



## Mobile Health Clinics and Tuberculosis Case Detection Rates in Eastern Uganda: A Meta-Analysis

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### Abstract

Mobile health clinics (MHCs) have been introduced to improve access to healthcare services in rural areas of Uganda, particularly for tuberculosis (TB) screening and treatment. A comprehensive search was conducted in PubMed and Scopus databases to identify relevant studies, which were then analysed through meta-analysis techniques including random-effects models. The analysis revealed an increase of approximately 15% (95% CI: 8-23%) in TB case detection rates associated with the operation of MHCs compared to traditional healthcare settings. These findings suggest that mobile health clinics can significantly enhance TB case identification and management in rural Eastern Uganda, providing a valuable tool for public health interventions. The implementation of standardised screening protocols within MHCs should be encouraged to maintain consistent detection rates. Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** Sub-Saharan, health inequalities, systematic review, pooled analysis, geographical distribution, intervention efficacy, public health initiatives

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