

The Union

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# WORLD CONFERENCE ON LUNG HEALTH 2023

TRANSFORMING EVIDENCE INTO PRACTICE

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I have no Conflict of Interest to report.

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# Reducing TB care cascade losses in the private sector: Results of a pilot intervention in eThekweni, South Africa

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## BACKGROUND

- In South Africa, TB is primarily managed in the public sector, yet up to 29% of people with TB-like symptoms first seek care in the private sector
- Evidence in the private sector suggests (Boffa, Moyo, Chikovore, et al, BMJ Global Health, 2021)
  - TB likely to be missed
  - Diagnosis delayed
  - Treatment is delayed
  - Poor integration of HIV
- Intervention: Connecting clients of GPs in the private sector to free testing of samples for TB in the public sector
  - No other incentives for GPs
- Aims
  - To determine GPs' willingness to participate
  - To describe the patterns of TB diagnosed in the private sector
  - To improve TB-HIV integration

# METHODS

Study period:- May 2021- March 2022



16:21

← Connect TB Study

**Patient Information**

\*First name

\*Surname

\*Age

\*Phone number (+27 82 123 4567)

\*ID number/DOB (dd/mm/yyyy)

Male Female

\*Alternative contact number for patient

**Type of TB test requested**

\*TB test requested

**Preferred treatment location if TB-test is positive:**

\*Name of clinic

**HIV information**

\*HIV Status

I confirm the patient has consented to data being saved electronically

Save & refer later Refer patient

Customised e-form on an established encrypted medical referral application. organizes patient information, initiated specimen transport requests, communicated management guidance to GPs, and shared real-time test results with clients via text message.

## METHODS



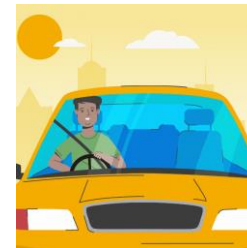
### Private GP

- Screens all clients
- Enters client info in Vula
- Collects sputum specimen on-site
- Communicates with intermediary re: test results and follow-up



### Intermediary

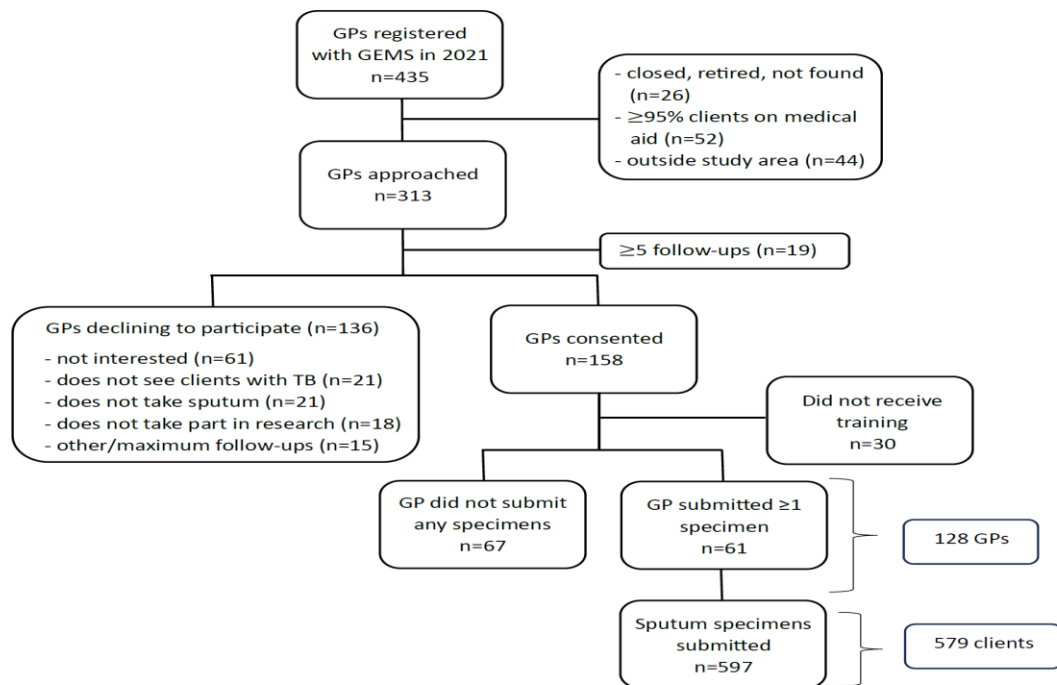
- **GP communication:** Sputum transport/results, Client management
- **Client form and Lab communication:** Results / f/u tests
- **Client communication:** SMS test result via Vula, 7-day symptom f/u
- **District communication:** Provides list of clients to ensure entry in Tier.Net



### Intermediary-Driver

- Completes lab req for specimen test
- Transports specimen from GP to lab
- Replenishes sputum cups from DoH
- Provides transport support to clients as needed

# RESULTS: GP PARTICIPATION AND CLIENT SAMPLES



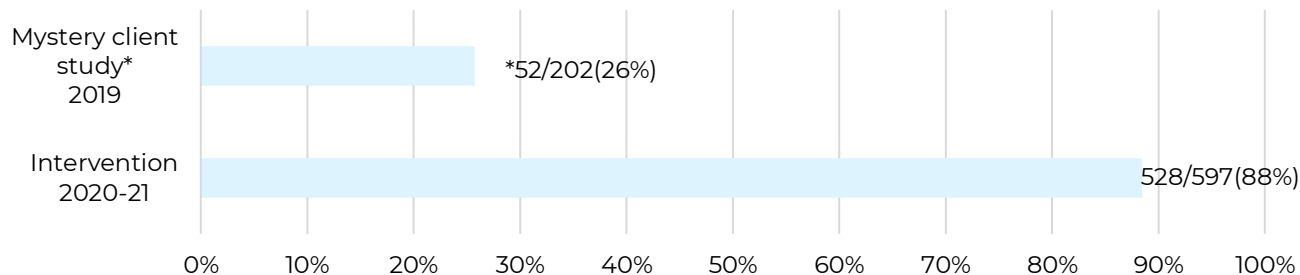
TB screening algorithm, sputum specimen collection, using Vula

## RESULTS: YIELD &amp; HIV INTEGRATION

Sector	Xpert tests performed n	Unsuccessful specimens n (%)	p-value	Pulmonary TB detected n (%)	p-value
Private GPs	~590	2 (0.3)		104 (17.6) 3 culture +ve 107 (17.9%)	
Public clinics	183 434	3125 (1.7)	0.01	14 538 (7.9)	<0.0001

~7 specimens culture only HIV-negative clients with persistent symptoms after testing Xpert negative

## Queried HIV in client with TB-like symptoms



\*Boffa, Moyo, Chikovore, et al, BMJ Global Health, 2021



## RESULTS: TB CASCADE OF CARE

- 107/579(18.4%) people diagnosed with TB
- 60.7% were men, 48.5% PLHIV
- n= 3/107(2.8%) of bacterially confirmed had drug-resistant TB
- 100/107(93.5%) successfully linked to treatment
  - 2 died before diagnosis, 5 initial LTFU
- Time to treatment post-diagnosis was 2 days (IQR 1-5)
- 97.2% linked and treated in the public sector

Number diagnosed with TB	Cured/ Completed treatment n (%)	Initial LTFU n (%)	LTFU n (%)	Died on treatment n (%)	Treatment failure n (%)
107	88(82.2)	*7(6.5)	3(2.8)	6(5.6)	3 (2.8)

\*includes n=5 who died before diagnosis by culture

## DISCUSSION

- Without monetary incentives
  - 41% (128/313) of eligible GPs in a large urban setting underwent training
  - 20% (61/313) submitted specimens, with this becoming increasingly normalized
  - Participation by GPs was lower than anticipated
  - ?Study took place during COVID period, no access to medication from the public sector
- High yield of TB detection in the private sector over same period (18% vs 8% in public sector,  $p < 0.0001$ ) suggests underscreening – may improve future uptake for GPs who believe they don't see clients with TB
- Vula electronic form significantly improved HIV screening from baseline (26% vs 88%,  $p < 0.0001$ )
- Diagnosis and linkage to treatment in the public sector was expeditious
- Those diagnosed were notified

## CONCLUSION

- The pilot recorded some successes
  - 80% of GPs who consented submitted specimens without monetary incentives
  - Over 90% clients were diagnosed and linked to TB treatment within 2 days of diagnosis
  - 18% of specimens tested GXP +ve vs. 8% in the public sector during the same period
  - Use of the Vula Referral App in the private sector can facilitate client care and linkages
- Suggests a workable model for improving TB management in South Africa's private health sector
  - Can be refined in a larger pilot
  - Linking GPs to public stock of medication for drug-susceptible TB may further increase GP buy-in
  - Can explore integrating TB care within a package of chronic care in a National Health Insurance model
- Promoted for collaborations – private sector, National Health Laboratory Service, DoH

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  - Chikovore Jeremiah
  - Mapham William
- GPs who participated



BILL & MELINDA  
GATES *foundation*