

TB

Accountability
Consortium



THE STATE OF TB IN SOUTH AFRICA

FROM CRISIS TO
OPPORTUNITY:
ACCELERATING
TESTING TO END TB

A Report by the TB Accountability Consortium, a Rural Health Advocacy Project initiative – March 2025

Acknowledgments

In 2021, the TB Accountability Consortium (TBAC) was set up as a collective that brings together all the stakeholders in the National TB response – policymakers, scientists, activists, researchers and civil society – to determine a joint national advocacy agenda, making TB a national health priority.

From its inception, TBAC has set its sights on establishing a platform that reflects the changing face of health advocacy in the increased visibility of the TB programme, seen through a programmatic, financial and political accountability lens, to improve programme outcomes.

In this brief space of time, we have formed fulfilling partnerships such as those within the SANAC Civil Society Forum and with its TB Task Team, TB Proof and the Treatment Action Campaign, who have all been instrumental as consortium partners.

For providing insights in the collation of this specific report we are grateful for inputs from Professor Norbert Ndjeka, Dr Waasila Jassat, Dr Shaheed Vally Omar, Dr Lindiwe Mvusi and Professor Neil Martinson.

We dedicate this report to the ‘missing’ TB patients, who have the power to help South Africa to move forward on a trajectory to end TB in our lifetime.

Contents

1. Foreword	4
2. Caught in an international crisis: a way out for TB . . .	6
3. A solution to the US funding crisis	14
4. An ambitious plan with a focus on testing	18
5. Navigating the five million test roadmap	22
6. TB vaccine could be a gamechanger	28
7. Operation End TB: The way forward	32



This report was compiled by the TB Accountability Consortium, an initiative of the Rural Health Advocacy Project (RHAP). RHAP is part of the WITS Health Consortium.

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Design: the earth is round, Cape Town



South Africa. The last hours of Shiraaz Abdullah, a TB patient at the Livingstone Hospital in Gqeberha.

Photo: Werner Hills/ Media 24 Pty Ltd

Acronyms & abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
CHW	Community Health Workers
CSO	Civil Society Organisations
DHIS	District Health Information System
HCW	Healthcare Workers
HIV	Human Immunodeficiency Virus
HSRC	Human Sciences Research Council
MDR	Multidrug-Resistant
MRC	Medical Research Council
NDoH	National Department of Health
NICD	National Institute of Communicable Diseases
NSP	National Strategic Programme
NTP	National Tuberculosis Programme
PCAT	Provincial Council on AIDS and TB
PDoH	Provincial Department of Health
PFMA	Public Finance Management Act
PEPFAR	US President’s Emergency Plan for AIDS Relief
RR	Rifampicin-Resistant
SANAC	South African National AIDS Council
STI	Sexually Transmitted Infection
TB	Tuberculosis
TBAC	TB Accountability Consortium
WHO	World Health Organisation

01

FOREWORD

Accelerating TB action through accountability

With some of the world's leading TB researchers in tow, globally recognised TB innovations and a robust selection of policies, South Africa's TB response has gained momentum consistently over the last 10 years.

An essential part of this momentum has been a collaborative effort to tackle this disease, incorporating active civil society input.

Over the last four years, the TB Accountability Consortium (TBAC) has strived to live up to its mandate of providing a civil society voice that can hold the government to account to ensure it makes progress in the protracted and ongoing fight against TB.

TBAC has now grown to become a recognised voice in South Africa's TB landscape, advocating for greater accountability in the TB response to ensure that the roll-out of TB services can reach those who need it most, and that the burden of TB on the country can be reduced.

As part of this mission, we release an annual report on the state of TB in South Africa. These reports have explored the reasons for South Africa's relatively high TB infection and death rates, evaluating what can be done to change the trajectory of this treatable and preventable disease, and making some key recommendations on the way forward.

Our inaugural report looked at the challenge of TB within South Africa's health system, and attempted to evaluate what is needed to help South Africa regain the ground it has lost since the COVID-19 pandemic. It focused on three critical areas of the health system: the data that exists around TB and what that data tells us, the financial elements of the TB programme in the country, and the health workforce as a cog in the engine.

In 2023 we flagged the issue of governance in the TB sector: looking at where the buck stops, what needs to be done, and what the consequences will be if the health sector in South Africa does not change its approach to TB. Last year we looked at TB mortality, calling on government to review its screening protocols for TB and to

introduce preventative treatment for people at risk of contracting TB.

This year we bring you the fourth State of TB in South Africa Report, looking at the need to accelerate testing as a means to ending TB in the country. With an ambitious goal of five million tests, the report focuses on a roadmap to achieve this goal, and flags some of the key hurdles that will need attention from this plan.

As always, our report is intended to give policymakers an idea of the biggest issues on the TB landscape, along with some guidance on what is needed to address them. Equally important is the need to capacitate the civil society advocates who will take up the fight on the ground with information that can guide their activities in the field. It is our hope that this report will power community activists to push for mass TB testing, so that we make some progress in our efforts to end the epidemic of TB.

South Africa's battle against TB is monumental, but not impossible. **Ours is a narrative of hope.**

Yours in advocacy

Russell Rensburg

Executive Director: Rural Health Advocacy Project



02 Caught in an international crisis: a way out for TB

The 2024 Global TB Report celebrated the strong global recovery in the provision of and access to TB diagnosis and treatment, but it highlighted the significant challenge for governments to end TB, calling for “urgent action”

Responding to the WHO’s 2024 edition of the Global TB Report last year, Dr Cassandra Kelly-Cirino, Executive Director of the International Union Against Tuberculosis and Lung Disease, made some profound remarks.

She noted that while it was “heartening to see some positive trends in our battle against TB, we must confront a harsh reality: despite our efforts, we are merely treading water, failing to make significant strides toward our goal of ending TB”.

“We possess the tools and knowledge necessary to eradicate this preventable and curable disease. It’s time for us to be bold, and acknowledge that our current strategy is not yielding the results we need – this is a profound injustice,” she pointed out.

Her comments were neither far-fetched nor inaccurate, and stood as an urgent call to countries to reconsider their approaches.

South Africa took the call seriously, and responded by launching an ambitious campaign to strengthen the coordination of the national response towards achieving its 2030 and 2035 targets.

The global freeze of US government funding on healthcare programmes is likely to affect this roll-out in South Africa, as 17% of HIV and TB services are funded through this mechanism from the US President’s Emergency Plan for AIDS Relief (PEPFAR) grant.

Across the world, January 2025 will be remembered as a month that dealt a devastating blow to the global healthcare community as the US government issued these stop orders.

Key programmes in the HIV/Aids sectors of more than 50 countries came to an immediate standstill and faced imminent collapse as services were halted. Governments, civil society organisations and development partners were left scrambling to find immediate solutions to the health crises facing them, and to ensure that the roll-out of these services continues. For hundreds of thousands of people living with HIV, the decision meant a critical lifeline was severed.

In South Africa, which has close to eight million people living with HIV and services the largest antiretroviral programme in the world, the funding withdrawals have meant that the 27 districts that until now were funded by PEPFAR grants have started to see their support services unravel.



17%

of HIV and TB services in SA are funded by PEPFAR



GLOBALLY, TB REMAINS THE WORLD'S LEADING CAUSE OF DEATH, WITH MORE THAN 10 MILLION PEOPLE FALLING ILL WITH TB EVERY YEAR AND 1.4 MILLION PEOPLE DYING FROM A CURABLE DISEASE.

The freeze has had a knock-on effect on TB. Just under 60% of people who contract TB are co-infected with HIV. Due to the integration between the HIV service roll-out and the provision of TB services, the US funding freeze means that TB services in these districts are also affected.

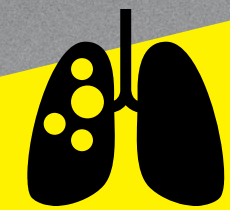
According to the preliminary analysis conducted by the Rural Health Advocacy Project, US government funding in South Africa accounts for more than USD488 million, or R7 billion. It covers 24 000 employees, 15 000 of whom are stationed in public healthcare facilities to provide both patient and support services.

Just one week after the freeze, as part of his State of the Nation Address, South African President Cyril Ramaphosa stated that the government was finding interventions to fill the gap. Details are still forthcoming, but in the meantime, Health Minister Aaron Motsoaledi has issued an instruction to state-funded clinics to ensure that no patient goes without life-saving drugs.

In terms of TB, the three provinces in South Africa with the highest TB burden – the Western Cape, KwaZulu-Natal and the Eastern Cape – receive 21% of the funding. Gauteng receives 39% of the onsite allocation, and also has 33% of the total USG-funded workforce, followed by KZN (15%), the North West province (13%) and Limpopo (12%).

Globally, TB remains the world's leading cause of death, with more than 10 million people falling ill with TB every year and 1.4 million people dying from a curable disease.

The 2024 Global TB Report celebrated the strong global recovery in the provision of and access to TB diagnosis and treatment, which could be seen from the high numbers reported in 2022 and 2023. But it highlighted the significant challenge for governments to end TB, calling for "urgent action". The report notes that "[G]lobally in 2023, 8.2 million people were newly diagnosed with TB and officially notified as a TB case. This is



60%
of people who contract TB also live with HIV



PEPFAR funding accounts for
R7 bil
covering 24 000 employees



15 000
of PEPFAR-funded employees are working in public facilities



A gaunt, HIV-infected man lies in his bed in a tuberculosis clinic, South Africa..

Photo: Michael Appleton/NY Daily News

the highest number for a single year since WHO started to compile data from all countries and areas in the mid-1990s...”

It flagged the sizeable gap between the estimated number of people who develop TB each year and the number of people newly diagnosed with TB and officially reported as a TB case. “This reflects both underdiagnosis of people with TB and underreporting of people diagnosed with TB to national authorities,” it said.

Despite the political commitments that were reaffirmed at the UN’s 2023 high-level meeting on TB, there are now only five years left to meet the first of the UN’s Sustainable Development global targets to end TB.

“The ... 2030 and 2035 targets to end TB can only be achieved if everyone who develops TB disease is promptly diagnosed and then treated with drug regimens recommended by WHO,” the report noted.

Interestingly, the 2024 Global TB Report highlighted South Africa as the only high-TB burden country that reached the 2025 milestones of reducing TB incidence rates by 50%.

The gain is one of several significant wins in its fight against TB that South Africa has achieved in the last 10 years.

Prior to 2009, South Africa’s significant TB incidence rates and high number of deaths were driven mostly by HIV. The scaling up of antiretroviral treatment contributed to a reversal in this trend.

In addition, according to National Department of Health (NDoH) data, the TB incidence has declined by 51% from 552 000 in 2015 to 270 000 in 2023. Treatment coverage for 2023 was at 79%. And TB deaths have declined by 16% from 65 000 in 2015 to 56 000 in 2023.

In terms of TB drug innovation, South Africa has remained at the forefront with the introduction of new tools. New and repurposed TB drugs have increased the proportion of drug-resistant TB patients treated successfully, and decreased treatment regimens from nine months to six.

But while South Africa has undeniably made progress, TB remains the leading cause of death in the country. And we are still far from the end goal

of reducing the heavy burden of TB. The disease remains a national health emergency with more than 270 000 people contracting TB each year and 56 000 people dying annually. More than half of these 270 000 people have HIV, making co-infection one of the biggest challenges for both diseases.

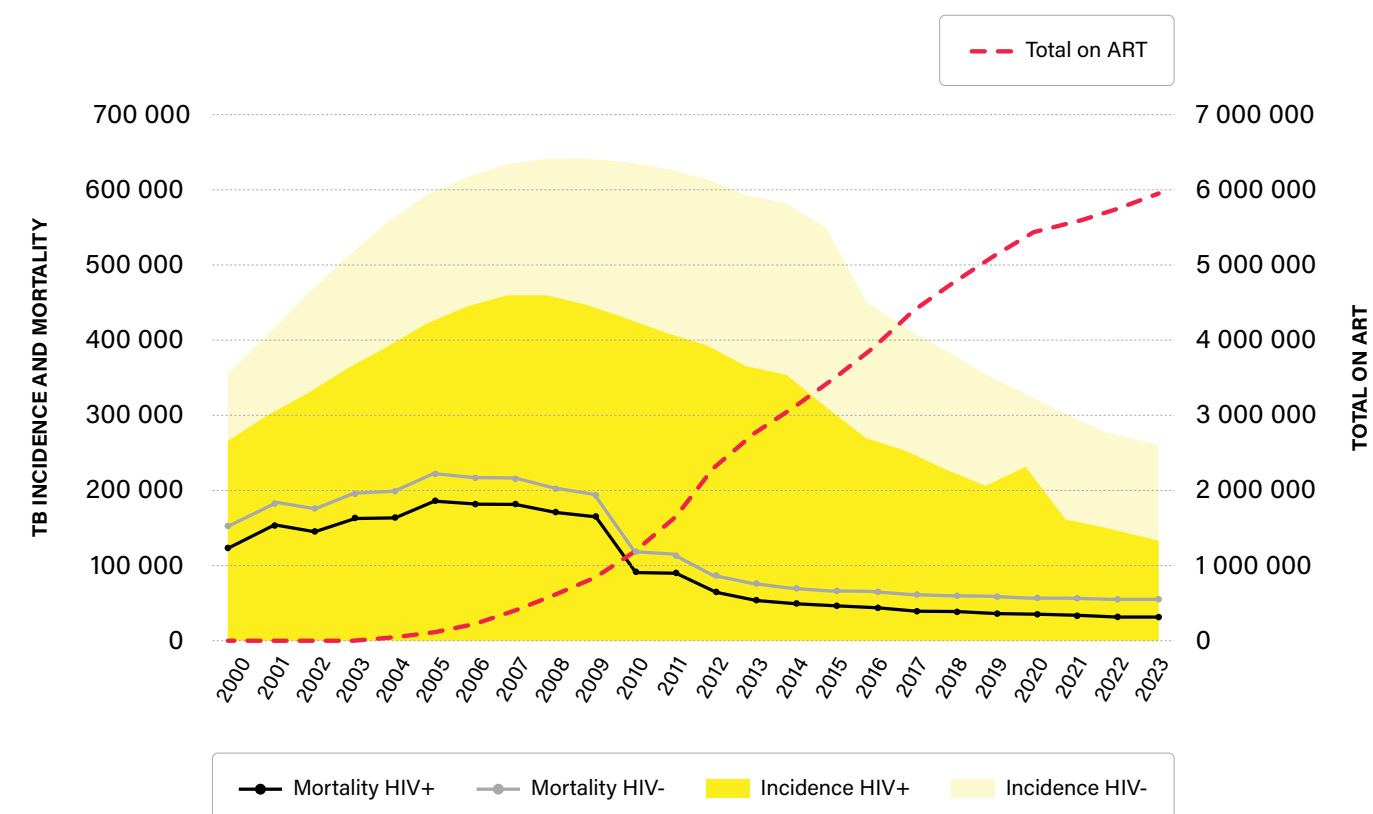
Earlier this year President Ramaphosa launched Close the Gap, an HIV campaign to find an additional 1.1 million people who are not on treatment as part of the country’s efforts to reach the target of 95% of people knowing their status, 95% of these people being on antiretroviral treatment, and 95% of those on treatment being virally suppressed.

With a joint testing mandate, the strategy will be a crucial part of improving TB testing going forward.

The collaboration of this campaign with the NDoH’s plans for TB this year is a critical step for the country, as it navigates a transition in the way it delivers and supports the roll-out of HIV and TB services in the face of the healthcare crisis that has been prompted by the funding freeze.

Not only does it provide South Africa with the opportunity to zone in on its ambitious agenda around HIV and TB, it also lays the foundation for strengthened district health services, ensuring that those who need the services most have equitable access.

While South Africa is making progress and has managed to reduce the incidence of TB by 54%, TB deaths remain high.



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A homeless man, Johnny Fortuin sits on a bench outside Paarl Hospital on June 21, 2024 in Paarl, South Africa.

Photo: Gallo Images/Rapport/Edrea du Toit

03

A SOLUTION TO THE US FUNDING CRISIS

Let's make the District Health Programme Grants count

South Africa's two ambitious nationally co-ordinated campaigns to accelerate efforts in the HIV/AIDS and TB sectors will go a long way towards helping the country meet the global targets.

It must be noted that the loss of PEPFAR funds is a significant setback to the Close The Gap campaign, which aims to get an additional 1.1 million people on antiretrovirals, and the End TB Strategy, which hopes to test five million people for TB.

But this vulnerable moment the country finds itself in presents an opportunity for us to re-evaluate its investment and think about more sustainable ways to finance its health programmes, particularly in terms of national co-ordination and provincial implementation of HIV and TB programmes.

The District Health Programme Grant is an ideal mechanism for strengthening governance to ensure that the activities and capacities of the PEPFAR implementing partners are incorporated into a new or revised national strategy.

The HIV and TB programmes in South Africa are both financed through District Health Programme Grants, a conditional grant that is co-ordinated by the National Department of Health. National Treasury allocates the financing for the health budget, based on the needs that have been determined by the NDoH and its provincial counterparts.

This places significant responsibility on provincial departments of health to ensure that their health management systems, budgets and ability to deliver primary healthcare are intact. The challenge is that the District Health Programme Grants have not been serving the purpose for which they were intended. As indicated in our 2022 Landscape Study on TB, the NDoH does not enforce the conditionalities enough.

However, if the conditionalities were to be improved, this could help to ensure that the ecosystem is not fragmented and that there is better bi-directionality and stronger oversight.

South Africa has invested heavily in its response to HIV and AIDS in the last 15 years; particularly

since 2008, when it rolled out its mass anti-retroviral programme. The provision of cheaper drugs in 2012 meant that the programme expanded significantly. Currently, there are close to six million people on ARV treatment.

As a result of this roll-out we have improved health outcomes in TB and maternal and child health, and improved life expectancy. But to maintain these gains – and to reach the outstanding global targets – a coordinated and strengthened plan is required.

This year, World TB Day will be marked using the theme:

"Yes! We can end TB: Commit, Invest, Deliver"

The theme calls on global leaders to reaffirm their pledges to end TB by implementing concrete action, securing funding, and enacting national strategies and policies. It highlights the necessity for increased funding to accelerate efforts to end TB by 2030, advocating for diversified investment approaches to fund the TB response fully. Lastly, it hopes to translate commitments and investments into tangible results benefiting those affected by TB, by focusing on scaling up evidence-based interventions, early and accurate diagnoses, preventive treatment, and high-quality care for drug-resistant TB.

As South Africa prepares to roll out these ambitious campaigns and its healthcare sector navigates the transition to a more sustainable financing approach to help buttress itself against external risks, the time is ripe to take the necessary action to ensure that the investments made translate into healthcare services delivered to those who need them most.

Russell Rensburg

Executive Director: Rural Health Advocacy Project

**THIS YEAR'S
WORLD TB DAY
THEME HIGHLIGHTS
THE NEED FOR
INCREASED FUNDING
TO ACCELERATE
EFFORTS TO END TB
BY 2030, CALLING
FOR DIVERSIFIED
INVESTMENT TO
FULLY FUND THE
TB RESPONSE**

TB patients rest in the garden of Ward 16,
at the Sizwe Tropical Diseases Hospital in
Johannesburg, South Africa.

Photo: Michele Spatari/AFP

04 An ambitious plan with a focus on testing

Introduced in 2014, the World Health Organisation's End TB Strategy has given member states the ambitious goal of reducing TB deaths by 95%, reducing TB incidence by 90%, and eliminating the catastrophic costs for TB-affected households by 2035.

With only 10 years left to meet the WHO targets, South Africa must increase its treatment coverage rate by 13% and reduce TB deaths by 46 000 per year.

For South Africa, the challenge is that the country's TB response is complicated by the dual burden of HIV and TB. Multidrug-Resistant (MDR) TB and Rifampicin-Resistant (RR) TB add to this challenge.

Various studies have extensively documented the drivers of South Africa's TB epidemic. These include patient factors such as advanced HIV, presenting late for testing, treatment delays, stigma, mobility, costs, conflicting health beliefs, alcohol and substance abuse, and mental illness.

These are further exacerbated by the country's ailing public health system, which must service 80% of the population. This includes factors such as barriers to accessing care, congested clinics, systems not being integrated (which limits the ability to track patients across facilities), and healthcare workers not adhering to guidelines. Together these drivers result ultimately in low case finding, low adherence to treatment, a high loss of patients who can be followed up, and high death rates.

How can South Africa meet the goals of the WHO?

The NDoH has placed significant focus on accelerated testing as a means to reduce its TB prevalence rates. Later this month – on World TB Day 2025 – it will introduce the latest plans around its ongoing End TB Campaign, with an ambitious plan for scaling up testing to ensure that five million people can be tested for TB. The strategy is in line with South Africa's TB response, which is guided by the National Strategic Plan for 2023 to 2028, as well as the National TB Programme's Strategic Plan, which sets out five strategic pillars to achieve these goals.

The strategic plan is expressed in an annual operational plan, known as the TB Recovery Plan,

PILLAR 1

Communicate & Advocate

TB is a national priority across sectors



PILLAR 2

Find & Link

People with TB are linked to care within one week



PILLAR 3

Treat & Retain

People with TB have access to high quality treatment & support



PILLAR 4

Prevent & Prepare

TB prevention is valued as much as treatment



PILLAR 5

Monitor & Assess

Provinces use high quality data to guide decisions



which centres on five pillars: communicate and advocate; find and link; treat and retain; prevent and prepare; and monitor and assess. This year the department launches the fourth iteration of this plan, which is a pivotal part of focusing the country's TB control efforts to reach the annual milestones.

Already, the efforts made for previous recovery plans have shown positive results. But there is still a long way to go.

According to the NDoH, of the 280 000 people estimated to have had TB in South Africa in 2022, only 214 389 were notified and on treatment. This means that there were more than 65 000 deemed missing. About 22% of patients, or about 60 297 people, are lost to follow-up – they have been diagnosed, but have not started on treatment or been notified.

Finding these 'missing' patients is a critical part of reducing TB prevalence in South Africa. This is particularly important because these people are infectious, and could transmit the infection to others in their households, workplaces and communities, creating a lengthy and ongoing transmission cycle.

The rationale behind the End TB Campaign is that South Africa must scale up TB testing in order to reduce the incidence of TB by 29% and mortality by 41% by 2035. By identifying and treating TB cases early, the campaign can improve retention in care and prevent the spread of the disease.

A central part of finding and linking patients to care is intensifying the ongoing testing strategy around TB by implementing Targeted Universal Testing for TB, also known as TUTT, which was introduced several years ago.

TUTT's logic is that everyone who is at high risk of TB should be tested. It identifies high-risk groups, regardless of whether or not they have symptoms.

TUTT should be offered at hospitals, primary care facilities and at community level, and focus on testing the following high-risk groups, regardless of TB symptoms: HIV-positive patients (whether

newly diagnosed or as part of their annual follow-up for those on ART), those treated for TB within the past two years, and those who have been in close contact with a TB patient in the past year.

This testing strategy moves away from the old testing regime, which recommends that only people who are screened for TB should be tested. What it means is that even if patients visit the clinic for other conditions, they should be offered a TB test.

Dr Waasila Jassat (project director for the TB Support Unit at Genesis Analytics, which provides technical support to the NDoH) emphasises the importance of stakeholder collaboration in the collation of the strategic and recovery plans, and says that the five pillars have brought everyone together, with a shared vision and clear responsibilities of what needs to be done at every level for each of the pillars.

"They highlight the important implementation and research priorities and give really good guidance for all role players in TB, from government to civil society to researchers. It creates a shared platform for what we need to achieve in the TB programme," she notes.

The TB Recovery Plan takes the same direction, expressing what activities we will perform and what targets we need to reach in each financial year so that we can achieve the goals of the TB strategic plan.

The TB Think Tank brings together experts in TB, from researchers, academics and implementers to modellers, who have work streams focusing on prevention, treatment, data and financial forecasting. This means that there is a positive stakeholder engagement platform.

Partners have included the South African National AIDS Council (SANAC), which has a TB technical task team, with five technical working groups that incorporate civil society and all the government departments, which is helpful in coordinating the government response and making a success of this campaign.

THE TB CARE CASCADE IN SOUTH AFRICA IN 2022 SHOWS THAT OF THE 280 000 ESTIMATED TO HAVE TB, 214 422 WERE NOTIFIED ON TREATMENT, LEAVING A SHORTFALL OF 60 297 MISSING PEOPLE



05 Navigating the five million test roadmap

The End TB Campaign's grand plan to test five million people over the next year will result in a marked decrease in South Africa's TB burden.

According to the End TB Campaign, the roadmap for testing is to focus on specific groups that have a higher likelihood of having TB. This includes people presenting at clinics with symptoms suggestive of TB, along with targeted testing for high-risk groups, people living with HIV on ART initiation and at annual viral load testing, people with a history of TB in the past two years, and TB contacts.

If the NDoH plans to realise its goal, it will effectively have to increase testing by between 55% in some provinces (KZN) and 160% in others (Limpopo). For some provinces, this means that more than 120 000 tests will have to be conducted monthly. In 2023, nearly 2.8 million people were tested for TB.

However, there are a series of challenges that come with TB testing. These can broadly be divided into logistical challenges, testing complications, and issues around quality control. Unless the NDoH navigates these, its ability to reach these goals – and effectively to get people onto treatment – will be compromised.

Professor Norbert Ndjeka, the Chief Director of TB Control and Management at the NDoH, is optimistic, saying that the plan to scale up TB testing in South Africa to five million TB tests is not overly ambitious.

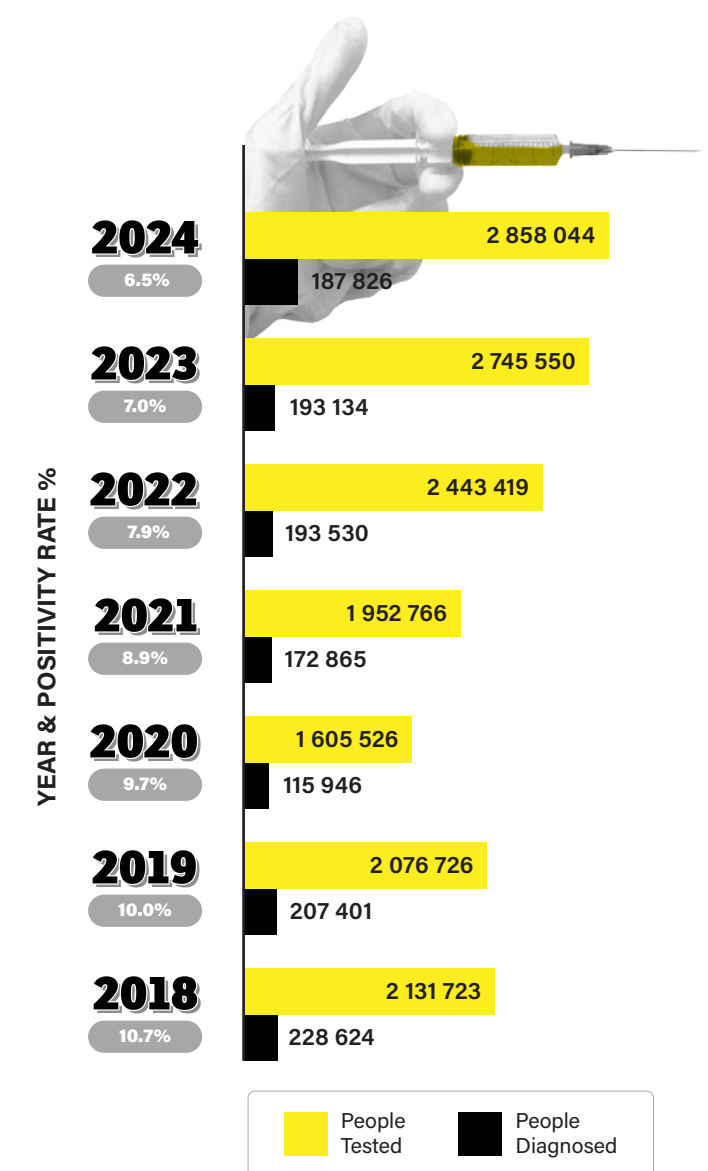
"To end TB, we need to find TB. We want to find everyone and treat everyone," he notes.

Modelling has shown that testing more is the most cost-effective intervention at the department's disposal. Not only does it cut the chain of transmission in the community by reducing the period of infectiousness for individuals, it also leads to a reduction in mortality.

Professor Ndjeka refers to the recently announced Close The Gap HIV campaign, which aims to find

1.1 million people who are not on treatment as a vital part of ensuring the department also reaches the five million tests goal.

The strategy of the campaign is that when the additional 1.1 million people are initiated into treatment, they should automatically also do a TB test. Those 1.1 million people are then added to the current TB testing load of close to three million. The last one million tests will come from improving the quality of TB sample collection; currently about a million tests are rejected because specimens that have been collected are substandard, and cannot be used.



TB Testing and case finding over the last seven years.

END TB CAMPAIGN GOALS FOR 2035

29%
reduction in
TB incidence

41%
reduction in
TB-related deaths

The department has calculated testing targets per province, and is rolling out training on sample collection. But there is a complication, when it comes to HIV tests. Professor Neil Martinson, who heads up the Perinatal HIV Research Unit, says a mindset shift will be needed if the country is to be successful in reaching this target.

Despite a national HIV testing policy that stipulates that virally suppressed HIV patients who go for their annual check-ups should be tested for TB, there is a common perception among healthcare workers that it is a waste to test these patients for TB, due to low positivity rates in the cohort. Automatic testing is viewed with some suspicion, due to the cost being USD10 per test.

The common argument is that it is better to test symptomatic people, as there is a higher likelihood of a positive result. But the result of this is that people are presenting to facilities only once their TB is far advanced, instead of being tested and treated at an early stage of their disease.

"If the goal is just to find people with TB and treat them, well, that's one thing. But if your goal is to end TB, you'd better find more people with TB, and you'd better treat more people with TB, and you'd better ensure they don't transmit to the next generation of individuals," Professor Martinson explains.

Currently, up to 25% of people who are living with HIV and are admitted to hospital when they are critically ill have TB. Up to 30% of those people living with HIV who are critically ill and are admitted to hospital will be virally suppressed – and as many as one quarter die. The inference is that despite them having regular contact with the health system to collect their chronic treatment, they are not being screened.

Conversely, the other 70% of people admitted to hospital when they are critically ill are not virally suppressed. They have not been on antiretrovirals before, and their first diagnosis of HIV occurs

when they are admitted to hospital with TB.

Looking at hospital admissions, about 30% of people admitted to internal medicine wards who are HIV infected are virally suppressed. Up to 18% of these people have TB. The other 70% are not virally suppressed – but between 22% and 25% will have TB.

The idea of screening everyone for symptoms at every contact is not happening, says Martinson.

According to Dr Lindiwe Mvusi, a Director of TB Control and Management at the NDoH, an added challenge here is that there is non-adherence to diagnostic algorithms, particularly for people living with HIV who test negative. Further culture testing is not done on them in order to better understand their TB status.

The TB testing algorithm is a complex one, particularly when it relates to drug-resistant and drug-sensitive TB. In these cases, patients must do at least one follow-up test to determine the treatment they will receive. Multidrug-resistant TB (MDR-TB) is a form of TB disease caused by a strain of the *M. tuberculosis* complex that is resistant to rifampicin and isoniazid.

Based on current WHO policy, several regimens may be used for patients with MDR-TB or RR-TB. The key factors that define choice of treatment regimen include the patient's drug-resistance profile, prior exposure to TB medicines and patient history, the drug-resistance profile of close contacts, the patient's age, the extent of their pulmonary TB disease, and the localisation of extrapulmonary TB lesions.

Different tests provide different answers regarding drug sensitivity or resistance. The gene expert test, for example, can provide a positive or negative TB diagnosis as well as whether or not there is rifampicin resistance or susceptibility. This allows clinicians to make the correct decisions on a patient's treatment management.

END TB CAMPAIGN

AIMS

- Boost testing by 55%-160% in different provinces
- Reach high-risk groups including: people with TB symptoms, people living with HIV, individuals with a history of TB, and TB contacts.
- End goal: Reach 5 million TB tests

GAINS

- Reduced transmission cuts the period of infectiousness in the community
- Early detection leads to fewer TB-related deaths
- Testing more is the most cost-effective intervention
- Find and treat more people, improving outcomes

CHALLENGES

- Logistical challenges
- Testing complications
- Quality control issues



Based on the patient's profile and their TB history, additional samples may have to be sent to the laboratory for further investigation. And depending on their sensitivity or resistance, the patient may need to be sent to a drug-resistant TB treatment site for further evaluation and testing.

Linked to this, says Dr Mvusi, is weak follow-up of TB test results and late referrals of patients who need to start drug-resistant TB treatment as soon as possible.

In many instances, TB test results are sent to a facility but are not properly managed, which results in poor linkage between people diagnosed with TB and appropriate treatment. Testing people but failing to link them to treatment is a futile and wasteful exercise.

Another waste, says Dr Shaheed Vally Omar, head of the Centre for Tuberculosis at the National Institute for Communicable Diseases, is to do with the testing process itself.

There are three challenges. The first relates to the specimen being collected: a specific amount of sample is required, and strict quality control must be applied to ensure that the sample is accurate. Samples that are too small cannot be used.

The second relates to the quality of the data collected on the form that accompanies the specimen. The system currently does not use patient ID number as a unique identifier. As a result, patient names may be captured differently on different occasions, testing documents are not recorded properly, and files are not filled in properly. This means that tests may be duplicated.

We are not getting the full 30% of people coming back for a result. Only 42% of patients who have resistant TB have gone through the additional test regimen that helps to specify which treatment regime is applicable to them.

The third challenge is linked to the NHLS's SMS notification service. While the system was set up to notify patients of their test results and has been operational, the SMS line currently only has a 50% hit rate. Here the challenge is sometimes human error – numbers being captured incorrectly, or landlines being captured rather than mobile numbers – and sometimes that a patient just does not have a cell phone. For 2023, over 2.8 million gene expert tests were done but SMSs were sent to only 1.4 million people. Based on the reports, there are also issues in terms of how many are delivered.

Ndjeka notes that a critical part of meeting the testing targets would be to ensure that the data systems are in place to help with accuracy, measuring and monitoring.

In his State of the Nation Address earlier this year, President Ramaphosa alluded to the first phase of a single electronic health record being

built this year. A public-facing dashboard for TB response could be a critical part of this.

Currently, TB data is recorded on three systems: TIER.Net, a non-networked electronic system that integrates the TB and HIV information systems at facility level; the District Health Information System (DHIS), where aggregate data is integrated; and EDR.web, the drug-resistant TB reporting system, which only deals with a smaller number of cases and fewer treatment sites.

The challenge is that these systems do not speak to each other. While very specific provincial testing targets have been put in place and the NDoH is rolling out training on quality control and testing algorithms to capacitate healthcare workers and ensure it meets its targets, consistent monitoring will be needed to ensure that provinces are on target.

CHALLENGE 1

Samples must meet strict quantity and quality requirements. Too small? Test wasted!



CHALLENGE 2

Now unique patient ID means misrecorded names & duplicate tests.



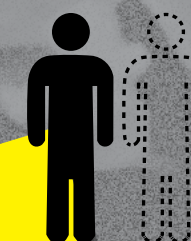
CHALLENGE 3

Only 42% of patients with resistant TB complete necessary follow-up tests.



CHALLENGE 4

Only 50% of patients receive their test results via SMS—errors & missing numbers to blame.



06 TB vaccine in years to come could be a gamechanger

Although the country will focus all its efforts on increasing testing over the next year, in the long run the pending TB vaccine could significantly reduce TB incidence in South Africa.

Currently the only vaccine that exists is the BCG, which is only effective in young children to reduce severe forms of TB such as TB meningitis, which is rare.

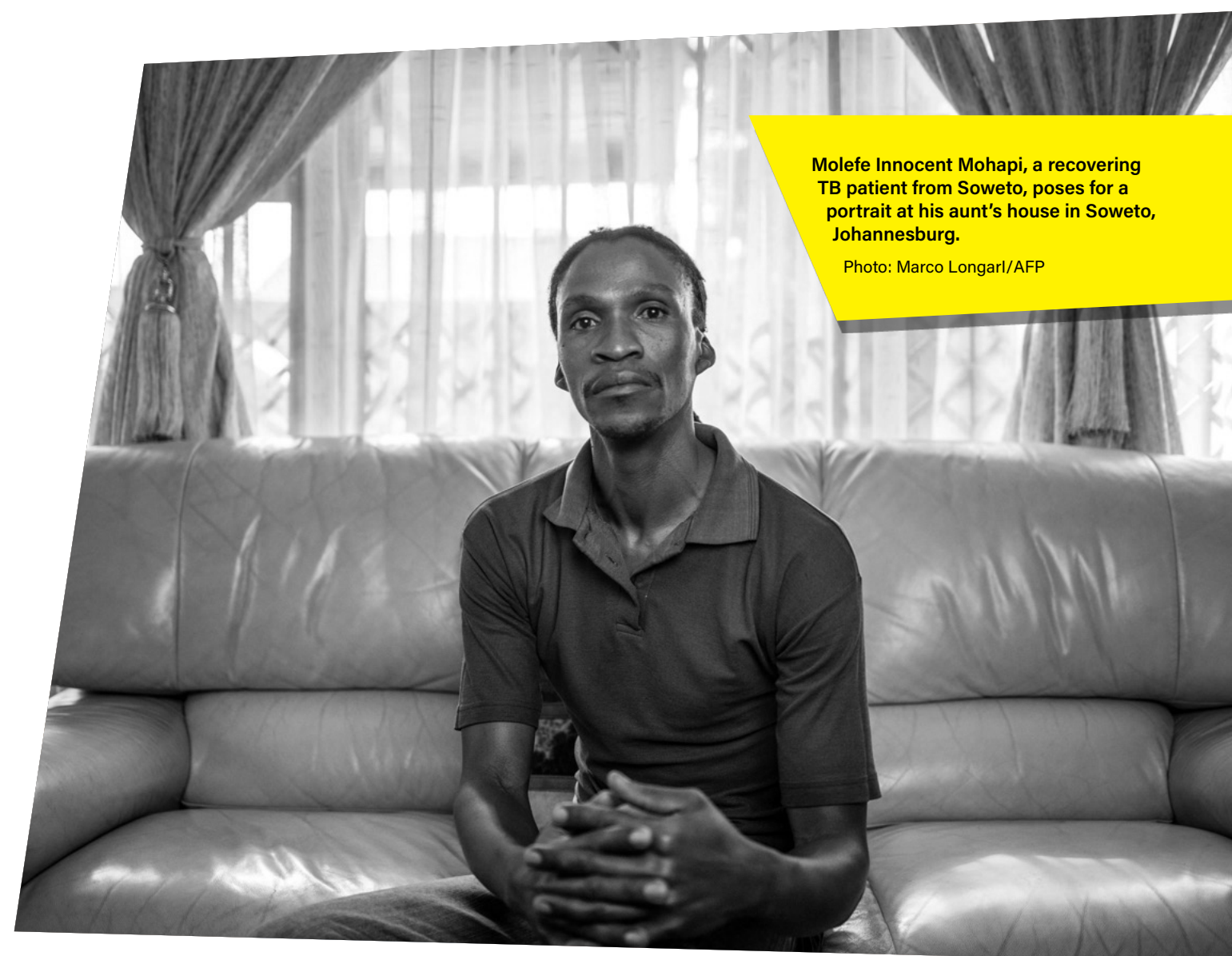
But South Africa is currently in the middle of a trial for the M72/AS01E vaccine candidate, which is being piloted at more than 30 sites across the country. Should the M72/AS01E vaccine candidate prove effective, it could be the first new TB vaccine in 100 years.

At full capacity the trial will include up to 20 000 participants, including people living with HIV, at up to 60 trial sites in seven countries – South

Africa, Zambia, Malawi, Mozambique, Kenya, Indonesia and Vietnam.

The majority of study participants are HIV-negative but have latent TB infection. Latent TB infection is thought to be very common in South Africa; only around 10% of people with latent infection ever fall ill with TB. Participants are tested for latent infection using a type of test called an IGRA (Interferon-Gamma Release Assay).

The vaccine candidate is administered as two intramuscular injections given a month apart. Half of the study participants receive the M72 jab, and the other half a placebo. The participants are then followed for four years to see if they get TB.



Molefe Innocent Mohapi, a recovering TB patient from Soweto, poses for a portrait at his aunt's house in Soweto, Johannesburg.

Photo: Marco Longari/AFP

The trial is being funded by the Bill and Melinda Gates Medical Research Institute, a non-profit organisation and subsidiary of the Bill & Melinda Gates Foundation, as well as by Wellcome.

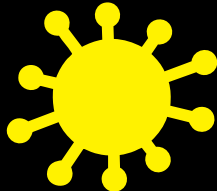
According to a press release from the Bill and Melinda Gates Medical Research Institute, a study commissioned by the WHO has estimated that over 25 years, a vaccine with 50% efficacy in preventing pulmonary TB could save 8.5 million lives, prevent 76 million new TB cases, and save USD41.5 billion for TB-affected households.

Martinson, whose unit hosts one of the South African trial sites, says that while the results will take years to emerge, discussion must take place regarding who would be eligible for the vaccine. This will ultimately determine how effective it could be.

One of the most interesting things to come out of some of the preliminary data from enrolling participants is the difference in positivity rates across the country, says Martinson. In Gauteng, for example, the positivity rate was about 50%, and similar rates were found in the North West province. But a site in KwaZulu-Natal which is known to have significant problems with both HIV and TB recorded a lower positivity rate of 30%.

While Martinson was unable to make any inference as to what this means, he said it is interesting to note trends which could later be analysed in conjunction with the TB response activities at the site, to see how much of an impact they have.

**IMPACT OF A 50% EFFICACY
TB VACCINE OVER 25 YEARS**



8.5 million
lives could be saved

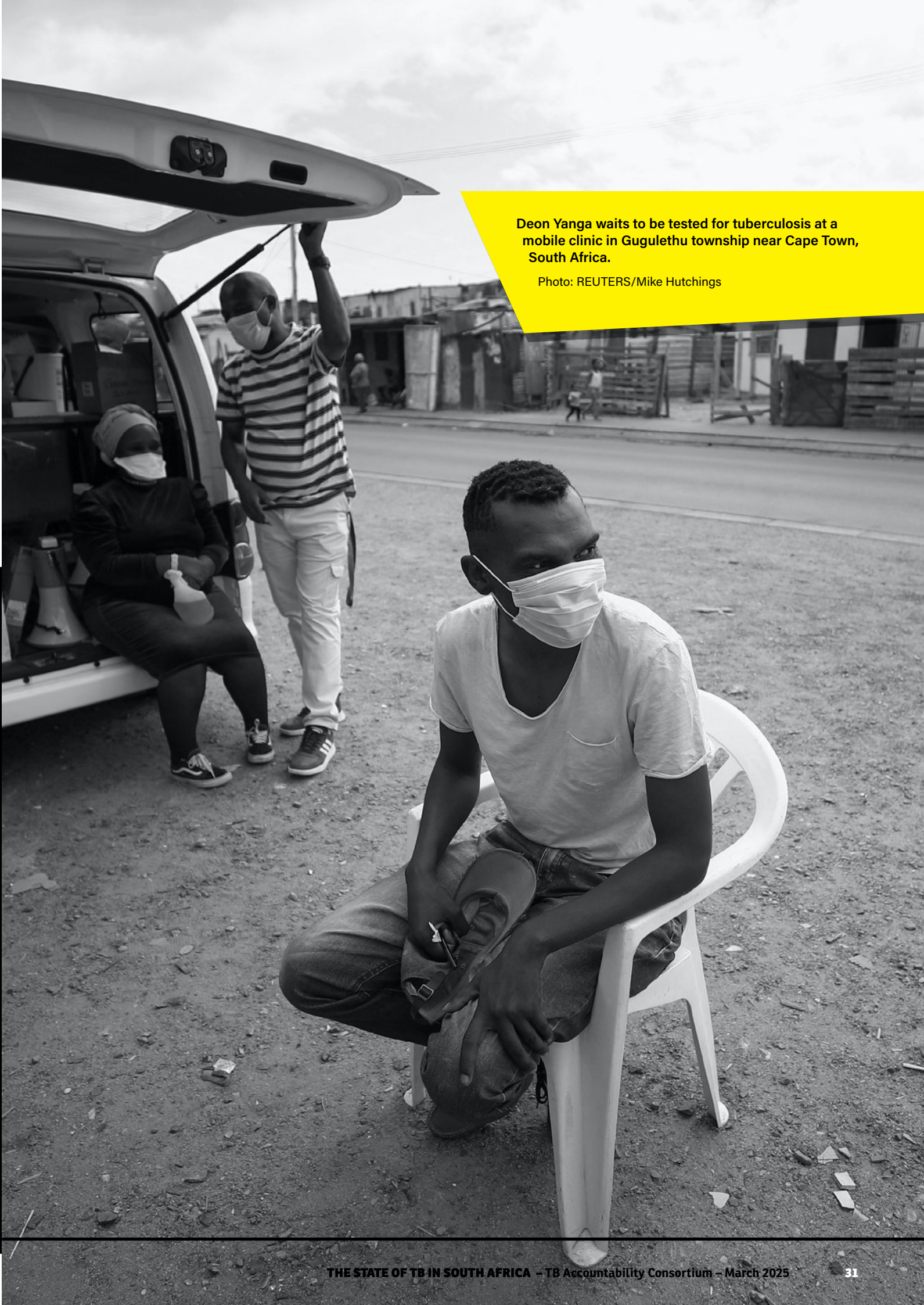
76 million
new TB cases prevented

\$41.5 billion
saved for TB-affected
households



Deon Yanga waits to be tested for tuberculosis at a mobile clinic in Gugulethu township near Cape Town, South Africa.

Photo: REUTERS/Mike Hutchings



07

OPERATION END TB

The way forward

South Africa's high TB burden necessitates a radical response to 'move the dial.'



Photo: Werner Hills/Media 24 Pty Ltd

The next 12 months presents a significant challenge for the NDoH, as they navigate the End TB Campaign to achieve the ambitious target of conducting five million TB tests.

With global TB target pressures looming, all eyes will be on South Africa to see how the country fares.

Going forward, as the TB Accountability Consortium, these are our recommendations:

1

Ensure that a public-facing TB dashboard is made available.

2

Allow stakeholders to monitor the monthly test load versus the testing targets set up in the End TB Strategy through the public-facing TB dashboard.

3

Increase funding for TB in the District Health Programme Grant to ensure national co-ordination and improved provincial and programme performance.



**Accountability
Consortium**