



Methodological Evaluation of Public Health Surveillance Systems in Ethiopia: A Randomized Field Trial

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Abstract

Public health surveillance systems are crucial for monitoring infectious diseases in Ethiopia, yet their effectiveness varies. A mixed-methods approach combining quantitative data analysis and qualitative interviews was employed to assess system performance. The intervention led to an average of 15% reduction in infectious disease reporting times, with significant improvements noted among rural health centers. Public health surveillance systems can be significantly improved through targeted interventions, particularly focusing on rural areas. Systematic reviews should prioritise implementation strategies for increased efficiency and coverage across different regions. Treatment effect was estimated with $\text{text}\{logit\}(\pi) = \beta_0 + \beta^{-1} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, surveillance, evaluation, randomized, effectiveness, methodology, public health*

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