



# Accelerating progress to end TB

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**TB**

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## Combination of symptom screening and digital chest X-ray to increase tuberculosis case detection in Nelson Mandela Bay, Eastern Cape, South Africa.

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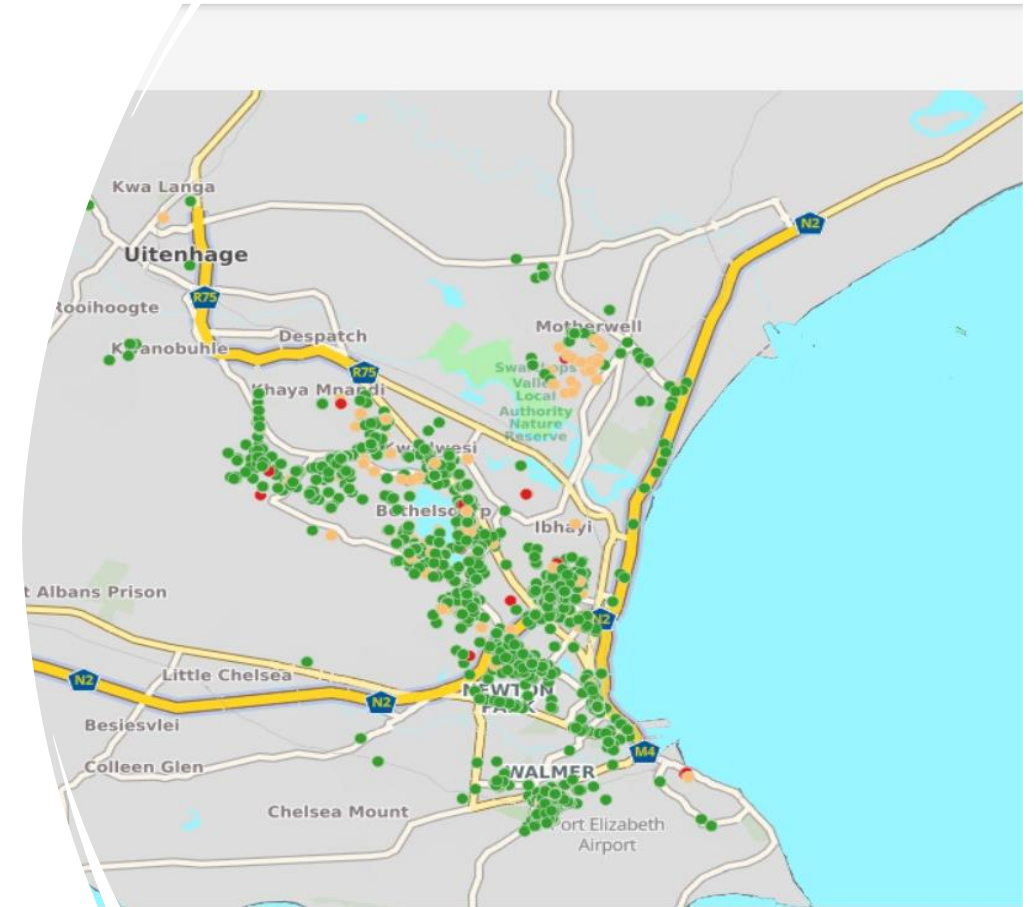


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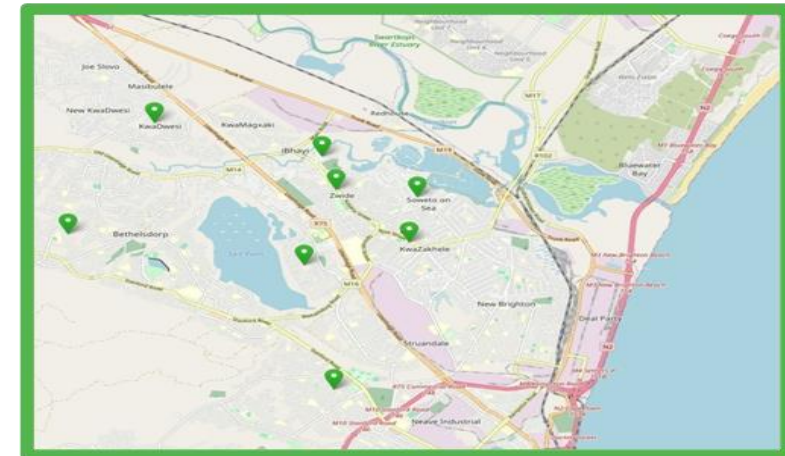
## Background

- Systematic screening in high-burden tuberculosis (TB) areas is recommended as a strategy for early detection of TB disease, improving access to care, thereby reducing mortality and transmission.
- Studies have shown that using the standard symptom-based screening misses at least half of active TB cases since clients may be asymptomatic.
- The project included the use of mobile digital chest x-ray (DCXR) to understand its feasibility in improving TB case identification at community level.
- Nelson Mandela Bay Metro is one of the high TB burden districts with an estimated incidence rate of over 1000/100 000 population in 2020 NTP



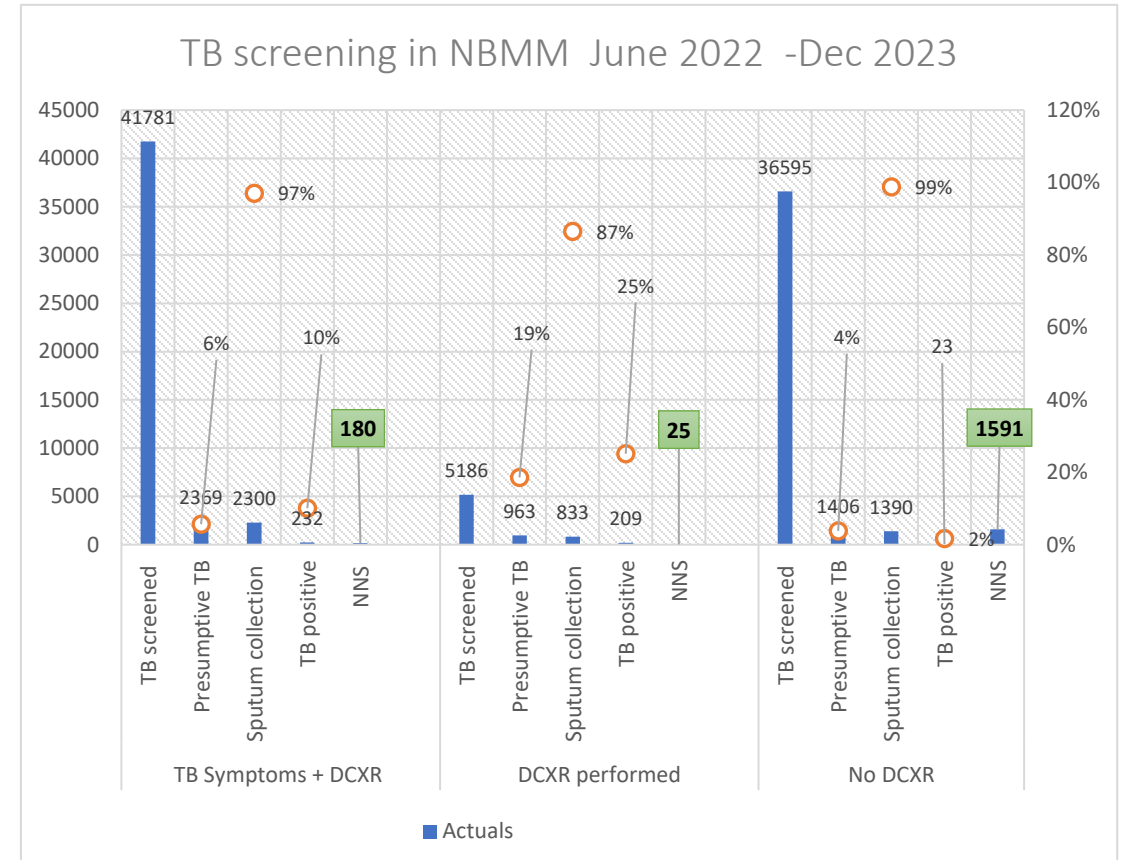
## Intervention

- High-burden areas within the Nelson Mandela Bay District in the Eastern Cape were identified by geographic hotspot mapping using 2019-2021 TB screening data.
- A mobile DCXR as well as a team of community healthcare workers (CHWs) and 2 General Practitioners were deployed to selected areas with high TB Burden.
- CHWs conducted household visits offering TB symptom screening and referring clients to mobile DCXR services in the area (within 1km radius) free of charge.



## Results

- From July 2022 to December 2023, project screened 41781 individuals, 2369 About (7%) were presumptive for TB, 232 individuals (10%) tested positive for TB and 217 (94%) were initiated to treatment.
- About 5289 clients were screened by General Practitioner, 827 (16%) were presumptive, 50 (6%) tested positive for TB and 48 (96%) were initiated on treatment.
- 5186 clients were screened using DCXR, 963 (19%) had suggestive DCXR, 209 (22%) tested positive for TB. 44% of the clients who tested positive were asymptomatic.



## Conclusion

In conclusion, the results demonstrate the effectiveness of combining symptom screening with DCXR in improving TB case identification. Investing in making DCXR accessible at the community and primary healthcare levels is crucial for achieving the global End TB Strategy by 2030.

This project sets a promising path towards early detection, treatment initiation, and ultimately reducing the burden of tuberculosis in high-risk areas like Nelson Mandela Bay.

# Acknowledgement

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