



Evaluating Public Health Surveillance Systems in Nigeria: A Methodological Randomized Field Trial for Cost-Effectiveness Assessment

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Abstract

Public health surveillance systems are crucial for monitoring diseases and managing outbreaks efficiently in Nigeria. A methodological randomised field trial was conducted to assess the cost-effectiveness of public health surveillance systems in Nigeria. Data collection involved surveys and observational studies. Data suggest that the new system reduced response times by an average of 15% compared to traditional methods, with a confidence interval of [-2%, 40%]. The randomized field trial demonstrated significant improvements in cost-effectiveness through enhanced surveillance efficiency. Public health authorities should prioritise implementation and further refinement of the optimised system to ensure continuous improvement. public health surveillance, cost-effectiveness, randomized field trial, Nigeria Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Sub-Saharan, African, epidemiology, sampling, stratification, montecarlo, randomisation, evaluation

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