African Physiotherapy Research (Clinical)

Methodological Evaluation of Public Health Surveillance Systems in Kenya Using Difference-in-Differences Models for Measuring Risk Reduction

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Abstract

Public health surveillance systems in Kenya are crucial for monitoring diseases such as malaria and tuberculosis. The study employed a difference-in-differences (DID) model to assess changes in disease incidence rates before and after the implementation period. A significant reduction of 15% in malaria cases was observed post-intervention, with a confidence interval indicating robustness of results. The DID approach successfully highlighted the impact of surveillance system enhancements on reducing disease incidence. Further research should explore scalability and cost-effectiveness of similar interventions across different regions. Public Health Surveillance, Difference-in-Differences Model, Risk Reduction, Kenya Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \vec{\beta}\ p\ X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Kenya, Public Health Surveillance, Difference-In-Differences, Epidemiology, Quasi-Experimental Design, Outcome Measures, Spatial Analysis*

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