



Methodological Evaluation of Public Health Surveillance Systems in Kenya: A Randomized Field Trial on Adoption Rates

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Abstract

Public health surveillance systems are crucial for monitoring diseases and managing outbreaks in Kenya. A randomized field trial was conducted to measure the adoption rates of the new surveillance system among healthcare providers. A logistic regression model with robust standard errors was used to analyse the data. The study found that 75% of participating healthcare providers adopted the new system, indicating a moderate level of acceptance. The randomized field trial confirmed the feasibility and effectiveness of the new public health surveillance system in improving adoption rates among healthcare providers in Kenya. Further implementation strategies should focus on enhancing user training to maximise system utilization. Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_1$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, surveillance systems, evaluation methods, randomized trials, outbreak management, public health metrics, geographic information systems*

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