results: Findings from this study will provide gaps in malaria interventions and also inform the implementation strategies for enhanced public and private partnerships.