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Impact of School-based Asthma Prevention Programmes on Rural Youth Respiratory Health in Kenya: A Meta-Analysis

Mukhtar Muigai[1,2], **Wangeci Wambui**[3], **Chepkwego Cherono**[3], **Odhiambo Kinyanjui**[3,4]

[1] Department of Internal Medicine, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

[2] Department of Pediatrics, Technical University of Kenya

[3] Moi University

[4] International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

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Correspondence: mmuigai@hotmail.com

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Author notes

Mukhtar Muigai is affiliated with Department of Internal Medicine, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi and focuses on Medicine research in Africa.

Wangeci Wambui is affiliated with Moi University and focuses on Medicine research in Africa.

Chepkwego Cherono is affiliated with Moi University and focuses on Medicine research in Africa.

Odhiambo Kinyanjui is affiliated with International Centre of Insect Physiology and Ecology (ICIPE), Nairobi and focuses on Medicine research in Africa.

Abstract

This study addresses a current research gap in Medicine concerning "Impact of School-based Asthma Prevention Programs on Rural Youth Respiratory Health in Kenya" in Kenya. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A structured review of relevant literature was conducted, with thematic synthesis of key findings. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. "Impact of School-based Asthma Prevention Programs on Rural Youth Respiratory Health in Kenya", Kenya, Africa, Medicine, meta analysis This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \beta^{\rightarrow} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, rural health, asthma, prevention programmes, meta-analysis, systematic review, intervention studies*

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