

Improving health in **South Africa**

Policy recommendations to
improve health outcomes
and safe lives

Executive Summary

Although South Africa is a highly developed country, **significant improvements** in the **health care sector** are required. A focus should be on reducing the **HIV/AIDS prevalence** and **prevent new infections**.

Effective strategies include **integrating HIV services** with regular health services and implementing **multilevel interventions**. Additionally, attention should be given to the increasing incidence of **non-communicable diseases** such as cardiovascular diseases. The National Department of Health should implement a variety of approaches to address **risk factors like obesity**. This policy brief highlights **possible measures** and urges the South African government to act to **prevent further fatalities**.

Introduction

South Africa is categorized as a country with a **high Human Development Index (HDI)**, currently ranked 109 out of 191 countries (United Nations). However, in terms of **global health rankings**, South Africa is placed at 129 out of 167 countries (Legatum Institute 2023).

Room for improvement in the health sector is reflected, for instance, in the number of people, who are covered by a **medical aid scheme**. From 2002 to 2022, the number increased only from **15.9 % to 16.1 %** which equals to an increase of 2.4 million South Africans. Although **Black South Africans** make up the majority of the population, **less than 10 %** of them are insured. (South African Government 2023). This inequality is further reinforced by the **distribution of state funds**. **50 %** of the total health expenditure goes to the private sector, which **covers 16 %** of the population, while the other **50 %** is available for the remaining **84 %** of the population (South Africa. Department of Health 2017).

On the other hand, the value for the **Disability-Adjusted Life Years (DALYs)** per 100,000 individuals has **decreased** by around 38,000 from 2005 to 2019, which reflects a significant enhancement in health care provision (Roser et al. 2021). In addition, progress has been made in **reducing the number of deaths** caused by communicable and non-communicable diseases. The most substantial **decline** can be observed in **HIV/AIDS-related deaths**, which decreased by **44.9 %** from 2009 to 2019 (IHME 2019).

Population: 60,6 million (2022)*

GDP per Capita: 7,055.0 US\$ (2021)**

HDI: 0,713 (109 of 191)

Medical aid scheme coverage: 16.1% (2022)

White: 77.7%

Indian/Asian: 45.1%

Coloureds: 19.9%

Black Africans: 9.3%

Life expectancy (2022)*:**

60.0 years for men

65.6 years for women

Infant Mortality Rate (IMR)+:

24.3 deaths per 1,000 live births (2022)

DALYs per 100,000 individuals:

2005: 87,672.04

2019: 49,954.28

World 2019: 32,856.98

Achievements until 2030**

- ✓ Raise life expectancy to at least 70 years
- ✓ IMR: less than 20 deaths per 1,000 live births
- ✓ Generation under -20s: largely free of HIV

*(Statistics SA 2022a); **(The World Bank 2021); ***(Statistics SA 2022b, 40), ** (Ibid.); +(South African Government 2023)

Research Approach

Drastic measures must be taken to achieve the government's 2030 health targets, especially after the **Corona pandemic** significantly worsened the vulnerability of the health system, resulting in a double burden of disease for those already suffering (Sekyere et al. 2020). Besides the data from the **Global Burden of Disease (GBD) project**, data from the World Health Organization (WHO), World Bank Group and the National Department of Health of South Africa, among others, were used as a basis for this policy brief. In order to identify **suitable policy recommendations** to improve health in South Africa, a variety of systematic reviews and individual peer-reviewed articles were considered.

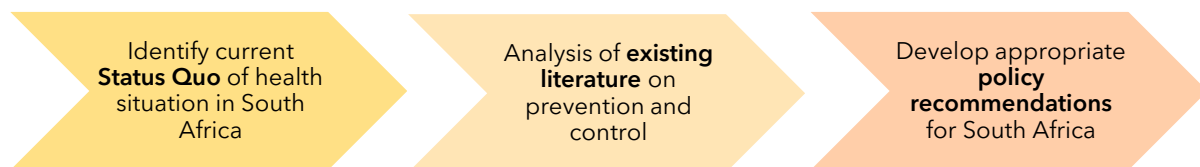


Figure 1: Visual illustration of the method (own illustration)

18 systematic reviews covering the period from 2006 to 2023 were used, to develop different but specific policy recommendations. The reliance on systematic reviews, particularly when Randomised Control Trials (RCTs) are included, can help **reduce bias** in individual studies and provide a broader **overview of existing research**.

Limitations

- While many studies have been conducted in South Africa, there is still a **lack of current data** in many health-related areas. For example, the number of hospital beds per 100,000 people provided by the WHO is from 2010 (WHO 2023). It is important that this data is updated to identify progress and gaps.
- This policy brief focuses only on a **few potential measures** to enhance health in South Africa. Therefore, essential **structural and political factors**, like providing health coverage to all, are not extensively discussed.
- **Further research** needs to be conducted on how **national health care plans** influence the burden of disease in South Africa. Based on this, new recommendations can then be developed.

Status Quo and Key Findings

Instead of a classical epidemiological transition, South Africa has experienced a convergence of communicable and non-communicable diseases, especially in rural areas. In addition, the country still faces a **quadruple burden of disease**: besides non-communicable diseases, there is still a high maternal and child mortality, and injuries. (Modjadji 2021). To achieve the goal of **better health**, it is important to focus on combating the diseases that **cause the most deaths**. The most lethal communicable disease is HIV/AIDS. After that IHD and stroke follow, both of which are non-communicable diseases. While the number of deaths from **HIV/AIDS (- 44.9 %)** and **stroke (- 6.2 %)** have declined since 2009, it increased for **IHD by 0.3 %**, ranking second among the leading causes of death.

1) HIV/AIDS

In **2022**, the HIV prevalence was at **13.9 %**, with women between the age of 15 and 49, being most affected (~25.0 %). While in total **8.45 million** individuals are infected, South Africa has compared to the rest of the world the highest number of people enrolled in an **antiretroviral therapy (ART)** programme. (Statistics SA 2022, 17). In 2020, more than **5.2 million** out of 7.8 million people with HIV in South Africa **received ART** (Statista 2023a; 2023b).

ART

- ✓ **suppresses** viral load
- ✓ preserves and **improves** immune function
- ✓ **reduces** risk of infections and cancers associated with HIV

For a successful suppression of HIV, **consistent and lifelong ART** is necessary. As of 2020, access to adequate testing and treatment was limited as a result of the **Covid-19 pandemic**. In the period from March to December 2020, **22.3 % less tests** were conducted than in the previous year (Pillay et al. 2021, 716). Since then, the numbers have risen again, although not as high as before the pandemic (WHO 2021a, 4). The lack of or limited treatment and testing for HIV created a **double burden** for those infected, as it also made them **more vulnerable** to corona infections and other diseases (ibid. 2020; 2021c).

One possible **transmission route** is through **unsafe sex**, which was the most important risk factor for death and disability in 2019 (IHME 2019). Other **risk factors** include having another sexually transmitted infection (STI), unsafe injections and other non-sterile medical procedure (CDC 2023).

II) Quo: Ischemic heart disease (IHD)

IHD is caused by a limited supply of blood to the heart when the arteries become narrowed or even fully blocked. It is one form of cardiovascular disease and can **lead to a stroke** (Heart & Stroke Foundation South Africa 2023). In 2017, the prevalence rate was **1,227 per 100,000** individuals for South Africa, while globally it was at **1,655** (Khan et al. 2020).

Risk factors include non-modifiable attributes such as **male gender, advanced age**, family history or the **presence of co-morbidities** such as diabetes. On the other hand, there are modifiable factors that can increase the risk of IHD, including habits like **tobacco consumption**, a lack of exercise, or **obesity** (Bisciglia et al. 2019; Kasprzyk et al. 2018). In 2016, about 11% of men and 41% of women were classified as obese. According to predicted trends, the number of obese adults is expected to rise to **46% by 2035**, which concurrently will increase the number of people at risk for IHD. (World Obesity Federation, 192).

III) Stroke

In 2019, stroke was the **third most lethal disease** in South Africa, which can be attributed to the epidemiological transition (Institute for Health Metrics and Evaluation 2019). In 2016, **every hour 10 people** experienced a stroke (Heart & Stroke Foundation South Africa 2016).

Current data on the incidence of stroke in South Africa is **not available**. A study published in 2020, for example, refers to data from 2008 (Ranganai and Matizirofa 2020). According to this data, each year around **75,000 strokes** occur of which around **33 % are fatal**. Strokes also account for **564,000 DALYs**, which include **95,000 years lived with disability** (YLD). While **non-modifiable factors** of strokes cannot be altered, controlling modifiable risk factors could **reduce strokes by 80%** (Heart & Stroke Foundation South Africa 2023).

Non-modifiable risk factors*

- Advanced age
- Men in general
- Women after menopause
- Genetic factors (e.g., blood pressure)
- Family history
- Poverty: worse mental health

Modifiable risk factors**

- Pollution
- Stress
- Smoking
- Nutrition
- Physical activity
- Body weight

*;** (Heart & Stroke Foundation South Africa 2023)

I) Policy Recommendations: HIV/AIDS

To achieve the **95-95-95 target** by 2025, multilevel approaches must be considered (UNAIDS 2023). South Africa's **93-77-89**-status in 2021 highlights that there is a need to significantly increase the number of infected people receiving ART (SANAC 2023). In addition to increasing enrolment in general, Health officials should pay attention to ensure that people **adhere to their long-term treatment**, as this is the only way to ensure successful suppression (Lailulo et al. 2020).

Integrating HIV services with other health services has proven to be a valuable instrument for **improving HIV-related care outcomes**, including increased rates of HIV testing and counselling utilization, ART initiation, retention in care, and viral suppression. (Bulstra et al. 2021). Although research about the cost efficiency of **HIV service integration** is outdated, the results of different systematic reviews show that integration could also **reduce the costs** of HIV care (Sweeney et al. 2012; Siapka et al. 2014).

In addition to treating people who are already infected, it is important to **prevent further infections** to achieve a mostly **HIV-free generation** of under 20-year-olds. Studies have shown that different types of intervention can help reduce HIV prevalence. The National Department of Health should implement **multifaceted interventions** to address the stigmatization of HIV and promote knowledge of risks, testing, and treatment:



Peer-based education interventions help to improve knowledge of transmission routes and measures to reduce the HIV risk such as condom use. In addition to these topics, interventions should also address the issue of **female (dis-)empowerment** and **intimate partner violence**. By combining these approaches, risky behaviour can be reduced which decreases the risk of infection. (Faust and Yaya 2018).



Couple-based interventions have proven effective in promoting condom use and HIV testing since they can help to **align the HIV risk perception** between partners. This results in **joint action** to reduce the transmission risk and promote a responsible sexual behaviour. (Fu et al. 2023).

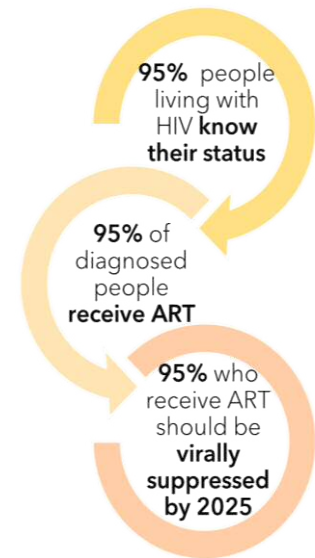
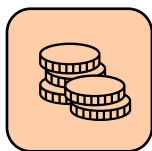


Figure 2: 95-95-95 target of UNAIDS (own illustration)



Structural interventions (SI) focus on influencing social, structural, and environmental factors, thereby reducing the responsibility of the individual (Muthoni et al. 2020, 3396). If SIs include a **(school-based) cash transfer feature**, they effectively reduce HIV incidence by mitigating poverty, which is known to be a factor for unsafe sexual behaviour (ibid., 3407).



As **adolescent girl and young women (AGYW)** are at the highest risk of contracting HIV, the Health Ministry should pay special attention to this group. **Early prevention** in the form of **school-based SI** is a powerful tool for decreasing the risk of a HIV infection, as about one third of students are already sexually active (Shangase et al. 2021, 3682; Remme et al. 2014).



According to UNICEF data from 2020, with **2.14** new HIV infections for **children under 5** per 1,000 uninfected individuals, acceleration is needed in preventing **mother to child transmission (MTCT)** (UNICEF DATA 2020). In addition to stigma and the fear to disclose the status to partners, family and community members, lower maternal educational levels and poor knowledge of HIV transmission are key barriers to ART treatment (Gourlay et al. 2013). A systematic review identified that **mobile-phone based interventions** can increase the number of infants who receive early diagnosis, while **involving male partners** in the prevention of MTCT can lower the risk of HIV transmission to the infant (Ambia and Mandala 2016).

TAKE ACTION NOW I

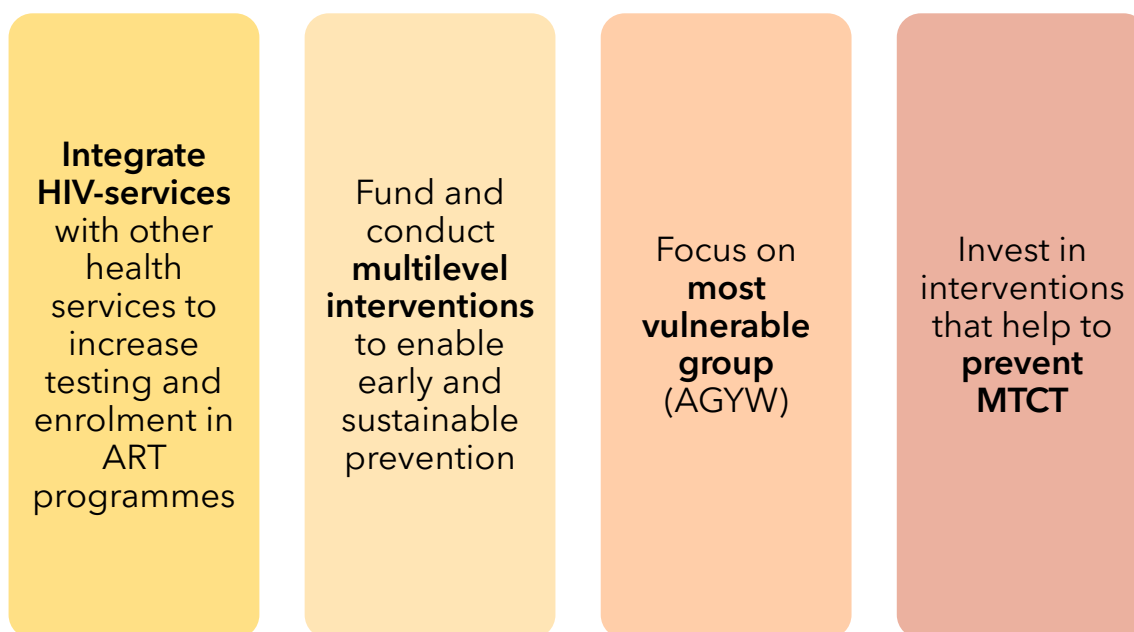


Figure 3: Take action now I (own illustration)

II) Policy Recommendations: IHD and stroke

IHD and stroke are both classified as **cardiovascular disease (CVD)** and have very similar risk factors (WHO 2021b). This policy brief therefore combines the recommendations for both. Besides the treatment of co-morbidities such as diabetes, **modifiable risk factors** such as smoking, lack of exercise and obesity must be reduced.



In 2020, the number of South Africans aged 15 and over smoking was **20.3 %**, which is a decrease of only 3.2 percentage points since 2000 (Roser and Ritchie 2022). A systematic review found that **advice from a physician** to stop smoking can **increase the quitting rate by up to 3.0 percentage points**. Since 3500 clinics are available within 5 kms for more than 90 % of people, this is a **low-cost intervention** for reducing one risk factor for CVDs (WHO 2017, 3). Therefore, it is crucial that the Ministry of Health ensures that as many primary care physicians as possible are **trained to effectively communicate** this information (Stead et al. 2013).



Another systematic review identified that **community-based CVD interventions (CBI)** help to increase **physical activity (PA)** which in turn decreases the risk of IHD and stroke. CBIs raised the likelihood of achieving the recommended level of moderate and vigorous PA of 150 minutes per week. Targeting the **risk group** specifically, **increased the effectiveness** even more. The intervention forms included primary prevention techniques, such as health education and awareness campaigns, community mobilization through peer support programs, and environmental and structural changes such as the construction of PA facilities. Most of them lasted between **12 and 24 months**, with declining effectiveness and no significant results after 36 months. (Hassen et al. 2021). It is essential for the Health Ministry to **consider the local circumstances** while implementing CBIs and strategize for establishing a **sustainable long-term solution**.



With the number of **obese people** expected to increase to **46% by 2035**, it is extremely important to combat this risk factor in order to prevent CVDs (World Obesity Federation, 192). Exercise in combination with diet not only helps to **reduce body weight**, but also has a positive influence on **lowering the diastolic blood pressure** (Shaw et al. 2006). A change in diet has a major impact, as shown by two different systematic reviews. While higher consumption of unprocessed red **meat** (9 %) and processed meat (18 %) **increases** the risk of IHD, the **reduction of saturated fats**, which comprise not only meat but also other animal products, leads to a **decrease by -17 %** (Hooper et al. 2020; Papier et al. 2023). It is therefore important that the National Department of Health ensures that diets such as the **Dietary Approaches to Stop Hypertension (DASH)**, are promoted through public campaigns, and consultation and information material from health care workers (Filippou et al. 2020; Siervo et al. 2015).

TAKE ACTION NOW II

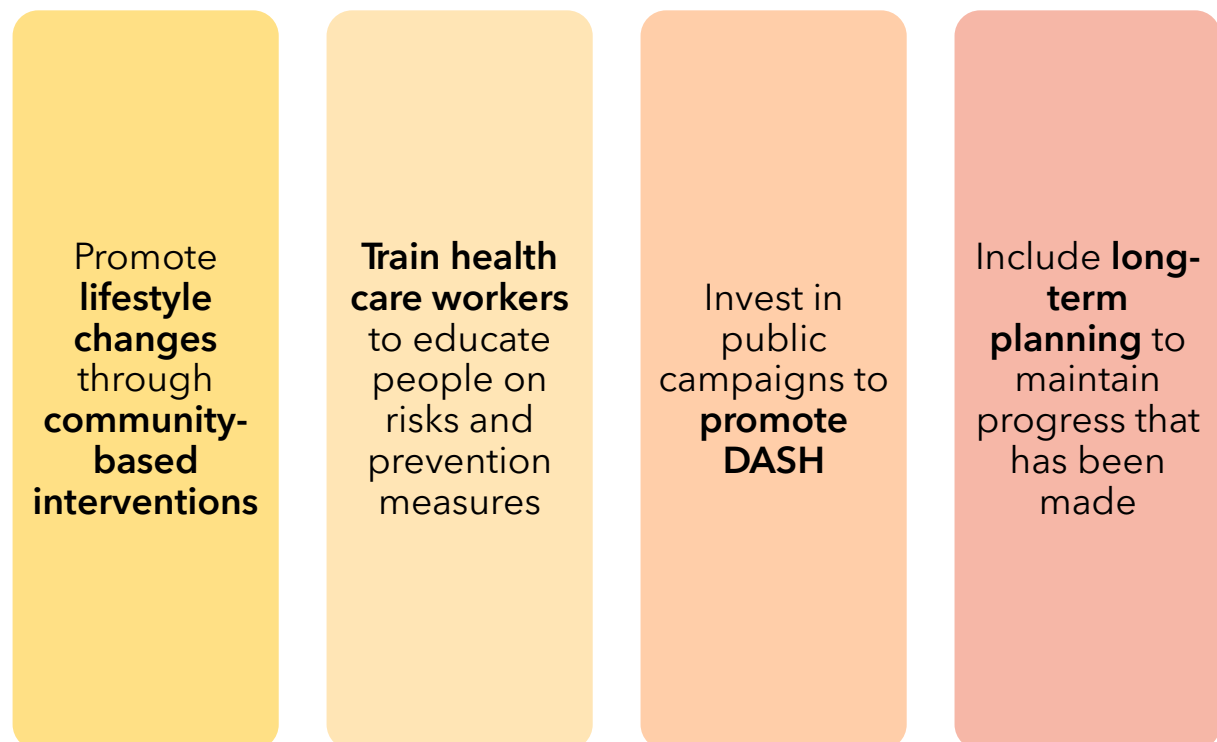


Figure 4: Take action now II (own illustration)

IN BRIEF

The National Department of Health is urged to follow the given **policy recommendations** to improve health in South Africa. Additionally, to enable long-term improvement, the **budget** for health care must be **increased** and **distribution** must become more **equitable**. Care must be taken to ensure that all interventions include especially the **most vulnerable people** to reduce and prevent **double burdens**. In addition, **data must be updated** so that in the future deficiencies can be detected, and appropriate proposals can be formulated.



Figure 5: Own illustration with original picture by shuabnmcreativs

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