African E-Learning Research

Methodological Evaluation of Public Health Surveillance Systems in Uganda: A Randomized Field Trial for Efficiency Gains

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Abstract

Public health surveillance systems in Uganda are critical for monitoring infectious diseases and managing outbreaks effectively. A randomized controlled trial was conducted among 100 healthcare facilities. The system's performance was assessed using operational metrics and feedback from frontline workers. The trial revealed that the average response time to surveillance alerts was reduced by 25% after implementing new training programmes for staff, indicating a significant improvement in efficiency. The randomized field trial demonstrated that targeted interventions can substantially enhance the operational efficacy of public health surveillance systems in Uganda. Health authorities should prioritise ongoing training and technical support to sustain these improvements and further streamline response times. Public Health Surveillance, Randomized Field Trial, Efficiency Gains Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \vec{\beta} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, African, Networks, Surveillance, Systems, Evaluation, Randomization, Impact Assessment*

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