

# TB Public Private Models for TB Care in SA

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Dr Anban Pillay

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TB Indaba: June 2023



# Session agenda

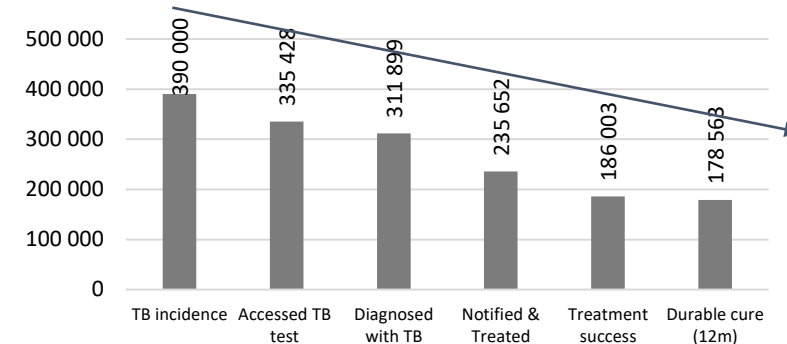
Item	Presenter	Time
Management of TB in the private sector and overview of Connect TB Model	Prof S Moyo	10 minutes
Overview of Aquity Model	Dr S Nyathi	10 minutes
Lessons from the two Models for the future of Public Private Mix in South Africa <ol style="list-style-type: none"><li>1. <i>TB Context in South Africa</i></li><li>2. <i>PPM Models</i><ul style="list-style-type: none"><li>• <i>Overview</i></li><li>• <i>Successes/opportunities and challenges</i></li></ul></li><li>3. <i>PPM recommendations</i></li><li>4. <i>Key messages</i></li><li>5. <i>Key questions for discussion</i></li></ol>	Dr A Pillay	20 minutes
Discussion and report back		50 minutes

# TB Context

1

**TB incidence** has declined over the past decade. However, **TB burden remains high** in South Africa.

- **Prevalence 852/100k population:** 62% higher in males compared to females
- 58% of TB patients were asymptomatic<sup>1</sup>
- We are, however, **only curing <50% of persons living with TB** in South Africa. There are sizable diagnostic, linkage and treatment gaps
- TB is a **leading cause of death** in South Africa<sup>2</sup>



2

**Access to Care** is good, yet there are access challenges:

- **Public sector:** Free TB testing and treatment available at PHC facilities in South Africa, serviced by an effective public laboratory network managed by NHLS (good turnaround time)
- **Private sector:** TB is a Prescribed Minimum Benefit (PMB). All medical schemes are mandated to cover TB diagnosis and treatment
- An analysis of patient care pathways in South Africa found that **29% of people with TB-like symptoms first seek care in the private sector**<sup>3</sup>
- TB **quality of care** can be improved nationally as there are missed opportunities in both the public and private sectors. More opportunities for improvement have been identified in the private sector

3

TB Prevalence survey has shown that **health seeking behaviour was seen to be poor among TB symptomatic patients.**

Among 5,168 symptomatic patients:

- 67% had not sought care
  - **Most are males** (71% v 63%); **<34 years-old** ( $\approx$  80%); **HIV-negative** (69% v 56%)
- **Why? 60%** indicated that they were **planning to still seek care**; **27%** felt that their symptoms were **not serious enough to seek care**






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Sources: 1) TB prevalence survey; 2) StatsSA causes of mortality 2018, released; 3) Chin & Hanson, JID, 2017

# Reviewed two public-private models of care, namely, Connect TB and the TB Reach to draw lessons

	<b>Connect TB</b>  	<b>TB Reach</b> 
<b>Primary model aim</b>	<ul style="list-style-type: none"> <li>• Reduce diagnostic and treatment delays</li> <li>• Passive case finding</li> </ul>	<ul style="list-style-type: none"> <li>• Active and Passive case finding</li> </ul>
<b>Funder of the model</b>	<ul style="list-style-type: none"> <li>• Stop TB Partnership – TB Reach</li> </ul>	<ul style="list-style-type: none"> <li>• Stop TB Partnership – TB Reach</li> <li>• Wave 6 and 6 Scale-up</li> </ul>
<b>Duration of implementation</b>	<ul style="list-style-type: none"> <li>• May 2021 to Mar 2022</li> </ul>	<ul style="list-style-type: none"> <li>• From 2018 however, we used 2020 figures in this presentation</li> </ul>
<b>Location</b>	<ul style="list-style-type: none"> <li>• eThekweni – Kwa-Zulu Natal</li> </ul>	<ul style="list-style-type: none"> <li>• Nelson Mandela Bay Metropolitan area – Eastern Cape</li> </ul>
<b>Patient profile</b>	<ul style="list-style-type: none"> <li>• Existing patients of private GPs</li> <li>• Urban city population</li> </ul>	<ul style="list-style-type: none"> <li>• Existing patients of private GPs</li> <li>• Patients that are referred by CHWs</li> </ul>
<b>Scale</b>	<ul style="list-style-type: none"> <li>• Private GPs: 158</li> <li>• CHWs (Adherence facilitators): 4</li> <li>• Patients tested: 571</li> </ul>	<ul style="list-style-type: none"> <li>• Private GPs: average of 14</li> <li>• CHWs: 30</li> <li>• Patients tested: 18,628</li> </ul>

# Service delivery model

	 <b>Connect TB</b>  	 <b>TB Reach</b> 
Screening	Private GPs screened their patients for TB	<ul style="list-style-type: none"> <li>Identified GPs in high-burden communities (with buy-in from GPs)</li> <li>The project used <b>AI software</b> to locate TB hotspots (using contact mngt. data)</li> <li>CHWs conducted door-to-door screening</li> </ul>
Diagnosis	<p><b>Sputum collection and testing:</b></p> <ul style="list-style-type: none"> <li>Private GPs collected sputum from presumptive positive patients</li> <li>NHLS conducted testing (GeneXpert - 100% and culture for PLHIV with negative GX - 17%)</li> </ul> <p><b>Lab results:</b></p> <ul style="list-style-type: none"> <li>Connect TB intermediary used <b>NHLS TRAK Care</b> to communicate lab results in real-time</li> <li>Connect TB intermediary used the Vula app to inform positive patients of the results using SMS</li> </ul>	<p><b>Sputum collection and testing:</b></p> <ul style="list-style-type: none"> <li>CHWs collected sputum from presumptive positive patients</li> <li>Private GPs, and their trained staff, collected sputum in their rooms from presumptive positive walk-in patients</li> <li>NHLS conducted testing (GeneXpert)</li> </ul> <p><b>Lab results:</b></p> <ul style="list-style-type: none"> <li>Project team and NHLS used <b>Labtrack</b> (a software linking lab results to practitioners) to communicate results</li> <li>CHWs informed positive patients of their results by finding them in the community (CHWs utilised mHealth application with push results linked to GPs)</li> </ul>
Linkage	<ul style="list-style-type: none"> <li>Patient provided option between private and public sector care on the Vula app               <ul style="list-style-type: none"> <li>Connect TB intermediary links patients to preferred care either in private or public sector</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Patient provided option between private and public sector care</li> <li>mHealth platform linked CHWs and GPs (appointments, push notifications of Xpert results)</li> </ul>
Treatment and Adherence	<ul style="list-style-type: none"> <li>Public sector care               <ul style="list-style-type: none"> <li>PHC initiated treatment</li> <li>Connect TB CHWs called monthly until completion of treatment, the Connect TB intermediary validated patient adherence by contacting PHCs</li> </ul> </li> <li>Private sector care               <ul style="list-style-type: none"> <li>Private GP initiated treatment (patient pays for treatment cost)</li> <li>Connect TB CHWs called monthly until completion of treatment, the Connect TB intermediary validated patient adherence by contacting GP, facilitated notification of these patients</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Private GP initiated TB treatment (using medicines supplied by DoH)</li> <li>GP also tested patients for <b>HIV</b> if required and HIV treatment was initiated if required</li> <li>CHWs provided adherence support (follow-up visits), mHealth application reminded GPs of appointments for the day</li> </ul>

# The models all present different opportunities despite each facing some unique challenges

## 1 Connect TB



## 2 TB Reach



1. **GP uptake**
  - **Good private GP uptake despite no re-imburement:** 50% (158/385) of the GPs approached elected to be part of the study
2. **Case finding - GP**
  - **Good case finding and High positivity rate:** 19% (107<sup>1</sup>/571) of the patients that were tested were diagnosed with TB
3. **Linkage to care**
  - **Excellent linkage to treatment:** 97% (102/105<sup>4</sup>) of the patients were linked to care
  - Utilised the VULA app to link patients to either the public sector or private sector care
4. **Adherence:**
  - **Trained community members:** CHWs provided good patient-centric adherence support as adherence facilitators
5. **Vula app prompts:**
  - **TB and HIV guideline prompts:** The Vula app provided prompts to GPs which guided service provision. This supported GP compliance to national TB guidelines and HIV integration

1. **Active Case finding in community settings (GP supported)**
  - **CHWs screened and collected sputum in community:** Utilised CHWs to conduct active case finding in high TB-burden areas. In addition, utilise CHWs to collect sputum from presumptive positive TB patients
  - **Excellent Yield for household testing:** 8.8% (1,643/18,628) of the patients that were tested were diagnosed with TB
  - **Access to male patients:** 51% of the screened population were male patients. 59% of diagnosed patients were male
2. **Linkage to care**
  - **Excellent linkage:** 97% (1,587/1,643) of the patients were retained to care
3. **Adherence:**
  - **Excellent treatment success:** 83.6% treatment success rate (838/1002)
4. **GP and CHWs remuneration rate**
  - **GPs:** Linked to NHI hourly rate – the project made estimations on time spent conducting TB work for TB amongst their clients.
  - **CHWs** were remunerated at government rates

- **Private GPs costs:** The cost associated with private GPs in the Connect TB resulted in most patients opting in for treatment in the public sector
- **Covid-19:** The study was implemented during the height of Covid-19, which challenged the success of the project
- **TB culture lab cost:** The TB culture lab costs were not covered by the DoH. Donor funding was required to support TB culture testing
- **Access to medicines by GPs:** In eThekweni, GPs could not access public sector supplied TB medication. This limited patients to access treatment care from GPs

- **High CHW turnover:** The monthly stipend resulted in high CHW turnover as the CHWs looked for higher-paying opportunities, often in the public sector
- **Reporting requirements:** Despite the mHealth application being developed in line with DoH reporting layout – integration was not possible, requiring manual data capturing at catchment facilities
- **GP buy-in:** Resistance from some GPs to engage in TB work, seen as high risk

Notes: 1) Two patients passed away

# PPM Recommendations: Towards better access, improved quality and lower cost to patient

## Key considerations:

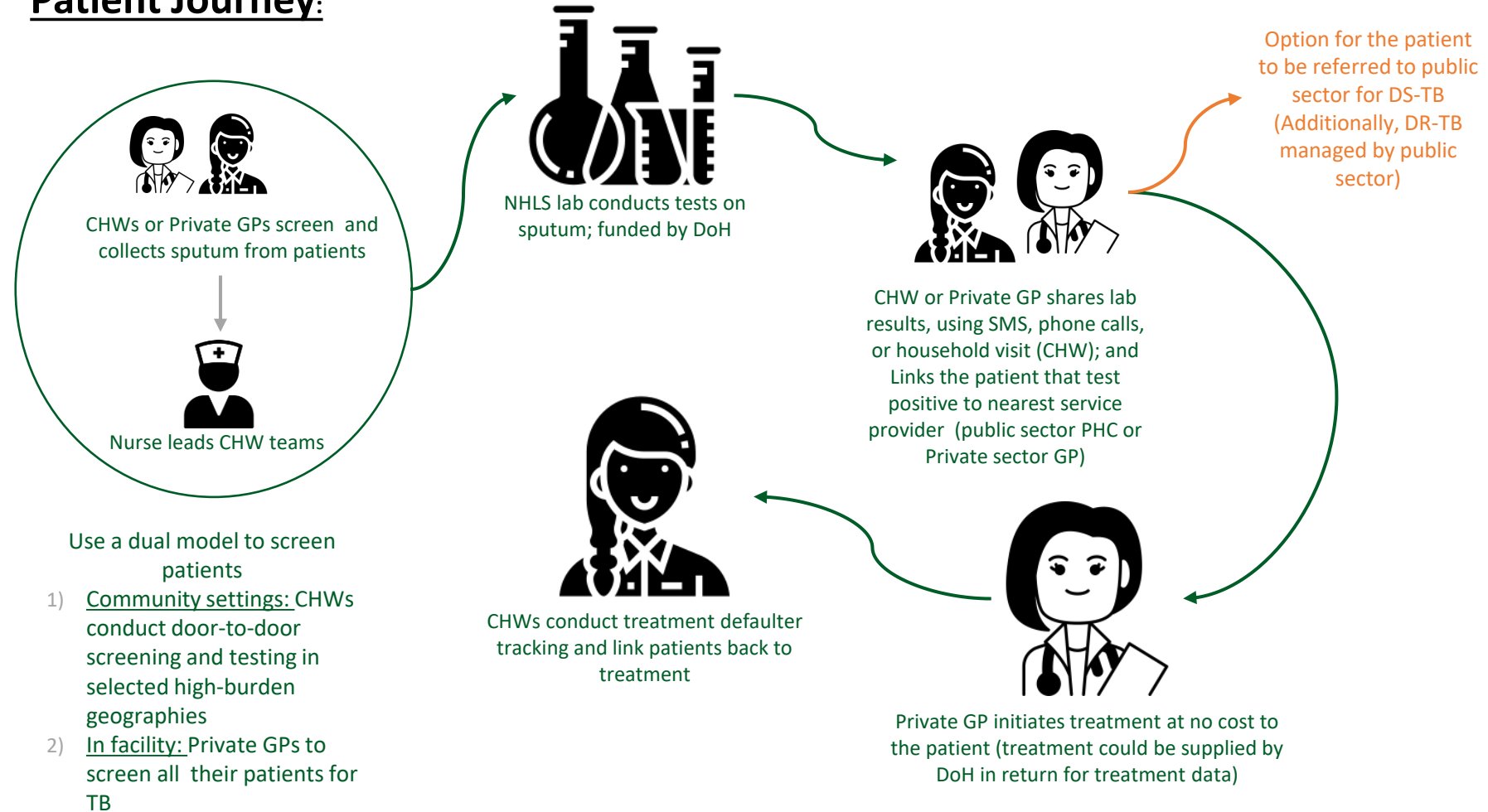
### Public sector: DoH / NHLS

1. Cover the cost of TB testing.
2. NHLS prepared to add private GPs as service points and collect specimens from GPs.
3. GPs able to receive TB drugs from public clinics and provide the DoH with treatment reports.
4. District / sub-district HAST coordinators providing training and oversight to GPs to ensure quality is maintained and surveillance/monitoring is intact.

### Private Sector: Private GPs

1. Private GPs screen all their existing patients for TB and collect sputum from presumptive TB.
2. Submit sputum to NHLS for testing (at no additional cost to the GP and patient).
3. Share lab results over SMS, phone call with their patients and initiates them on treatment and retains them in care
4. Submits treatment reports to DoH.

## Patient Journey:





## .....*Win-Win for Patient, Private Provider, DoH and public health*

### ✓ **Private provider:**

- ✓ Improves quality of care to their existing patients without any additional financial implications
- ✓ Missed opportunities reduced among those accessing care in the private sector
- ✓ Achieves compliance with TB guidelines

✓ **Patient:** Lower opportunity cost to patient for accessing TB care (patient will not need to make a separate visit to public clinic to access TB services)

✓ **Public provider:** Lower / more equitable workload for HCWs in public sector

### ✓ **Public Health / TB Control:**

- ✓ Reduction in diagnostic gap
- ✓ Over time reduce incidence and TB related mortality



# Key messages

1 PPM success evidenced in high TB-burden geographies

2 Leverage the successes related to case finding and linkage to care evidenced by the PPM models and address key TB programme challenges such as linkage to care, the low TB cure rate and men's health-seeking behaviour

3 A health systems approach needs to be taken when considering achieving the TB targets as part of the TB recovery plan and the role of the private sector general practitioners needs to be clearly outlined

4 Enable effective utilisation of available resources such as NHLS and CHWs whilst leveraging on the private sector within the TB programme

# Key questions for discussion: Improving quality of TB care among private providers and public private models

**Screening** - What should the active and or passive case finding strategy be informed by?

**Diagnosis and linkage to care** - What factors will enable GPs to support testing symptomatic/high risk TB patients (PLHIV, HH contacts and persons with previous TB)?  
- Who is responsible for providing the patient with the TB test results and managing linkage to care? (GPs, NHLS or DoH)

**Treatment access** - If DOH subsidises TB medication in South Africa, would private providers (incl GPs) be willing to offer TB treatment to patients? (Why or why not?)

**Private provider know/do gap and improving quality** TB is a PMB, and medical schemes cover costs associated with TB care.  
- What would it take for private providers (incl GPs) to offer better quality of TB care?  
- If DoH carries TB testing costs, would offering access to the NHLS subsidised TB testing be enough for private providers to improve quality of care?

**Reporting/Monitoring** - How is reporting structured? Do GPs need access to public sector TB data systems, or is there another reporting mechanism that GPs could use?



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