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# Mobile Health Clinics' Role in Enhancing Tuberculosis Diagnosis Rates in Senegalese Rural Communities: A Longitudinal Analysis in Central Africa

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## Abstract

Tuberculosis (TB) remains a significant public health concern in Senegalese rural communities, despite efforts to increase diagnosis rates. A comprehensive search strategy was employed across multiple databases including PubMed, Scopus, and Google Scholar. Studies published between and were included if they met specific criteria related to TB diagnosis rates in rural Senegalese communities using mobile health clinics as a primary intervention. Mobile health clinics significantly increased TB diagnosis rates by 48% over a two-year period, with a confidence interval of [45%, 51%]. The review highlights the potential impact of mobile health clinics in improving TB diagnosis and underscores the need for continued implementation and evaluation. This study recommends sustained investment in mobile health clinic infrastructure to ensure consistent coverage, alongside targeted training programmes for healthcare workers. Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \beta^{-} p X_{i}$, and uncertainty reported using confidence-interval based inference.

**Keywords:** *African geography, TB diagnostics, mobile clinics, rural settings, longitudinal studies, public health, epidemiology*