

Evaluation of Targeted Universal TB Testing (TUTT) implementation in three Johannesburg facilities: Results from a Quality Improvement baseline assessment



Authors: Motumi M, Mutyambizi C, Dhliwayo P, Rees K
Anova Health Institute, South Africa.

Background

- South Africa's First National TB Prevalence Survey (2018) revealed the extent of subclinical TB as a contributor to the TB burden in the country.
- 224,621 TB cases were notified against the 280,000 estimated TB incidence, implying 55,379 cases (20%) of undiagnosed TB in 2022.
- To find missing TB patients, Targeted Universal TB Testing (TUTT) using Gene Xpert Ultra was introduced in 2022 (TB screening and Testing SOP, 2022).
- As part of a quality improvement project, we evaluated the implementation of TUTT during 2023.

Methods

Study Setting

- We conducted a retrospective audit of TB registers at three purposively selected facilities in Sub-district D (Soweto), Johannesburg.
- The sub-district had approximately 120,000 and the 3 selected facilities had 17,000 adults on ART in January 2024.
- The facilities comprised of a high volume (CHC) referral facility, a medium volume (provincial clinic), and a small volume (local authority clinic).

Data collection and analysis

- Data were captured using a template, including number of patients tested for TB, results, and number started on TB treatment, disaggregated by symptom status and risk group.
- Data was collected for the following periods:
 - Facility A and C -January to October 2023
 - Facility B -June to October 2023 (due to missing data)
- Descriptive analysis was conducted in Excel.
- TUTT implementation support visits were conducted between June and September 2023.

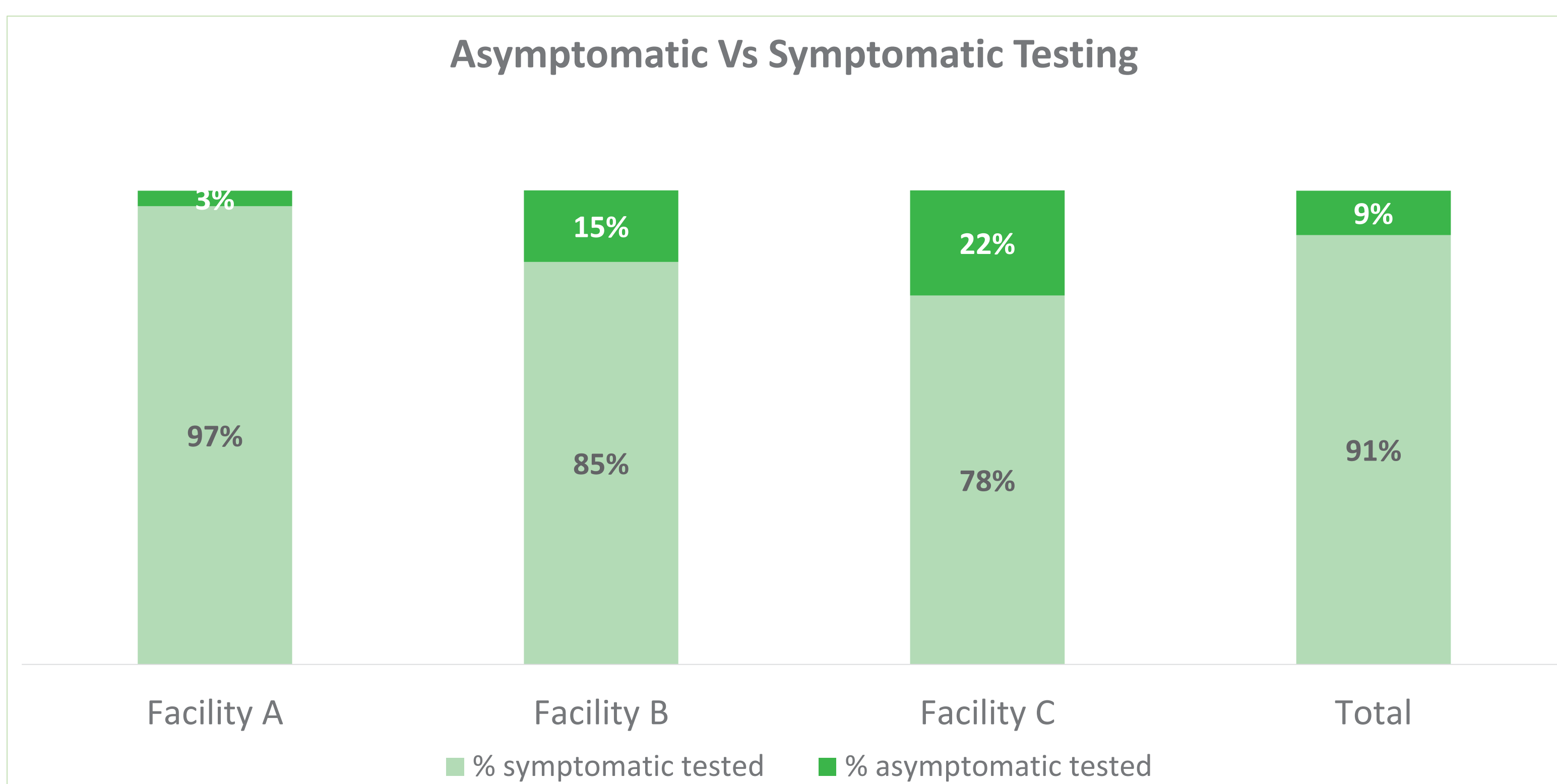
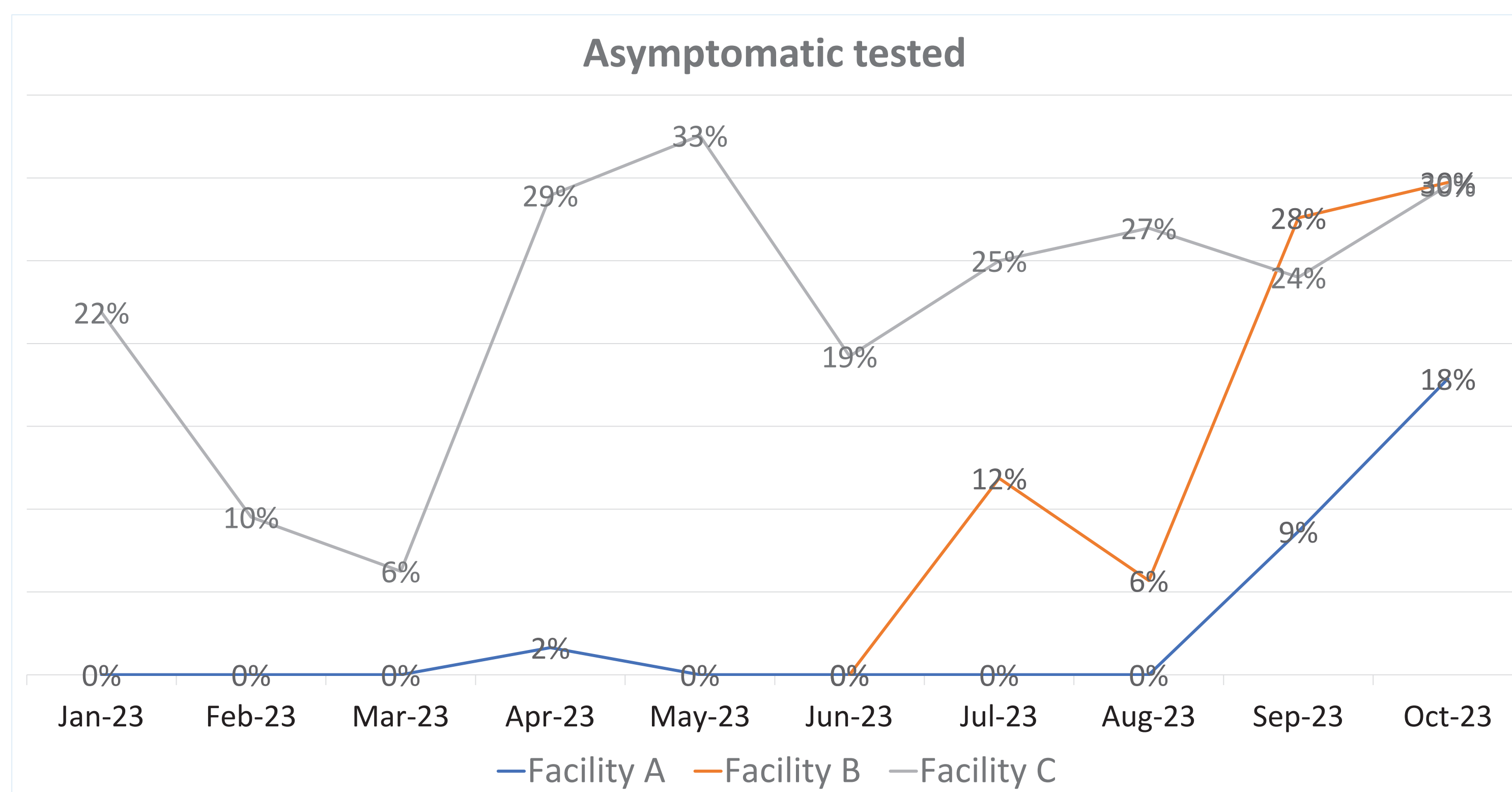
Results

Asymptomatic tested

- Facility A (CHC) recorded no asymptomatic tests from Jan to Aug, except for one outlier in April where it had 2% asymptomatic tests.
- Facility B recorded no asymptomatic patients in June, steadily improving to 30% in October.
- Facility C consistently recorded asymptomatic TB testing between Jan and Oct. Facilities A and B improved asymptomatic reporting after TUTT implementation support visits were conducted between June and September.

Asymptomatic vs symptomatic tested

- The proportion of TB tests in asymptomatic patients was 3%, 15%, and 22%, for facilities A, B, and C, respectively.
- Overall asymptomatic testing for the three facilities was 9%.
- Facility A's performance (3%) negatively affected the overall performance as it is a high-volume facility (CHC).
- Amongst those tested for TB overall asymptomatic tests increased from 0%, 12%, and 25% in July to 18%, 30%, and 30%, in October for facilities A, B, and C, respectively.

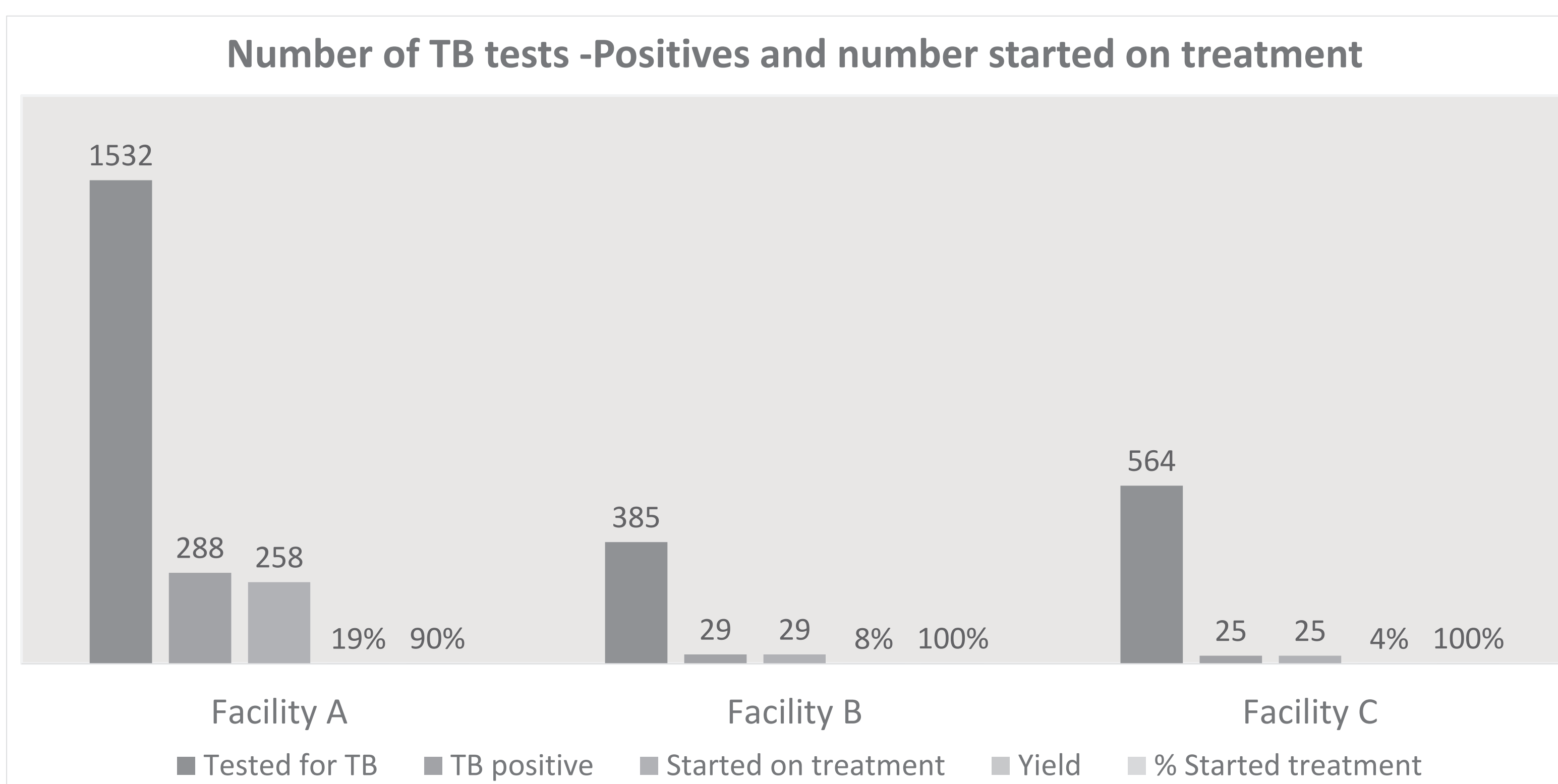
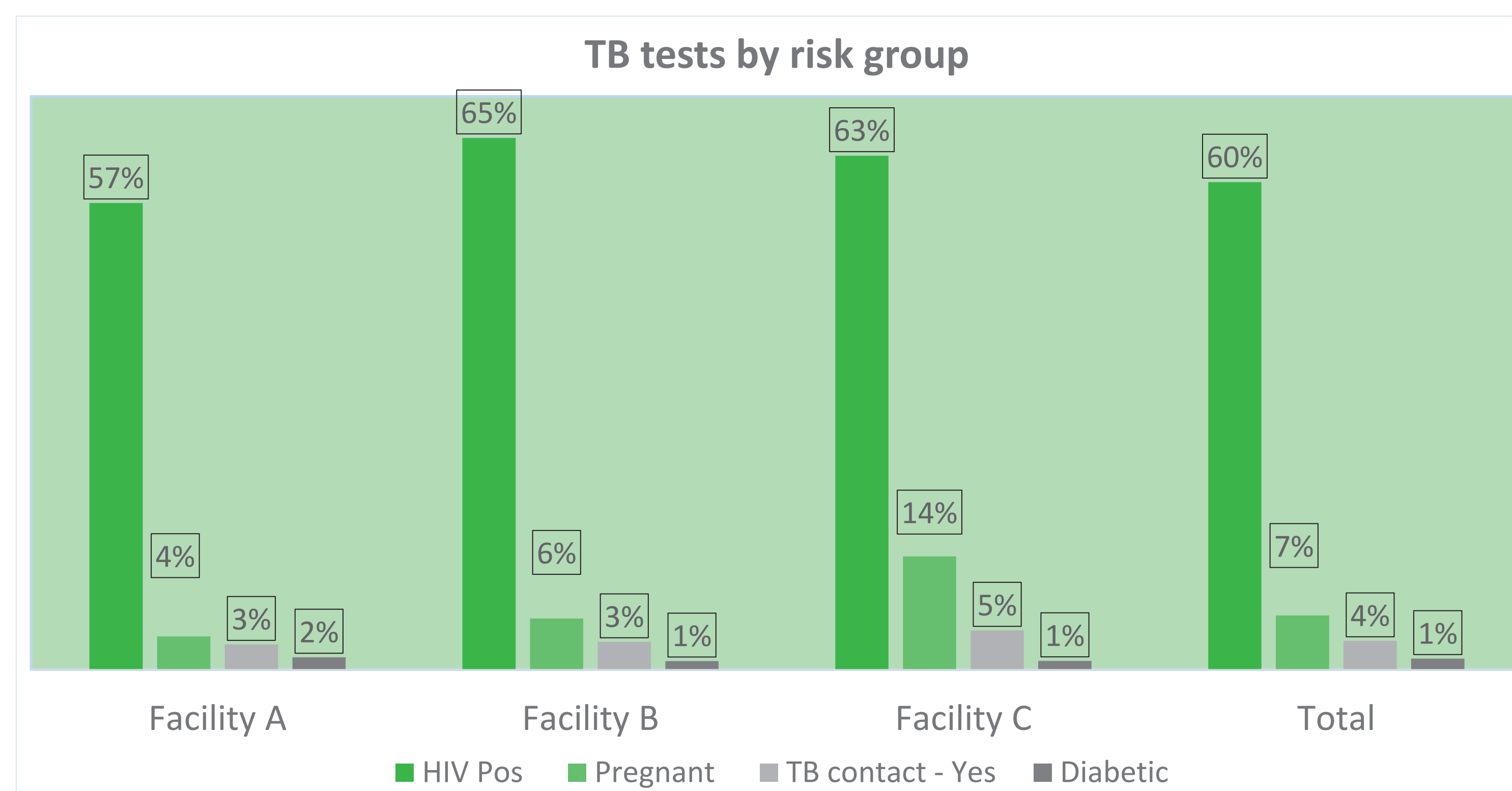


TB tests by risk groups

- Amongst all patients tested for TB:
- TB testing in patients living with HIV ranged between 57% and 65% in all 3 facilities.
 - TB testing in pregnant women at antenatal 1st visit ranged between 4% and 14%.
 - TB testing in contacts ranged between 3% and 5%.
 - TB testing in diabetic patients ranged between 1% and 2%.

Number of TB tests and number started on treatment

- Positivity rate for TB tests was 4%, 8% and 19% in each facility
- Over the study period, facility A started TB treatment for 90% of patients who had TB.
- Facilities B and C started TB treatment for 100% of patients who had TB.



Conclusions

Despite the new TB guidelines and TB Screening and Testing Standard Operating Procedure, we found:

- Low rates of TB testing for asymptomatic patients and poor capturing of asymptomatic tests, although they improved over the study period.
- Low rates of contact recording and no follow-up of contacts.

Recommendations

For TUTT to improve the identification of missing TB patients, we recommend:

- Monitoring of asymptomatic testing of all high-risk groups.
- Improving tracing, testing, and treatment of contacts of TB patients.



The Anova Health Institute NPC is supported by the US President's Emergency Plan for AIDS Relief (PEPFAR) program via the US Agency for International Development, (USAID) under Cooperative Agreement No AID-674-A-12-00015. The views expressed in this poster do not necessarily reflect those of PEPFAR or USAID.

Go to: www.anovahealth.co.za or follow us AnovaHealthSA Anova Health Institute