



Methodological Assessment of Public Health Surveillance Systems in Senegal Using Panel Data for Yield Improvement Evaluation

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Abstract

Public health surveillance systems play a pivotal role in monitoring and responding to infectious diseases in Senegal. A mixed-methods approach was employed, including quantitative econometric methods such as fixed effects regression models for analysing panel data. Fixed effects regression revealed that there is an average 20% increase in disease surveillance accuracy over the study period. The findings suggest potential areas for system enhancement to improve public health outcomes. Enhancing training programmes and increasing funding for data collection could lead to better yield improvement evaluations. Public Health Surveillance, Fixed Effects Regression, Yield Improvement, Panel Data Treatment effect was estimated with $\text{text} \{ \text{logit} \} (\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: African, Geographic, Panel, Econometrics, Surveillance, Evaluation, Methodology

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