



# Methodological Assessment of Public Health Surveillance Systems in Kenya: A Meta-Analysis

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## Abstract

Public health surveillance systems in Kenya are crucial for monitoring infectious diseases and ensuring timely interventions. However, their effectiveness varies, necessitating a methodological assessment to improve their operational efficiency. A systematic review approach was employed to identify studies evaluating public health surveillance systems. Quantitative synthesis methods were used to analyse data from multiple studies on clinical outcomes. The analysis revealed a significant variability in the accuracy of reported clinical outcomes, with some systems underreporting by up to 20%. Public health surveillance systems in Kenya exhibit substantial methodological weaknesses that impact their ability to provide accurate and timely data for monitoring diseases. Enhanced training programmes should be implemented for surveillance personnel to improve reporting accuracy. Standardised protocols need to be developed and rigorously enforced. public health surveillance, clinical outcomes, Kenya, meta-analysis Treatment effect was estimated with  $\text{text}\{ \text{logit} \}(\pi) = \text{beta} 0 + \beta^{-} p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, African, Spatial, Modelling, Epidemiology, Randomized, Controlled*

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