An App-based approach to TB Screening at the Dostainesla Primary health clinic

A Quality Improvement Project

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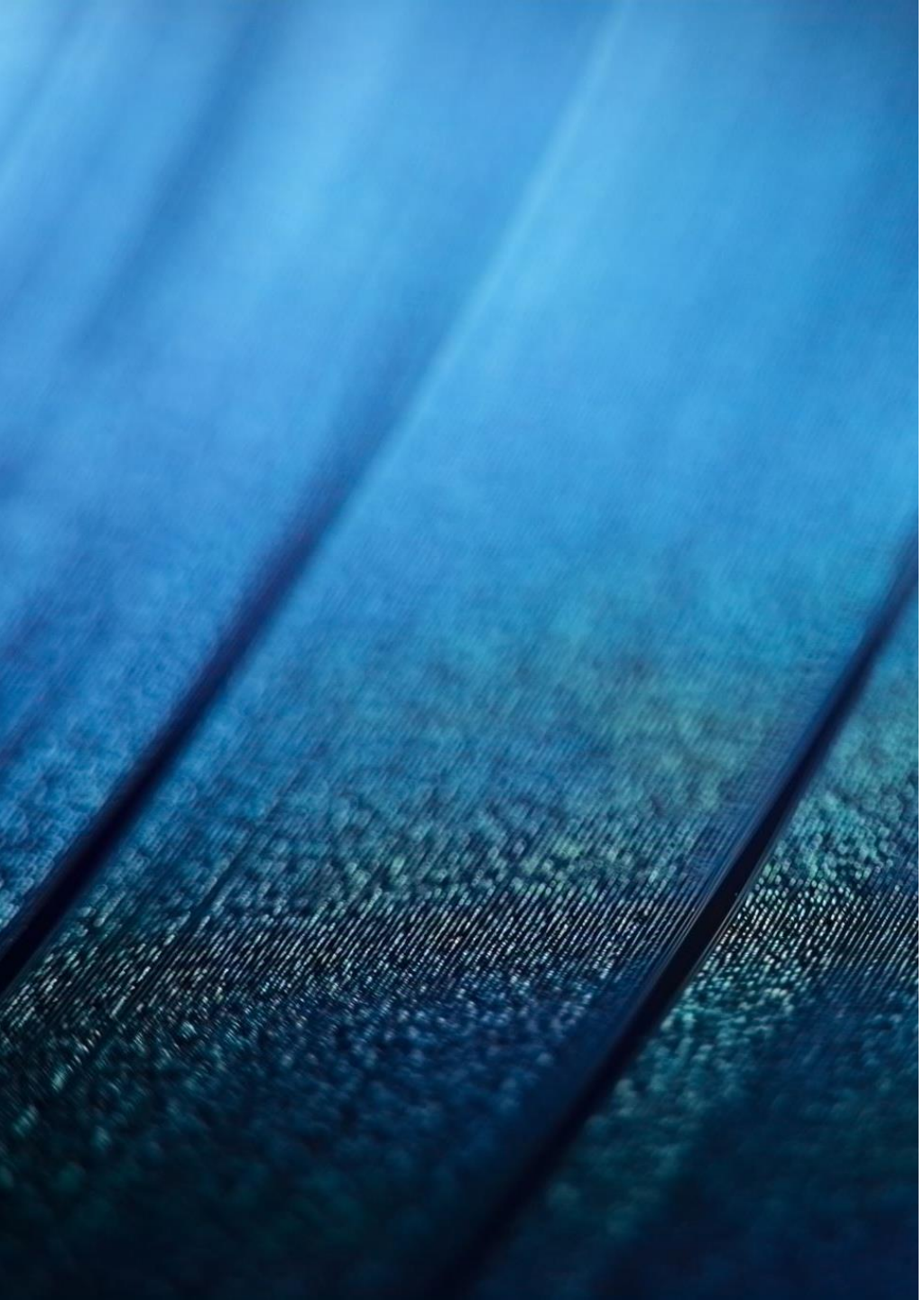


TB in RSA

South Africa is one of 10 countries that face a triple burden of both drug-susceptible (DS-TB) and drug-resistant (DR-TB), as well as HIV-TB coinfection.

TB is the leading cause of death in the country and the high rate of HIV co-infection continues to accelerate the impact of the epidemic.

The estimated prevalence of TB (all ages, all forms) in South Africa in 2018 was **737 (95% CI 580-890) per 100,000 population**. *

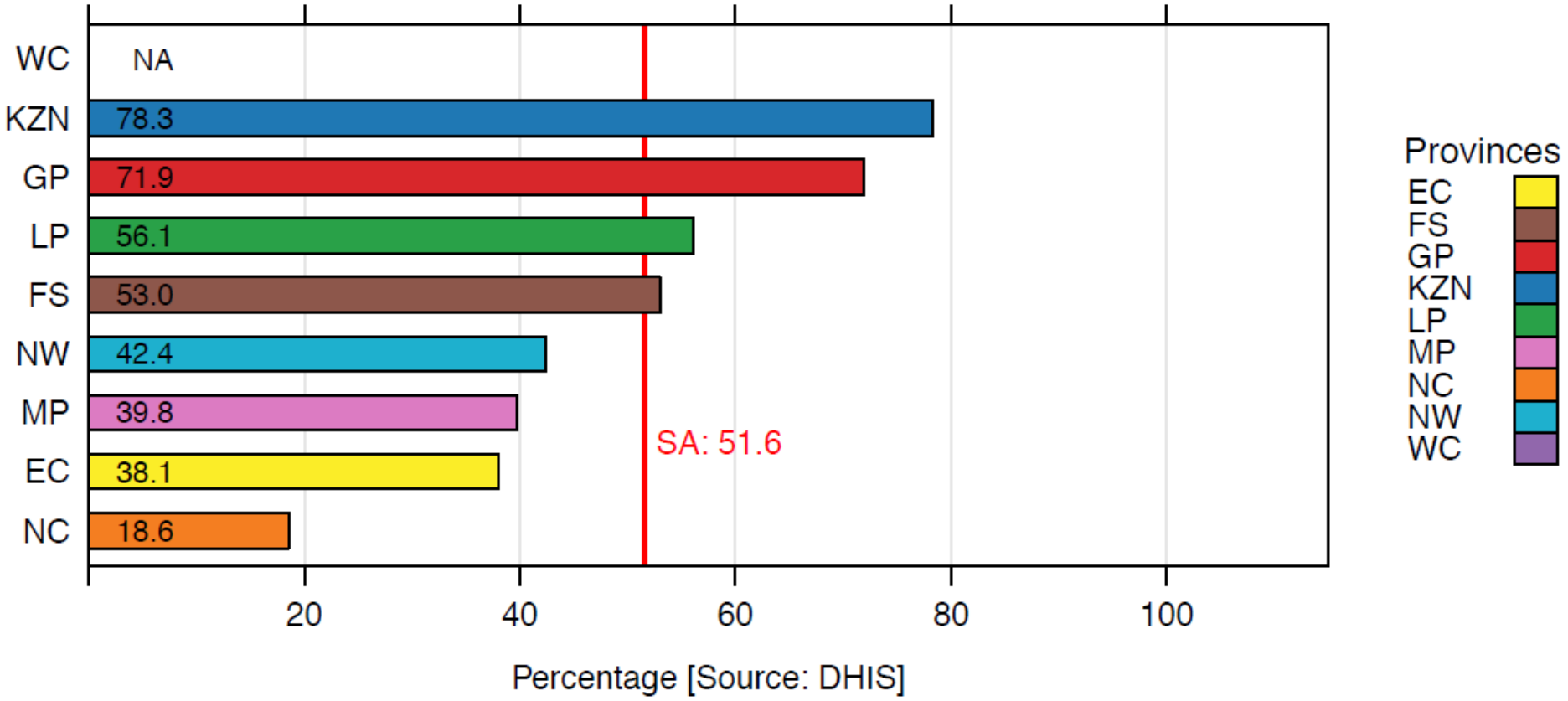
*https://www.clintonhealthaccess.org/blog/supporting-improved-tb-screening-in-south-africa/

TB in RSA

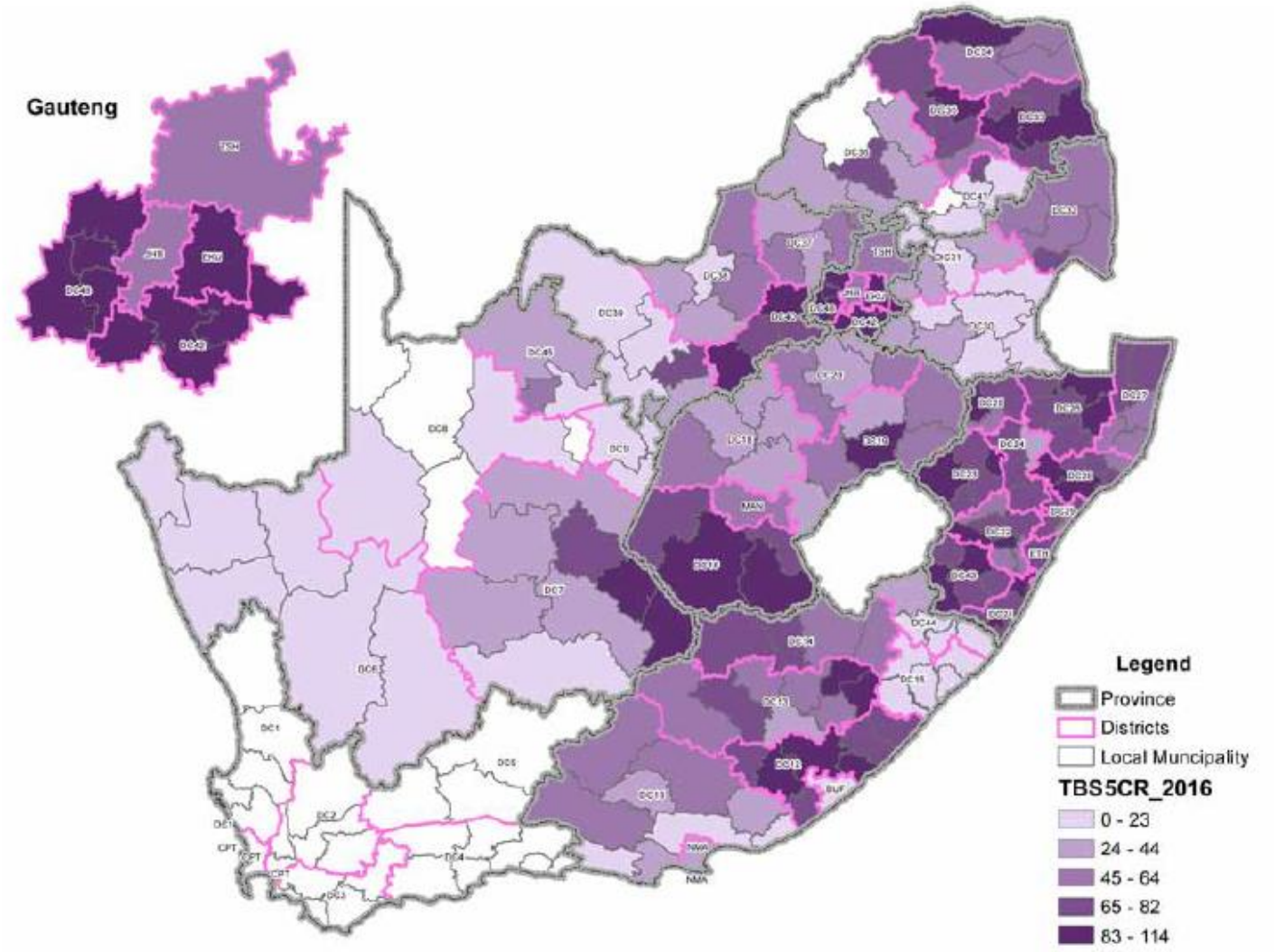
- It is estimated that about 80% of the population of South Africa is infected with TB bacteria, the vast majority of whom have latent TB rather than active TB disease.
- As transmission is driving the TB epidemic in South Africa, the early detection of disease and getting those diagnosed with TB onto treatment as quickly as possible is of the utmost importance. It is for this reason that all clients entering PHC facilities are supposed to be screened for TB.

Nationally the TB symptom 5 years and older screened in facility rate in 2016/17 was 51.6%.

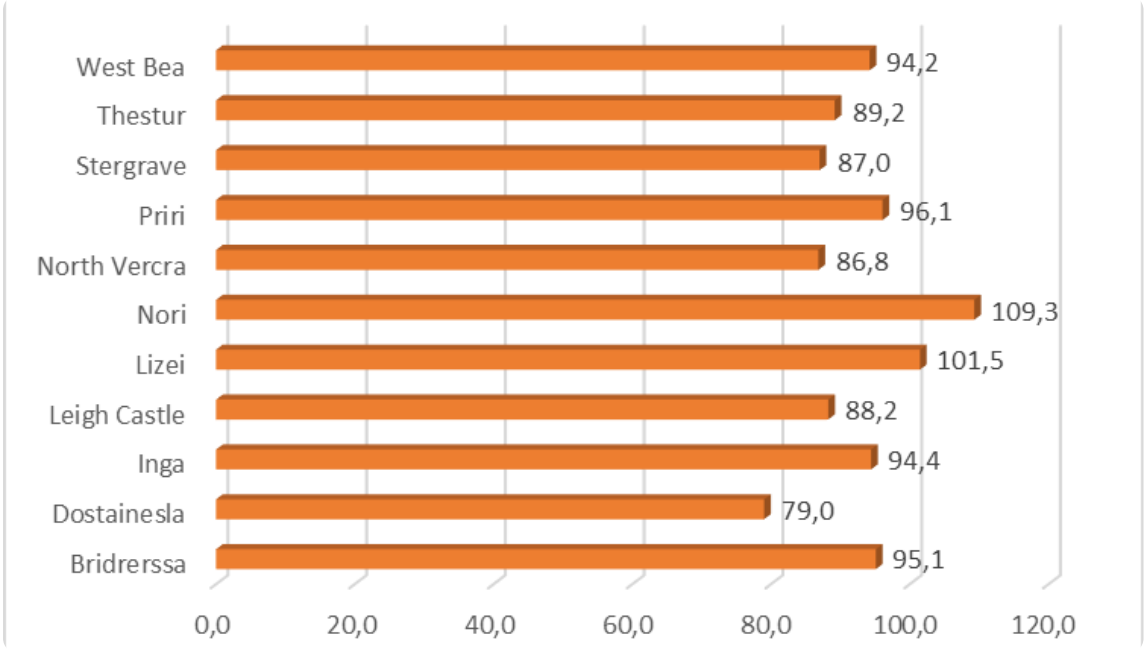
Figure 1: TB symptom 5 years and older screened in facility rate by province, 2016/17

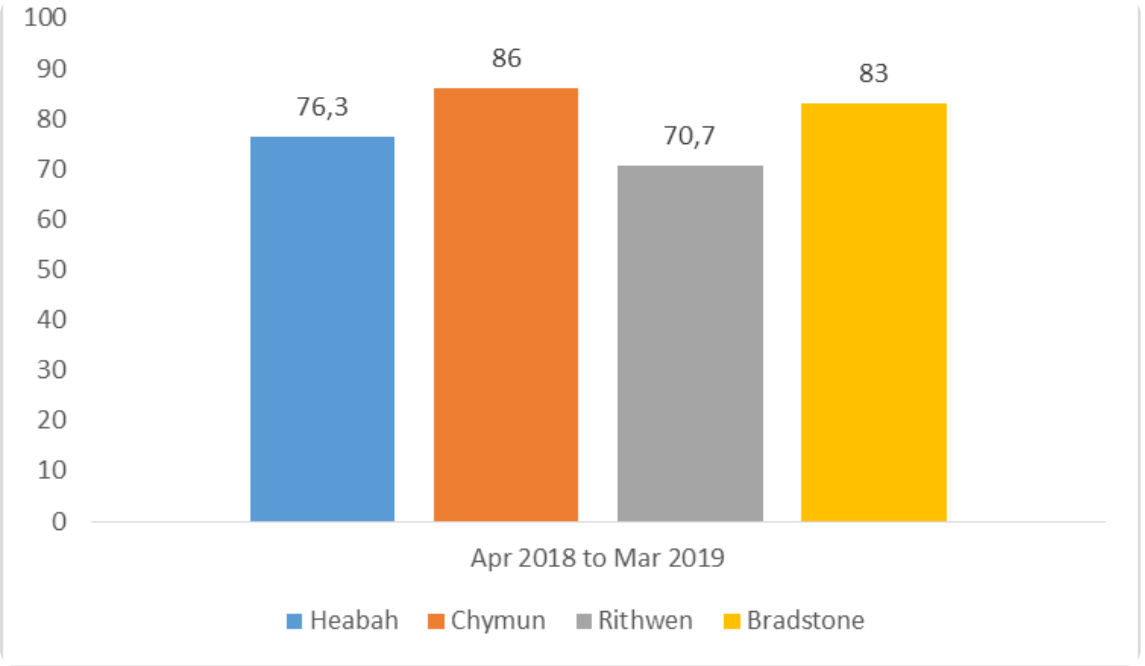


Map 1: TB symptom 5 years and older screened in facility rate by sub-district, 2016/17



Our target district - Dostainesla





What is the problem?

- Poor screening rates
  - Knowledge gap
  - Understaffing
  - Unavailability of screening tool
  - **Multiple data collection tools**
  - Poor data capturing

What is the problem?

Preliminary questionnaire piloted and administered

Queried current understanding of screening

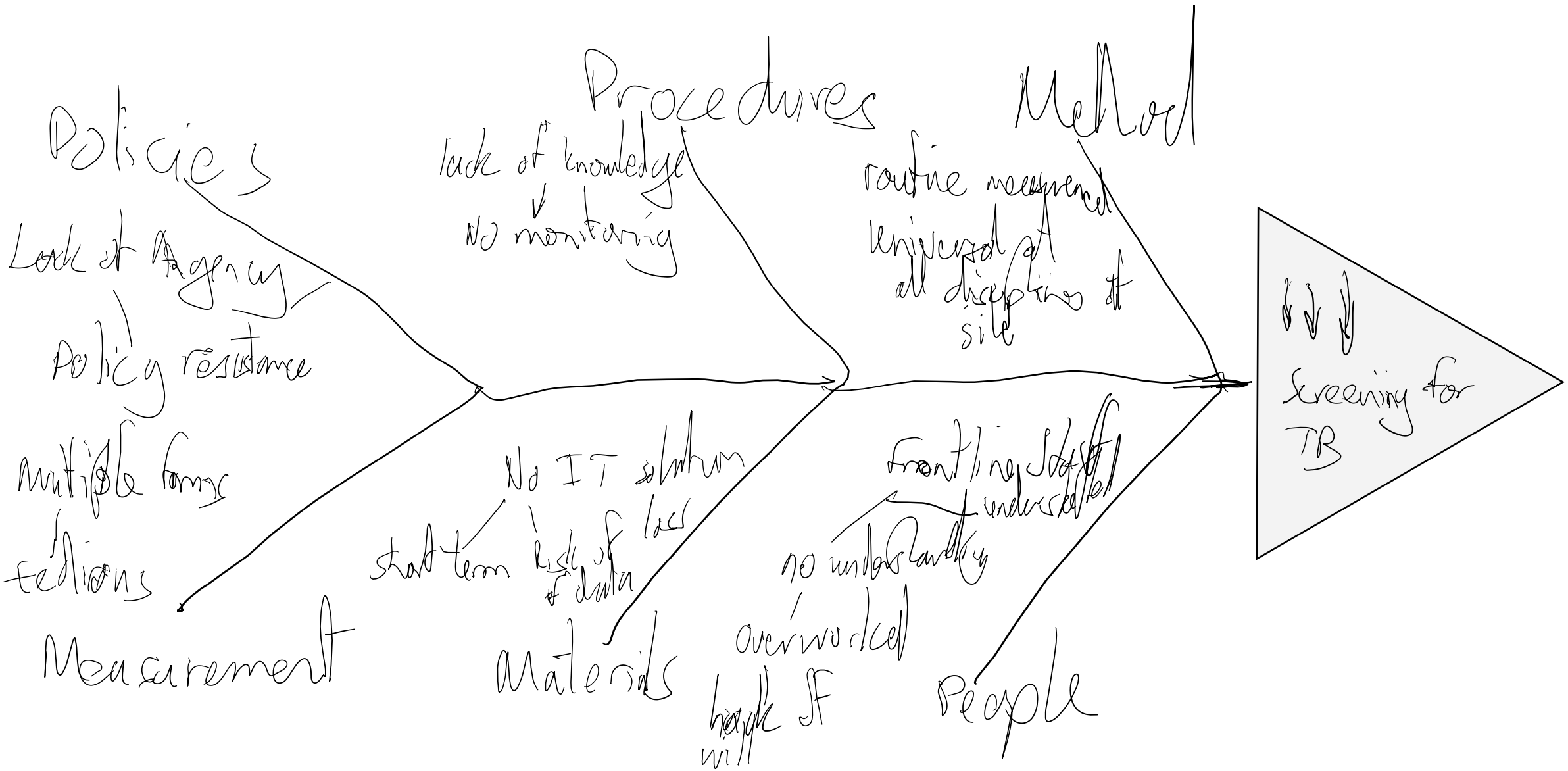
60% understood policy and procedures related to screening

85% felt process tedious and no insight into why

100% believed overworked and staff shortage

Will be amenable to consolidate multiple screening forms 90%

Willing to adopt an app based tool for screening


Policies
Lack of Agency
Policy resistance
Multiple forms
Measurement
Procedures
lack of knowledge
No monitoring
No IT solution
short term lack of
Materials
Method
routine measurement
universal at
all disciplines at
site
no understanding
overwhelmed
People
Screening for
TB

- For South Africa, reducing TB transmission is a prerequisite for addressing the TB burden of the country. In the next financial year facilities have to ensure that many more clients 5 years and older attending PHC facilities are screened as an attempt to reach the 94% APP target.

What we propose

Value	Value Proposition
Introduce	Introduce a multifaceted screening tool that integrates to a cloud-based patient database that can monitor and track screening
Reduce	Reduce workload of frontline staff
Increase	Increase reliable and consolidated reporting of burden of disease
On demand and live	On demand and live reporting which is easily accessible

Aim

Overall

To improve screening rates to meet the target of 94% for TB in age groups 5 years and older in PHCs in Dostainesla District

Timeframe: next 3 years

Immediate

Introduce an integrated app-based tool for multiple screening in the Dostainesla district

Objectives

Objective of QIP

Value proposition

Introduce improvement model to key stakeholders

Suggest a top down approach to improve buy in and reduce resistance

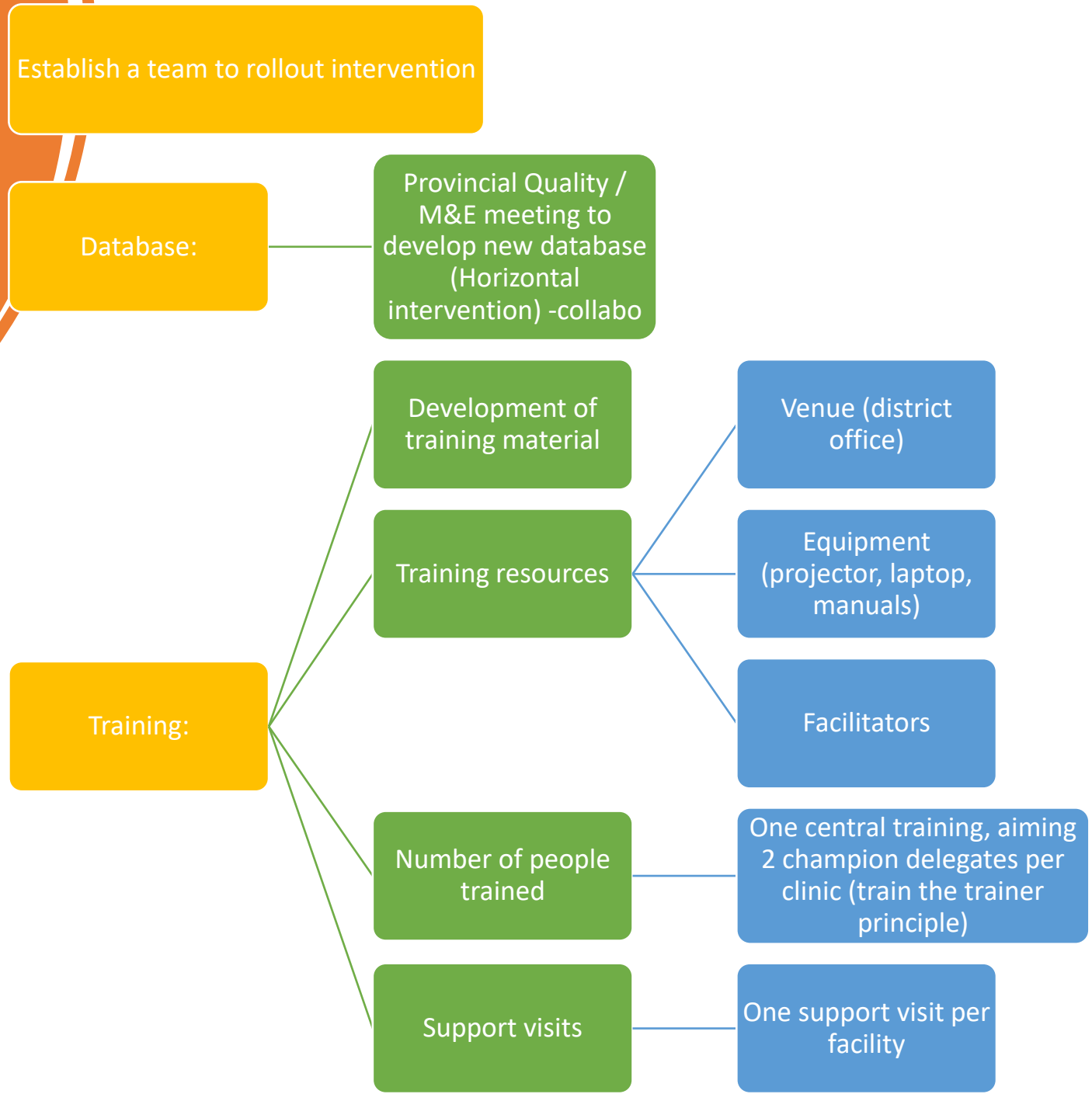
Willingness of uptake

- To integrate the different program data collection tools in one data collection database

Horizontal integration and improvement of screening overall

- Training of health care workers at PHC on new database

Processes


Establish a team to rollout intervention
Database:
Provincial Quality / M&E meeting to develop new database (Horizontal intervention) -collabo
Training:
Development of training material
Training resources
Venue (district office)
Equipment (projector, laptop, manuals)
Facilitators
Number of people trained
One central training, aiming 2 champion delegates per clinic (train the trainer principle)
Support visits
One support visit per facility

Study outcomes

NUMBER OF TRAINED HEALTH CARE WORKERS

NUMBER OF SUPPORTS VISITS

SCREENING RATES PER MUNICIPALITY FOR TB IN AGE GROUPS 5 YEARS AND OLDER IN DOSTAINESLA DISTRICT

Data and Measurement

Process

Evaluation of QIP

Test understanding of policy and procedure

Adoption and usage of app

Outcome

Improvement in screening for screening

Improvement in data collection for other conditions

Reliability

Reduce waste

- Sustainability –less paper
- Less time

Defects

- Reliable data collection without risk – ”handwriting”

Demand, capacity and flow

Improved reporting of screening and screening rates

Improved workflow as less time wasted filling in forms

- More time for attending to patients
- More patients screened
- Less stress

Improved capacity for detection

- Through continuous professional development

Team based approach

Involving and engagement of staff through all process –improved buy in

Co-producing improvement based on evaluation and formative feedback

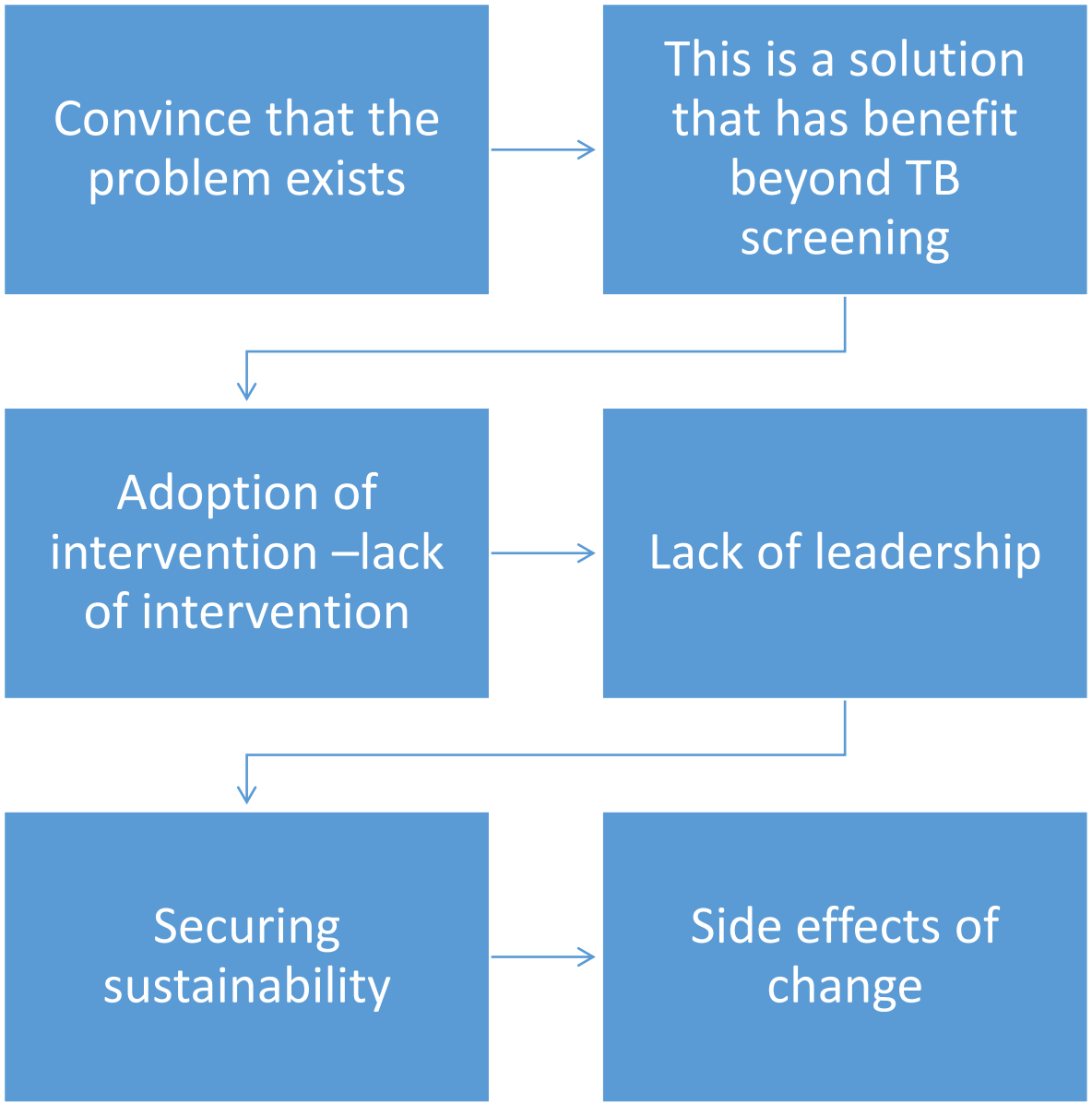
Collaboration within hierarchy and across organisational boundaries

Provides opportunity for scaling up rollout to other sites regionally and nationally

Challenges


MAYBE IF WE TELL PEOPLE THE BRAIN IS AN APP
THEY WILL START USING IT

Challenges


Convince that the problem exists
This is a solution that has benefit beyond TB screening
Adoption of intervention –lack of intervention
Lack of leadership
Securing sustainability
Side effects of change

Evaluation of intervention

Questionnaire

Report to intervention team

Respond accordingly

Iterative process

Possibly quarterly evaluation