

THE ROAD TO UHC

Progress in South Africa's Journey
to Universal Health Coverage



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Non-communicable diseases

Diabetes Factsheet – Celene Coleman

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Service capacity and access

Service Capacity and Access Factsheet – Samantha Maughan



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INTRODUCTION

The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, are described as a “universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity”.¹ The objective of attaining these goals is to balance social, economic and environmental sustainability.¹ Universal health coverage (UHC) is a framework implemented to assist in achieving the SDGs.² The goal of UHC is to provide all people with access to a full range of essential health services, including prevention, treatment, rehabilitation and palliative care when needed, without experiencing financial hardship as a result.²

To achieve the SDGs and UHC, the World Health Organization (WHO) recommends that countries invest in Primary Health Care (PHC) to provide quality, equitable healthcare that is effective and cost-efficient.² This will ensure that the health needs of all are identified, prioritised and addressed.² South Africa has comprehensive public sector entitlements for essential health services but in practice UHC has not yet been achieved.³ Rural communities (particularly former homelands), for example, have significantly less access to healthcare based on physical access, affordability, and acceptability of services.³

The road to UHC in South Africa is not a straight one; there are roadblocks, detours, parts under construction and others in need of maintenance. But this is a journey we must all go on together to build a better future for all South Africans.

In these five factsheets – Diabetes (non-communicable diseases), Tuberculosis (communicable diseases), Contraceptives (reproductive and maternal health), Childhood Immunisations (child health) and Service Capacity and Access – the Rural Health Advocacy Project (RHAP), explores South Africa's progress on the road to UHC, with a focus on rural areas.

METHODOLOGY

RHAP conducted reviews of both peer-reviewed and grey literature. Data from the District Health Barometer, South African Health Review and the Provincial Annual Financial reports was included to highlight the performance on Universal Health Coverage indicators for rural provinces and certain rural districts. The UHC indicators used for these factsheets are based on those used by Day et al. in the article *Is South Africa closing the health gaps between districts? Monitoring progress towards universal health service coverage with routine facility data*.⁴

The districts and provinces whose progress towards UHC is evaluated in these factsheets, are those currently supported by RHAP's work, and include rural and high TB burden regions. These districts are as follows: Amathole and OR Tambo districts in the Eastern Cape; Ethekewini, King Cetshwayo and Ugu districts in KwaZulu-Natal; Vhembe district in Limpopo; Ehlanzeni district in Mpumalanga; Frances Baard district in Northern Cape; Dr Kenneth Kaunda district in North West; and, Cape Town metro district in the Western Cape.

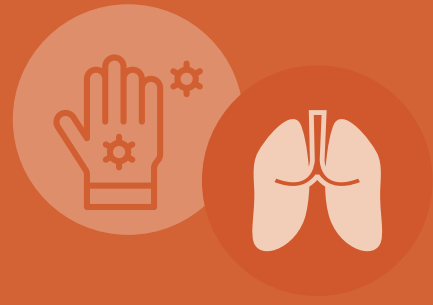
The definition for a rural province is outlined in RHAP's *Health System Strengthening Post-COVID-19* report, which uses population size and density, percentage of agricultural households, number of rural nodes and presence of traditional authority to define a rural area.⁵ The definition of rural districts is based on the Municipal Infrastructure Investment Framework (MIIF).⁶ For the purposes of these factsheets, a district is classified as rural if according to the MIIF it has more rural municipalities than urban and/or a higher percentage of the population residing in municipalities that are classified as rural (B3 and B4).^{6,7} Ugu district, when using the MIIF in this way, was borderline rural/urban, and so was classified as rural based on additional information from the Ugu district website.⁸

LIMITATIONS

- Literature reviewed for these factsheets includes journal articles, reports and grey literature sources obtained through a desktop review process.
- No data analysis was conducted to compile these factsheets.
- All data presented in these factsheets were sourced from the literature review and online sources of publicly available data. As such, we did not have control over the methods used for data collection and analysis.
- Only seven of the nine South African provinces and ten of the districts were included in these factsheets. Thus the findings related to provincial and district elements may not be representative of all the provinces and districts in South Africa.

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TUBERCULOSIS

Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis*, a type of bacteria.^{1,2} Worldwide, TB is a leading cause of morbidity and mortality and a major public health concern.¹ South Africa is one of 30 countries with the highest TB burdens³ that account for 86-90% of global TB incidence.² From 2016 to 2018, TB was the leading cause of death in South Africa, ranking above diseases such as diabetes, stroke, heart disease, HIV and certain cancers.⁴

This factsheet will focus on the progress towards Universal Health Coverage (UHC) for TB in South Africa. It addresses the impact of biomedical and sociological factors on the success of TB treatment, and makes recommendations to improve TB treatment coverage in South Africa.

SOUTH AFRICAN CONTEXT

TB treatment coverage in South Africa

South Africa's 2021 drug-susceptible TB (DS-TB) treatment success rate, as reported in the South African Health Review 2022,⁵ fell short of the 90% target set by the Stop TB Partnership in the Global Plan to End TB 2016 – 2020.⁶ The goal of 90% treatment success for all forms of TB has been carried over to the 2023 – 2030 edition of the Global Plan to End TB, as one of the targets to achieve by 2030.⁷

South Africa's TB burden is threefold: DS-TB and drug-resistant TB (DR-TB) coexist, and are compounded by TB-HIV co-morbidity.³ According to the 2019 Global TB Report, the co-infection rate of TB and HIV in South Africa was 59%.⁸ A study conducted in rural Eastern Cape hospitals, showed that a negative HIV status increased the chances of successful treatment of TB,³ which highlights the importance of TB-HIV comorbidity in TB treatment.

The TB epidemic in South Africa is not only affected by biomedical factors, such as comorbidities, but also by social factors.⁹ A 2023 cross-sectional qualitative study in Gauteng, found that a group of 24 to 74 year olds who had successfully completed TB treatment in the two preceding years were rendered physically, socioeconomically and emotionally vulnerable as a result of their TB status and that these vulnerabilities were exacerbated by COVID-19.¹⁰

District, provincial and national findings

According to the 2019/20 District Health Barometer, of the provinces included in this factsheet, Mpumalanga had the highest DS-TB treatment success rate of 81.1%, followed by KwaZulu-Natal (80.0%) and Limpopo (79.9%).¹¹ All three exceeded the national average of 79.2%.¹¹ The DS-TB treatment success rates for the remaining three rural provinces, and for Western Cape (urban), were below the national average.¹¹

Of the districts included in this factsheet, two rural districts – Ehlanzeni in Mpumalanga and Amathole in the Eastern Cape – had the highest DS-TB treatment success rates: 82.8% and 82.5%, respectively.¹¹ However, DS-TB treatment success rates for the other rural districts included here were below the national average.¹¹ See **Table 1** for these findings.

Table 1: The DS-TB treatment success rate (%) per province and district in 2018, from the District Health Barometer 2019/20

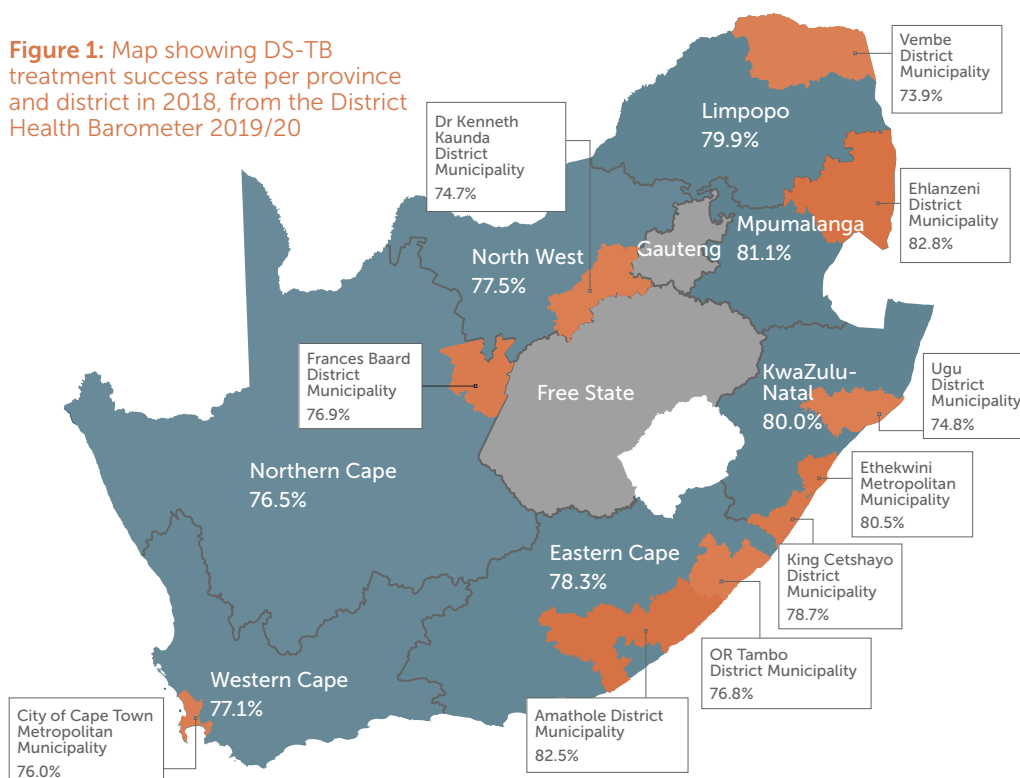
Provinces	District Health Barometer 2019/20	Rural/Urban Provinces [^]	Districts	District Health Barometer 2019/20	Rural/Urban Districts*
Eastern Cape	78.3%	Rural	Amathole	82.5%	Rural
			OR Tambo	76.8%	Rural
KwaZulu-Natal	80.0%	Rural	Ethekwini	80.5%	Urban (metro)
			King Cetshayo	78.7%	Rural
			Ugu	74.8%	Rural ^o
Limpopo	79.9%	Rural	Vembe	73.9%	Rural
Mpumalanga	81.1%	Rural	Ehlanzeni	82.8%	Rural
Northern Cape	76.5%	Rural	Frances Baard	76.9%	Rural
North West	77.5%	Rural	Dr Kenneth Kaunda	74.7%	Urban
Western Cape	77.1%	Urban	Cape Town	76.0%	Urban (metro)
South Africa	79.2%		South Africa	79.2%	

* Classified using the Municipal Infrastructure Investment Framework using 2016 data as found on Wikipedia *List of municipalities in South Africa* available at https://en.wikipedia.org/wiki/List_of_municipalities_in_South_Africa¹²

[^] Classified using the definition from the *Health System Strengthening Post-COVID-19* report available at <https://rhap.org.za/wp-content/uploads/2022/12/Full-RHAP-COVID-HSSdigi.pdf>¹³

^o Classified using the Municipal Infrastructure Investment Framework and according to the Ugu District Municipality website available at <https://ugu.gov.za/Pages/Departments/EconomicDevelopment/Local-Economic-Development.aspx>¹⁴

Figure 1: Map showing DS-TB treatment success rate per province and district in 2018, from the District Health Barometer 2019/20



Recent findings from South African reports

In a comparison of DS-TB treatment success rates in provincial annual financial reports, Mpumalanga had the highest DS-TB treatment success rate (81.1%) for the 2019/20 period,¹⁵ and KwaZulu-Natal had the highest rates for 2020/21 (81.2%) and 2021/22 (81.2%).¹⁶ Although the KwaZulu-Natal financial report had no data for the 2019/20 period (See **Table 2**), the South African Health Review 2022 reported that KwaZulu-Natal had the highest DS-TB treatment success rate from 2019 through 2021 with 81.9%, 83.0% and 82.1%, respectively.⁵ Mpumalanga followed closely with 80.0%, 80.6% and 82.8%, respectively.⁵

South African Health Review 2022 data show an increase in the DS-TB treatment success rate from 2020 to 2021 for Limpopo, Mpumalanga and North West, and a decrease in the same period in Eastern Cape, KwaZulu-Natal, Northern Cape and Western Cape (see **Table 3**).⁵

Figure 2 shows that the national average for South Africa also decreased between 2020 and 2021 from 78.9% to 77.9%, which demonstrates that there was no recovery towards pre-COVID levels (79.3%).⁵ The trend in the provincial annual financial reports is towards an increase in DS-TB treatment success rate between the periods 2020/21 and 2021/22, with the exception of Eastern Cape and KwaZulu-Natal which remained the same,^{16,17} and Northern Cape, which decreased from 73.0% to 64.0% (see **Table 2**).¹⁸ The disparities in reported rates in the provincial annual financial reports and the South African Health Review 2022 may be due to slight differences in the reporting periods (the former uses financial years and the latter, calendar years).

The national DS-TB treatment success rate of 77.9% in 2021, is still well below the target of 90% and while some provinces, including rural provinces, achieved over 80%, they still did not meet this target.

Table 2: DS-TB treatment success rate per province from the Provincial Annual Financial Reports¹⁵⁻²¹

Provinces	Provincial Annual Financial Reports			Rural or urban [^]
	DS-TB Treatment Success Rate (%)			
	2019	2020	2021	
Eastern Cape	78.1%	77.5%	77.5%	Rural
KwaZulu-Natal	no data	81.2%	81.2%	Rural
Limpopo	78.5%	76.9%	77.0%	Rural
Mpumalanga	81.1%	79.3%	80.3%	Rural
Northern Cape	74.0%	73.0%	64.0%	Rural
North West	no data	77.2%	77.7%	Rural
Western Cape	77.3%	76.5%	77.3%	Urban
South Africa	79.3%	78.9%	77.9%	

[^] Classified using the definition from the *Health System Strengthening Post-COVID-19* report available at <https://rhap.org.za/wp-content/uploads/2022/12/Full-RHAP-COVID-HSSdigi.pdf>⁵

Table 3: DS-TB treatment success rate for selected provinces as per the South African Health Review 2022⁵

Provinces	South African Health Review 2022			Rural or urban [^]
	DS-TB Treatment Success Rate (%)			
	2019	2020	2021	
Eastern Cape	77.9%	78.2%	76.6%	Rural
KwaZulu-Natal	81.9%	83.0%	82.1%	Rural
Limpopo	77.2%	77.7%	78.9%	Rural
Mpumalanga	80.0%	80.6%	82.8%	Rural
Northern Cape	72.6%	68.4%	64.9%	Rural
North West	77.6%	79.1%	82.1%	Rural
Western Cape	76.5%	74.9%	73.0%	Urban
South Africa	79.3%	78.9%	77.9%	

[^] Classified using the definition from the *Health System Strengthening Post-COVID-19* report available at <https://rhap.org.za/wp-content/uploads/2022/12/Full-RHAP-COVID-HSSdigi.pdf>⁵

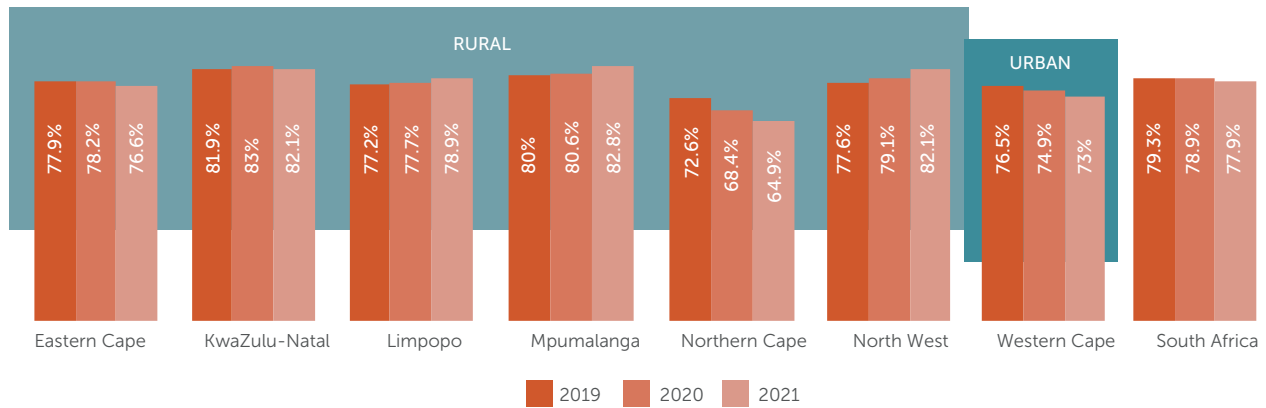


Figure 2: DS-TB treatment success rate comparing 2019 (pre-COVID) with subsequent years per province

Data source: South African Health Review 2022 available at <https://www.hst.org.za:443/publications/Pages/SAHR2022.aspx>⁵

IMPACT AND EFFECTS

Health, social and financial strain

Factors that are strongly associated with poor TB treatment outcomes in Africa include HIV co-infection, living in a rural area and previous TB treatment.²²

Co-morbidities other than HIV that have been found to affect TB treatment outcomes include diabetes and depression.²³ It has been shown that poor glucose control in diabetes reduces the efficacy of TB drugs, and that diabetes patients tend to have lower levels of TB drugs in their blood compared to those without diabetes.²³ While this may suggest that they need higher doses of TB drugs, it is also possible for TB drugs to decrease the efficacy of diabetes medication,²³ which results in a catch-22 situation. TB may also predispose individuals to developing diabetes, which in high-prevalence TB settings could have a substantial impact.²⁴ Depression may decrease adherence to TB treatment and affect the body's immune response to TB.²³ TB is also known to biologically increase a person's risk of developing depression.²³

It is crucial that HIV and diabetes are factored into TB treatment policies and implementation in South Africa considering the high burden of HIV²⁵ and the fact that diabetes is the country's second leading cause of death.⁴ Integrated treatment packages are also essential in the fight against these three coinciding epidemics.

Social factors also impact TB treatment. Various socioeconomic factors, such as lack of nutrition, alcohol and substance abuse, smoking, and unemployment, increase the risk of contracting TB and developing recurrent TB even after completion of a treatment regime.³

A qualitative study of TB survivors in Gauteng, found that the impact of underlying socioeconomic factors on people living with TB is worsened because the disease makes them feel sick and weak and lose weight.¹⁰ They are often unable to work and need to be financially supported by those around them.¹⁰ They may also have to rely on those around them to fetch their medication.¹⁰ In addition to these social factors, fear of stigma makes some people afraid to reveal their TB status, which makes it more difficult to get help from those around them.¹⁰

In a rural area of Limpopo province, a qualitative study interviewing facility managers and the TB focal person at eight facilities, found that a high rate of substance abuse among younger people is associated with a high rate of TB treatment discontinuation.²⁶ This study demonstrated that substance abuse resulted in TB patients forgetting to take their treatment, missing their follow-up visits or directly observed therapy (DOT) appointments, and often resulted in their refusal of social support, health education and counselling.²⁶

COVID-19

The COVID-19 pandemic caused a significant disruption in the gains made in the global response to TB.¹⁰ In the ten years before COVID-19, South Africa had made significant progress towards controlling its TB epidemic⁹ but the pandemic response resulted in a five- to seven-year setback.²⁷

COVID-19 related lockdowns made it difficult for patients to attend their medical appointments; others were scared to visit their local clinics for fear of their susceptibility to COVID-19 infection.¹⁰ The lockdowns and the redirection of services during the pandemic resulted in a decrease in TB testing (which in turn led to decreased treatment initiation).⁹ Furthermore, less than half of TB patients were successfully treated for TB in 2020.⁹ Social distancing during COVID-19 also made it difficult for patients to interact with others, gain knowledge about TB and understand other people's experiences.¹⁰

WHAT IS SOUTH AFRICA DOING TO IMPROVE TB TREATMENT COVERAGE?

Policies to improve TB treatment coverage

In 2022, to mitigate the impact of COVID-19, South Africa developed the first version of the TB Recovery Plan, which focuses on four main goals:

1. Find people with undiagnosed TB.
2. Link people diagnosed with TB to treatment.
3. Strengthen retention in care.
4. Strengthen TB prevention efforts.²⁸

This version of the TB Recovery Plan includes care cascades,²⁹ which "represent the proportion of people reaching milestones in care for a disease" and are "used to track progress towards global targets".²⁹ Care cascades also show the proportion of people lost at each stage of the cascade – from those infected with TB to those achieving optimal treatment of the condition.²⁹ This knowledge enables progress towards TB goals, appropriate resource allocation and enhanced quality control for the programme.²⁹ The general model for the TB care cascade includes:

1. The estimated TB burden
2. Population that accessed screening or testing
3. Population diagnosed with TB
4. Population that started treatment
5. Population that completed treatment
6. Population that achieved one-year recurrence-free survival²⁹

Whilst the intended outcomes of the TB Recovery Plan had the potential to reduce the TB burden in South Africa, it had very similar goals to the previous National Strategic Plan for HIV, TB and Sexually transmitted infections (STIs) for the period 2017 to 2022. This similarity is in keeping with the second objective of the TB recovery plan, which was to accelerate progress towards achieving the TB targets set before COVID-19, such as those in the National Strategic Plan.²⁸ This in turn demonstrates that there is a need for greater momentum in the implementation of these policies to successfully address the TB epidemic in South Africa.

The recently launched version of the TB Recovery Plan is aligned with the 2023–2028 National Strategic plan for HIV, TB and STIs.³⁰ It has similar aims to the previous plan: find people with undiagnosed TB in communities, link them to care, retain them in care, prioritise "TB prevention, improvement of TB surveillance systems, advocacy, communication, and social mobilization".³⁰ However, the inclusion of TB advocacy, communication and social mobilisation may help to improve the TB treatment coverage by acknowledging that social factors affect the current treatment success rate.

CONCLUSION

South Africa's high TB burden is a serious public health concern, particularly in light of the interaction of TB with HIV and diabetes, which are both, independently, major threats to health in the country. Socioeconomic factors also influence the way TB disease develops and how it impacts those infected with it.

Progress towards TB goals was hindered by the COVID-19 pandemic, which caused major setbacks in the TB programme in South Africa.

Although the National Department of Health has developed comprehensive policies to address the threat of TB, there is a need for greater momentum in policy implementation, as progress towards TB targets in South Africa has been slow.

RECOMMENDATIONS

1. Standardised collection and reporting of TB data to be published in TB-specific annual reports and on public-facing TB dashboards at national and provincial level.
2. Better understanding and action to address the social factors which impact those living with TB and their treatment outcomes.
3. Longitudinal studies to better establish the intersection between TB, HIV, and diabetes.²⁴
4. Develop integrated healthcare services and care cascades for TB, HIV and diabetes, given the notable interactions between these diseases.
5. Improved use of and reporting on TB-care cascades for evidence-based action in the fight to end TB nationally.
6. Improve measurement of TB care by addressing the lack of population-based data on the TB burden, the lack of electronic data systems, under-reporting and/or notification of people with TB, and the lack of routine post-treatment follow-up to assess long-term outcomes.²⁹
7. Address under-reporting due to factors such as a lack of a unique patient identifier to trace TB patients across the health system, poor linkage to care (particularly in rural populations), and under-reporting in the private sector.²⁹ This can be done most effectively by linking and integrating existing data systems (such as those for health facilities, laboratory services, TB and HIV programmes and the private sector, for example).
8. Conduct research to ascertain which factors would help to increase momentum of TB policy implementation in South Africa. Include a research translation plan to ensure findings lead to improved policy implementation.

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