



Integrating Pulmonary Rehabilitation into Routine TB Care to Improve Post-TB Recovery in Malawi

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Background



Tuberculosis and Recovery in Malawi

- Malawi has achieved TB treatment success rates approaching 90%.
- However, treatment completion does not always mean full recovery.
- Many TB survivors continue to experience:
 - Persistent breathlessness
 - Reduced exercise capacity
 - Chronic fatigue
 - Mental health challenges
 - Poor quality of life

The emerging challenge

- Post-TB Lung Disease (PTLD) is increasingly recognized as a major contributor to long-term disability among TB survivors.
- **The question is no longer: "Did the patient complete treatment?"**
- **It is: "Did the patient recover?"**

The gap



Current situation

- Routine TB services primarily focus on diagnosis and treatment completion.
- Support for recovery after treatment remains limited.
- Evidence from Paradiso TB Patients Trust programs showed that nearly **60% of TB survivors experience ongoing respiratory complications following treatment.**

Why this matters

- Without appropriate support, TB survivors may experience:
- Reduced productivity
- Ongoing healthcare utilization
- Social isolation
- Reduced quality of life
- **A Potential Solution;**
 - Pulmonary Rehabilitation (PR) offers a practical, low-cost and evidence-based approach to support recovery after TB.

The Project Aim



The Goal

- **Our Goal**

- To integrate Pulmonary Rehabilitation into routine TB services and evaluate its potential to improve recovery outcomes among TB survivors.

- **What We Wanted to Learn**

- Can Pulmonary Rehabilitation improve health and quality of life after TB?
- Can the intervention be delivered within existing public health services?
- What factors support or hinder implementation?
- What lessons can inform national scale-up

The Approach



A Collaborative Model

- The rehabilitation programme was co-designed with:
 - TB survivors
 - Community volunteers
 - Healthcare workers
 - Physiotherapists
 - Facility managers
 - Civil society partners
 - National TB Programme representatives

Key interventions

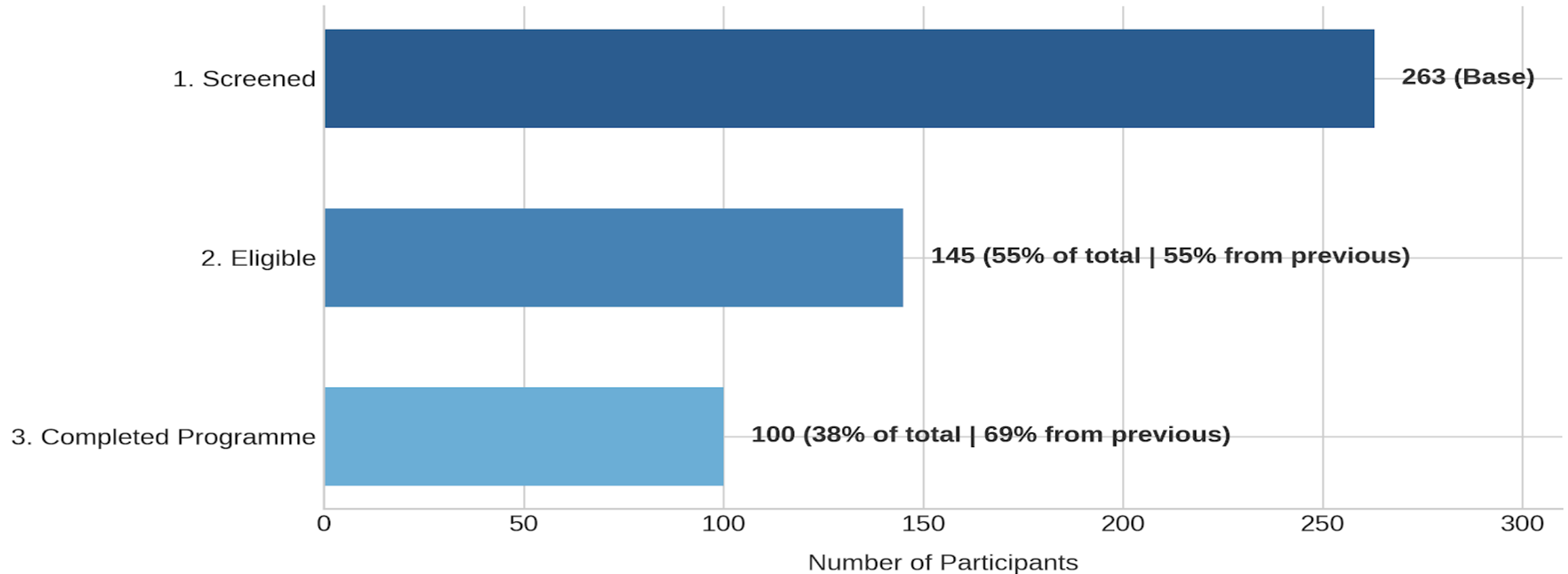
- Trained 52 health workers
- A 12-week program with 2 sessions per week.
 - 15 min health education
 - 45 min supervised aerobics sessions
 - It uses mostly locally made equipment for sustainability
- Implementation Sites: 9 Health facilities across Malawi

Results



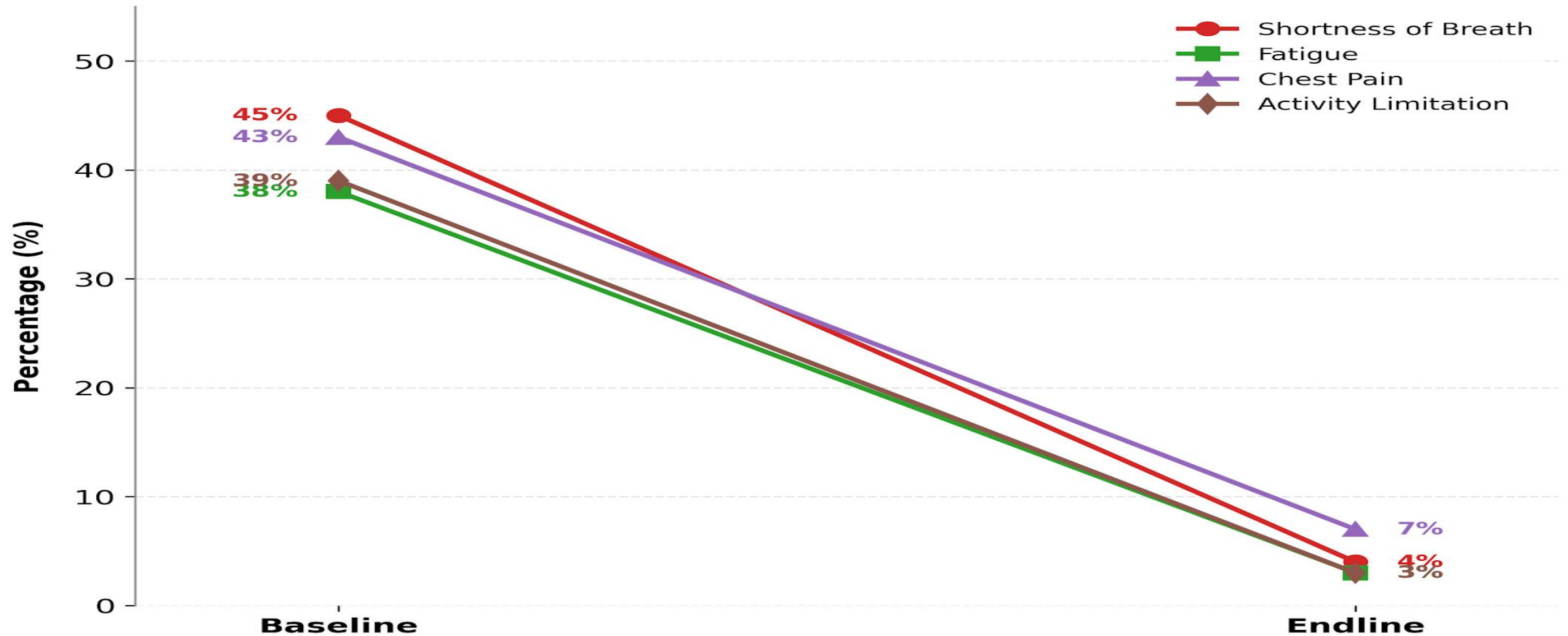
Assessments Results

Program Completion Pipeline



Clinical results of the PRP

Alternative Presentation: Symptom Reduction Slope Chart



Physical and Functional Results



Health system strengthening results

- Standardized Pulmonary Rehabilitation SOP developed
- PTLD screening tools revised
- PTLD monitoring indicators established
- Reporting tools

Challenges



Key issues

- Participant transport costs
- Documentation and reporting gaps
- Equipment maintenance needs

What learned



Key insights

- **Pulmonary Rehabilitation Works**
- The programme produced meaningful improvements in respiratory, physical and mental health outcomes.
- **Integration Is Feasible**
- Rehabilitation services were successfully delivered through existing government health facilities.
- **Partnerships Matter**
- Engagement of survivors, healthcare workers and programme managers strengthened ownership and implementation.

Policy impact



- Post-TB care integrated into Malawi's National TB Strategic Plan addendum (2023)
- National PTLD Operational Guidelines and SOPs developed
- PTLD indicators added to national TB registers
- Program expanded to 15 health facilities
- Integrated into University of Livingstonia curriculum

Conclusion



Take-Home Messages

- TB treatment success does not always mean full recovery.
- Post-TB Lung Disease is a significant but often overlooked burden.
- ✓ Pulmonary Rehabilitation improves respiratory health, physical functioning and mental well-being.
- Integration into routine TB services is achievable within existing health systems.
- ✓ Scaling up rehabilitation offers an opportunity to shift TB programs from **survival to recovery**

PRP in action







"Every person cured of TB deserves the opportunity to breathe easier, move freely, and live fully."



Davie Zenengeya