Maternal Mortality Reduction via Community Health Worker Programmes in Kigali, Rwanda: A Longitudinal Study

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Abstract

Maternal mortality remains a significant public health concern in many developing countries, including Rwanda. Community-based healthcare programmes have shown promise in reducing maternal deaths by improving access to care and providing essential services. Data were collected from the Rwanda National Health Information System for years -. A mixed-methods approach was employed, including quantitative analysis of mortality data and qualitative interviews with CHWs and community leaders to understand implementation challenges and successes. Over the study period, there was a statistically significant decrease in maternal mortality rates (MMR) from 354 per 100,000 live births in to 278 per 100,000 in . The reduction was attributed to improved CHW training and community engagement strategies. The longitudinal study supports the efficacy of CHWs in promoting maternal health outcomes in Kigali, with a notable decline in MMR over time. Further research is recommended to explore sustainable programme models and scalability across other regions in Rwanda. Continued investment in CHW education and support structures is advised to maintain and enhance maternal health improvements. Community-centric interventions should be prioritised for broader impact. Maternal Mortality, Community Health Workers, Kigali, Rwanda, Longitudinal Study Model estimation used $\hat{\{\theta\}} = argmin\{\theta\} sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert 2^2$, with performance evaluated using out-of-sample error.

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