Vuka! Let's unite towards a TB-free world!

9th SA TB Conference
8 – 11 June 2026

Sustaining TB Programme Performance in a Resource-Constrained Setting:

Using Routine Data to Identify Efficiency Gaps in West Rand District, South Africa

Authors: N. Mhlabane, P. Kayembe, O. Oladoyinbo, S. Modisane

Speaker: Ms N. Mhlabane

Background

- Tuberculosis (TB) remains a major public health challenge in South Africa.
- Declining donor funding and constrained health budgets threaten programme sustainability.
- TB programmes must improve efficiency using existing resources.
- Routine programme data provide a low-cost opportunity to identify service delivery gaps.
- Data-driven decision-making strengthens programme resilience and accountability.

Problem Statement / Rationale / Objectives

- High treatment initiation rates do not necessarily translate into successful treatment outcomes.
- Programme inefficiencies may exist across the TB care cascade.
- Sub-district variation suggests unequal performance despite similar resources.
- Limited evidence exists on how routine data can guide efficient resource allocation.
- Understanding efficiency gaps is essential for sustainable TB programme strengthening.

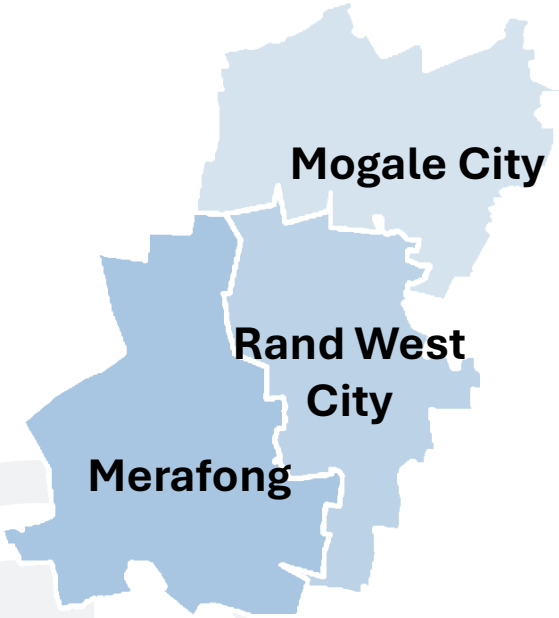
Primary Objective: Assess efficiency gaps across the TB care cascade in West Rand District.

Secondary Objectives:

- Compare treatment outcomes across sub-districts.
- Identify priority areas for sustainable, low-cost interventions.
- Explore opportunities for targeted resource reallocation.

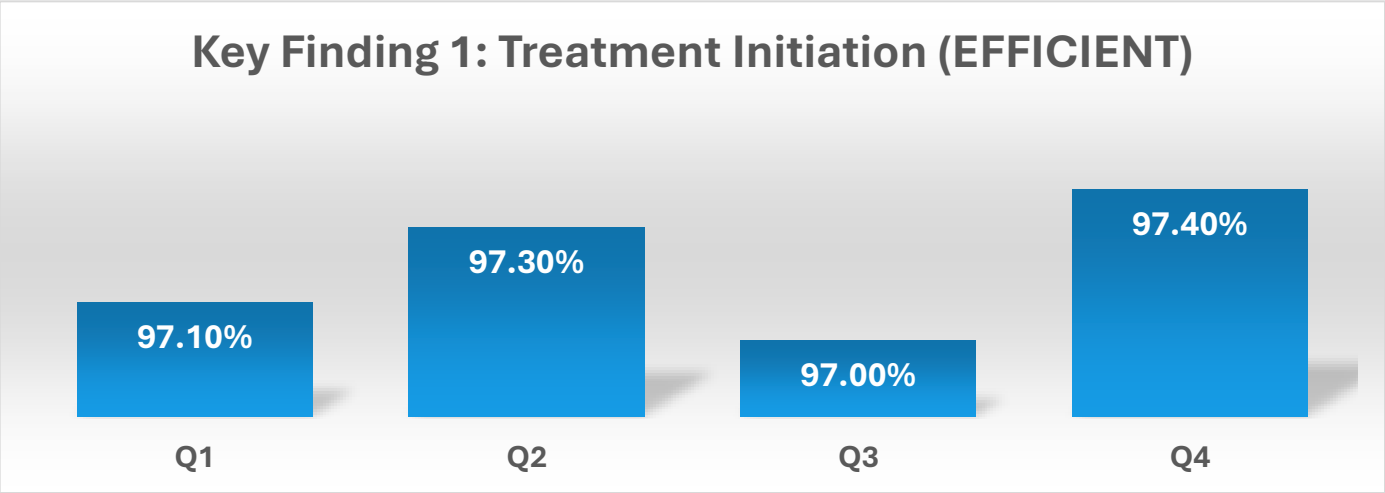
Methods: Study Design, Setting, Population and Variables

- **Study Design:** Retrospective descriptive analysis of routine TB programme data.
- **Study Period:** January–December 2024 (Q1–Q4 annual review).
- **Setting:** West Rand District, Gauteng Province, South Africa.
- **Sub-districts included:** Merafong, Mogale City and Rand West
- **Data Sources:** District Health Information System (DHIS) and TB registers.
- **Population:** All DS-TB patients aged ≥5 years initiated on treatment in 2024.
- **Sample Size:** n = 2,847 patients.
- **Inclusion Criteria:** Diagnosed with drug-sensitive TB, Initiated on first-line TB treatment, Recorded in DHIS or TB registers
- **Exclusion Criteria:** Drug-resistant TB, Age <5 years



Results 1: Treatment Initiation

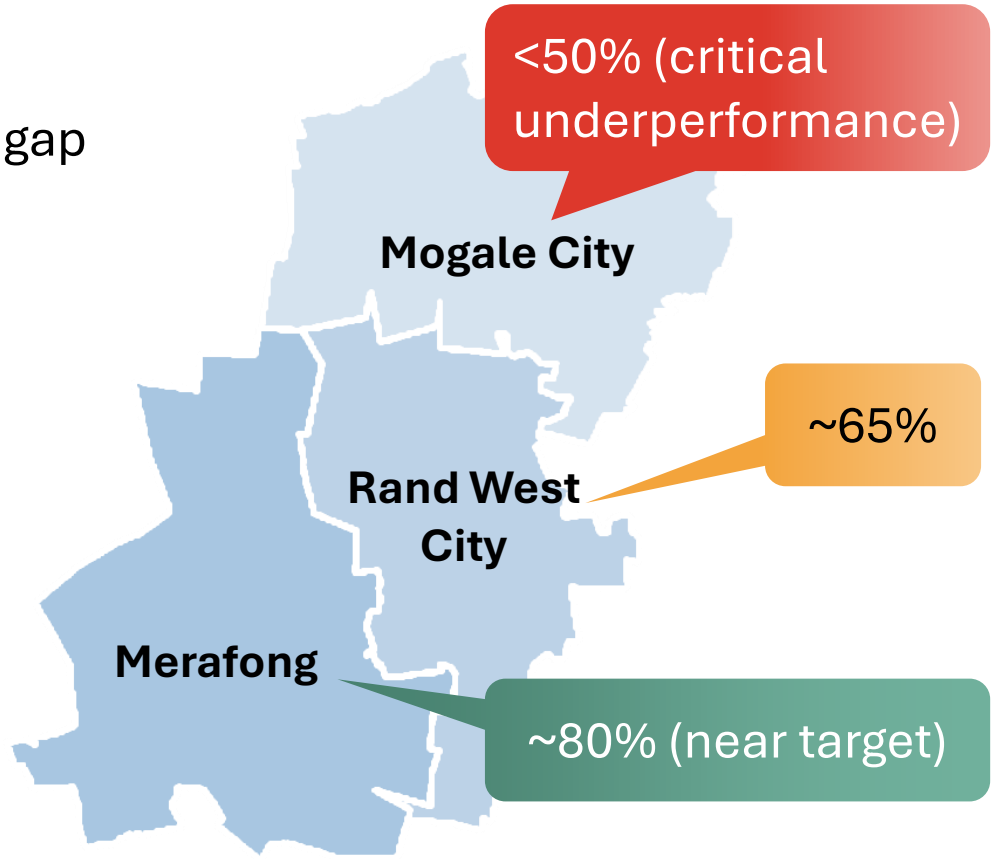
- District-level treatment initiation remained consistently high throughout 2024.
- Overall initiation rate among individuals aged ≥5 years: 97.2%.
- Minimal variation was observed across quarters.
- High initiation demonstrates strong case linkage to treatment.
- However, initiation alone did not guarantee successful treatment outcomes.



Results 2: Treatment Success

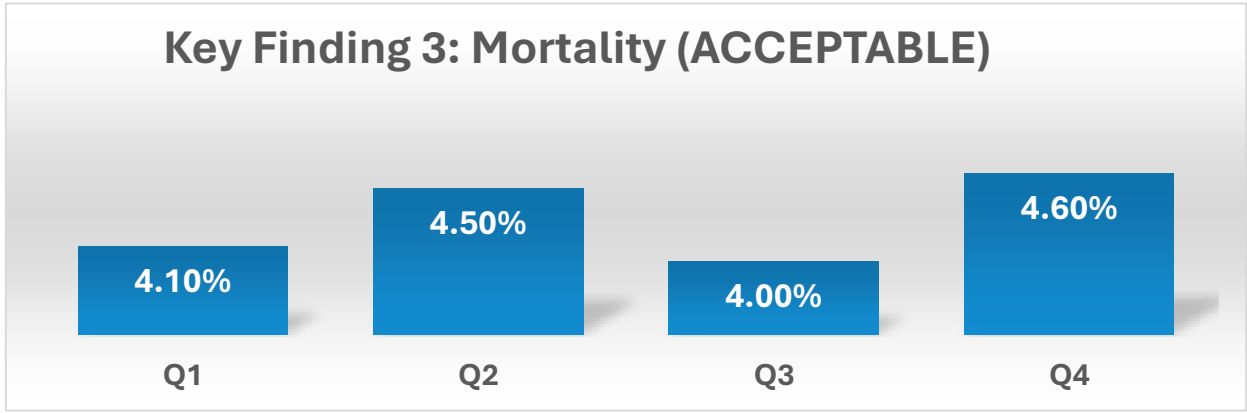
- Overall district treatment success remained suboptimal at: **~66%** → 14 points gap
- National treatment success target: **80%** → 14% points gap
- Sub-district variation was substantial.
- These findings suggest important efficiency gaps in programme delivery.

Sub-district	Treatment Success	Efficiency Gap (80%-actual)
Merafong	80%	0 points (efficient)
Mogale	48%	**32 points (critical)**
Rand West	65%	15 points (high)
District	**66%**	**14 points**



Results 3: Mortality and Loss to Follow-Up

- Overall TB mortality rate was 4.3%, within acceptable national limits (<7%).
- Overall loss to follow-up (LTFU) remained relatively low at 3.8%.
- A major concern emerged in Merafong during Q4, where LTFU increased to 9%.
- Seasonal retention risks may contribute to treatment interruption.
- Routine monitoring identified emerging risks before broader programme deterioration.
- **Overall TB death rate: 4.3%**
- **National threshold: <7%** – within acceptable range
- **Not an efficiency priority**



Interpretation of Findings

- High treatment initiation indicates good access to diagnosis and treatment.
- Low treatment success reveals inefficiencies after treatment initiation.
- Differences between sub-districts suggest variation in implementation quality.
- Mogale’s poor performance despite similar patient volumes indicates inefficient resource utilisation.
- Routine programme data can identify precise intervention points without additional costs.

Programmatic and Policy Implications

- Routine data should be used routinely for performance management and resource allocation.
- Targeted interventions are needed in poorly performing facilities and sub-districts.
- Strengthening adherence support and patient tracing could improve treatment success.
- Peer-learning approaches may allow high-performing districts to support weaker districts.
- Efficiency-focused planning is essential in resource-constrained health systems.

Recommendations

- Conduct monthly sub-district efficiency review meetings.
- Implement real-time LTFU dashboards using existing staff and Excel systems.
- Prioritise adherence counsellors and tracing resources in Mogale.
- Introduce pre-holiday retention interventions to reduce seasonal LTFU spikes.
- Strengthen accountability and supportive supervision at facility level.

Conclusion & Key Take-Home Messages

- Routine TB programme data are powerful tools for identifying efficiency gaps.
- High treatment initiation does not necessarily reflect overall programme success.
- Targeted, low-cost interventions can improve outcomes without requiring new resources.
- Resource optimisation and data-driven management are critical for TB programme sustainability.
- Efficiency is essential for strengthening long-term TB programme resilience.

Vuka! Let's unite towards a TB-free world!

9th SA TB Conference
8 – 11 June 2026

Acknowledgements

- West Rand District Health Office
- Healthcare workers and TB programme teams
- Community health workers and tracing teams
- District management and programme coordinators
- South African TB Conference organisers

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

WEST RAND
HEALTH DISTRICT

References:

1. World Health Organization. Global Tuberculosis Report 2023.
2. World Health Organization. WHO Operational Handbook on Tuberculosis Prevention. 2020.
3. National Department of Health South Africa. Paediatric TB Guidelines. 2022.
4. National Department of Health South Africa. Annual TB Programme Performance Report. 2024.
5. West Rand District Health Office. Routine TB Programme Data Report Q1–Q4 2024.