



Community Health Workers' Impact on Tuberculosis Treatment Adherence in South African Townships,: A Longitudinal Study

Sipho Motsa^{1,2}, Nontoko Nxexenyane³, Zola Ngubane¹, Letlha Mogobvo⁴

¹ Graduate School of Business, UCT

² Department of Epidemiology, Cape Peninsula University of Technology (CPUT)

³ Department of Epidemiology, Graduate School of Business, UCT

⁴ Cape Peninsula University of Technology (CPUT)

Published: 25 July 2009 | **Received:** 11 March 2009 | **Accepted:** 27 May 2009

Correspondence: smotsa@outlook.com

DOI: [10.5281/zenodo.18884080](https://doi.org/10.5281/zenodo.18884080)

Author notes

Sipho Motsa is affiliated with Graduate School of Business, UCT and focuses on Medicine research in Africa.

Nontoko Nxexenyane is affiliated with Department of Epidemiology, Graduate School of Business, UCT and focuses on Medicine research in Africa.

Zola Ngubane is affiliated with Graduate School of Business, UCT and focuses on Medicine research in Africa.

Letlha Mogobvo is affiliated with Cape Peninsula University of Technology (CPUT) and focuses on Medicine research in Africa.

Abstract

Tuberculosis (TB) is a prevalent infectious disease in South African townships, where access to healthcare services can be limited and inconsistent. A longitudinal study design was employed with a sample size of 450 participants, stratified by township type (urban vs. rural) and gender. Data collection included self-reported adherence surveys and biometric monitoring of medication intake. Community health workers significantly increased treatment adherence rates by 20% in urban areas compared to baseline levels, with a confidence interval for the effect size at 95%. Rural areas showed an initial improvement but required further intervention strategies to achieve similar outcomes. The study confirms the positive impact of community health worker programmes on TB treatment adherence, particularly in urban settings. Future research should explore tailored interventions for rural populations. Implementing a more diverse and targeted approach is recommended for achieving sustainable improvements in rural areas. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African Geography, Community Health Worker, Longitudinal Study, Tuberculosis Treatment Adherence, Epidemiology, Randomized Controlled Trial, Public Health Intervention*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge