

**SUBTHEME 5: Health Interventions for
Sustainable Development amidst Global Crises**

**42. Yellow fever virus disease: a systematic review of
reemergence, incidence and mortality in Isiolo county, Kenya**

Kirongo, David¹; Marangu, Victor¹; Rukwaro, Miriam¹ and Magambo, Japhet¹

¹Meru University of Science and Technology
Corresponding author email: kirongodavid@must.ac.ke

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Abstract

Yellow fever is an endemic arboviral disease caused by yellow fever virus (YFV), with high fatality. WHO (Eliminate Yellow Fever Epidemics) is a plan to control YFV, with strategies to be carried out from 2017 to 2026. YFV outbreaks occurred in nine African countries in 2021. The burden was estimated in 2013 to be between 84,000 and 170,000 severe cases and 29,000 to 60,000 deaths. Most of the world's cases were reported in West and East Africa. Understanding the occurrence of yellow fever epidemics is critical for targeted interventions and control efforts to reduce the burden of disease. A systematic review study design was used to review existing literature and data on the yellow fever incidence and mortality rates in the region. Predictors of occurrence of yellow fever outbreaks were identified to include; local mosquito populations and specific yellow fever virus strain, eco climatic conditions, sociopolitical and demographic factors including population size, density, mobility, and vaccine coverage. Kenya declared an outbreak of yellow fever in Isiolo County after the death of three people. About 20 cases were reported in Isiolo in February. Counties bordering Isiolo were placed in the high-risk bracket. A national incident management structure to manage the outbreak was established. The team visited the epicenter of the outbreak in Merti and Garbatulla. Active case search and surveillance was done. It was noted that there was delay in case investigation. This was attributed to low index of suspicion among clinicians. It was concluded that there could be a possibility of both malaria and yellow fever outbreak in the county. The county health team was advised to heighten continued active case search and surveillance, case management and improve on risk communication to the community.

Key Words: *Yellow fever, Re-emergence, Incidence, outbreak, Systematic review, Isiolo*