

Health and Related Indicators, 2023

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Aim

This paper presents a comprehensive repository of data detailing the current status of the South African health system and the health status of its population. The focus is on national and provincial levels, encompassing sociodemographic indicators, determinants of health, health status indicators, and health service indicators.

Methods

Data were primarily sourced from national routine data systems, supplemented by major surveys and global reports. In line with the theme of the South African Health Review 2023, special emphasis was placed on indicators related to the burden of cancers in South Africa, access to cancer-related services, and, to some extent, outcomes.

Results

The findings indicate significant gaps in the availability of relevant and quality indicators, particularly concerning cancer, echoing challenges seen with other non-communicable diseases. While some data exist, they are often fragmented, outdated, or incomplete, limiting their utility in guiding effective policy-making and intervention strategies.

Conclusions

The limited availability of robust cancer-related data highlights the challenges in accurately assessing the burden of the disease and the effectiveness of current interventions. This scarcity of data impedes the ability to monitor progress and make informed decisions regarding cancer prevention, treatment, and palliative care.

Introduction

In his acclaimed book, *The Emperor of All Maladies: A Biography of Cancer*,¹ Siddhartha Mukherjee powerfully reminds us that cancer is not a singular disease but a collection of many, aptly describing it as “the defining plague of our generation”^{1(p18)} and a “lethal shape-shifting entity imbued with... penetrating metaphorical, medical, scientific, and political potency.”^{1(p18)} Mukherjee’s characterisation underscores the complex and multifaceted nature of cancer, which continues to pose significant challenges to healthcare systems around the world.

The South African Health Review 2023 (*Review*) focuses on examining the successes, challenges, and gaps in cancer treatment and care within the South African healthcare system. Central to this examination is the National Cancer Strategic Framework 2017–2022 (NCSF), the current guiding policy document for cancer control in the country. Despite its outdated status, the NCSF remains

a critical framework for understanding and addressing cancer care in South Africa.²

The NCSF highlights the importance of the National Cancer Registry (NCR), established in 2011, and the subsequent regulations under the National Health Act of 2003, which mandate the reporting of confirmed cancer diagnoses. However, the strategy also exposes significant deficiencies in the availability of comprehensive data on the cancer burden in South Africa. For instance, while the strategy notes that cancer-related deaths account for approximately 9% of all-cause mortality in adults, it fails to provide data on cancer mortality among adolescents and children. Furthermore, the NCSF underscores the persistent inequities in access to cancer care, particularly affecting “black Africans, poor, uninsured, and rural residents.”^{2(p9)} These gaps highlight the urgent need for updated policies and more inclusive cancer care initiatives to ensure equitable access and improved outcomes for all South Africans. The next section presents the cancer indicators, focusing particularly on the cancer profile

for South Africa, as captured from international databases such as the Global Cancer Observatory and the local databases such as the NCR and webDHIS.

Cancer indicators

The World Health Organization (WHO) defines cancer as a large group of diseases that can affect any part of the body, also known as neoplasms or malignancies.³ Cancer incidence is rising globally and locally in South Africa, with cancer being the second leading cause of global mortality.⁴ The burden of cancer on the African continent is expected to double in the next 20 years as the population ages, where currently, cancers account for 10-20% of morbidity.⁵

Global Cancer Statistics 2020 (GLOBOCAN) provides estimates of cancer incidence and mortality across 185 countries.⁶ In 2020, there were an estimated 19.3 million new cancer cases and almost 10.0 million cancer deaths worldwide. Female breast cancer was the most commonly diagnosed cancer, responsible for an estimated 2.3 million new cases in 2020, followed by lung, colorectal, prostate, and stomach cancers. Lung cancer remains the leading cause of cancer death, accounting for an estimated 1.8 million deaths globally. The global cancer burden is expected to reach 28.4 million cases in 2040.^{5,6}

The International Agency for Research in Cancer (IARC) is the driving force behind the Global Initiative for Cancer Registry Development (gicr.iarc.fr), a collaboration of leading cancer prevention organisations that aims to address data availability while ensuring the reliability of cancer incidence data by enhancing their quality, comparability, and use. Data collected in this framework is available through IARC's GLOBOCAN database. The estimated number of cancer cases and deaths from 2002 through 2018 is available at the Global Cancer Observatory (<http://gco.iarc.fr>). In assembling regional and global profiles, the GLOBOCAN methods for incidence and mortality estimation rely on the best available data from a given country.⁷ The Global Cancer Observatory provides access to updated figures at a national level.⁸ The 2022 South Africa fact sheet reported 111 321 new cancer cases in 2022, 282 418 prevalent cases and 64 547 cancer deaths.⁹ Data from the NCR, for 2015 to 2022, are shown in [Figure 1](#), [Figure 2](#) and [Figure 3](#). In the South African context, the most commonly diagnosed cancers in women are breast, cervical, skin and colorectal cancer. Similar to the global context, the most common cancers in males in South Africa are prostate cancer along with skin, colorectal and lung cancers.⁴

Despite recent initiatives aimed at improving cancer epidemiology in Africa, data on cancer rates remain fragmented and are often dispersed across multiple registries, making comprehensive analysis challenging.⁷ In South Africa, where the cancer incidence rate is notably high, the situation is further complicated by a significant lack of up-to-date, reliable data. The most recent data published by the NCR covers only up to 2022, leaving a substantial gap in our understanding of the current can-

cer burden. This lack of current data poses serious challenges to assessing the prevalence and impact of cancer in the country accurately. Without timely and comprehensive data, it becomes difficult to monitor trends, allocate resources effectively, and develop targeted interventions. [Figure 1](#), which illustrates the number of cancer diagnoses among males and females in South Africa from 2015 to 2022, underscores this issue. While the figure provides some insight, it is widely believed that the numbers represented account for only a fraction of the actual cancer cases in the country.

There are significant concerns about the underreporting of cancer cases, which can be attributed to several factors. One major issue is the misattribution of death causes, where cancer is often not recorded as the primary cause of death, leading to inaccurate mortality statistics. Additionally, underreporting by medical facilities, due to insufficient training or inadequate reporting systems, further contributes to the data gap. Another critical limitation is the NCR's reliance on pathology-based diagnoses, which excludes cases where cancer is diagnosed clinically or radiologically but not confirmed through pathology. This restriction means that many cancer cases, particularly in regions with limited access to pathology services, are not captured in the official statistics.

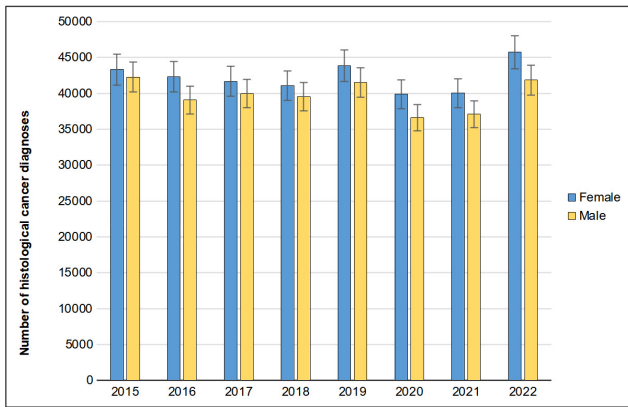
The cumulative effect of these factors is a substantial underestimation of the true cancer burden in South Africa. This underreporting hampers the ability of public health authorities to understand fully the scope of the problem, design effective cancer control programmes, and evaluate the success of existing interventions. To address these challenges, there is an urgent need to improve cancer data collection and reporting mechanisms, expand the scope of the NCR to include non-pathology-based diagnoses, and ensure that all healthcare facilities are equipped and mandated to report cancer cases accurately and consistently. Only with more reliable and comprehensive data can South Africa hope to combat the growing cancer epidemic effectively and improve outcomes for all affected individuals.

In 2023, Statistics South Africa (Stats SA) produced a report¹⁰ with a specific focus on cancer occurrences and their contribution to morbidity and mortality in South Africa. The report illustrates the trends over time and outlines their burden on each population group and age group between 2008 and 2018. Stats SA found that, in 2018, cancer and benign tumours accounted for 9.7% of all mortality in the country, making these the fourth leading cause of death.

Cancer profile in South Africa

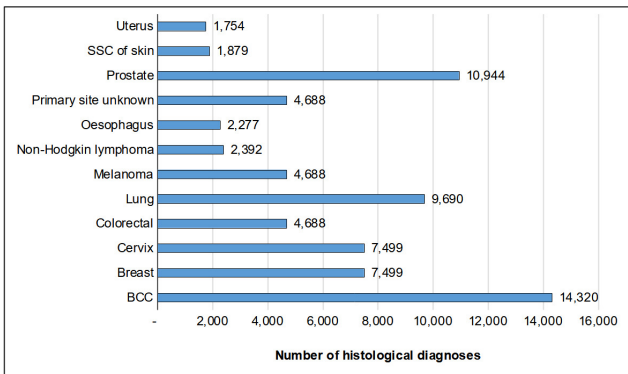
[Figure 3](#) presents cancer age standardised incidence (per 100 000) by sex and type of cancer among the top three invasive cancers in the South African male and female populations.¹² Across all cancers presented in [Figure 3](#), cancer burden in males increased sharply from the year 2019 for prostate, colorectal, and lung cancers.

Figure 1. Number of diagnoses among males and females, 2015-2022



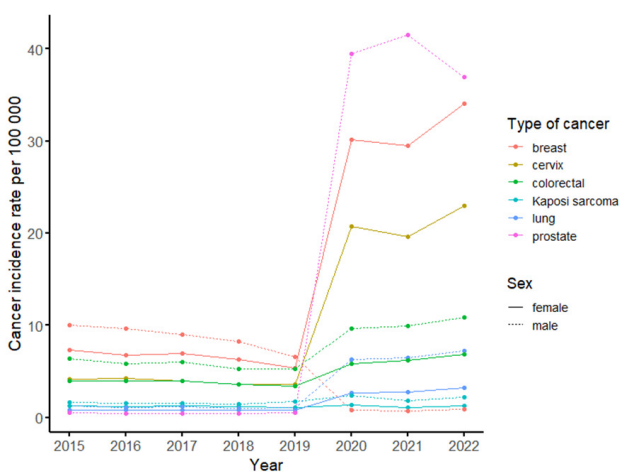
Source: National Cancer Registry, 2024.¹¹

Figure 2. The most diagnosed cancers by site, 2022



Source: National Cancer Registry, 2024.¹¹

Figure 3. Cancer incidence rate by type of cancer per 100 000 population, 2015–2022



Source: National Cancer Registry, 2024.¹¹

However, a reduction in incidence was seen post-COVID-19 for prostate cancer only, while colorectal and lung cancer continued to increase. Male breast cancer incidence declined consistently from 2015 through 2019 and then increased sharply to 2022. The highest burden in females was seen during the COVID-19 pandemic period, where breast, cervical, and colorectal cancer presented with the three highest incidences per 100 000, respectively. Surprisingly, unlike the male cancers, female cancer incidences did not decline post-COVID-19. The apparent increases in new cancer cases could possibly be due to the reported decline in cancer diagnostics during the pandemic. A study to assess the impact of COVID-19 on cancer diagnostic services in 2020 in the Western Cape, found declines in six major histopathological diagnoses.¹² Substantial declines were seen for prostate, oesophageal, breast, gastric, and colorectal cancer. The smallest decline was seen in cervical cancer. These data, although generated from a single context, along with the current trends of the top three most invasive cancers, show evidence of the impact caused by national disruption of cancer diagnostic services as result of the pandemic. Additional efforts are required to optimise diagnostic services, ensuring timely initiation of treatment.

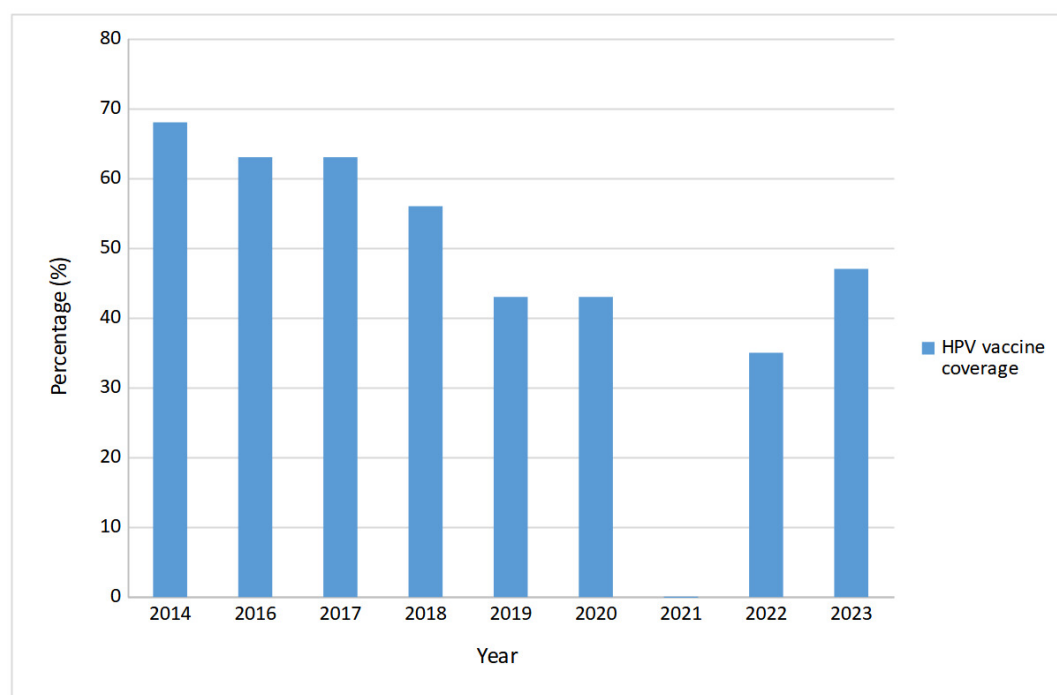
Cancer and Kaposi sarcoma

The high prevalence of HIV in South Africa necessitates an understanding of the burden of cancer associated with HIV. The age-adjusted incidence rate (per 100 000) trends from 2015 to 2019 remained consistent, reaching a peak in 2020 before reverting to the pre-COVID-19 trends in 2021, as per data from the NCR. Throughout this reporting period, males consistently demonstrated a heavier burden than females. Furthermore, a record linkage study, which evaluated the burden and association between HIV and cancer during the decade of 2004-2014, reported that 30 487/46 951 (65%) of all female cancer cases and 16 443/46 951 (35%) of all male cancer cases were among people living with HIV (PLHIV).¹³ Altogether, PLHIV were at higher risk of AIDS-defining cancers compared to HIV-negative patients. Collectively, the incidence of Kaposi sarcoma, and other AIDS-defining cancers needs to be monitored in PLHIV.

Cancer programme coverage in Africa

Overall, the evidence underscores the need for innovative interventions and strategies, including enhanced education about cancers and surveillance across all population groups. One of the most important interventions is vaccination against human papillomavirus (HPV), which has the potential to advance eradication of cervical cancer in women. Figure 4 shows the dramatic negative impact on HPV vaccine coverage during the COVID-19 pandemic, as reported by WHO.¹⁴ Coverage has not yet recovered to pre-pandemic levels. As per the Global Strategy for Cervical Cancer Elimination,³ each country should introduce HPV in the national immunisation schedule by 2030 and meet the target of 90% of girls

Figure 4. HPV vaccine programme coverage in females in South Africa, 2014-2022



*Data for 2021 were missing.
Source: WHO HPV Dashboard, 2024.¹⁴

fully vaccinated with HPV vaccine by age 15. A WHO dashboard contains data on the status of HPV vaccine introduction in WHO member states.¹⁴

Figure 5 shows a similar impact on cervical screening coverage, with modest recovery post-pandemic, presumably due to diagnostic service rearrangement following the brief suspension of cancer screening services.¹⁵

Lung cancer

The Tobacco Products and Electronic Delivery Systems Control Bill (Bill 33 of 2022) has been tabled but will need to be revived by the new Parliament.¹⁷ Van Eeden et al. have pointed out that there are no official lung cancer screening programmes in South Africa.¹⁸ These authors also note that improved thoracic surgery, systemic therapies, pathological research, and lung tumour radiation are mostly available in the private sector in South Africa. Public sector patients “have limited access to treatment, and those who do are often managed with the use of simpler techniques and very basic therapies.”^{18(p27)} Qualitative data reveal that KwaZulu-Natal public sector lung cancer screening, early diagnosis, treatment, and palliative care are inadequate.¹⁹ However, statistics for sector-specific treatment results are hard to find. In 2022, GLOBOCAN reported that lung cancer was the second most diagnosed new cancer in men (11.6%) and the fourth in women (5.8%). Lung cancer was diagnosed in 9 446 South African men and women in 2022. In the same year, 8 672 died from lung cancer.⁸

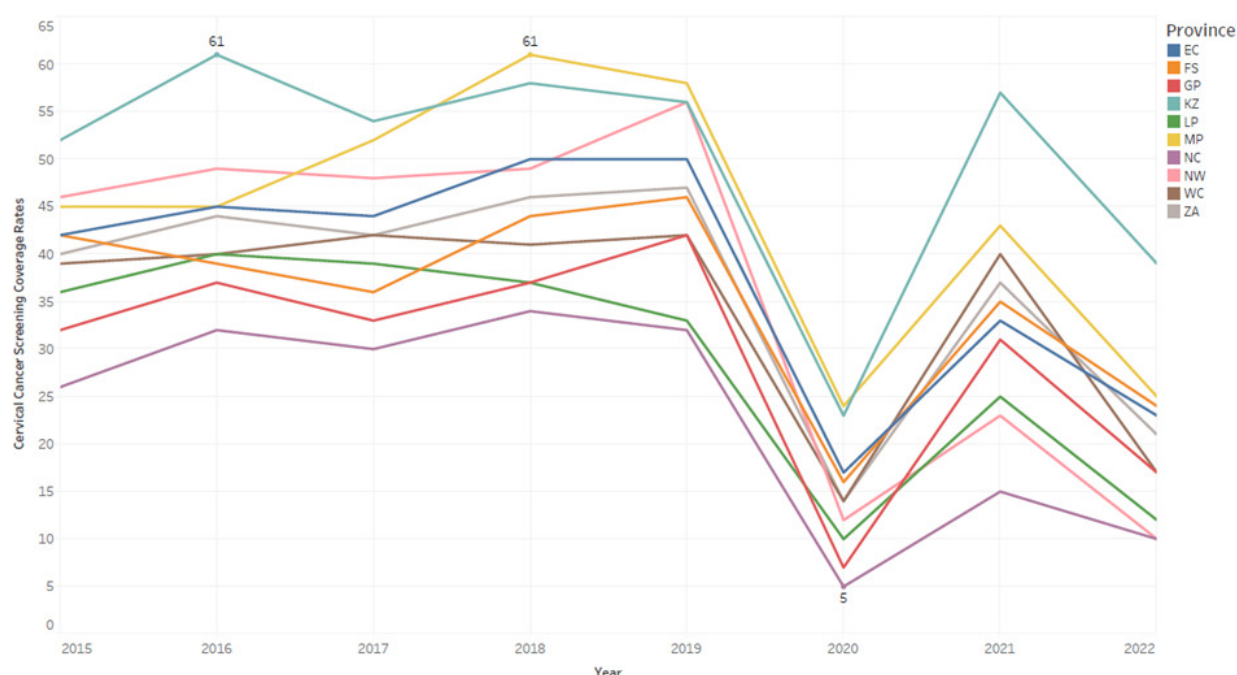
Breast cancer

Breast cancer data show large public-private care discrepancies. Breast cancer incidence has increased, but South Africa has a lower incidence and higher death rate than high-income countries due to lower screening rates and poorer access to care.²⁰ In addition, poorer outcomes may be linked to a higher proportion of triple-negative breast cancer in patients who are black African. Women in South Africa tend to present with late-stage disease, reflecting poor screening and access to diagnosis and care.

Health and socio-economic indicators: burden of disease and beyond

As in previous editions of the *Review*, the next sections of this paper aim to provide a repository of provincial and national data describing the current status of the South African health system (socio-demographic indicators and determinants, health-status indicators, and health-service indicators). The paper can also, at least in relation to the public sector, be read together with the most recent edition of the *District Health Barometer* (DHB), which has been published after a short hiatus.²¹ Like the DHB, the *Review* aims to highlight inequities in health outcomes and health-resource allocation and delivery. Cancer is by no means immune to the effects of those inequities.

Figure 5. Cervical cancer screening coverage rates among women 30 years and older, 2015-2022



Source: webDHIS.¹⁶

Data sources

The key new or updated sources relied upon, at both an international and a national level, are shown in [Box 1](#). Specific references and the current indicator definitions are provided in the data tables. Many of the indicators are normalised using population denominators.

The 2022 Census conducted by Stats SA is a cornerstone for policy development and resource allocation across the nation. While the census data is intended to provide an accurate snapshot of the country's demographics, concerns have been raised regarding their validity and accuracy, with some stakeholders questioning the reliability of the published data.²² In response, Stats SA has strongly refuted these claims, defending the robustness of their methodologies and the accuracy of the results.²³ Despite this, the debate highlights the critical importance of data integrity in shaping informed decision-making.

Demographic indicators

Population dynamics influence the implementation of strategies for achieving sustainable development goals within a country. The COVID-19 pandemic, which lowered the country's life expectancy in 2021 and had an influence on mortality and migration, began four years ago. The COVID-19 pandemic caused a demographic shift in death and morbidity, notably among older people. However, it is unknown whether the pandemic had any long-term consequences on demography, such as changes in

age structure or fertility.⁴⁹ Every year, Stats SA produces mid-year population estimates (MYPEs). However, due to the release of Census 2022 findings in 2023, no MYPEs were issued for 2023.

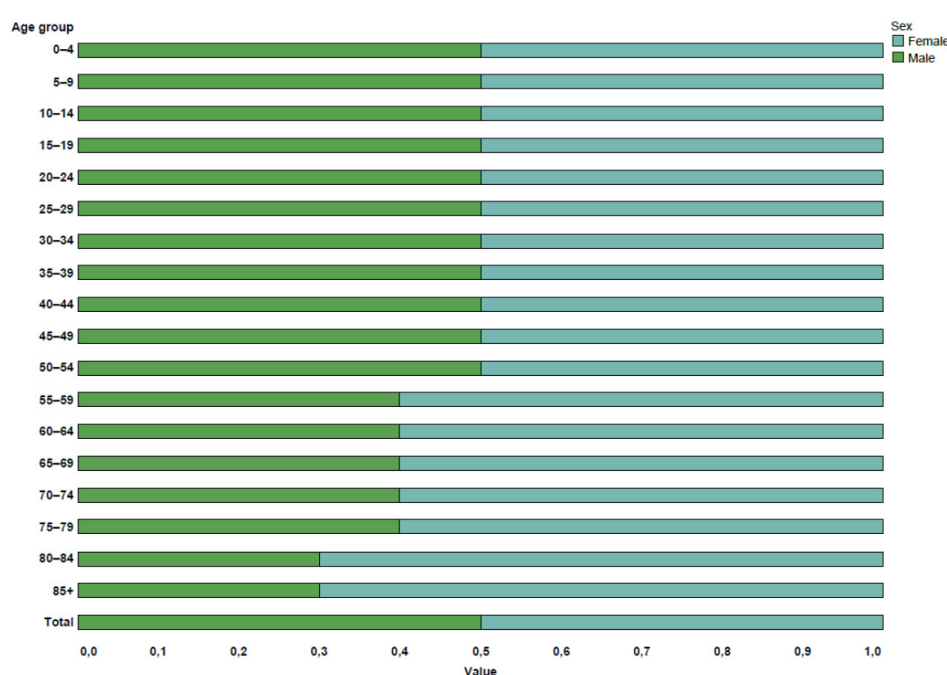
According to the Census 2022 statistics, South Africa's total population has climbed to 62 million individuals from 51 million in 2011. The findings also show that the populations of the Western Cape, Gauteng, North West, and Northern Cape have increased due to internal migration, with more individuals moving into these provinces rather than out. By contrast, Limpopo, the Eastern Cape, and KwaZulu-Natal have greater out-migration rates. These figures have significance for the National Treasury's equitable share allocation mechanism, which determines the provincial allocation of budget for health programmes from the fiscus. The basic demographic figures are provided in [Table 1](#).

[Figure 6](#) depicts South Africa's ageing population. An elderly population is also more likely to develop non-communicable diseases. South Africa has a higher proportion of females than males, with the gap becoming apparent between the ages of 54 and 59. Between 2013 and 2021, the adolescent fertility rate was 40.7 per 1000 girls aged 15 to 19.²⁴ South Africa's median age is 28 years, and it is predicted that 61.2% of the population is aged 15 to 34.³³ As a result, South Africa could profit from capitalising on the economic benefits of its age structure by boosting the proportion of working-age adults compared to young dependents.

Box 1. Key new or updated health data sources, 2023

International	South African
- World Health Statistics 2023²⁴ - World Malaria Report 2023²⁵ - The Fordham Disability Data Report 2023²⁶ - Global Tuberculosis Report 2023²⁷ - State of World's Children 2023²⁸ - UNAIDS Update 2023²⁹ - Immunization update 2023³⁰ - WHO Global report on trends in prevalence of tobacco use 2000-2030³¹ - Human Development Report 2023/24³² - Global Cancer Observatory⁸	- Census 2022³³ - Stats SA General Household Survey (GHS) 2022³⁴ - South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2022 (SABSSM VI)³⁵ - The 2022 Antenatal HIV Sentinel Survey: key findings³⁶ - Saving Mothers 2021³⁷ and 2022³⁸ - Stats SA Mortality and Causes of Death 2019³⁹ - Stats SA Road Transport Accident Deaths⁴⁰ - Stats SA Labour Force Surveys up to the 4th quarter of 2023⁴¹ - Stats SA Recorded Live Births 2022⁴² - National Blue Drop Report 2023⁴³ - National Green Drop Watch Report 2023⁴⁴ - National Cancer Registry¹¹ - National Treasury Health Expenditure data⁴⁵ - Personnel Administration System (PERSAL)⁴⁶ - South African Community Epidemiology Network on Drug Use (SACENDU)⁴⁷ - Council for Medical Schemes Industry Report 2022⁴⁸

Figure 6. The distribution of females and males by age group in South Africa



Source: Census 2022, Statistics South Africa.³³

Table 2 contains revised estimates for uninsured people by province and district, which are key denominators for a variety of health measures.

Socio-economic and environmental risk factors

The social pathways of health reflect conditions in which populations navigate life on a day-to-day basis, such as employment status, education, air pollution and climate

change.³² All of these factors have an impact on people's livelihoods and health status.

Human development and inequality

The United Nations Development Programme's 2023/2024 Human Development Report investigates impediments that polarise the world's inequities in health, education, gender, and income. According to this report,

Table 1. Demographic indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Adolescent fertility rate (per 1000 girls aged 15–19 years)	2013-2021	female 15-19 years WHO	40,7										a
Age dependency ratio	2022	Census	48,8	60,0	50,7	38,9	50,5	62,7	50,6	52,5	52,7	42,2	b
Area (square km)	2018	Census 2018 boundaries	1 220 813	168 966	129 825	18 178	94 361	125 754	76 495	372 889	104 882	129 462	c
Area as a % of total area of South Africa	2018	Census 2018 boundaries	100	13,8	10,6	1,5	7,7	10,3	6,3	30,5	8,6	10,6	c
Average household size	2022	Census	3,5	3,9	3,5	2,8	4,4	3,6	3,6	4,1	3,3	3,3	b
Live birth occurrences registered	2022	vital registration total	998 362	113 085	46 797	231 816	219 806	124 065	85 216	24 674	58 732	94 171	d
Population	2022	both sexes all ages Census	62 027 503	7 230 204	2 964 412	15 099 422	12 423 907	6 572 721	5 143 324	1 355 945	3 804 548	7 433 020	b
		both sexes all ages Stats SA 2019-30 FinYr total	61 220 537	6 551 888	3 020 662	16 271 412	11 847 316	6 004 534	4 815 440	4 242 620	1 283 976	7 182 690	e
		female all ages Census	31 947 531										b
		male all ages Census	30 076 814										b
	2022/23	both sexes all ages DHIS 2000-2030 FinYr total	61 402 320	6 711 415	2 920 478	16 362 152	11 683 165	6 124 442	4 815 060	1 310 808	4 231 279	7 243 521	f
	2023	both sexes all ages Stats SA	62 078 055	6 558 165	3 036 315	16 664 257	11 953 445	6 051 055	4 886 200	4 308 772	1 298 509	7 321 339	e
	2023/24	both sexes all ages DHIS 2000-2030 FinYr total	62 197 960	6 709 060	2 930 982	16 723 636	11 801 471	6 165 877	4 880 047	1 324 275	4 293 016	7 369 596	f
Population % by province	2022	both sexes all ages Census	100	11,7	4,8	24,3	20,0	10,6	8,3	2,2	6,1	12,0	b
Population %	2022	female Census	51,5	52,6	52,5	49,5	52,4	52,8	52,0	51,8	50,5	51,5	b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
composition		male Census	48,5	47,4	47,5	50,5	47,6	47,2	48,0	48,2	49,5	48,5	b
Population under 1 year	2022/23	DHIS	1 135 768	131 213	50 358	261 993	254 035	125 299	95 085	25 279	80 653	111 853	g
Public sector dependent (uninsured) population	2022	both sexes all ages GHS	51 029 403	5 968 962	2 497 977	12 524 688	10 257 571	5 412 651	4 239 006	1 103 263	3 617 554	5 394 682	h

References notesa World Health Statistics 2023.²⁴b Census 2022.³³c Census 2022 Provinces.⁵⁰d Stats SA Live Births 2022.⁴²e Pop Est 2019-30.⁵¹f webDHIS Pop Est 2000-30.¹⁶g webDHIS.¹⁶h Stats SA GHS 2022.³⁴**Definitions**

- Area (square km) [km2]: Land area covered by geographic entity.
- Population [Number]: Total number of people. Projected population figures are based on various projection models attempting to quantify the expected effects of HIV and AIDS on population growth.
- Adolescent fertility rate (per 1 000 girls aged 15-19 years): Annual number of births to women aged 15-19 years per 1 000 women in that age group. Also referred to as the age-specific fertility rate for women aged 15-19 years.
- Age dependency ratio [Number]: The ratio of the combined child population (0-14 years) and the aged population (65 years and over) - persons in the dependent ages - to every 100 people of the intermediate age population (15-65 years) - economically active ages.
- Ageing index [Number]: Ratio of the number of people 65+ to the number under 15 years. i.e., a value of 16 means there are 16 people aged 65 and over for every 100 under 15 years of age. Calculated as $[(65+/0-14) * 100]$.
- Annual population growth rate [Percentage]: The rate at which the population is increasing or decreasing in a given year expressed as a percentage of the base population size. It takes into consideration all the components of population growth, namely births, deaths and migration.
- Area as a % of total area of South Africa [Percentage]: Area of province divided by total area of country (South Africa).
- Average household size [Number]: Average number of people living in each household where household is defined as a person, or a group of persons, who occupy a common dwelling (or part of it) for at least four days a week and who provide themselves jointly with food and other essentials for living. In other words, they live together as a unit. People who occupy the same dwelling, but who do not share food or other essentials, are enumerated as separate households.
- Live birth occurrences registered: The number of live birth occurrences registered.
- Population % by province [Percentage]: Proportion of South African population in each province (calculated from population per province and population for whole of South Africa).
- Population % composition [Percentage]: Percentage of the population by various categories.
- Population density [people per km2]: The number of people per square kilometre.
- Population under 1 year [Number]: Population under 1 year of age.
- Public sector dependent (uninsured) population [Number]: This is an adjustment of the total population to the number assumed to be dependent on services in the public health sector based on medical scheme (health insurance) coverage. It is calculated by subtracting the number of people with medical scheme cover (determined from medical scheme membership reports, or surveys indicating percentage of population on medical schemes) from the total population.
- Total fertility rate [Number]: The average number of children that a woman gives birth to in her lifetime, assuming that the prevailing rates remain unchanged.

Table 2. Population estimates, modelled estimates for medical schemes coverage and uninsured population, national, provincial and district, 2020-2024⁵²

		Total Population (DHIS Pop Est 2000-30)					Med schemes coverage (Insight Actuaries model 2019)	Uninsured Calculated				
		2020	2021	2022	2023	2024	2018	2020	2021	2022	2023	2024
Country	ZA	59 797 656	60 604 086	61 402 320	62 197 960	62 997 254	15,4	50 588 817	51 271 057	51 946 363	52 619 474	53 295 677
Province	EC	6 713 318	6 714 789	6 711 415	6 709 060	6 707 731	9,8	6 055 413	6 056 740	6 053 696	6 051 572	6 050 373
	FS	2 900 278	2 910 130	2 920 478	2 930 982	2 941 782	13,5	2 508 740	2 517 262	2 526 213	2 535 299	2 544 641
	GP	15 635 579	15 997 809	16 362 152	16 723 636	17 085 122	24,6	11 789 227	12 062 348	12 337 063	12 609 622	12 882 182
	KZN	11 441 785	11 563 182	11 683 165	11 801 471	11 919 341	11,2	10 160 305	10 268 106	10 374 651	10 479 706	10 584 375
	LP	6 039 032	6 084 467	6 124 442	6 165 877	6 208 983	7,2	5 604 222	5 646 385	5 683 482	5 721 934	5 761 936
	MP	4 680 103	4 748 543	4 815 060	4 880 047	4 944 155	12,5	4 095 090	4 154 975	4 213 178	4 270 041	4 326 136
	NC	1 282 813	1 297 034	1 310 808	1 324 275	1 337 691	15,1	1 089 108	1 101 182	1 112 876	1 124 309	1 135 700
	NW	4 107 283	4 169 094	4 231 279	4 293 016	4 354 742	11,9	3 618 516	3 672 972	3 727 757	3 782 147	3 836 528
	WC	6 997 465	7 119 038	7 243 521	7 369 596	7 497 707	20,1	5 590 975	5 688 111	5 787 573	5 888 307	5 990 668
District	BUF	798 388	796 759	794 314	791 614	788 728	22,4	619 549	618 285	616 388	614 292	612 053
	CPT	4 598 783	4 686 530	4 776 492	4 867 548	4 959 961	22,2	3 577 853	3 646 120	3 716 111	3 786 952	3 858 850
	DC1	463 390	471 043	478 958	487 115	495 538	17,3	383 224	389 553	396 098	402 844	409 810
	DC2	942 232	958 398	974 747	991 117	1 007 633	16,4	787 706	801 221	814 888	828 574	842 381
	DC3	299 764	305 203	310 662	316 173	321 761	16,4	250 603	255 150	259 713	264 321	268 992
	DC4	618 954	623 516	628 217	633 013	637 944	16,5	516 827	520 636	524 561	528 566	532 683
	DC5	74 342	74 348	74 445	74 630	74 870	12,5	65 049	65 055	65 139	65 301	65 511
	DC6	114 035	114 077	114 245	114 367	114 491	17,5	94 079	94 114	94 252	94 353	94 455
	DC7	206 326	208 167	209 912	211 609	213 309	13,1	179 297	180 897	182 414	183 888	185 366
	DC8	278 104	282 362	286 400	290 296	294 142	15,8	234 164	237 749	241 149	244 429	247 668
	DC9	414 190	417 771	421 181	424 540	427 897	15,7	349 162	352 181	355 056	357 887	360 717
	DC10	480 810	483 024	484 665	486 523	488 581	8,8	438 499	440 518	442 014	443 709	445 586
	DC12	795 781	787 417	778 884	770 438	762 037	4,3	761 562	753 558	745 392	737 309	729 269
	DC13	731 081	721 434	712 004	702 218	692 046	4,9	695 258	686 084	677 116	667 809	658 136
	DC14	342 580	340 685	338 445	336 219	334 011	5,0	325 451	323 651	321 523	319 408	317 310

		Total Population (DHIS Pop Est 2000-30)					Med schemes coverage (Insight Actuaries model 2019)	Uninsured Calculated				
		2020	2021	2022	2023	2024	2018	2020	2021	2022	2023	2024
	DC15	1 524 972	1 541 080	1 555 812	1 571 532	1 588 236	4,2	1 460 923	1 476 355	1 490 468	1 505 528	1 521 530
	DC16	127 071	127 119	127 251	127 471	127 766	10,5	113 729	113 772	113 890	114 087	114 351
	DC18	643 043	643 503	644 397	645 123	645 780	12,0	565 878	566 283	567 069	567 708	568 286
	DC19	755 842	756 396	757 178	758 118	759 199	9,2	686 305	686 808	687 518	688 371	689 353
	DC20	505 057	505 879	506 744	507 595	508 423	13,2	438 389	439 103	439 854	440 592	441 311
	DC21	816 195	827 384	838 645	850 311	862 408	7,1	758 245	768 640	779 101	789 939	801 177
	DC22	1 137 023	1 150 285	1 163 352	1 177 092	1 191 603	11,0	1 011 950	1 023 754	1 035 383	1 047 612	1 060 527
	DC23	706 771	708 994	711 516	714 070	716 629	6,4	661 538	663 618	665 979	668 370	670 765
	DC24	563 568	569 454	575 760	582 409	589 451	5,4	533 135	538 703	544 669	550 959	557 621
	DC25	565 495	572 008	577 873	583 415	588 740	7,4	523 648	529 679	535 110	540 242	545 173
	DC26	863 111	867 237	872 128	877 196	882 407	5,2	818 229	822 141	826 777	831 582	836 522
	DC27	676 068	680 655	685 592	690 192	694 486	5,0	642 265	646 622	651 312	655 682	659 762
	DC28	964 828	969 742	975 004	980 188	985 306	8,7	880 888	885 374	890 179	894 912	899 584
	DC29	680 361	688 960	696 590	703 372	709 399	8,6	621 850	629 709	636 683	642 882	648 391
	DC30	1 240 644	1 262 612	1 283 719	1 304 284	1 324 497	13,1	1 078 120	1 097 210	1 115 552	1 133 423	1 150 988
	DC31	1 613 205	1 645 648	1 677 409	1 708 843	1 740 152	14,8	1 374 451	1 402 092	1 429 152	1 455 934	1 482 610
	DC32	1 826 254	1 840 283	1 853 932	1 866 920	1 879 506	10,2	1 639 976	1 652 574	1 664 831	1 676 494	1 687 796
	DC33	1 218 016	1 226 939	1 234 474	1 241 931	1 249 341	6,8	1 135 191	1 143 507	1 150 530	1 157 480	1 164 386
	DC34	1 474 045	1 488 161	1 501 251	1 514 770	1 528 782	6,6	1 376 758	1 389 942	1 402 168	1 414 795	1 427 882
	DC35	1 349 214	1 353 845	1 357 666	1 361 654	1 365 871	8,3	1 237 229	1 241 476	1 244 980	1 248 637	1 252 504
	DC36	769 853	776 172	781 264	786 231	791 149	9,1	699 796	705 540	710 169	714 684	719 154
	DC37	1 929 057	1 972 917	2 015 765	2 058 230	2 100 644	14,0	1 658 989	1 696 709	1 733 558	1 770 078	1 806 554
	DC38	906 601	910 841	916 394	922 575	929 280	9,7	818 661	822 489	827 504	833 085	839 140
	DC39	471 910	473 588	475 637	477 280	478 586	7,3	437 461	439 016	440 915	442 439	443 649
	DC40	799 715	811 748	823 483	834 931	846 232	12,8	697 351	707 844	718 077	728 060	737 914
	DC42	963 811	966 230	968 999	972 188	975 815	20,8	763 338	765 254	767 447	769 973	772 845
	DC43	506 908	510 113	513 778	517 618	521 648	5,6	478 521	481 547	485 006	488 631	492 436
	DC44	828 210	830 067	831 112	832 500	834 220	3,8	796 738	798 524	799 530	800 865	802 520

		Total Population (DHIS Pop Est 2000-30)					Med schemes coverage (Insight Actuaries model 2019)	Uninsured Calculated				
		2020	2021	2022	2023	2024	2018	2020	2021	2022	2023	2024
	DC45	270 158	274 657	279 070	283 463	287 852	13,9	232 606	236 480	240 279	244 062	247 841
	DC47	1 227 904	1 239 350	1 249 787	1 261 291	1 273 840	5,6	1 159 141	1 169 946	1 179 799	1 190 659	1 202 505
	DC48	956 893	969 545	982 753	996 636	1 011 253	24,1	726 282	735 885	745 910	756 447	767 541
	EKU	3 996 528	4 080 699	4 165 110	4 250 640	4 337 642	23,8	3 045 354	3 109 493	3 173 814	3 238 988	3 305 283
	ETH	3 961 457	4 018 350	4 072 927	4 125 608	4 177 264	18,9	3 212 742	3 258 882	3 303 144	3 345 868	3 387 761
	JHB	5 951 077	6 121 322	6 295 072	6 465 812	6 635 068	22,2	4 629 938	4 762 389	4 897 566	5 030 402	5 162 083
	MAN	869 265	877 233	884 908	892 675	900 614	20,0	695 412	701 786	707 926	714 140	720 491
	NMA	1 211 496	1 214 323	1 216 179	1 218 016	1 219 872	20,4	964 351	966 601	968 078	969 541	971 018
	TSH	3 767 270	3 860 013	3 950 218	4 038 360	4 125 344	30,6	2 614 485	2 678 849	2 741 451	2 802 622	2 862 989

South Africa is ranked 105 out of 193 countries, in terms of the Human Development Index (HDI).²⁹ The HDI for South Africa shows improvements between 2000 (0.695) and 2019 (0.727), but then begins to decline in later years, particularly during the COVID-19 pandemic, and has continued to decline.

In understanding global poverty, the Human Development Report Office (HDRO) and the Oxford Poverty and Human Development Initiative produce the Multidimensional Poverty Index (MPI) for 110 developing countries, including South Africa.⁵³ The MPI is based on the latest household-level survey data and considers various dimensions of poverty, such as nutrition, years of schooling, school attendance, child mortality, cooking fuel, housing, sanitation, electricity, drinking water, and assets. The MPI value represents the proportion of the population that is multi-dimensionally poor, adjusted by the intensity of their deprivations.

Social inequality and unemployment

For South Africa, the MPI value is 0.025. Approximately 0.9% of South Africans are in severe multidimensional poverty, 12.2% are vulnerable to multidimensional poverty, and 20.5% are below the income poverty line.³⁰

South Africa continues to struggle with social inequality in a constrained economy and limited fiscal space. [Table 3](#) shows that, by the conclusion of the fourth quarter of 2023, South Africa had about 7.9 million unemployed people. However, the economy contracted by 0.63%, following a 1.2% gain in the fourth quarter of 2022.⁴¹

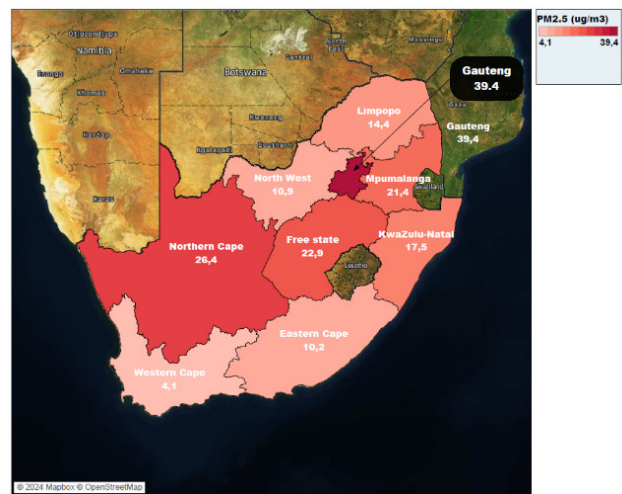
Air pollution and health

It is reported that one in every eight deaths globally is due to air pollution exposure, that is, more than human immunodeficiency virus (HIV), tuberculosis (TB) and malaria combined.⁵⁴ According to the World Health Statistics, 8.8% of South Africans rely on clean fuels to use for cooking, heating and lighting, despite the fact that clean fuels such as solar and biogas have been shown to meet the guidelines for indoor pollution.^{24,55} Aerodynamic pollutants with a diameter of less than $2.5\mu\text{m}$, referred to as particulate matter ($\text{PM}_{2.5}$), can damage the respiratory tract. [Figure 7](#) demonstrates that Gauteng and the Northern Cape have the highest amounts of $\text{PM}_{2.5}$. In the Northern Cape, this can be related to the dispersion of mining dust or sand from the Namib Desert, as well as salt from the Atlantic Ocean. In Gauteng, this is attributed to pollution from vehicles and industry.⁵⁶

Monitoring air pollution

Monitoring air pollution, specifically $\text{PM}_{2.5}$ levels, is critical for tracking progress towards the Sustainable Development Goals (SDG indicator 3.9.1). The WHO recommends limiting yearly $\text{PM}_{2.5}$ concentrations to $5\mu\text{g}/\text{m}^3$ (annual average) and $15\mu\text{g}/\text{m}^3$ (24-hour average) for

Figure 7. Concentration of $\text{PM}_{2.5}$ levels by province, 2021



Source: AQLI, 2023.⁵⁷

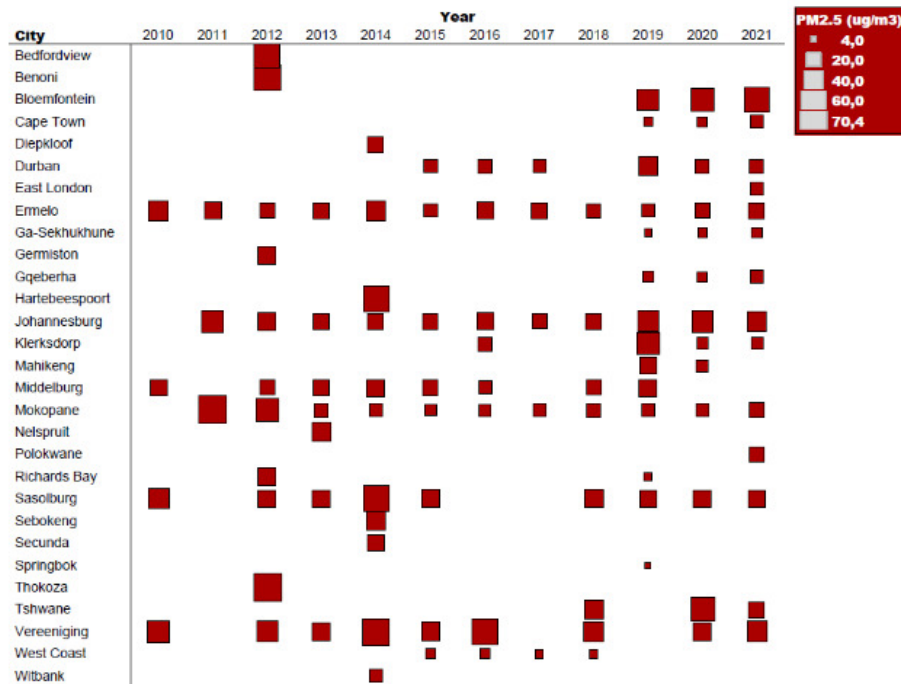
more than 3-4 days per year. According to IQAir, a Swiss business, most countries are failing to meet the WHO health guideline for $\text{PM}_{2.5}$, based on data from at least 30000 monitoring stations worldwide.⁵⁸ [Figure 8](#) illustrates that $\text{PM}_{2.5}$ monitoring in South Africa is sparsely dispersed, with data accessible mostly in industrial and mining cities with high $\text{PM}_{2.5}$ concentrations. As such, air pollution research could focus on understanding the spatial heterogeneities of air pollution exposure that may occur in South Africa. Air pollution is a public health hazard, and the actions and instruments to combat it are unevenly distributed around the world. The WHO defines quality of life as the population's physical health and social relationships with the environment, and there are major differences in how air pollution impacts them.⁵⁹

Adebayo et al. have pointed out that air pollution, in particular $\text{PM}_{2.5}$, is associated with the mortality of people with comorbidities.³⁵ Burnett et al. argue that exposure to $\text{PM}_{2.5}$ may be associated with additional causes of death than the usual top five considered by the Global Burden of Diseases.³⁶ According to the Air Quality Life Index (AQLI) report, if $\text{PM}_{2.5}$ pollution is permanently eliminated to meet the WHO guidelines, it would result in an increase in the average human life expectancy by 2.3 years.⁵⁷ The impact of $\text{PM}_{2.5}$ on global life expectancy is comparable to that of smoking elimination, over three times greater than that of alcohol use and unsafe water, more than five times larger than transport injuries like car accidents, and over seven times greater than that of HIV/AIDS.³⁴

Water quality and public health

The Department of Water and Sanitation's Green Drop Watch Report is a crucial initiative to monitor wastewater systems, both at the municipal and provincial levels. The 2023 report highlights that 334 municipal wastewater

Figure 8. Concentrations of PM2.5 levels in South Africa by year and city



Source: WHO Database Ambient Air Quality, 2021.³²

treatment systems (spread across all provinces) were deemed to be in critical condition in 2022, having received Green Drop scores below 31%.⁴⁴ Similarly, the Blue Drop Watch Report sheds light on the present state of potable water infrastructure in South Africa.⁴³ Although the Stats SA General Household Survey 2022 results indicate that the majority of the population in South Africa has access to safe drinking water, the Blue Drop Watch Report reveals a concerning reality, where 51% of water systems across the country exhibit poor to bad microbiological water quality. Furthermore, only 16% and 14% of water systems demonstrate excellent and good water quality, respectively. A staggering 71% of water plants fail to meet chemical compliance standards.⁴³ Such findings have significant public health implications, as consumption of contaminated water can increase the risk of waterborne diseases such as cholera. For instance, contamination from the Apies River at the Rooiwal treatment plant led to an outbreak of cholera in the Hamman-skraal community in 2023.⁶⁰

Disability

Globally, an increase in the reported number of people with disabilities is linked to an ageing population, particularly in high-income countries.²⁶ Similar trends are expected to be observed in low- and middle-income countries, where the impact of successful treatments for conditions that were previously life threatening has increased life expectancy.⁶³ The Fordham Research Consortium on Disability released a report in 2023 on the availability of disability data and the potential to produce

disability disaggregated indicators at national and subnational levels.⁴⁰ The report showed that data on the inequities experienced by people with disabilities between and within nations is insufficient, with most national statistics offices failing to publish on data disaggregated by disability status. Only one in five of the datasets that were reviewed between 2009 and 2022 had any questions on functional difficulty.²⁶ People with disabilities will continue to be left behind in global agendas unless the prevalence of disability is quantified accurately. Households headed by people with disabilities have been found to have less access to basic services than households headed by people without disabilities.⁶⁴

According to the Fordham study, 22.4% of persons aged 15 years and older had functional difficulty, with hearing and vision difficulties accounting for 5.4% and 14.4% respectively.²⁶ These estimates are in contrast with the recently reported disability prevalence from the 2022 Census, which was merely 6%.³³ Both assessments indicated that the Eastern Cape had the highest prevalence of disability. This is illustrated in [Table 4](#).

Cataract surgeries

From 2009 to 2016, the Western Cape had the highest rate of cataract operations. However, from 2017 to 2019, the Free State led in cataract surgery rates, rising from 2140 to 2628 per 1 million uninsured population. From 2020 to 2022, KwaZulu-Natal had the highest cataract surgery rate, at a time when cataract surgery rates were low across all provinces ([Figure 9](#)).

The overall number of cataract surgeries performed in all provinces has steadily increased from 49383 in

Table 3. Socio-economic indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Air pollution level in cities (particulate matter)	2021	AQI PM2.5	21,1	10,2	22,9	39,4	17,5	14,4	21,4	26,4	10,9	4,1	a
Education level: percentage of population with no schooling	2022	20+ years Census	6,9	7,2	5,0	3,6	8,3	14,1	11,7	6,6	7,9	2,3	b
		20+ years GHS	3,3	4,1	2,6	1,1	4,3	6,2	6,2	3,8	5,2	1,1	c
Percentage of households by type of housing	2022	Census formal	88,5	83,6	88,5	88,5	86,8	94,7	92,2	85,6	88,0	88,0	b
		Census informal	8,1	4,4	9,7	11,0	5,0	2,7	5,8	12,1	10,8	11,1	b
		Census other	0,3	0,3	0,6	0,3	0,3	0,4	0,2	0,6	0,5	0,3	b
		Census traditional	3,1	11,7	1,2	0,3	80,0	2,2	1,8	1,4	0,7	0,7	b
		GHS Formal	83,2	75,3	84,9	80,7	82,8	95,9	90,7	83,6	79,3	83,0	c
		GHS Informal	12,3	5,3	13,4	18,7	5,2	3,1	7,0	15,3	20,5	16,7	c
		GHS Other	0,3	0,5	0,1	0,6	0,1	0,0	0,0	0,6	0,0	0,2	c
		GHS Traditional	4,3	19,0	1,7	0,0	12,0	1,0	2,3	0,5	0,2	0,1	c
Percentage of households using electricity for cooking	2022	both sexes GHS	76,5	77,1	86,2	76,2	82,0	63,5	74,3	78,8	76,6	75,7	c
		Census	64,9	65,0	78,6	62,7	71,9	49,3	66,6	72,0	69,7	63,9	b
Percentage of households using electricity for lighting	2022	Census	94,7	94,5	94,6	93,2	96,7	95,5	93,7	92,5	93,9	96,5	b
Percentage of households with access to improved sanitation	2022	GHS	83,2	90,0	87,4	90,5	81,2	63,1	63,8	83,9	72,7	95,9	c
Percentage of households with no toilet / bucket toilet	2022	both sexes GHS	1,0	2,2	1,1	0,1	0,6	1,2	1,5	6,0	1,8	0,7	c
		Census	3,7	4,7	5,2	2,9	3,1	4,0	2,9	9,0	2,9	4,3	b
Percentage of households with piped water inside dwellings	2022	Census	59,7	49,5	49,0	75,0	51,8	31,4	47,0	54,5	43,3	85,5	b
Percentage of households with refuse removal	2022	Census	66,3	53,3	63,5	85,0	57,7	32,0	51,1	64,4	53,5	88,7	b
		GHS	62,6	41,5	72,2	84,3	51,0	24,4	41,5	62,0	51,0	89,2	c
Percentage of households with telephone (telephone in dwelling or cellphone)	2022	Census cellphone	92,1	87,9	91,1	93,9	92,3	93,1	93,3	85,4	90,8	92,1	b
		GHS	95,9	91,8	93,0	97,6	95,6	97,2	97,3	89,2	95,9	95,4	c

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Percentage of population with primary reliance on clean fuels	2021	both sexes WHO	88,0										d
Unemployment rate (official definition)	2021 Q4	both sexes 15-64 years LFS	35,3	45,0	36,7	36,6	32,4	33,9	39,7	25,0	33,8	28,0	e
	2022 Q4	both sexes 15-64 years LFS	32,7	42,1	22,1	34,0	31,4	31,8	36,1	22,1	37,0	22,5	f
	2023 Q4	both sexes 15-64 years LFS	32,1	41,9	37,0	33,8	29,5	30,3	34,9	26,9	39,0	20,3	g

Reference notesa AQLI 2023.⁵⁷b Census 2022.³³c Stats SA GHS 2022.³⁴d World Health Statistics 2023.²⁴e Labour Force Survey Q4 2021.⁶¹f Labour Force Survey Q4 2022.⁶²g Stats SA QLFS Q4: 2023.⁴¹**Definitions**

- Air pollution level in cities (particulate matter [PM]) [ug/m3]: Annual mean concentration of particulate matter of less than 2.5 microns of diameter (PM2.5) [ug/m3] (or of less than 10 microns [PM10] if PM2.5 is not available) in cities.
- Education level: percentage of population with no schooling [Percentage]: Percentage of people in a given age group who have received a particular level of education. Data are presented for the percentage of population aged 20 years and above with no schooling. In some cases, the indicator is presented for a different age category depending on what is available in the source.
- Percentage of households by type of housing [Percentage]: Percentage of households that are categorised as formal, informal, traditional or other.
- Percentage of households using electricity for cooking [Percentage]: Percentage of households using electricity as their main energy source for cooking.
- Percentage of households using electricity for lighting [Percentage]: Percentage of households using electricity for lighting.
- Percentage of households with access to improved sanitation [Percentage]: Percentage of households using improved sanitation facilities (including flush to piped sewer system, flush to septic tank, flush/pour flush to pit, flush/pour flush to elsewhere).
- Percentage of households with no toilet / bucket toilet [Percentage]: Percentage of households that have no toilet or were using a bucket toilet.
- Percentage of households with piped water inside dwellings [Percentage]: Percentage of households with piped water inside dwellings.
- Percentage of households with telephone (telephone in dwelling or cell phone) [Percentage]: Percentage of households with a telephone in the dwelling or a cellular telephone.
- Percentage of households with weekly refuse removal [Percentage]: Percentage of households with weekly refuse removal.
- Percentage of population 20 years and older with no schooling [Percentage]: Percentage of population 20 years and older with no schooling.
- Percentage of population with primary reliance on clean fuels [Percentage]: Percentage of population with primary reliance on clean fuels.
- Unemployment rate (official definition) [Percentage]: The official definition of the unemployed is that they are those people within the economically active population (aged 15-65) who did not have a job or business during the 7 days prior to the interview, want to work and are available to work within two weeks of the interview, and have taken active steps to look for work or to start some form of self-employment in the 4 weeks prior to the interview.

Table 4. Disability indicators by province

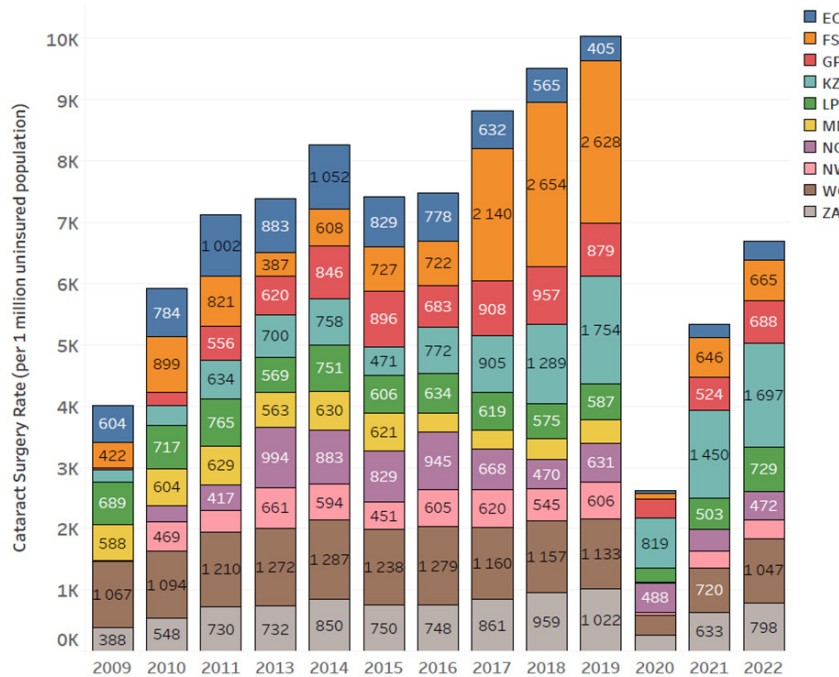
Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Cataract surgery - total	2022/23	both sexes all ages DHIS	48 971	2 069	1 943	11 249	19 831	4 463		619	1 215	7 582	a
Cataract surgery rate	2022/23	both sexes all ages DHIS	798	308	665	688	1 697	729		472	287	1 047	a
Hearing aids issued rate	2022/23	both sexes 0-18 years old DHIS	66,7	54,6	140,8	78,3	59,2	55,1	62,9	68,9	97,6	105,8	a
		both sexes 19 years and older DHIS	67,0	67,6	63,9	82,6	45,8	26,4	56,3	91,9	95,6	111,7	a
Prevalence of disability	2022	both sexes 5+ years GHS	4,8	6,6	6,6	3,9	4,1	3,7	3,9	11,5	6,3	4,9	b
		both sexes all ages Census	6,0	8,5	8,4	4,9	6,1	5,0	5,1	7,6	7,0	5,4	c
		female 5+ years GHS	5,3										b
		female all ages Census	7,0										c
		male 5+ years GHS	4,2										b
		male all ages Census	4,9										c
Prevalence of hearing disability	2023	15 years and older DDI - any functional difficulty	5,4	9,0	5,3	4,3	6,6	5,0	3,4	7,0	5,2	4,1	d
Prevalence of sight disability	2023	15 years and older DDI - any functional difficulty	14,4	19,2	16,8	14,2	17,1	11,0	10,2	18,3	13,2	10,4	d
Spectacles issued rate	2022/23	both sexes 0-18 years old DHIS	56,2	36,3	12,7	55,3	45,6	54,1	54,5	65,1	402,5	74,4	a
		both sexes 19 years and older DHIS	66,2	64,4	22,5	58,0	67,6	44,7	59,2	91,8	83,4	76,5	a
Wheelchairs issued rate	2022/23	both sexes 0-18 years old DHIS	65,9	41,6	103,2	68,3	61,9	48,5	69,8	24,8	85,4	97,4	a
		both sexes 19 years and older DHIS	76,6	34,2	102,7	102,5	70,1	55,0	77,7	39,0	65,2	113,0	a

Reference notesa webDHIS.¹⁶b Stats SA GHS 2022.³⁴c Census 2022.³³d The Disability Report 2023.²⁶

Definitions

- Cataract surgery - total [Number]: Number of eyes on which cataract surgery was performed.
- Cataract surgery rate [per 1 million]: Clients who had cataract surgery per 1 million uninsured population.
- Hearing aids issued rate [Percentage]: Hearing aids issued as a proportion of the applications for hearing aids received.
- Prevalence of disability [Percentage]: Percentage of people reporting moderate to severe disability in a survey where disability is defined as a limitation in one or more activities of daily living (seeing, hearing, communication, moving, getting around, daily life activities, learning, intellectual and emotional).
- Prevalence of hearing disability [Percentage]: In the Census questionnaire, respondents were asked to indicate whether or not there were any people with serious visual, hearing, physical or mental disabilities in the household. The seriousness of the disability was not clearly defined. Rather, the respondent's perceptions of seriousness were relied on.
- Prevalence of sight disability [Percentage]: In the census questionnaire, respondents were asked to indicate whether or not there were any people with serious visual, hearing, physical or mental disabilities in the household. The seriousness of the disability was not clearly defined. Rather, the respondent's perceptions of seriousness were relied on.
- Spectacles issued rate [Percentage]: Spectacles issued as a % of the applications received.
- Wheelchairs issued rate [Percentage]: Wheelchairs issued as a proportion of the applications for wheelchairs received.

Figure 9. Cataract surgeries per 1 million uninsured population, by province, 2009-2022



Source: webDHIS.¹⁶

2017 to 58 808 in 2019. Although the national number of cataract surgeries increased by approximately 18.7% between 2017 and 2019, this is a consequence of KwaZulu-Natal almost doubling their rate and the Free State increasing the number of surgeries performed in this period. Generally, however, the surgery rate declined across the provinces, with Limpopo experiencing the largest drop in cataract surgery rate (Figure 10). All provinces experienced a reduction in 2020, followed by an increase after 2020. After 2020, KwaZulu-Natal, Gauteng, and the Western Cape showed the greatest recovery in the total number of surgeries performed. Limpopo had the third highest recovery in terms of the rate of cataract surgeries in the same period. Notably, no operations were reported for Mpumalanga after 2019. This pattern matches the issues faced by other South African health facilities during and after the COVID-19 pandemic.

Health status indicators

Infectious Disease

Tuberculosis

Global mortality and incidence

The Global Tuberculosis Report 2023 noted that, despite being avoidable and usually curable, TB was the second highest cause of mortality from a single infectious agent in 2022, accounting for nearly twice as many fatalities as HIV.²⁷ In the post-pandemic age, TB is expected to reclaim the top spot. However, the globe is falling short

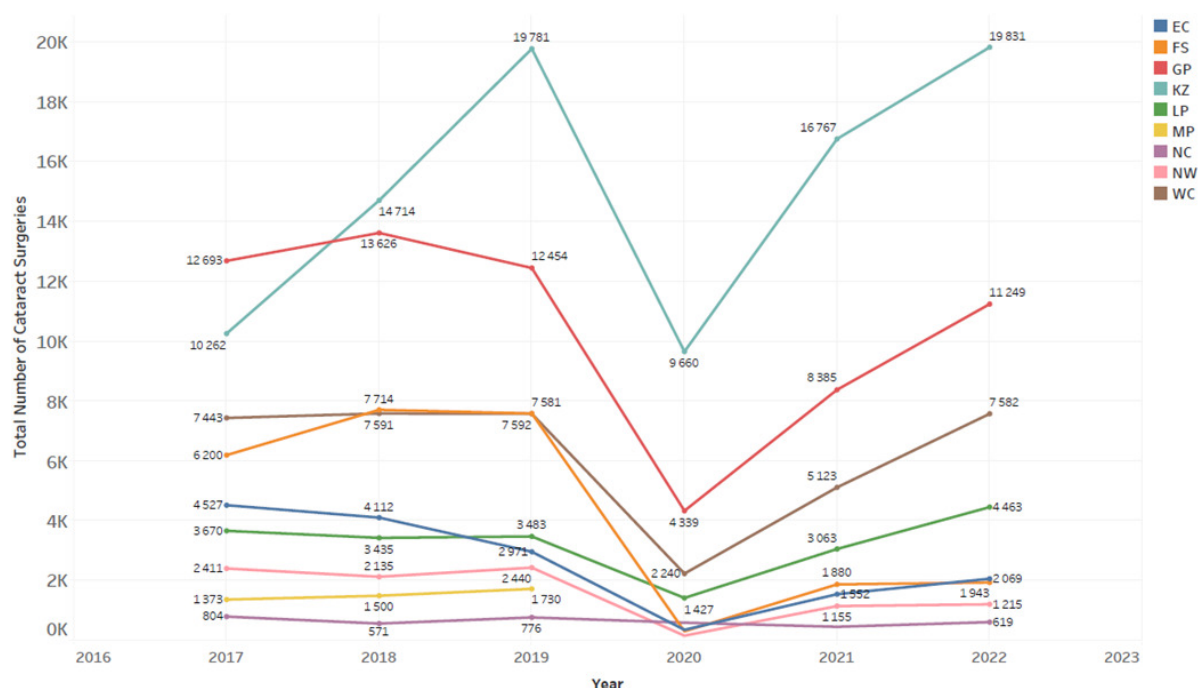
of its TB targets, in part due to disruptions caused by COVID-19. In 2022, TB was expected to kill 1.30 million people worldwide, nearly the same number as in 2019. The WHO End TB Strategy sets a global target of 75% mortality reduction between 2015 and 2025.²⁷ In 2022, the global incidence of TB was expected to be 133 new cases per 100 000 population. In 2022, an estimated 10.6 million people contracted TB. The global treatment gap between the projected number of persons newly infected with TB (incident cases) and the reported number of people diagnosed (notified cases) was 3.1 million.

Local impact and changes in South Africa

The local numbers presented in Table 5 mask a number of significant changes over time. According to WHO, South Africa was one of just 21 countries that had at least a 50% decline in TB incidence between 2015 and 2022, and was the only high-burden country among this group. However, it is sobering to note that South Africa continues to appear on all three high-burden lists for TB, HIV-associated TB, and multi-drug resistant/rifampicin-resistant TB. China, India, Indonesia, Mozambique, Myanmar, Nigeria, the Philippines, and Zambia also appear on all three lists.

Although their impacts will eventually be detectable in the outcome measures reported, the most recently reported figures do not yet show the effects of changes in treatment and prevention regimens that are in the process of being implemented in South Africa. The National Guidelines on the Treatment of Tuberculosis Infection were updated in 2023.⁶⁵ Notably, these guidelines included expanded access to TB preventive treatment

Figure 10. Total number of cataract surgeries performed between 2015 and 2021, by province



Note: No cataract surgeries reported for MP since 2019.

Source: webDHIS.¹⁶

(TPT). In addition, new TPT regimen options were included, including isoniazid and rifapentine given once weekly for three months (3HP) and daily rifampicin and isoniazid for three months (3RH), in addition to the longer isoniazid-only regimens (daily isoniazid for six months (6H) or daily isoniazid for 12 months (12H)). The guideline states that shorter treatment options should be offered where feasible and available.⁶⁵

Management of rifampicin-resistant TB

The national guidelines for the Clinical Management of Rifampicin-Resistant Tuberculosis (RR-TB) were also updated in 2023.⁶⁶ South Africa has adopted the WHO recommendation to follow a 6-month, all-oral regimen of bedaquiline, pretomanid and linezolid, with or without moxifloxacin or levofloxacin (BPALM or BPAL-L). The impact of de-institutionalised and decentralised RR-TB care has yet to be seen in the routine data but will be closely watched. Of note for the indicators reported, the term RR-TB is used in the guidelines to refer to all forms of resistant TB.

HIV

Progress towards global targets

South Africa adopted WHO's Universal Test and Treat (UTT) recommendation in 2016.⁶⁸ The UTT standards support the UNAIDS 90-90-90 treatment target to end the AIDS pandemic, which has now been revised to 95-95-95. The initial target was that by 2020, 90% of PL-

HIV would know their status, 90% of those would be on antiretroviral treatment (ART), and 90% of those on treatment would achieve viral suppression. WebDHIS reported figures of 89-76-88 for South Africa in 2020.¹⁶ Despite the UTT recommendations, South Africa failed to meet ART uptake and virus suppression targets, with only 78% virally suppressed.²⁹ Figure 11 shows progress towards the 2030 goal of 95-95-95.

UTT estimates as of the 2022/23 financial year reported by the Thembeisa model v4.6,⁶⁹ the Sixth South African National HIV Prevalence, Incidence, Behaviour and Communication Survey (SABSSM VI),³⁵ and the Antenatal Survey of Pregnant Women³⁶ across both sexes and at varying age ranges are presented in Figure 12.

The steady decline in almost all epidemic estimates demonstrates the benefits of HIV services provided in accordance with UTT recommendations. The number of new HIV infections fell from 210 000 in 2021 to 160 000 in 2022, across all ages. AIDS-related deaths declined from 51 000 in 2021 to 45 000 in 2022. However, as treatment access improves, prevalence also increases. In 2021 and 2022, the number of PLHIV increased from 7.5 million to 7.6 million. Table 6 presents additional provincial HIV indicators.^{29,70}

Women aged 15 to 49 continue to have higher infection rates than other age groups. In 2021 and 2022, this group reported 130 000 and 100 000 new cases, respectively.^{29,70} According to a recent Human Sciences Research Council national population survey, age-disparate relationships, limited access to testing and treatment fa-

Table 5. Tuberculosis indicators

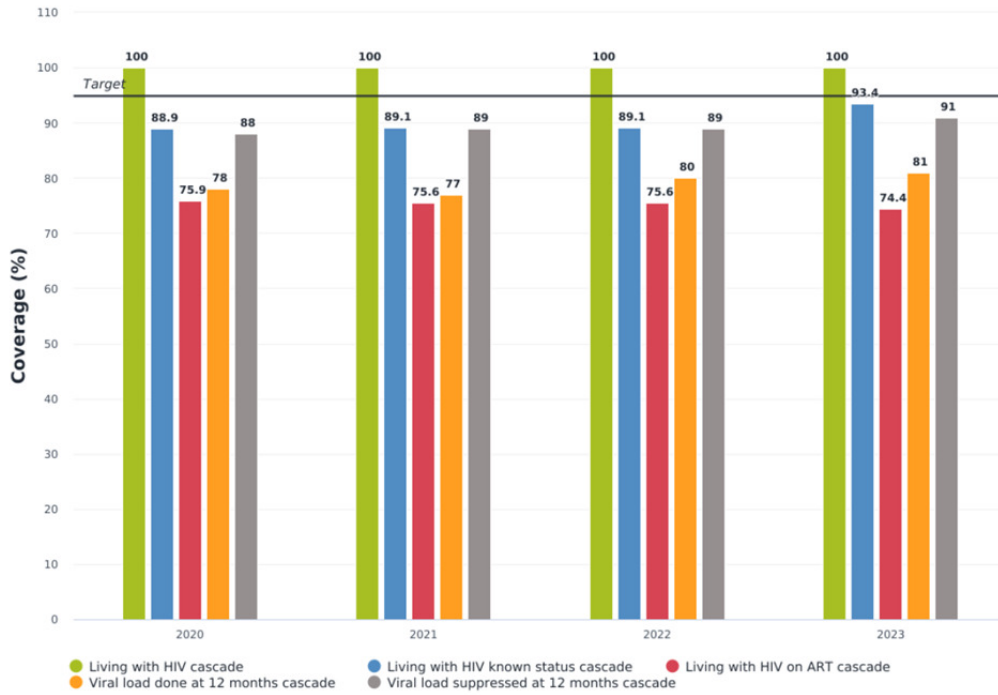
Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
All DS TB patients in cohort	2022	both sexes DHIS	205 734	45 363	9 855	30 628	47 889	13 205	11 268	7 346	11 736	28 444	a
Case detection rate (all forms)	2022	both sexes Global TB (2023)	77,0										b
HIV prevalence in TB incident cases	2022	both sexes Global TB	54,0										b
Incidence of TB (all types) (per 100 000)	2022	Global TB	468										b
Reported cases of MDR TB	2021	WHO	7 106										b
	2022	WHO	7 590										b
Screen for TB symptoms 5 years and older	2022/23	both sexes DHIS	86 212 706	11 136 879	3 996 254	18 454 955	21 848 377	10 182 567	6 354 327	1 904 378	4 892 816	7 442 153	a
Screen for TB symptoms under 5 years	2022/23	both sexes DHIS	17 057 932	2 100 216	780 122	3 286 015	4 192 507	2 326 579	1 536 968	343 949	962 655	1 528 921	a
TB child under 5 years start on treatment rate	2022/23	DHIS	97,8	98,1	87,8	97,8	99,0	105,3	98,2	91,6	105,0	96,8	a
TB client 5 years and older start on treatment rate	2022/23	DHIS	94,6	93,1	92,6	95,1	96,4	97,3	95,3	97,3	95,4	92,2	a
TB DS client lost to follow-up rate	2022	both sexes all ages DHIS	9,8	10,1	8,4	4,6	5,9	4,8	4,7	12,3	4,1	28,1	a
TB DS death rate	2022	both sexes all ages DHIS	5,6	5,1	9,4	5,5	4,9	9,1	6,1	5,6	5,6	4,2	a
TB DS treatment success rate	2021	both sexes all ages DHIS	77,9	76,6	71,3	82,5	82,1	78,9	82,8	64,9	82,1	73,0	a
		Global TB	79,0										b
	2022	both sexes all ages DHIS	59,3	54,5	52,5	56,4	55,7	50,4	56,3	55,1	61,7	84,1	a
TB MDR client death rate	2021	DHIS	16,6	18,1	24,4	14,8	14,8	18,9	16,2	20,6	21,2	14,4	a
TB MDR treatment	2020	both sexes all ages	62,0										b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
success rate		Global TB											
	2021	both sexes all ages DHIS	54,1	53,1	53,0	60,7	57,2	57,9	63,3	49,8	64,5	43,4	a
TB symptom 5 years and older screened in facility rate	2022/23	both sexes DHIS	97,6	93,5	93,3	112,7	105,9	97,8	96,2	88,0	84,0	73,4	a
TB symptom child under 5 years screened in facility rate	2022/23	both sexes DHIS	94,5	95,4	100,8	98,0	102,6	88,4	100,4	92,0	81,9	79,5	a
TB mortality rate per 100 000	2021	both sexes all ages Global TB	93,0										b
	2022	both sexes all ages Global TB	90,0										b
TB mortality rate per 100 000 (excluding HIV)	2021	Global TB	38,0										b
	2022	Global TB	39,0										b

Reference notesa webDHIS.¹⁶b Global TB database.⁶⁷**Definitions**

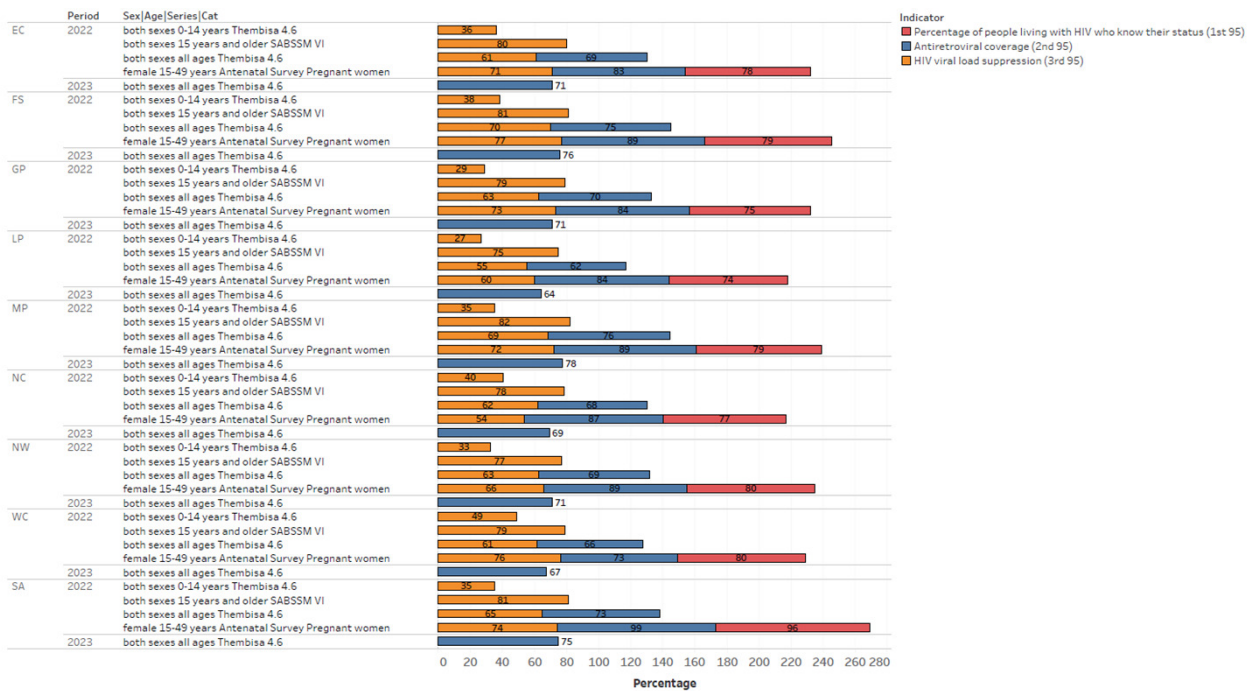
- All DS TB patients in cohort. [Number]
- Screen for TB symptoms 5 years and older [Number]: Clients 5 years and older who were screened in health facilities for TB symptoms using the standard TB screening tool as per National TB Guidelines.
- Screen for TB symptoms under 5 years [Number]: Children under 5 years who were screened in health facilities for TB symptoms using the standard TB screening tool as per National TB Guideline.
- TB child under 5 years start on treatment rate [Percentage]: TB client under 5 years started on treatment as a proportion of ALL symptomatic children under 5 years.
- TB client 5 years and older start on treatment rate [Percentage]: TB client 5 years and older start on treatment as a proportion of TB symptomatic client 5 years and older test positive.
- TB DS client lost to follow-up rate [Percentage]: The percentage of TB clients (all types of TB) who defaulted on treatment.
- TB DS death rate [Percentage]: The percentage of TB clients (all types of TB registered in [ETR.net](#)) who died.
- TB DS treatment success rate [Percentage]: The percentage of TB clients (all types registered in [ETR.net](#)) cured plus those who completed treatment.
- TB MDR client death rate [Percentage]: The percentage of TB clients (MDR TB) who died.
- TB MDR client loss to follow-up rate [Percentage]: The percentage of TB clients (MDR TB) who are lost to follow up.
- TB MDR treatment success rate [Percentage]: The percentage of TB clients (MDR TB) cured plus those who completed treatment.
- TB symptom child under 5 years screened in facility rate [Percentage]: Children under 5 years screened for TB symptoms as a proportion of PHC headcount under 5 years.
- Tuberculosis mortality rate per 100 000 (excluding HIV) [per 100 000 population]: Number of deaths due to tuberculosis (all types) reported per 100 000 population (for the year). The reported TB mortality excludes deaths occurring in HIV-positive TB cases, in accordance with the definition used in ICD-10.
- Tuberculosis mortality rate per 100 000 [per 100 000 population]: Number of deaths due to tuberculosis (all types) reported per 100 000 population (for the year).

Figure 11. National HIV 95:95:95 test and treat estimates, 2020-2023



Source: webDHIS.¹⁶

Figure 12. HIV test and treat estimates by province, 2022-2023



Sources: Thembisa v4.6,⁶⁹ SABSSM VI,³⁵ Antenatal Survey of Pregnant Women.³⁶

cilities, and a lack of condom use may increase the burden on the 15-49-year-old demographic.⁷¹⁻⁷³ Continued focus on disaggregated data relevant to this and other vulnerable groups is therefore critical.

Retention on ART

At the end of March 2023, a total of 5 326 130 adults and adolescents in South Africa were reported to be on ART in the public sector, according to webDHIS.¹⁶ KwaZulu-Natal had the most patients on ART, with 1 529 901, while

Table 6. HIV indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Child living with HIV	2023 Q1	both sexes 0-14 years NDoH-Thembisa	233 948	27 277	13 990	43 362	63 774	25 242	25 800	3 815	16 676	14 012	a
Adult living with HIV	2023 Q1	both sexes 15+ years NDoH-Thembisa	7 741 997	881 465	404 915	1 823 564	1 990 038	687 920	733 926	109 798	532 481	577 890	a
Total living with HIV	2023 Q1	both sexes all ages NDoH-Thembisa	7 975 945	908 742	418 905	1 866 926	2 053 812	713 162	759 726	113 613	549 157	591 902	a
People living with HIV (PLHIV)	2022	both sexes 0-14 years Global report	230 000										b
		both sexes 15 years and older SABSSM VI	7 400 000										c
		both sexes all ages Global report	7 600 000										b
		both sexes all ages SABSSM VI	7 800 000										c
		female 15 years and older Global report	4 800 000										b
		male 15 years and older Global report	2 600 000										b
	2023	both sexes all ages Thembisa 4.6	7 850 920	880 306	428 498	1 906 310	1 975 690	715 780	753 263	105 791	541 410	530 089	d
HIV prevalence (age 15-49)	2022	both sexes 15-49 years Global report	17,8										b
		both sexes 15-49 years SABSSM VI	17,0										c
		both sexes mid-year	19,6										e
		female 15-49 years SABSSM VI	22,3										c
		male 15-49 years SABSSM VI	11,0										c
HIV prevalence (total population)	2022	both sexes 15 years and older SABSSM VI	16,3	18,8	19,1	15,0	21,8	11,9	20,8	10,0	16,5	8,2	c
		both sexes all ages SABSSM VI	12,7										c
		both sexes all ages	13,2	13,5	15,0	11,9	17,6	11,8	15,8	9,4	13,2	7,4	d

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		Thembisa 4.6											
		both sexes mid-year	13,9										e
		Global report Men who sex with men	29,7										b
		Global report People who inject drugs	21,8										b
		Global report Prisoners	7,0										b
		Global report Sex workers	62,3										b
		Global report Transgender people	58,0										b
Percentage of PLHIV who know their status (1st 90)	2022	both sexes 0-14 years Global report	83,0										b
		both sexes 15 years and older SABSSM VI	90,0										c
		female 15 years and older Global report	95,0										b
		female 15 years and older SABSSM VI	92,0										c
		female 15-49 years Antenatal Survey Pregnant women	96,0	78,4	79,2	74,6	99,3	73,7	78,5	76,6	79,7	80,0	f
		male 15 years and older Global report	94,0										b
		male 15 years and older SABSSM VI	85,0										c
Child ART Total	Mar 2023	both sexes 0-14 years DHIS	111 783	14 608	6 724	17 866	31 389	11 031	11 940	3 696	7 434	7 095	a
Adult ART Total	Mar 2023	both sexes 15+ years DHIS	5326 130	579 407	306 549	1 208 516	1 529 901	419 601	551 195	65 167	351 048	314 746	a
Number of patients receiving ART	2023	both sexes all ages Thembisa 4.6	5 871 150	621 890	327 004	1 359 860	1 634 970	454 937	583 548	73 450	384 186	357 298	d
Total Clients remaining on ART at the end of the month	Mar 2023	both sexes all ages DHIS	5 437 913	594 015	313 273	1 226 382	1 561 290	430 632	563 135	68 863	358 482	321 841	a
Clients remaining on ART rate	Mar	both sexes all ages DHIS	68,2	65,4	74,8	65,7	76,0	60,4	74,1	60,6	65,3	54,4	a

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
	2023												
Antiretroviral coverage (2nd 90)	2022	both sexes 0-14 years Global report	54,0										b
		both sexes 15 years and older SABSSM VI	91,0										c
		both sexes all ages med schemes	77,5										g
		both sexes all ages Thembisa 4.6	73,2	69,3	75,1	69,6	81,4	62,3	75,9	68,2	69,4	65,9	d
		female 15 years and older Global report	80,0										b
		female 15 years and older SABSSM VI	91,0										c
		female 15-49 years Antenatal Survey Pregnant women	98,8	83,0	88,9	83,5	84,8	84,1	88,9	86,6	88,9	72,8	f
		female all ages Thembisa 4.6	78,0										d
		female Global report Pregnant women	98,0										b
		Global report Men who sex with men	44,1										b
		Global report Prisoners	99,3										b
		Global report Sex workers	69,5										b
		male 15 years and older Global report	68,0										b
		male 15 years and older SABSSM VI	90,0										c
		males all ages Thembisa 4.6	65,4										d
	2023	both sexes all ages Thembisa 4.6	74,8	70,7	76,3	71,4	82,8	63,6	77,5	69,4	71,0	67,4	d
Child with viral load suppressed rate 12 months	2023 Q1	both sexes 0-14 years DHIS	60,1	64,9	58,5	52,9	66,3	54,8	58,7	50,0	61,4	71,0	a

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Adult with viral load suppressed rate 12 months	2023 Q1	both sexes 15+ years DHIS	90,6	90,6	91,2	89,4	91,4	89,8	91,7	86,4	89,6	93,4	a
ART client viral load suppressed rate (VLS)	2023 Q1	both sexes all ages DHIS-Tier	90,0	90,0	90,0	89,0	91,0	89,0	91,0	85,0	89,0	93,0	a
HIV viral load suppression (3rd 90)	2022	both sexes 0-14 years Global report	37,0										b
		both sexes 0-14 years Thembisa 4.6	35,1	36,3	37,6	29,0	40,1	27,2	35,1	40,4	32,5	48,9	d
		both sexes 15 years and older SABSSM VI	81,2	80,2	81,2	79,1	86,7	75,3	82,2	78,2	76,8	78,8	c
		both sexes 15-24 years SABSSM VI	70,1										c
		both sexes 15-49 years SABSSM VI	79,5										c
		both sexes 25-49 years SABSSM VI	80,5										c
		both sexes all ages Thembisa 4.6	65,4	61,0	69,7	62,6	75,2	55,1	68,5	61,9	62,5	61,4	d
		female 15 years and older Global report	74,0										b
		female 15 years and older SABSSM VI	82,9										c
		female 15-19 years Antenatal Survey Pregnant women	46,0										f
		female 15-24 years SABSSM VI	68,2										c
		female 15-49 years Antenatal Survey Pregnant women	74,1	70,7	76,7	72,6	81,3	59,9	71,9	53,7	66,0	76,3	f
		female 15-49 years SABSSM VI	81,6										c
		female 25-49 years SABSSM VI	82,8										c
		female 30-34 years Antenatal Survey	77,1										f

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		Pregnant women											
		male 15 years and older Global report	62,0										b
		male 15 years and older SABSSM VI	77,6										c
		male 15 years and older Thembisa 4.6	58,6									57,2	d
		male 15-24 years SABSSM VI	73,5										c
		male 15-49 years SABSSM VI	74,8										c
		male 25-49 years SABSSM VI	74,9										c
Antiretroviral effective coverage	2023 Q1	both sexes 0-14 years DHIS-Tier	21,2	20,2	19,2	17,4	26,8	19,1	22,3	17,6	23,9	11,6	a
		both sexes 15+ years DHIS-Tier	47,2	40,8	49,2	46,4	58,2	45,2	57,5	18,5	50,5	11,5	a
		both sexes all ages DHIS- Tier	46,4	40,2	48,2	45,8	57,2	44,3	56,3	18,4	49,7	11,5	a
Infant PCR test positive around 10 weeks rate	2022/ 23	both sexes DHIS	0,4	0,6	0,4	0,5	0,3	0,5	0,5	0,8	0,3	0,2	a
Adult living with HIV viral load done 12m	2020 Q1	both sexes 15+ years DHIS-Tier	3 403 846	352 021	179 121	886 716	1 055 123	286 134	406 715	16 964	221 052		a
	2021 Q1	15+ years DHIS	3 734 509	377 554	198 456	898 715	1 111 108	292 891	396 112	27 698	255 405	176 570	a
	2022 Q1	15+ years DHIS	3 899 389	391 707	214 659	924 923	1 210 061	312 055	425 359	27 427	273 492	119 706	a
Adult living with HIV viral load suppressed (VLS) 12m	2021 Q1	both sexes 15+ years DHIS	3 317 696	334 432	178 051	799 532	992 743	258 942	350 454	23 238	220 859	159 445	a
	2022 Q1	both sexes 15+ years DHIS	3 464 855	339 499	199 254	844 446	1 095 505	249 401	373 072	23 306	230 668	109 704	a
	2023 Q1	both sexes 15+ years DHIS	3 651 215	359 480	199 143	846 568	1 157 385	310 917	421 941	20 265	268 959	66 557	a
Adult remaining on ART at end of the month - total	Mar 2023	both sexes 15+ years DHIS	5 326 130	579 407	306 549	1 208 516	1 529 901	419 601	551 195	65 167	351 048	314 746	a

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Antenatal client initiated on ART rate	2022/23	female DHIS	94,1	89,8	95,1	99,8	96,6	97,3	99,1	90,0	94,6	63,3	a
Child under 15 years remaining on ART at end of the month - total	Mar 2023	both sexes 15+ years DHIS	111 783	14 608	6 724	17 866	31 389	11 031	11 940	3 696	7 434	7 095	a
HIV prevalence among antenatal clients	2022	15-19 years Antenatal Survey	7,6										f
		15-24 years Antenatal Survey	13,6										f
		15-49 years Antenatal Survey	27,5	32,9	30,3	26,4	37,2	19,4	30,8	15,2	25,7	16,3	f
		20-24 years Antenatal Survey	16,4										f
Infant 1st PCR test positive at birth rate	2022/23	both sexes DHIS	0,4	0,5	0,3	0,5	0,4	0,5	0,2	0,4	0,5	0,9	a
Male circumcision (% of men who are circumcised)	2022	15-49 years THEMBISA 4.6	62,5	78,7	64,4	71,4	56,1	91,3	77,4	38,5	53,2	44,4	d
		male 15-24 years SABSSM VI	49,9										c
		male 25-34 years SABSSM VI	44,4										c
		male 35-44 years SABSSM VI	37,9										c
		male 45-54 years SABSSM VI	25,7										c
		male 55-64 years SABSSM VI	25,2										c
		male 65+ years SABSSM VI	21,8										c
Medical male circumcision 10 years and older	2022/23	male 10+ years DHIS	369 483	5 835	17 955	79 727	144 750	22 130	57 315	7 478	20 967	13 326	a
Medical male circumcision 10-14 years rate	2022/23	male 10-14 years DHIS	49,4	23,6	48,5	56,4	59,9	51,9	35,5	59,0	16,5	7,4	a
Medical male circumcision 15 years and older rate	2022/23	DHIS	50,6	76,4	51,5	43,6	40,1	48,1	64,5	41,0	83,5	92,6	a

Reference notes

a webDHIS.¹⁶

b UNAIDS 2023.²⁹

c HIV Household Survey 2022.³⁵

d Thembisa 4.6.⁶⁹

e Stats SA MYE 2022.⁷⁴

f Antenatal Survey 2022.⁷³

g Medical schemes 2022.⁴⁸

Definitions

- Adult ART Total [Number].
- Adult living with HIV [Number]: Estimated number of adults (15+ years) living with HIV.
- Adult remaining on ART at end of the month - total [Number].
- Child ART Total [Number].
- Child living with HIV [Number]: Estimated number of children (0-14 years) living with HIV.
- Child under 15 years remaining on ART at end of the month - total [Number].
- Medical male circumcision 10 years and older [Number]: Males 10 years and older who are circumcised under medical supervision.
- Number of patients receiving ART [Number]: Number of patients receiving ART.
- People living with HIV (PLHIV) [Number]: The number of people who are HIV-positive.
- Total clients remaining on ART at the end of the month [Number].
- Total living with HIV [Number]: The estimated number of people who are HIV-positive.
- Antenatal client initiated on ART rate [Percentage]: Antenatal clients on ART as a proportion of the total number of antenatal clients who are HIV positive and not previously on ART.
- Antiretroviral coverage (2nd 90) [Percentage]: The number of patients receiving ART, divided by the number needing treatment. The denominator has changed over time, due to changes in treatment guidelines affecting the criteria for treatment eligibility. The latest definition is that all HIV-infected patients should be on ART. This indicator is also one of the 95-9-95 global targets for AIDS (UNAIDS).
- Antiretroviral effective coverage [Percentage]: Proportion of HIV-positive people on ART and virally suppressed. Any implausible values (>100) capped at 100, zero or missing values set to 1.
- ART client viral load suppressed rate (VLS) [Percentage]: ART viral load suppressed - total as a proportion of ART viral load done - total.
- Child with viral load suppressed rate 12 months [Percentage]: Proportion of ART clients with viral load suppressed at different time intervals. This indicates the population level immunological impact of clients on ART.
- Clients remaining on ART rate [Percentage]: Percentage of estimated people living with HIV who remain on ART. (Routine data equivalent for Antiretroviral coverage).
- HIV prevalence (age 15-49) [Percentage]: Percentage of population (age 15-49) estimated to be HIV-positive.
- HIV prevalence (total population) [Percentage]: Percentage of population estimated to be HIV positive. WHO Core indicator is given per 1000 population rather than %.
- HIV prevalence among antenatal clients [Percentage]: Percentage of women surveyed testing positive for HIV.
- HIV viral load suppression (3rd 90) [Percentage]: Percentage of people on ART who are virologically suppressed (VL level <= 1000 copies/mL). This indicator is also one of the 95-95-95 global targets for AIDS (UNAIDS).
- Infant 1st PCR test positive at birth rate [Percentage]: Infants tested PCR positive for the first time at birth as proportion of infants PCR tested at birth.
- Infant PCR test positive around 10 weeks rate [Percentage]: Infants tested PCR positive for follow up test as a proportion of Infants PCR tested around 10 weeks.
- Male circumcision (% of men who are circumcised) [Percentage]: The percentage of men (15-59 years, unless otherwise specified) who have been circumcised.
- Medical male circumcision 10-14 years rate [Percentage]: Medical male circumcisions performed 10-14 years as a proportion of total medical male circumcisions performed.
- Medical male circumcision 15 years and older rate [Percentage]: Medical male circumcisions performed 15 years and older as a proportion of total medical male circumcisions performed.
- Percentage of people living with HIV (PLHIV) who know their status (1st 90) [Percentage]: Percentage of people living with HIV who know their HIV status. This indicator is also one of the 95-95-95 global targets for AIDS (UNAIDS).

Figure 13. Total number of adults remaining on ART by province, 2022/23

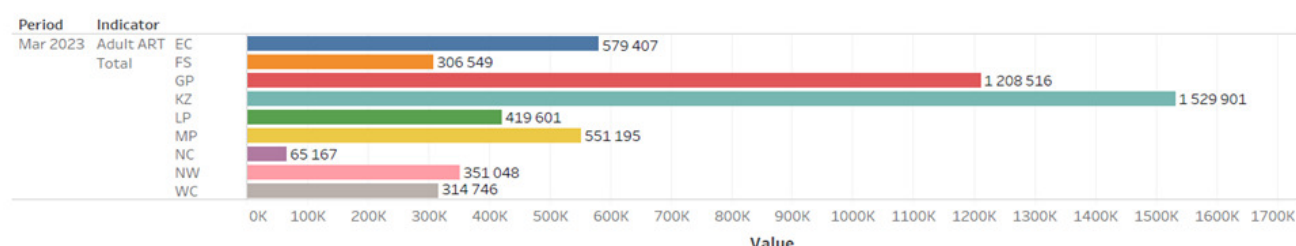
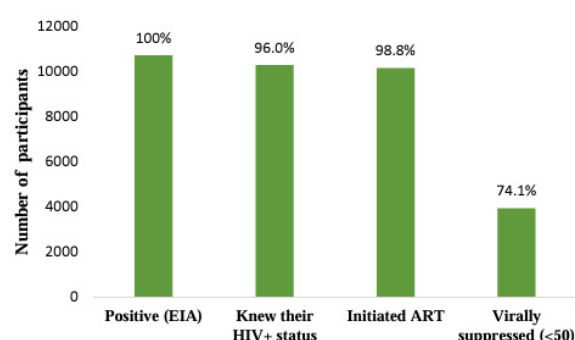
Source: webDHIS.¹⁶

Figure 14. HIV care cascade among antenatal women, 2022

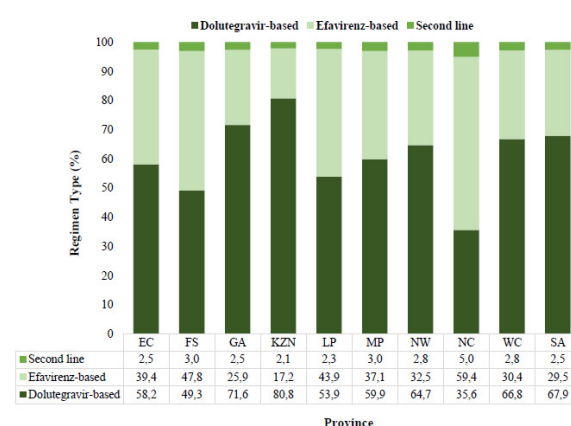
Source: HIV Antenatal Survey, 2022.³⁶

the Northern Cape had the fewest, with 65 167 (Figure 13). In addition, 111 783 paediatric patients were reported to be on ART. Figure 14 shows that 31 389 paediatric patients were from KwaZulu-Natal, while only 3 696 were from the Northern Cape.

The 2017 and 2019 National Prenatal HIV Sentinel Surveys reported results of 96-87-64 and 98-96-66, respectively, for the 90-90-90 HIV objectives among prenatal patients by the end of 2020. The 2022 survey findings, which included 10 726 participants, revealed that 96% (10 300) of these women already knew they were living with HIV before being screened at an antenatal visit. Of those who knew their status, 99% (10 166) had already started on ART, and 74% were virally suppressed.⁷⁵ Thus, while the second 95 target had already been met by 2022 in pregnant women, the third 95 target, related to viral suppression, showed a concerning deficit, as depicted in Figure 15.

The shift to a Dolutegravir (DTG) containing first-line ART regimen in December 2019 was done due to an expected improvement in adherence and also viral suppression.⁷⁶ A study conducted by Asare et al.,⁷⁷ in 2024 in the eThekweni municipality, involving patients transitioned between December 2019 and November 2020, demonstrated that DTG-based regimens were associated with comparable or superior retention in care and enhanced viral suppression when compared to the previously recommended treatment protocols. Figure 16 shows KwaZulu-Natal had the highest uptake (80.8%) of

Figure 15. ART treatment coverage by regimen type among antenatal women, 2022

Source: HIV Antenatal Survey.³⁶

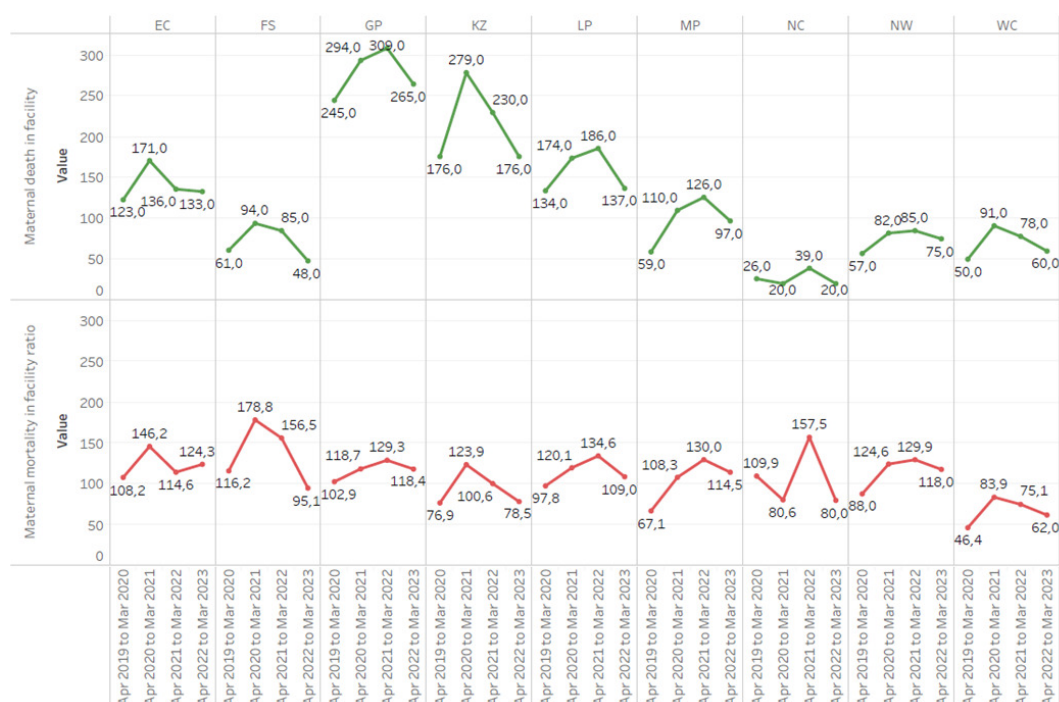
the DTG-based regimen in antenatal women, with uptake the lowest in the Northern Cape (35.6%). It will be critical to monitor prenatal viral loads at both national and provincial levels, in order to track progress against the targets.³⁶

HIV drug resistance

Antiretroviral drugs are at risk of being partially or fully inactive against HIV, due to the ever evolving genetic structure of HIV.⁷⁸ Inability to reach viral suppression targets due to HIV drug resistance (HIVDR) can have human cost and negative impacts on the national health budget. WHO's Africa Regional Action Plan 2019-2023 was intended to monitor and actively conduct HIVDR surveillance in Africa through nationally representative surveys.⁷⁹ From 2014 to 2016, the only South African data reported were for infants under 18 months of age, with 63.7% resistance to efavirenz or nevirapine. Other populations have been surveyed outside of South Africa.

While South Africa and other low- and middle-income countries have employed DTG to combat HIVDR, more regular nationally representative surveys are required for effective HIVDR surveillance. The HIV indicators by province are captured in Table 6.

Figure 16. In-facility maternal deaths and maternal mortality facility ratio

Source: webDHIS.¹⁶

Maternal and reproductive health

Table 7 presents the maternal and reproductive health indicators by province for the financial year 2022/23.

Maternal mortality

The number of maternal deaths that occurred in public health institutions peaked in 2020/21, and then began to decrease in 2021/22. As depicted in Figure 20, the number of maternal deaths was highest in Gauteng, while the Northern Cape recorded the lowest number. Since the COVID-19 pandemic, maternal mortality rates have decreased, perhaps indicating that maternal services have recovered. Likewise, the maternal mortality ratio (MMR) per 100 000 live births peaked in 2020/21 and then declined in 2021/2022. The MMR was highest in the Free State in 2020/21 (178.8 per 100 000 live births). In 2021/22, the MMR was highest in the North West province (129.9 per 100 000 live births). Following the COVID-19 pandemic, the MMR and the number of maternal deaths continue to decrease, as shown in Figure 20.

Condoms

A recent Spotlight NSP report, based on data from the District Health Barometer, revealed a substantial drop in condom distribution in South Africa over the past five years.⁸⁰ Contrary to this tendency, female condom distribution was steadily increasing prior to the epidemic. Figure 17 depicts how the distribution of female condoms grew dramatically across most areas following the pandemic. Data from the Thembisa 4.2 and 4.6 models

demonstrate a consistent increase in condom use during last sexual encounter among both sexes in the 15-24 and 15-49 age groups, despite disruptions in health care due to COVID-19.⁶⁹

Teenage pregnancy

According to Stats SA General Household Survey reports, teenage pregnancy steadily ranged between 5.1-5.7% from 2017 to 2019³⁴, reaching a high of 5.7% at the beginning of the COVID-19 pandemic as shown in Figure 18. Although there was a declining trend from 2019 to 2021, there was a sharp increase in 2022. Teenage pregnancy is associated with poor access to contraceptive services, risky behaviour, coercive and unprotected sexual contact, and increased exposure to sexually transmissible infections.⁸¹ Unwanted pregnancies in teenage mothers are therefore indicative of poor access to sexual and reproductive health rights and services.

From 2020 to 2023, South Africa experienced slight declines in the number of births occurring in healthcare facilities under supervision of trained staff, as shown in Figure 19. This trend warrants monitoring, given reports of mistreatment of pregnant women.^{82,83} Anxieties about attending health facilities during the COVID-19 pandemic most likely contributed to reduced in-facility live births between 2020 and 2022. Marginal recovery post-COVID-19 in some provinces suggests that fear of contracting COVID-19, and other structural factors such as lack of transport, potentially persist.⁸⁴

The maternal and reproductive health indicators are presented in Table 7.

Table 7. Maternal and reproductive health indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Antenatal 1st visit before 20 weeks rate	2022	female 15-49 years Antenatal Survey	61,0	55,0	59,9	56,6	64,5	60,7	57,1	59,8	65,2	71,9	a
	2022/ 23	female DHIS	70,1	63,5	62,1	69,3	73,8	67,5	77,3	58,5	71,2	74,3	b
Antenatal 1st visit coverage	2022/ 23	female DHIS	76,4	74,8	75,4	76,1	75,1	80,1	78,1	91,2	69,6	78,6	b
Cervical cancer screening coverage	2022/ 23	female DHIS	21,4	22,7	24,0	16,9	38,9	12,0	24,7	9,6	9,7	17,4	b
Condom use at last sex	2022	15-24 years THEMBISA 4.6	35,4	28,3	33,2	40,8	33,7	25,9	32,5	25,5	37,4	30,8	c
		25-49 years THEMBISA 4.6	26,1	23,1	25,5	27,7	28,1	20,8	26,4	20,6	27,7	20,9	c
		female 15-24 years SABSSM VI	43,5										d
		female 25-49 years SABSSM VI	40,9										d
		female 50+ years SABSSM VI	29,0										d
		male 15-24 years SABSSM VI	50,6										d
		male 25-49 years SABSSM VI	44,0										d
		male 50+ years SABSSM VI	27,9										d
Couple year protection rate	2022/ 23	DHIS	45,0	41,4	83,9	28,6	58,4	46,5	43,4	38,3	48,3	50,2	b
Delivery 10-14 years in facility	2022/ 23	female 10-14 years DHIS	3497	553	139	494	794	467	403	81	201	365	b
Delivery 10-19 years in facility	2022/ 23	female 10-19 years DHIS	132 280	17 617	6 113	20 755	34 823	17 193	12 872	3 755	8 664	10 488	b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Delivery 15-19 years in facility	2022	15-19 years vital registration	101 569										e
	2022/23	female 15-19 years DHIS	128 783	17 064	5 974	20 261	34 029	16 726	12 469	3 674	8 463	10 123	b
Delivery by Caesarean section rate	2021	NCCEMD	28,0	29,5	30,5	30,0	35,6	22,5	21,2	22,7	21,3	29,9	f
	2022/23	female DHIS	31,3	33,2	34,3	32,5	36,8	25,5	23,4	26,9	25,7	32,0	b
Delivery by Caesarean section rate (district hospitals)	2022/23	female DHIS District Hospital	27,0	26,8	14,9	33,1	30,2	25,6	22,3	16,9	33,0	28,3	b
Delivery in 10-19 years in facility rate	2022/23	female DHIS	13,9	17,6	13,3	9,6	16,2	14,2	16,2	17,0	14,5	11,2	b
Delivery in facility - total	2022/23	DHIS	952 141	99 915	46 076	215 111	214 511	121 057	79 685	22 047	59 869	93 870	b
Early neonatal death in facility rate	2022/23	both sexes DHIS	9,6	10,3	11,6	9,3	9,1	10,6	10,5	11,3	10,4	7,1	b
Female condoms distributed	2022/23	DHIS	15 512 957	1 279 500	2 182 220	4 497 159	3 047 100	1 071 100	1 367 918	101 513	708 047	1 258 400	b
Live births in facility	2022/23	both sexes DHIS	947 395	99 503	46 291	214 128	212 530	120 626	79 570	22 487	59 304	92 956	b
Male condom distribution coverage	2022/23	DHIS	18,90	12,40	52,70	11,10	24,00	20,60	21,30	11,20	20,10	20,50	b
Male condoms distributed	2022/23	male DHIS	402 808 623	25 490 700	52 469 700	69 220 678	89 664 600	38 910 442	35 627 000	5 194 000	30 810 803	55 420 700	b
Maternal death in facility	2022/23	female DHIS	1 011	133	48	265	176	137	97	20	75	60	b
Maternal mortality in facility ratio	2022/23	female DHIS	101	124	95	119	79	109	115	80	118	62	b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Mother postnatal visit within 6 days after delivery	2022/23	female DHIS	761 807	80 488	36 029	168 329	168 633	118 124	60 690	14 202	58 800	56 512	b
Mother postnatal visit within 6 days rate	2022/23	female DHIS	80,0	80,6	78,2	78,3	78,6	97,6	76,2	64,4	98,2	60,2	b
Neonatal death in facility rate	2022/23	both sexes DHIS	12,7	13,8	16,2	13,2	12,0	13,1	12,9	14,2	13,4	9,0	b
Stillbirths in facility	2022/23	both sexes DHIS	20 228	2 063	1 223	4 441	5 024	2 285	1 730	499	1 277	1 686	b
Stillbirth in facility rate	2022/23	both sexes DHIS	20,9	20,3	25,7	20,3	23,1	18,6	21,3	21,7	21,1	17,8	b
Teenage pregnancy	2022	female 14-19 years GHS	3,80										g
ToPs (Terminations of Pregnancy)	2022/23	DHIS	137 998	14 741	8 166	33 481	26 200	14 926	10 004	2 279	10 160	18 041	b

Reference notesa Antenatal Survey 2022.³⁶b webDHIS.¹⁶c Thembisa 4.6.⁶⁹d HIV Household Survey 2022.³⁵e Stats SA Live Births 2022.⁴²f NCCEMD.³⁷g Stats SA GHS 2022.³⁴**Definitions**

- Delivery 10-14 years in facility [Number]: Delivery where the mother is 10-14 years old. These deliveries are done in facilities under the supervision of trained medical/nursing staff.
- Delivery 10-19 years in facility [Number]: Delivery where the mother is 10-19 years old. These deliveries are done in facilities under the supervision of trained medical/nursing staff.
- Delivery 15-19 years in facility [Number]: Delivery where the mother is 15-19 years old. These deliveries are done in facilities under the supervision of trained medical/nursing staff.
- Delivery in facility - total [Number]: Any delivery taking place in a health facility under the supervision of trained medical/nursing staff.
- Female condoms distributed [Number]: Female condoms distributed from a primary distribution site to health facilities or points in the community (e.g. campaigns, non-traditional outlets, etc.).
- Live birth in facility [Number]: Live birth resulting from a delivery in a facility.
- Male condoms distributed [Number]: Male condoms distributed from a primary distribution site to health facilities or points in the community (e.g. campaigns, non-traditional outlets, etc.).
- Maternal death in facility [Number]: Maternal death is death occurring during pregnancy, childbirth and puerperium within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy and the cause of death (obstetric and non-obstetric).
- Still birth in facility [Number]: Still born infants delivered in a health facility.
- ToPs (Terminations of Pregnancy) [Number]: The number of terminations of pregnancy.
- Antenatal 1st visit before 20 weeks rate [Percentage]: Women who have a booking visit.
- (first visit) before they are 20 weeks (about half way) into their pregnancy as a proportion of all antenatal 1st visits.
- Antenatal 1st visit coverage [Percentage]: The proportion of pregnant women coming for at least one antenatal visit.

- Cervical cancer screening coverage [Percentage of target women]: Cervical smears in women 30 years and older as a proportion of the female population 30 years and older. 80% of these women should be screened for cervical cancer every 10 years and 20% must be screened every 3 years, which should be included in the denominator because it is estimated that 20% of women 30 years and older are HIV positive.
- Condom use at last sex [Percentage]: Percentage of those, who reported ever having had sex, who used a condom the last time they had sex. Note that the precise definition of this indicator varies between surveys.
- Couple year protection rate [Percentage]: Women protected against pregnancy by using modern contraceptive methods, including sterilisations, as proportion of female population 15-49 year. Couple year protection is the total of (Oral pill cycles / 15) + (Medroxyprogesterone injection / 4) + (Norethisterone enanthate injection / 6) + (IUCD x 4.5) + (Sub-dermal implant x 2.5) + Male condoms distributed / 120) + (Female condoms distributed / 120) + (Male sterilisation x 10) + (Female sterilisation x 10).
- Delivery by Caesarean section rate (district hospitals) [Percentage]: Caesarean section deliveries, expressed as the proportion of total deliveries in facility.
- Delivery by Caesarean section rate [Percentage]: Delivery by Caesarean section as proportion of total deliveries in health facilities.
- Delivery in 10 to 19 years in facility rate [Percentage]: Deliveries to women under the age of 20 years as proportion of total deliveries in health facilities.
- Delivery in facility rate [Percentage]: Deliveries in health facilities as proportion of expected deliveries in the population. Expected deliveries are estimated as population under 1 year multiplied by 1.025 to compensate for still births and infant mortality.
- Early neonatal death in facility rate [per 1 000 live births]: Early neonatal deaths per 1000 infants who were born alive in health facilities.
- Male condom distribution coverage [Condoms per male 15+]: Male condoms distributed from a primary distribution site to health facilities or points in the community (e.g. campaigns, non-traditional outlets, etc.).
- Maternal mortality in facility ratio [per 100 000 live births]: Women who die as a result of childbearing, during pregnancy or within 42 days of delivery or termination of pregnancy, per 100 000 live births, and where the death occurs in a health facility.
- Mother postnatal visit within 6 days rate [Percentage]: Mothers who received postnatal care within 6 days after delivery as proportion of deliveries in health facilities.
- Neonatal death in facility rate [per 1 000 live births]: Infants 0-28 days who died during their stay in the facility per 1000 live births in facility.
- Stillbirth in facility rate [per 1 000 births]: Stillbirths in facility per 1 000 total births in a facility.
- Teenage pregnancy [Percentage]: Percentage of women aged 15-19 who are mothers or who have ever been pregnant. The percentage of women who are mothers at the time of the survey is a more restrictive definition. Note that some of the surveys report this indicator as the percentage who have ever been pregnant of those WHO HAVE EVER HAD SEX. This is a different denominator to that used by the Demographic and Health Surveys, and the data can therefore not be directly compared.

Figure 17. Female condoms distributed by province, 2019-2023

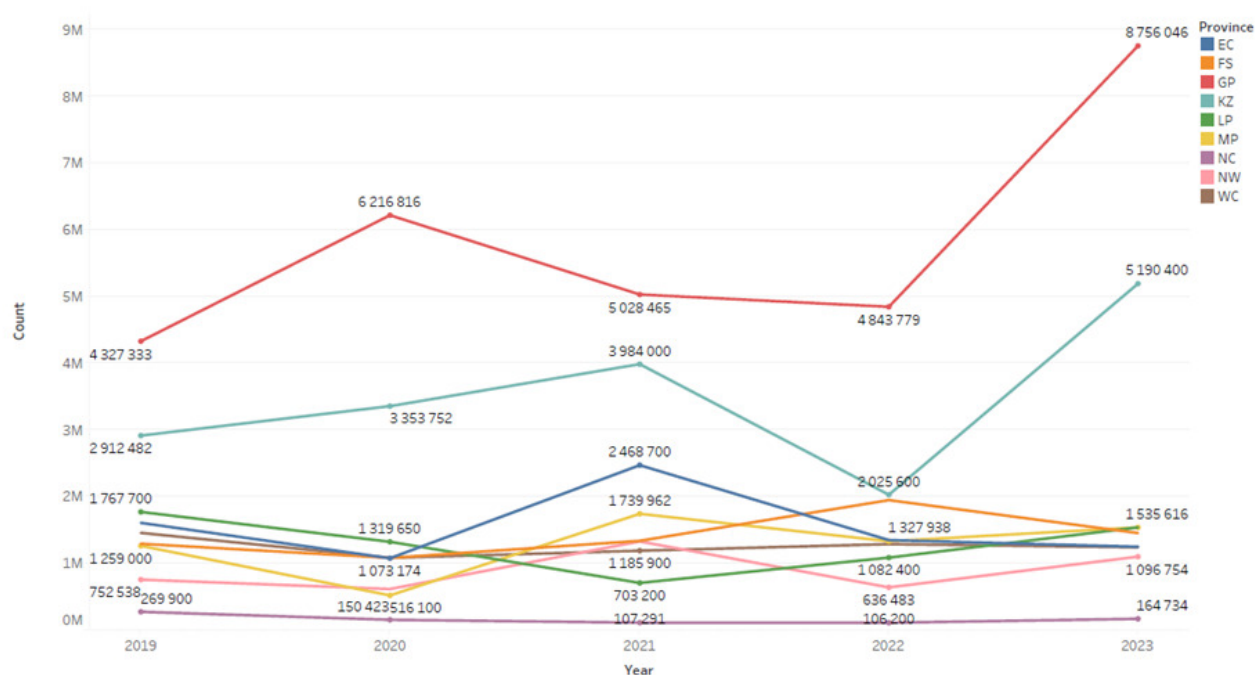
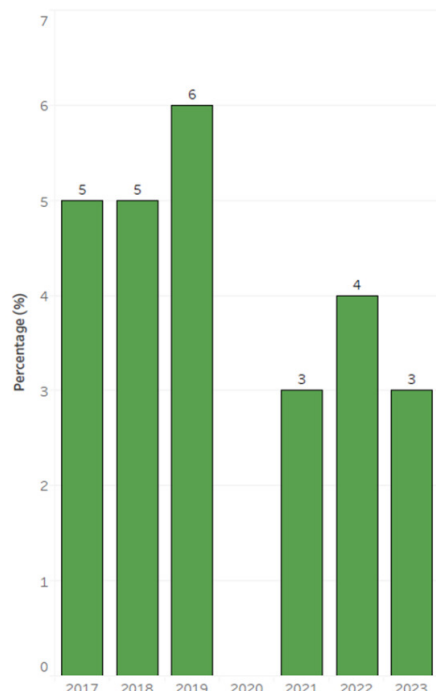
Source: webDHIS.¹⁶

Figure 18. Percentage of pregnant 14-19-year-old females, 2017-2023



Data for 2020 not reported

Source: GHS.³⁴

Child health

Childhood immunisation coverage

Immunisation represents the most cost-effective child health intervention, as outlined in the Immunisation Agenda 2021-2030.⁸⁵

South Africa continues to experience unacceptable under-five mortality. In 2022/23, 723 children died from diarrhoea, and 939 from pneumonia. KwaZulu-Natal had the highest diarrhoea and pneumonia deaths, while the Northern Cape had the fewest. The Eastern Cape had the highest diarrhoea case fatality rate, whereas Mpumalanga and Eastern Cape had the highest pneumonia rates, as depicted in [Table 8](#). In 2022 and 2023, the third dose of the pneumococcal conjugate vaccine (PCV) recorded coverage of 89.2% and 84.2%, respectively. Coverage of the second dose of the rotavirus vaccine (RV) in the same years was 83.5% and 77.6%, respectively. Vaccine coverage for both antigens was therefore lower than in the previous year, as shown in [Figure 21](#). National or provincial coverage percentages can hide other disparities, such as delays in immunisation scheduling. Four Western Cape public sector facilities found that coverage fell from birth to 18 months, with the third diphtheria-tetanus-pertussis (DTP) vaccination dose delayed the most (defined as receiving immunisations more than 28 days after the recommended schedule age).⁸⁶ Lower socioeconomic status and upper-middle socioeconomic status were risk factors for delayed or skipped immunisation, possibly due to work demands.⁸⁷

As an indicator of the efficacy of routine immunisation services for children, the WHO recommends that countries achieve a minimum of 90% coverage for the third dose of diphtheria-tetanus-pertussis (DTP3).²⁸ South Africa's immunisation coverage is still below optimal levels, not only for DTP3, but also for all age-specific immu-

Figure 19. Live births in facility by province, 2019 - 2023

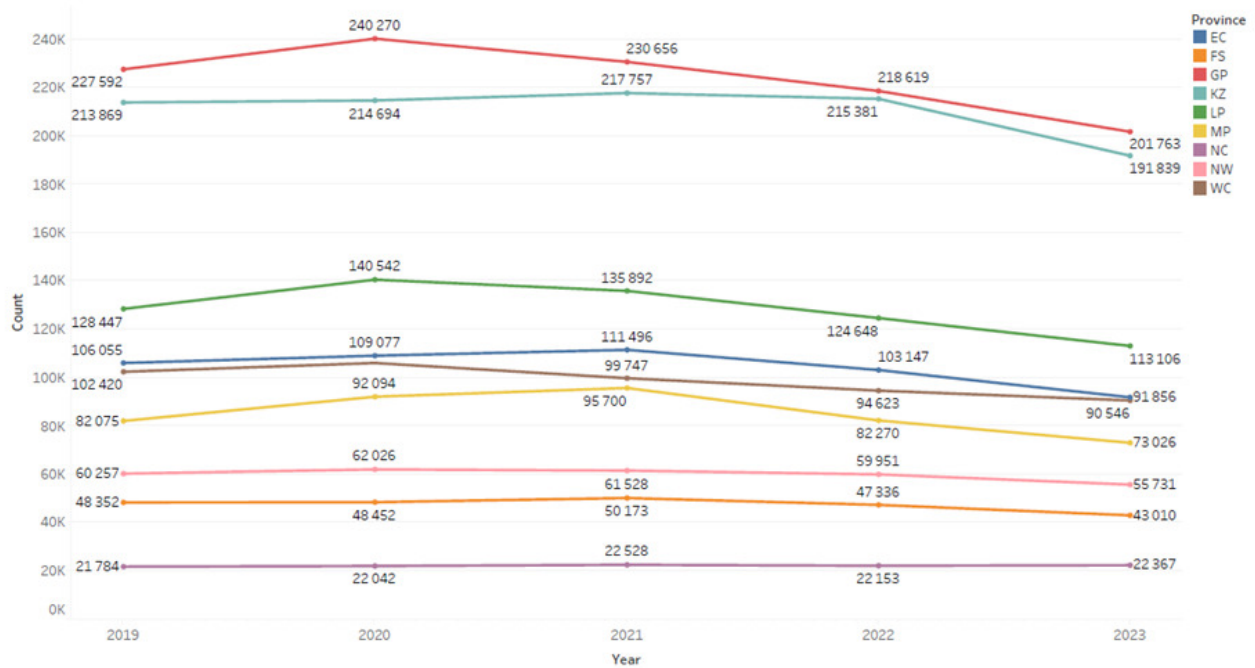
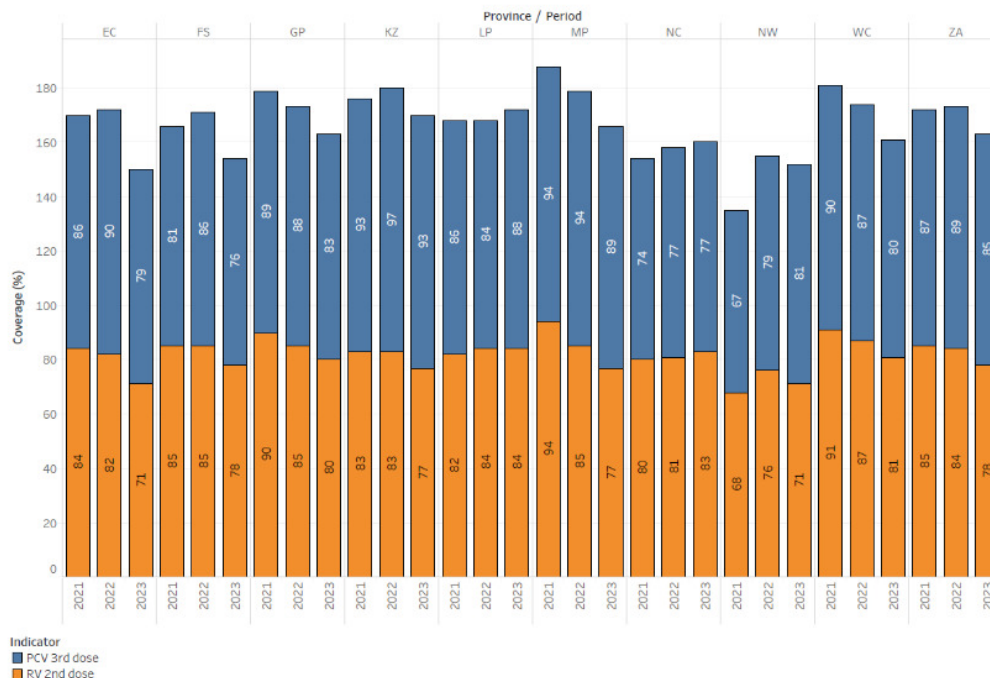
Source: webDHIS.¹⁶

Figure 20. Pneumococcal conjugate vaccine and rotavirus vaccine 3rd dose coverage, 2021-2023

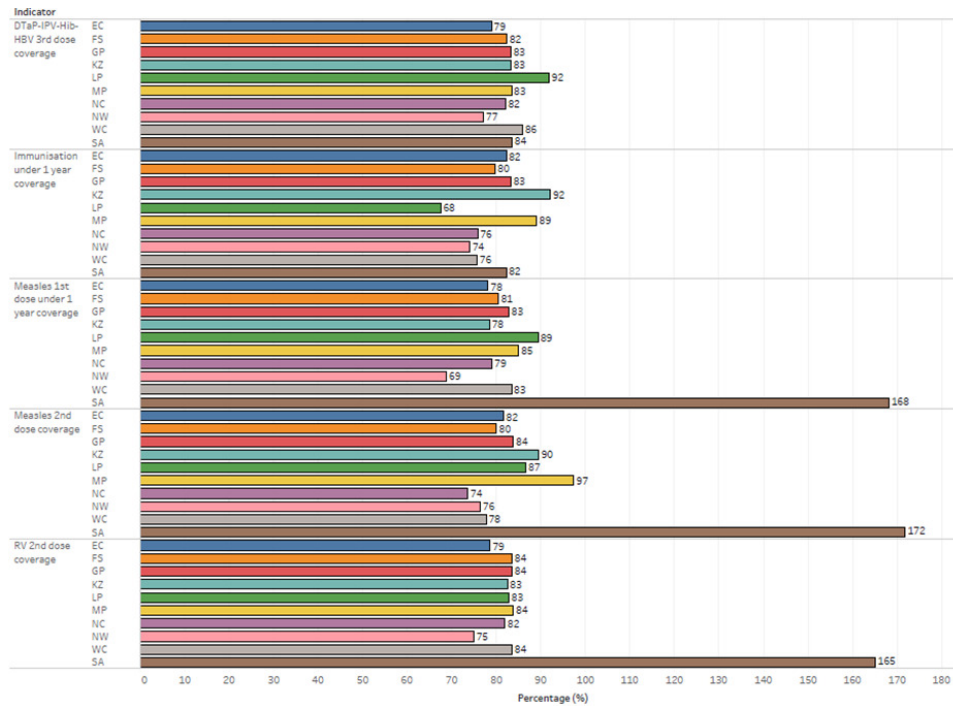
Source: webDHIS.¹⁶

nisations. Additional age-specific immunisation data are documented in [Table 8](#) and [Figure 22](#).

Vaccine preventable disease outbreaks

It is crucial to achieve optimal coverage in childhood immunisation to prevent disease outbreaks and ensure community immunity.⁸⁸ A situation report regarding a

Figure 21. Childhood immunisation coverage by provinces, 2022/23



Source: webDHIS.¹⁶

measles outbreak was published by the NICD on 26 January 2023. The report confirmed 421 laboratory-diagnosed cases from epidemiological week 40 of 2022 to the middle of week 3 of 2023. In provinces that were affected by outbreaks, the 5-9-year-old age group comprised the majority of cases (160/406, 39%). The under-1-year age group accounted for the highest proportion of cases, with 15/27 (59%), originating from hospitals rather than primary health care clinics. Nevertheless, the age group of 10-14-years continued to experience cases (64/406, 16%), underscoring the importance of including this demographic in a vaccination campaign.⁸⁸

Similarly, a rise in laboratory-confirmed pertussis cases from the pneumonia surveillance programme was seen in 2022/3, particularly in the Western Cape, Mpumalanga, Gauteng, KwaZulu-Natal, and North West, as depicted in Figure 23.⁸⁹ The NICD received 818 pertussis case reports from 1 January 2022 to 19 January 2023, with 95.8% (784/818) occurring between July 2022 and January 2023. The Western Cape reported 60.2% (472/784) of the 784 cases. The majority (58.0%, 455/784) of reported cases were in children under five, with 78.0% (355/455) under three months old.⁸⁹

A recent study found a link between health expenditures (as a percentage of gross domestic product (GDP)) and vaccination coverage for Bacillus Calmette-Guerin (BCG) and DTP3 in sub-Saharan Africa.⁹⁰ This highlights the significance of proper funding for vaccination programmes in order to achieve high coverage rates. The District Health Service programme spent a total of R2 348 per capita on vaccines per population under one year during 2022/23 (Figure 24). All provinces spent an aver-

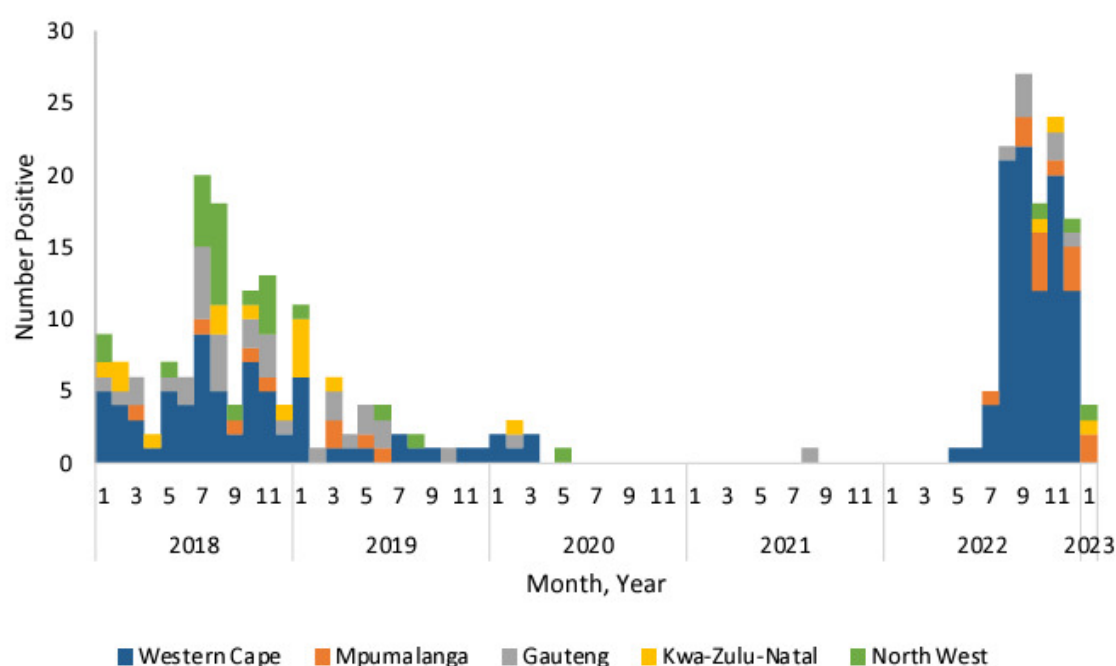
age of R2 079 per capita on children under the age of one, with Limpopo and KwaZulu-Natal spending the most and Northern Cape and North West spending the least.²¹

Non-communicable diseases

Globally, the World Health Statistics 2023 has noted that the “epidemic of NCDs poses devastating health consequences for individuals, families and communities”.^{24(p10)} The four major NCDs (cardiovascular disease, cancer, chronic respiratory disease, and diabetes) were collectively responsible for 33.3 million (uncertainty interval (UI): 24.5 – 43.3 million) deaths in 2019, representing a 28% increase compared to 2000. However, the increase in absolute numbers of deaths due to NCDs was driven mainly by population growth and ageing. Age-standardised mortality rates have been declining for the main NCDs, other than diabetes. In 2021, the Global Burden of Disease (GBD) study estimated that there were 529 million people living with diabetes worldwide, of which 96.0% were living with type 2 diabetes.⁹² Based on data from 44 low- and middle-income countries, poor access was shown to four diabetes prevention activities (physical activity counselling, weight loss counselling, dietary counselling, and blood glucose screening).⁹³

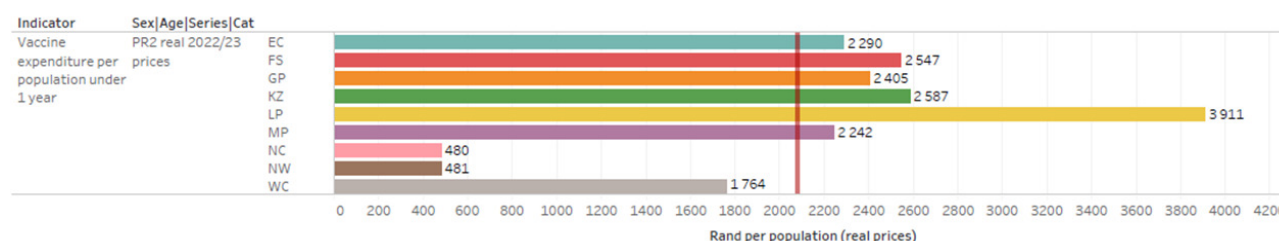
The consequences of poor NCD care were laid bare in the Stats SA report entitled *Non-communicable diseases in South Africa: Findings from death notifications 2008–2018*, published in 2023.⁹⁴ The report showed that deaths attributable to NCDs increased by 58.7% over 20 years, from 103 428 in 1997 to 164 205 in 2018, possibly due to population increases. For diabetes in particular, the age-standardised mortality rates (ASMR) increased from 58.5

Figure 22. Number of laboratory-confirmed pertussis cases from pneumonia surveillance programme by year, month, and province, 2018-2023



Source: NICD Communique, January 2023.⁷²

Figure 23. Vaccine expenditure by province, 2022/23



Source: BAS.⁴⁵

per 100 000 in 2008 to 62.9 per 100 000 in 2018. The diabetes ASMR for females was higher in 2018 (64.3 per 100 000) than for males (60.3 per 100 000). The report noted that “recommendations for a comprehensive surveillance and monitoring system for NCDs need to be implemented to establish baselines and monitor the 90-60-50 target cascade for non-communicable diseases”.^{94(piv)}

As shown in Table 9, with the webDHIS reports on diabetes screening rates, there are no measures of diabetes control. Based on a large cohort of 373 889 patients tested for either glycosylated haemoglobin (HbA1c) or blood glucose by the National Health Laboratory Service (NHLS) over a 27-month period (January 2012 to March 2015), it was estimated that only 30.9% of those diagnosed with diabetes were retained in care and only 8.7% achieved glycaemic control.⁹⁵ Prevalence data reported by the Council for Medical Schemes, based on claims

data, also cannot provide any information on effective treatment coverage.

In stark contrast to the plethora of indicators available to track diagnosis, treatment, and outcomes related to infectious diseases, routine data on NCDs remains sparse. This is despite the commitment in the National Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2022-2027 to 90-60-50 cascade states, where 90% of all people over 18 will know whether or not they have raised blood pressure and/or raised blood glucose, 60% of people with raised blood pressure or blood glucose will receive intervention, and 50% of people receiving such interventions will be controlled.⁹⁶

Commenting on the monitoring and evaluation system used to measure the performance of primary health-care delivered through the district health system in South Africa, Barron et al. pointed to “a general lack of patient-

Table 8. Child health indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
BCG coverage	2022	both sexes WHO/UNICEF	84,0										a
Child mortality (deaths between 1-4 years per 1 000 live births)	2021	both sexes WHO	32,9										b
		female WHO	30,3										b
		male WHO	35,3										b
Child under 5 years pneumonia incidence	2022/ 23	both sexes DHIS	25,1	13,0	26,3	19,4	19,7	13,0	6,4	14,2	5,2	110,9	c
Death in facility under 1 year	2022/ 23	both sexes DHIS	15 523	1 867	961	3 514	3 319	2 040	1 314	420	1 011	1 077	c
Death in facility under 5 years	2022/ 23	both sexes DHIS	17 515	2 095	1 096	3 972	3 738	2 352	1 438	492	1 148	1 184	c
Diarrhoea case fatality under 5 years rate	2022/ 23	both sexes DHIS	1,7	2,6	1,8	1,9	1,8	2,0	2,2	1,5	1,3	0,3	c
Diarrhoea death under 5 years	2022/ 23	both sexes DHIS	723	119	36	130	184	118	68	17	30	21	c
Diarrhoea separation under 5 years	2022/ 23	both sexes DHIS	42 586	4 539	1 979	7 023	10 170	5 815	3 036	1 161	2 353	6 510	c
DTaP-IPV-Hib-HBV 3rd dose coverage	2022/ 23	both sexes DHIS	83,50	78,90	82,40	83,30	83,20	91,90	83,40	82,10	77,10	85,90	c
DTaP-IPV-Hib-HBV (Hexavalent) 3rd dose	2022/ 23	both sexes DHIS	948 068	103 563	41 479	218 329	211 236	115 192	79 317	20 753	62 168	96 031	c
DTP3 coverage	2022	both sexes WHO/UNICEF	85										a
Immunisation under 1 year coverage	2022/ 23	both sexes DHIS	82,20	82,30	79,70	83,20	92,20	67,50	89,10	75,90	74,10	75,70	c
Measles 1st dose under 1 year coverage	2022	both sexes WHO	87,00										b
	2022/ 23	both sexes DHIS	81,10	78,20	80,50	82,90	78,40	89,40	85,00	79,00	68,80	83,40	c
Measles 2nd dose coverage	2022	both sexes WHO/UNICEF	87,00										a
	2022/ 23	both sexes DHIS	84,80	81,70	80,00	83,90	89,50	86,60	97,40	73,60	76,40	77,70	c
Number of orphans	2022	0-17 years GHS Double orphaned	497 000	85 000	27 000	97 000	120 000	51 000	30 000	10 000	40 000	37 000	d
Number of under-5 deaths	2021	both sexes WHO	38 868										b
		both sexes WHO/UNICEF	39 000										e
		female WHO	17 556										b
		male WHO	21 312										b
Orphanhood	2022	both sexes <18 years Census double	2,5	3,4	3,1	2,1	2,8	2,4	2,6	2,4	2,9	1,5	f

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		both sexes <18 years Census maternal	2,3	2,8	2,8	1,9	2,5	1,8	2,5	3,1	2,6	1,6	f
		both sexes <18 years Census paternal	8,9	11,5	10,3	7,4	10,4	8,6	8,6	7,8	8,7	6,1	f
		both sexes <18 years GHS double	2,1	2,9	2,4	1,9	2,4	1,7	1,6	1,8	2,4	1,5	d
		both sexes <18 years GHS maternal	2,5	2,7	3,9	2,3	2,3	2,3	2,7	3,2	2,7	1,7	d
		both sexes <18 years GHS paternal	7,7	8,7	9,8	7,0	8,9	6,7	8,3	5,5	8,6	5,4	d
PCV 3rd dose coverage	2021		87										g
PCV 3rd dose coverage	2022	both sexes WHO/UNICEF	85										a
Pneumonia case fatality under 5 years rate	2022/ 23	both sexes <5 years DHIS	1,50	2,80	1,70	1,50	1,90	2,60	2,80	2,40	1,40	0,24	c
Pneumonia death under 5 years	2022/ 23	both sexes DHIS	939	139	46	168	220	161	99	26	40	40	c
RV 2nd dose coverage	2022	both sexes WHO/UNICEF	83,00										a
	2022/ 23	both sexes DHIS	82,1	78,6	83,5	83,6	82,6	82,9	83,8	81,9	74,9	83,5	c
School Grade 1 screening coverage	2022/ 23	both sexes DHIS	21,2	4,9	23,4	30,2	21,8	11,3	22,1	14,3	27,4	35,0	c
School Grade 8 screening coverage	2022/ 23	both sexes DHIS	14,5	1,5	19,9	28,8	13,2	10,1	11,0	3,6	21,7	9,6	c
Severe acute malnutrition case fatality under 5 years rate	2022/ 23	both sexes DHIS	7,2	7,6	9,7	6,5	9,2	7,4	7,8	8,5	3,9	2,4	c
Severe acute malnutrition death under 5 years	2022/ 23	both sexes DHIS	836	98	98	129	206	129	54	52	56	14	c
Under 5 mortality rate	2021	both sexes WHO/UNICEF	33,00										e
Vaccine expenditure per population under 1 year	2022/ 23	all programs real 2022/23 prices	2 544	2 304	2 588	2 409	2 655	3 911	2 326	16	2 933	1 813	h
		PR2 real 2022/23 prices	2 348	2 290	2 547	2 405	2 587	3 911	2 242	480	481	1 764	h

Reference notesa Immunisation 2022.³⁰b Global Health Observatory, 2024.⁹¹c webDHIS.¹⁶d Stats SA GHS 2022.³⁴e State of the world's children 2023.²⁸f Census 2022.³⁴g World Health Statistics 2023.²⁴h DHB 2022/23.²¹**Definitions**

• Death in facility under 1 year [Number].

• Death in facility under 5 years [Number].

• Number of orphans [Number]: Number of children under 18 years whose biological mother, biological father or both parents have died. Different kinds of orphans are defined as: maternal orphans - a child whose mother has died, or whose living status is not known, but whose father is

alive. paternal orphans - a child whose father has died, or whose living status is not known, but whose mother is alive. double/dual orphan - a child whose mother and father have both died, or whereabouts are unknown.

- Number of under-5 deaths [Number]: The estimated number of deaths in children younger than 5 years.
- Pneumonia death under 5 years [Number]: A child under 5 years who died in a health facility where pneumonia was documented as the main cause of death.
- Severe acute malnutrition death under 5 years [Number]: Death in child under 5 years with severe acute malnutrition (SAM).
- BCG coverage [Percentage]: The proportion of expected live born babies that received BCG under 1 year of age (note: usually given immediately after birth).
- Child under 5 years pneumonia incidence [Cases per 1 000 children]: Children under 5 years newly diagnosed with pneumonia per 1 000 children under 5 years in the population.
- Child under 5 years severe acute malnutrition incidence [Cases per 1 000 children]: Children under 5 years newly diagnosed with severe acute malnutrition per 1 000 children under 5 years in the population.
- Diarrhoea case fatality under 5 years rate [Percentage]: Diarrhoea deaths in children under 5 years as a proportion of diarrhoea separations under 5 years in health facilities.
- Diarrhoea incidence under 5 years [Cases per 1 000 children]: Children with diarrhoea per 1 000 children in the catchment population. Diarrhoea is formally defined as 3 or more watery stools in 24 hours, but any episode diagnosed and/or treated as diarrhoea after an interview with the adult accompanying the child.
- DTaP-IPV-Hib-HBV 3rd dose coverage [Percentage]: Children under 1 year who received DTaP-IPV-Hib-HBV 3rd dose, normally at 14 weeks as a proportion of population under 1 year. Both Pentaxim and Hexavalent will form part of the numerator to ensure accurate coverage of historical data.
- DTaP-IPV-Hib-HBV 4th dose coverage [Percentage]: Children under 2 years who received DTaP-IPV-Hib-HBV 4th dose, normally at 18 months as a proportion of the 1 year population. Both Pentaxim and Hexavalent will form part of the numerator to ensure accurate coverage of historical data.
- DTP3 coverage [Percentage]: The proportion of children who received their third DTP doses (normally at 14 weeks).
- Immunisation under 1 year coverage [Percentage]: The proportion of all children in the target area under one year who complete their primary course of immunisation. A primary course includes BCG, OPV 1,2 & 3, DTP-Hib 1,2 & 3, HepB 1,2 & 3, and 1st measles (usually at 9 months).
- Infant mortality rate (deaths under 1 year per 1 000 live births) [per 1 000 live births]: The number of children less than one year old who die in a year, per 1 000 live births during that year.
- Measles 1st dose under 1 year coverage [Percentage]: Children under 1 year who received measles 1st dose, as a proportion of population under 1 year.
- Measles 2nd dose coverage [Percentage]: Children 1 year (12 months) who received measles 2nd dose, as a proportion of the 1-year population.
- Orphanhood [Percentage]: Proportion of children under 18 years whose biological mother, biological father or both parents have died.
- PCV 3rd dose coverage [Percentage]: Children under 1 year who received PCV 3rd dose, normally at 9 months as a proportion of population under 1 year.
- Pneumonia case fatality under 5 years rate [Percentage]: Pneumonia deaths in children under 5 years as a proportion of pneumonia separations under 5 years in health facilities.
- Pneumonia case survival under 5 years rate [Scale 0-100]: The smoothed estimates of the pneumonia CFR were generated from the webDHIS indicator using a generalised additive model with thin-plate splines, after removing outlier values. The smoothed CFR was then rescaled according to the maximum observed value according to the formula: $\text{index} = (\text{max CFR} - \text{CFR}) / (\text{max CFR} - \text{min CFR}) * 100$. This rescaled value thus represents a survival rate (the inverse of the case fatality rate).
- RV 2nd dose coverage [Percentage]: Children under 1 year who received RV 2nd dose as a proportion of children under 1 year.
- School Grade 1 screening coverage [Percentage]: Proportion of Grade 1 learners screened by a nurse in line with the ISHP service package.
- School Grade 8 screening coverage [Percentage]: Proportion of Grade 8 learners screened by a nurse in line with the ISHP service package.
- Severe acute malnutrition case fatality under 5 years rate [Percentage]: Severe acute malnutrition deaths in children under 5 years as a proportion of severe acute malnutrition (SAM) under 5 years in health facilities.
- Under 5 mortality rate (deaths under 5 years per 1 000 live births) [per 1 000 live births]: The number of children under 5 years who die in a year, per 1 000 live births during the year. It is a combination of the infant mortality rate, plus the age 1-4 mortality rate.
- Vaccine expenditure per population under 1 year [Rand per population U1 (real prices)]: Provincial expenditure on vaccines per population under 1 year.

centred and community responsiveness indicators".^{97(p1519)} The authors identified a mismatch between the number of indicators in the National Indicator Data Set (NIDS) and the importance attached to each category of indicators. While there were 70 indicators for the HIV programme, for instance, there were only 6 indicators for all NCDs.

Despite the National Strategic Plan's ambitious goals, challenges in data collection and evaluation persist, especially in tracking patient outcomes and ensuring effective treatment. The increasing burden of NCDs, as evidenced by rising mortality rates and poor disease control, underscores the urgent need for comprehensive surveillance systems. The available NCD indicators are shown in [Table 9](#).

Injuries and risk behaviours

Road and pedestrian safety

Annually, the Road Traffic Management Corporation (RTMC) reports on the state of road safety, covering a 12-month period. The RTMC states that, nationally, road accident fatalities have decreased from 12 541 in 2021 to 12 436 in 2022. As expected, Gauteng reported the highest and Northern Cape the lowest number of fatalities. In addition, the fatality rate per 100 000 people decreased slightly from 20.7 in 2021 to 20.5 in 2022. Many of these fatalities were among pedestrians, followed by passengers, drivers and cyclists, in both 2021 and 2022.⁹⁹

Drug abuse

The South African Community Epidemiology Network on Drug Use (SACENDU) gathers information from individuals who use drugs (PWUD), including those who inject drugs (PWID). According to the SACENDU Phase 54 policy brief, data from the first half of 2023 (January-June 2023) shows that there were 11 563 admissions for alcohol and other drug abuse across all age groups and sexes. This represents a decrease from 11 923 in the first half of 2022 (January to June 2022) and an increase when compared to 10 170 in the second half of 2022 (July to December 2022).^{47,100} Primary drugs of abuse are presented in [Table 10](#) along with the prevalence of smoking among both sexes aged 15 years and older.

Gender-based violence

Statistics on gender-based violence (GBV) in South Africa are available, although there are substantial gaps and limitations in data collection and reporting.¹⁰¹ The country's statistics are compiled from a variety of sources, including police records, health services, and non-governmental organisations. However, these sources frequently present an incomplete picture due to underreporting, stigma, and a lack of comprehensive national data systems. In 2020, Stats SA released a report of an analysis of the phenomenon of GBV and femicide using data from the 2018/19 Governance, Public Safety and Justice Survey.¹⁰¹ It was reported that about 50% of assaults were

committed by persons known to the victim. That is, 22% were friends/acquaintances, 15.2% were spouses or intimate partner, and 12.6% were relatives/other household member of the female victims. In addition, when stratified by marital status, it was found that divorced or separated women were more likely to experience physical (40%) and sexual violence (16%), than those living together (physical: 31%; sexual: 10%), widowed (physical: 24%, sexual: 8%), never married (physical: 18%, sexual: 5%), and married (physical: 14%, sexual: 4%).

Intentional and unintentional injuries

The South African Medical Council's Burden of Disease Unit conducted three nationally representative injury mortality (IM) and causes surveys in 2009, 2017, and 2020/21. Non-natural deaths are defined in these studies as homicides, suicides, and other unintentional harm deaths. The anticipated national age-standardised injury rate was reported to be 109, 95.3, and 89.9 per 100 000 people in 2009, 2017, and 2020/21, respectively, indicating a decline in any injury-related death over time.^{102,103}

Homicide

Between 2009 and 2021, the rate of homicide decreased from 38.4 to an adjusted 37.1 and 37 per 100 000 population, respectively, over the course of three years. In 2009, the number of firearm homicides increased from 11.2 to an amended 12.0, and then to 16.0 in 2020/21. The homicide rates of males were consistently higher than those of females in all reports.^{102,103}

The age-standardised suicide mortality rate fell from 13.4 (95% CI: 11.6-15.2) in 2000 to 12.1 in 2017 and 11.5 in 2020-21. The age-standardised rates of other unintentional injury deaths have risen in the last three years. The age-standardised injury fatality rates increased by 25.9% between 2009 and 2017, and by 12.4% between 2017 and 2020/21.¹⁰³

The IM surveys show that homicide and suicide rates are declining over time. This suggests that other unintended injuries should be monitored more rigorously. Annual nationally representative surveys are required to better document the number of deaths from violence and injury. Due to the scarcity of current statistics, covering other causes of death such as femicide, interpersonal violence, and GBV will be beneficial.

Health services indicators

Health facilities

Health facility indicators are crucial metrics that provide insight into the performance of and challenges faced by healthcare services in South Africa. These indicators include the inpatient crude death rates, bed utilisation rates, primary healthcare (PHC) utilisation rates, and Universal Health Coverage (UHC) index.

Table 9. Non-communicable disease indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Client 18-44 years screened for diabetes	2022/23	both sexes DHIS	24 275 066	3 129 155	781 624	4 670 049	9 016 732	2 908 590	2 122 397	268 403	1 378 116		a
Dental utilisation rate	2022/23	both sexes all ages DHIS	39,8	43,5	40,4	46,7	48,2	7,3	31,3	34,2	21,4	52,0	a
Diabetes client treatment new 45 years and older	2022/23	DHIS	0,6	0,7	0,2	0,5	0,4	1,8	1,1	0,8	0,5	0,1	a
Diabetes prevalence (per 1 000)	2021	both sexes all ages med schemes Diabetes mellitus Type 1	3,0										b
		both sexes all ages med schemes Diabetes mellitus Type 2	57,9										b
	2022	both sexes all ages med schemes Diabetes mellitus Type 1	4,8										b
		both sexes all ages med schemes Diabetes mellitus Type 2	60,1										b
Hyperlipidaemia prevalence (per 1 000)	2021	both sexes med schemes all beneficiaries	69,9										b
		female med schemes all beneficiaries	41,6										b
		male med schemes all beneficiaries	52,3										b
	2022	both sexes med schemes all beneficiaries	73,2										b
		female med schemes all beneficiaries	44,2										b
		male med schemes all beneficiaries	54,0										b
Hypertension prevalence (per 1 000)	2021	both sexes med schemes all beneficiaries	157,6										b
		female med schemes all beneficiaries	110,5										b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
	2022	male med schemes all beneficiaries	98,9										b
		both sexes med schemes all beneficiaries	159,8										b
		female med schemes all beneficiaries	112,3										b
		male med schemes all beneficiaries	99,9										b
Mental disorders treatment rate new	2022/23	DHIS	0,1	0,1	0,0	0,1	0,1	0,2	0,0	0,1	0,0		a
Mental health separation rate	2022/23	DHIS	3,7	2,5	17,0	2,3	2,2	2,2	1,8	1,1	1,7	4,4	a
Prevalence of non-raised blood pressure	2019	both sexes 30-79 years WHO age-standardised	23,6										c
		both sexes 30-79 years WHO crude	22,0										c
		female 30-79 years WHO age-standardised	29,9										c
		female 30-79 years WHO crude	29,0										c
		male 30-79 years WHO age-standardised	16,4										c
		male 30-79 years WHO crude	14,2										c

Reference notesa webDHIS.¹⁶b Medical schemes 2022.⁴⁸c Global Health Observatory, 2024.⁹⁸**Definitions**

- Client 18-44 years screened for diabetes [Number]: Client 18 - 44 years, not on treatment for diabetes, screened for diabetes in the facility.
- Dental utilisation rate [per 1000 population]: Dental visits per 1000 uninsured population.
- Diabetes prevalence (per 1 000) [per 1 000 population]: Number of people with diabetes per 1 000 people in the target population.
- Diabetes prevalence [Percentage]: Percentage of people with diabetes. Defined in SANHANES as those with HbA1c > 6.5%. WHO Core indicator is: Age-standardised prevalence of raised blood glucose/diabetes among persons aged 18+ years or on medication for raised blood glucose De-fined as: fasting plasma glucose value >= 7.0 mmol/L (126 mg/dL) or on medication for raised blood glucose among adults aged 18+ years."
- Hyperlipidaemia prevalence (per 1 000) [per 1 000 population]: Number of people with hyperlipidaemia per 1 000 people in the target population. Data for the private sector are based on the number of people being TREATED for this condition.
- Hypertension prevalence (per 1 000) [per 1 000 population]: Number of people with hypertension.
- Mental disorders treatment rate new [Percentage]: Clients treated for mental disorders (depression, anxiety, dementia, psychosis, mania, suicide, developmental disorders, behavioural disorders and substance use) as a proportion of total PHC headcount.
- Mental health separation rate [Percentage]: Proportion of clients admitted for mental health problems. Inpatient separations are the total of inpatient discharges, inpatient deaths and inpatient transfers out.
- Prevalence of non-raised blood pressure [Percentage]: The prevalence of normal blood pressure, regardless of treatment status, is the sum of those who do not have hypertension and those whose hypertension is controlled by medication.

Table 10. Injuries and risk indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Road accident fatalities	2021	both sexes all ages RTMC	12 541	1 533	799	2 557	2 409	1 400	1 261	403	908	1 271	a
	2022	both sexes all ages RTMC	12 436	1 471	740	2 561	2 308	1 376	1 293	417	832	1 438	a
Road accident fatalities per 100 000 population	2019	both sexes Stats SA	11,0	15,2	10,1	2,5	14,7	22,9	10,1	32,4	14,6	7,2	b
		female Stats SA	5,4										b
		male Stats SA	17,1										b
Number of admissions for alcohol and other drug abuse	Jan-Jun 2023	both sexes all ages SACENDU	11 563	247		7 550	1 062					1 685	c
Prevalence of smoking	2022	both sexes 15 years and older WHO	20,3										d
Prevalence of smoking		female 15 years and older WHO	6,5										d
Prevalence of smoking		male 15 years and older WHO	35,1										d
Primary drug of abuse as % of all drugs of abuse	Jan-Jun 2023	both sexes <19 years SACENDU alcohol		9,0		5,0	4,0					11,0	c
		both sexes <19 years SACENDU cannabis		71,0		79,0	75,0					81,0	c
		both sexes <19 years SACENDU cocaine		2,0		0,0	1,0					1,0	c
		both sexes <19 years SACENDU heroin		0,0		0,0	1,0					0,0	c
		both sexes <19 years SACENDU mandrax		0,0		2,0	4,0					1,0	c
		both sexes <19 years SACENDU methamphetamine		15,0		7,0	0,0					4,0	c
		both sexes all ages	28,0	34,0		12,0	36,0					19,0	c

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		SACENDU alcohol											
		both sexes all ages SACENDU cannabis	55,0	29,0		34,0	28,0					23,0	c
		both sexes all ages SACENDU cocaine	11,0	3,0		2,0	11,0					2,0	c
		both sexes all ages SACENDU heroin	24,0	1,0		17,0	14,0					17,0	c
		both sexes all ages SACENDU mandrax	20,0	3,0		3,0	2,0					6,0	c
		both sexes all ages SACENDU methamphetamine	41,0	23,0		24,0	3,0					31,0	c
Total alcohol per capita (age 15+ years) consumption (litres per year)	2019		8,8										e

Reference notesa Road safety report 2022.⁹⁹b Stats SA Road Accident Deaths.⁴⁰c SACENDU Phase 54.¹⁰⁰d WHO Global Estimate.³¹e World Health Statistics 2023.²⁴**Definitions**

• Road accident fatalities - No]: Number of people killed during or immediately after a crash, or death within 30 days after a crash happened as a direct result of such crash.

• Road accident fatalities per 100 000 population - per 100 000 population]: Number of fatalities due to road accidents per 100 000 population. WHO Core indicator is Mortality rate from road traffic injuries (per 100 000 population) Defined as: Number of road traffic fatal injury deaths per 100 000 population (age-standardised).

• Number of admissions for alcohol and other drug abuse - Number]: Number of patients admitted for treatment by treatment centres who are part of the SACENDU Project sentinel surveillance system. Where data for the latter 3 have not been disaggregated these are included in the national total.

• Prevalence of smoking - Percentage]: Proportion of population who currently smoke. This indicator is also known as 'Current smokers (%)'. Note that the indicator may be given just for cigarettes or for other tobacco products. The WHO Core indicator is 'Age-standardised prevalence of current tobacco use among persons aged 18+ years' and is defined as: Age-standardised prevalence of current tobacco use among persons aged 18+ years. "Smoked tobacco products" include the consumption of cigarettes, bidis, cigars, cheroots, pipes, shisha (water pipes), fine-cut smoking articles (roll-your-own), krekets, and any other form of smoked tobacco.

• Primary drug of abuse as % of all drugs of abuse - Percentage]: Percentage breakdown of the primary drug of abuse reported by patients admitted to treatment centres that are part of the SACENDU sentinel surveillance system.

• Total alcohol per capita (age 15+ years) consumption (litres per year) - litres per person]: Total alcohol per capita is the total amount (sum of recorded alcohol per capita three-year average and unrecorded alcohol per capita) of alcohol consumed per adult (15+ years) in a calendar year, in litres of pure alcohol.

Inpatient crude death rate

The crude mortality rate of inpatients is a critical health facility indicator that quantifies the percentage of patients who demise during their admission to a healthcare facility within a specified time frame. This rate offers a variety of critical insights into the healthcare system, including the quality of care, the severity of illness, the impact of epidemics and pandemics, and appropriate resource allocation. The inpatient crude death rate in South Africa was 4.6% in 2022/23, a decrease from the peak of the COVID-19 pandemic at 5.7%, as shown in [Table 11](#).

Primary healthcare and bed utilisation rates

Nationally, the bed utilisation rate increased from 60.7% in 2022 to 66.9% in 2023. This increase indicates that more patients were discharged after being admitted, reflecting an improvement in hospital turnover rates and possibly in patient care efficiency.

The PHC utilisation rate was higher among children under five years old compared to the general population. This could be due to the fact that under-five-year-olds require more frequent encounters at primary care level, such as immunisation visits.

The number of clients seen by professional nurses and doctors has decreased over time, from 120 million in 2019 to 101 393 994 in 2022. This figure marginally increased to 106 401 284 in 2023. There are a number of possible reasons that could be contributing to the decreased PHC headcount, including higher utilisation of the chronic medicine decentralisation programmes, changes in health-seeking behaviours, and significant increases in home visits by community-based services. Nevertheless, KwaZulu-Natal and Gauteng reported a higher number of patients seen by professional nurses or doctors, which may indicate regional disparities in healthcare access.

UHC index and coverage of essential health services

The Universal Health Coverage (UHC) index for 2023 assigned South Africa's health system a score of 51.6, reflecting significant challenges in the provision of essential, effective health services across the population. This score, derived from the Global Burden of Disease (GBD) 2016 scale, underscores the gaps in service coverage that persist within the country's health system. These deficiencies indicate that South Africa is not on track to achieve the targets set by Sustainable Development Goal (SDG) 3.8, which aims to ensure universal access to quality health services and financial protection.¹⁰⁴

However, the calculation of the UHC index is not without its challenges, particularly in the context of limited data availability on NCDs. Scarcity of reliable data on the prevalence, treatment, and outcomes of NCDs complicates the assessment of service coverage and effectiveness. This data gap may result in an underestimation of the true burden of NCDs and the corresponding in-

adequacies in health service provision. As NCDs constitute a growing proportion of the disease burden in South Africa, the lack of comprehensive data further complicates efforts to accurately gauge progress towards UHC and to identify areas most in need of intervention. The current UHC index score of 51.6, therefore, not only reflects existing service coverage gaps but also highlights the critical need for improved data collection and analysis to better inform health policy and resource allocation, particularly in relation to NCDs. Without addressing these data challenges, South Africa may struggle to fully understand and address the barriers to achieving SDG 3.8 and improving overall population health outcomes.¹⁰⁴

Health services indicators by province are presented in [Table 11](#).

Health personnel

It is important to note that the health personnel data reported in [Table 12](#) and [Table 13](#) only reflect the position in the public sector, with the uninsured population used as the denominator. Reconciling PERSAL data with the total number of health professionals registered with the respective statutory health councils is also fraught with difficulty, as those sources cannot show how many registered persons are non-practising or have emigrated. The National Department of Health Strategic Plan 2020/21-2024/25 includes a commitment to "improve equity, training and enhance management of Human Resources for Health", in order to improve the provision of care (Goal 3).^{106(p77)} However, evidence to show that the Human Resources for Health Operational Plan has, in fact, been 'augmented', is lacking.

Challenges in human resources for health

Despite commitments to fill critical vacant posts, integrate community health workers into the public health system, consolidate nursing colleges, and supplement the production of medical practitioners and other health professionals, there has been persistent media coverage of regression, of frozen posts, and unemployed graduates. The inability to employ newly graduated health professionals has several long-term implications. First, it contributes to an underutilisation of skilled labour, leading to a mismatch between the availability of trained professionals and the needs of the health system. This mismatch can result in increased workloads for existing staff, higher burnout rates and, ultimately, a decline in the quality of care provided to patients. As identified in the 2030 Human Resources for Health Strategy: Investing in the Health Workforce for Universal Health Coverage, "Even when a projected need has been determined, the mechanisms and fiscal arrangements required to support the implementation of the HRH plans have been ineffective."^{107(p46)}

Table 11. Health services indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Average length of stay - total	2022/23	DHIS	6,2	6,9	5,7	7,2	6,4	5,4	4,7	5,3	6,1	5,6	a
Average length of stay (district hospitals)	2022/23	DHIS	4,3	4,7	3,0	4,7	5,0	4,2	4,3	3,1	4,3	3,6	a
Birth registration coverage	2020	both sexes Live biths of current registration	70,8										b
	2021	both sexes Live biths of current registration	74,6										b
	2022	both sexes Live biths of current registration	78,0										b
Complaints resolution rate	2022/23	DHIS	90,5	89,3	80,8	90,8	93,0	91,1	87,1		93,4		a
Complaints resolution rate within 25 working days	2022/23	DHIS	95,4	95,6	90,7	95,9	94,7	97,2	96,0		97,5		a
Death under 5 years against live birth rate	2022/23	both sexes DHIS	1,8	2,1	2,4	1,9	1,8	1,9	1,8	2,2	1,9	1,3	a
Hospital beds per 10000 target population	Mar 2023	DHIS 2000-2030 District Hospital	5,8	10,1	6,4	2,1	7,8	7,4	7,0	5,1	3,4	5,2	a
		DHIS 2000-2030 public sector	20,3	22,0	25,9	14,4	20,0	13,7	11,2	16,6	11,8	18,3	a
Inpatient bed utilisation rate - total	2022/23	DHIS	66,9	56,5	67,7	77,2	59,3	68,5	64,4	31,1	73,2	84,9	a
Inpatient bed utilisation rate (district hospitals)	2022/23	DHIS	60,0	46,2	52,1	67,7	53,7	66,6	61,7	47,4	62,7	92,8	a
Inpatient crude death rate	2022/23	both sexes DHIS	4,6	6,2	4,2	5,3	4,5	4,6	4,4	4,8	4,8	3,2	a

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Inpatient deaths - total	2022/23	both sexes DHIS	165 824	24 975	12 046	37 717	31 654	16 701	10 695	3 436	9 247	19 353	a
International Health Regulations (IHR) core capacity index	2022	WHO	73,0										c
Number of beds	Mar 2023	DHIS central hospital	10 496	576	618	6 063	846					2 393	a
		DHIS district hospital	30 749	6 128	1 610	2 688	8 213	4 233	2 973	569	1 268	3 067	a
		DHIS provincial hospital	10 493	1 782	588	2 410	1 783	1 042	725	635	1 236	292	a
		DHIS public sector	88 785	13 284	6 571	18 214	21 000	7 856	4 767	1 865	4 465	10 763	a
		DHIS regional hospital	20 276	2 082	1 113	5 106	7 013	1 561	877	227	847	1 450	a
		DHIS specialised psychiatric hospital	9 924	1 286	760	1 446	2 452	931		131	1 114	1 804	a
		DHIS specialised TB hospital	2 597	1 143			203	89	192	44		926	a
Number of health facilities	Mar 2023	DHIS district hospital	250	65	25	12	39	30	23	11	12	33	a
		DHIS fixed chc/cdc	352	41	10	40	23	26	57	33	48	74	a
		DHIS fixed clinic	3 151	735	211	333	596	455	241	129	266	185	a
		DHIS military hospital	3		1	1						1	a
		DHIS national central hospital	9	1	1	4	1					2	a
		DHIS private hospital	470	27	30	181	102	17	22	11	21	59	a
		DHIS provincial tertiary hospital	18	3	1	3	3	2	2	1	2	1	a
		DHIS regional hospital	48	5	4	9	13	5	3	1	3	5	a
		DHIS specialised hospital	8	2		3	3						a
		DHIS specialised psychiatric hospital	24	4	1	3	6	3		1	2	4	a

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		DHIS specialised TB hospital	27	10			4	1	5	1		6	a
OHH headcount under 5 years coverage	2022/23	DHIS	119,3	67,6	101,2	91,3	169,1	141,9	108,4	91,1	100,7	146,1	a
OPD new client not referred rate	2022/23	DHIS	42,6	44,8	45,5	27,6	46,8	62,8	52,6	66,5	46,6	11,3	a
OPD new client not referred rate (district hospitals)	2022/23	DHIS	58,3	60,2	56,0	64,9	54,7	71,7	63,5	69,6	52,2	14,8	a
Patient Day Equivalent	2022/23	DHIS	30 414 491	3 696 383	2 011 660	7 283 110	6 388 188	2 808 595	1 789 898	572 098	1 629 276	4 235 283	a
		DHIS district hospital	7 727 019	1 124 148	378 799	793 972	1 802 419	1 192 190	852 265	142 499	319 434	1 121 293	a
PHC doctor clinical work load	2022/23	DHIS	16,7	15,6	18,0	12,9	19,4	23,4	11,9	12,8	12,1	22,3	a
PHC headcount total	2022/23	both sexes all ages DHIS	106 401 284	14 117 664	106 401 284	19 724 563	24 714 031	13 046 940	8 133 735	2 537 807	7 003 680	12 063 928	a
PHC headcount 5 years and older	2022/23	both sexes DHIS	88 349 611	11 916 087	4 284 857	16 370 117	20 626 617	10 414 507	6 603 275	2 164 037	5 828 198	10 141 916	a
PHC headcount under 5 years	2022/23	DHIS	18 051 673	2 201 577	774 079	3 354 446	4 087 414	2 632 433	1 530 460	373 770	1 175 482	1 922 012	a
PHC professional nurse clinical work load	2022/23	DHIS	23,0	25,8	24,5	21,9	27,3	20,5	25,9	17,0	17,0	20,5	a
PHC utilisation rate	2022/23	DHIS	1,7	2,1	1,7	1,2	2,1	2,1	1,7	1,9	1,7	1,7	a
PHC utilisation rate under 5 years	2022/23	DHIS	3,2	3,3	3,0	2,6	3,3	4,1	3,2	3,0	2,9	3,4	a
Universal health coverage: service	2021	WHO	71,0										c

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
coverage index													
	2023	GBD 2016 scaled	51,6										d

Reference notesa webDHIS.¹⁶b Stats SA Live Births 2022.⁴²c World Health Statistics, 2023.²⁴d GBD 2016 SDGs.¹⁰⁵**Definitions**

- Inpatient deaths - total [Number]: An inpatient death is a death recorded against an admitted inpatient, including the death of a patient admitted earlier on the same day. The total is specialties plus all others that do not appear on the identified specialties.
- Number of beds [Number]: Total number of beds in health facility.
- Number of health facilities [Number].
- Patient Day Equivalent [Number]: The sum of Inpatient days total x 1, Day patient total x 0.5, and OPD/Emergency total headcount x 0.3333333.
- PHC headcount total [Number].
- PHC headcount 5 years and older [Number].
- PHC headcount under 5 years [Number]: All individual clients not yet reached five years (60 months) seen for Primary Health Care services at a facility.
- Average length of stay - total [Days]: The average number of patients days that an admitted patients spends in hospital before separation.
- Average length of stay (district hospitals) [Days]: The average number of patient days that an admitted patient spends in hospital before separation.
- Birth registration coverage [Percentage]: Percentage of births that are registered within one month of age in a civil registration system.
- Complaints resolution rate [Percentage]: Complaints resolved as a proportion of complaints received.
- Complaints resolution rate within 25 working days [Percentage]: Complaints resolved within 25 working days as a proportion of all complaints resolved.
- Death registration coverage [Percentage]: Percentage of deaths that are registered (with age and sex).
- Death under 5 years against live birth rate [Percentage]: Children under 5 years who died during their stay in the facility as a proportion of all live births.
- Hospital beds per 10 000 target population [per 10 000 uninsured]: Number of inpatient beds per 10 000 target population. For public sector beds, the uninsured population is used as the target.
- Inpatient bed utilisation rate - total [Percentage]: A measure of the average number of beds that are occupied - expressed as the proportion of all available bed days, which is calculated as the number of actual beds multiplied by the average number of days in a month (30.42).
- Inpatient bed utilisation rate (district hospitals) [Percentage]: A measure of the average number of beds that are occupied - expressed as the proportion of all available bed days, which is calculated as the number of actual beds multiplied by the average number of days in a month (30.42).
- Inpatient crude death rate [Percentage]: Proportion of admitted clients/separations who died during hospital stay. Inpatient separations is the total of day clients, inpatient discharges, inpatient deaths and inpatient transfer outs.
- International Health Regulations (IHR) core capacity index [Percentage]: Percentage of attributes of 13 core capacities that have been attained at a specific point in time. The 13 core capacities are: (1) National legislation, policy and financing; (2) Coordination and National Focal Point communications; (3) Surveillance; (4) Response; (5) Preparedness; (6) Risk communication; (7) Human resources; (8) Laboratory; (9) Points of entry; (10) Zoonotic events; (11) Food safety; (12) Chemical events; (13) Radionuclear emergencies.
- OHH headcount under 5 years coverage [Percentage]: Children under 5 years in population who received care during Ward- Based Outreach Team visits as a proportion of population under 5 years.
- OPD new client not referred rate (district hospitals) [Percentage]: OPD clinic new cases (seeking medical attention for a condition for the first time) that report to the OPD department without being referred from a PHC facility or doctor (including General Practitioners) during the reporting period as a proportion of OPD new clients.
- OPD new client not referred rate [Percentage]: New OPD clients not referred as a proportion of OPD new clients - total.
- PHC doctor clinical work load [Clients per doctor per day]: Average number of clients seen per doctor per clinical work day. This includes doctors employed in the public and private sector.
- PHC professional nurse clinical work load [Clients per nurse per day]: Average number of clients seen per professional nurse per professional nurse clinical work day.
- PHC utilisation rate [Average number of visits per person]: Average number of PHC visits per person per year in the population.
- PHC utilisation rate under 5 years [Average number of visits per person under 5 years].
- Average number of PHC visits per year per person under 5 years of age in the population.
- Universal health coverage: service coverage index [Scale 0-100]: Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population). Calculated as the geometric mean of the index score for each of the 4 categories of the index.

Monitoring and evaluation

Of specific relevance to this paper, the Strategy also stated: “Insufficient information hampers the monitoring and evaluation of HRH plans, contributing to the lack of or inadequate implementation” and “Access to private sector data is limited and thus poorly integrated into the national picture.”^{107(p50)}

Health financing

Tables 14 to 16 provide the basic financial indicators for the public health sector over time. Between 2012/13 and 2022/23, there has been almost a doubling in total expenditure in terms of provincial and local government expenditure on health, from R125.5 billion to R247.7 billion per annum (Table 14). Whether this has been accompanied by a commensurate improvement in health outcomes is questionable, as has been shown in the preceding sections of this paper.

Primary health care expenditure

The shift towards primary health care is evident in the proportion of expenditure on district health systems, which represented 47.0% of provincial and local government health expenditure at a national level in 2022/23 (Table 15). That this proportion varied widely among provinces, from 31.8% in Gauteng to 65.5% in Limpopo, is reflective of the relative contribution of higher level hospital services among provinces. The relative changes between financial years 2021/22 and 2022/23 per province are also depicted in Figure 24.

Health services in the public sector are still almost exclusively dependent on the fiscus. As shown in Table 16, the proportion of provincial and local government health expenditure that is provided by development partners (external donors) remains modest, at US\$1.40 per capita in 2021 (including support for medical research).

Medical scheme coverage

Medical scheme coverage, as estimated from both the Stats SA General Household Survey³⁴ and the annual reports of the Council for Medical Schemes,⁴⁸ remains around the 15% mark. However, according to the 2022 report from the Council for Medical Schemes, total disbursements in the insured sector in 2022 were R224.1 billion.⁴⁸ This represented a 9.2% increase from the amount reported for 2021 of R205.3 billion. The amount spent in the insured private sector was thus comparable to the total spent in the public health sector in 2022. Consolidation of the number of medical schemes continues, with the total number declining from 144 in 2000 to 72 in 2022. Modest increases in the number of beneficiaries covered by both open (30 930) and restricted schemes (69 457) were recorded between 2021 and 2022, bringing the total number of insured persons to 9.04 million. Notably, in 2022, ten government-linked or funded medical

schemes represented 72% of all restricted scheme beneficiaries and 33% of the total number of beneficiaries.

Conclusion and recommendations

As South Africa strives to become more data driven and evidence informed in its healthcare decision making, improving information systems and data quality remain key objectives. Given that the majority of the existing information systems are still manual, the dangers of transcribing errors, as often observed by the Auditor General, necessitate more rigorous data quality and verification processes at all levels of the system.

Monitoring and evaluation (M&E) processes need strengthening at all levels of the health system. These processes should move away from simply tracking target achievement in a linear, mechanistic manner, towards ‘deeper dives’ that incorporate not only routinely collected data, but also research evidence and lived experience; processes that include a broader range of participants to enrich the analysis with different perspectives. These are critical procedures to rectify as South Africa seeks to track the health system’s performance in an integrated manner, better informing priority setting and decision making.

The National Health Insurance Act¹¹⁴ envisions better integration of the public and private sectors into a single health system, making obtaining and combining data from both sectors even more important. Governance systems that enable this must also be prioritised.

Despite South Africa’s high cancer incidence rate, the availability of reliable and up-to-date cancer data remains insufficient. This data gap poses significant challenges to effective cancer monitoring, policy formulation, and resource allocation. The National Cancer Registry (NCR), which serves as the primary repository for cancer data in the country, plays a crucial role in tracking the burden of cancer and evaluating patient outcomes. However, the registry currently faces limitations in data collection, coverage, and timeliness, which impede its ability to provide a comprehensive picture of the national cancer landscape.

Prioritising the enhancement and support of the NCR is critical not only for accurate tracking of cancer incidence and prevalence but also for generating detailed insights into cancer risk factors, survival rates, and the social, economic, and environmental determinants of cancer mortality. Enhanced data collection and reporting mechanisms would enable more precise identification of high-risk populations and regions, facilitating targeted public health interventions and tailored treatment strategies. Furthermore, robust cancer data can inform the development of prevention programmes, early detection initiatives, and evidence-based policy decisions aimed at reducing cancer disparities across different demographic groups.

Table 12. Number of health personnel practising in the public sector by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Number of clinical associates registered	2022	both sexes all ages HPCSA	1 038										a
Number of CS clinical psychologists	2023 Mar	both sexes public sector	76	1	2	43	8	5	3	2	6	6	b
Number of CS dentists	2023 Mar	both sexes public sector	166	16	25	26	42	6	13	12	10	16	b
Number of CS dietitians	2023 Mar	both sexes public sector	222	16	21	52	51	19	18	13	25	7	b
Number of CS doctors	2023 Mar	both sexes public sector	2 264	324	119	315	278	300	312	68	263	285	b
Number of CS environmental health practitioners	2023 Mar	both sexes public sector	170	2	13	34	7	41	23	14	36		b
Number of CS nurses	2023 Mar	both sexes public sector	2 982	636	181	811	373	201	248	28	199	305	b
Number of CS occupational therapists	2023 Mar	both sexes public sector	355	49	25	81	83	14	29	22	39	13	b
Number of CS pharmacists	2023 Mar	both sexes public sector	599	61	36	90	137	56	54	37	76	52	b
Number of CS physiotherapists	2023 Mar	both sexes public sector	419	61	32	98	76	21	34	28	43	26	b
Number of CS radiographers	2023 Mar	both sexes public sector	332	30	13	81	71	18	30	15	39	35	b
Number of CS speech therapists	2023 Mar	both sexes public sector	244	17	11	66	73	9	26	13	23	6	b
Number of dental practitioners	2023 Mar	both sexes public sector	984	152	41	238	108	152	78	26	55	134	b
Number of dental specialists	2023 Mar	both sexes public sector	129		1	91	2	4	1			30	b
Number of dental	2023	both sexes public	349	19	1	43	93	126	30	23	12	2	b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
therapists	Mar	sector											
Number of enrolled nurses	2023 Mar	both sexes public sector	29 806	3 560	1 131	7 159	9 611	2 928	1 182	238	1 076	2 921	b
Number of environmental health practitioners	2023 Mar	both sexes public sector	441	18	88	135	75	26	47	18	33	1	b
Number of medical practitioners	2023 Mar	both sexes public sector	17 486	2 093	775	4 538	3 915	1 483	1 025	382	1 063	2 212	b
Number of medical researchers	2023 Mar	both sexes public sector	122	4		17	81	10	1	1		8	b
Number of medical specialists	2023 Mar	both sexes public sector	4 759	218	378	1 855	806	74	64	37	155	1 172	b
Number of nursing assistants	2023 Mar	both sexes public sector	34 393	5 305	2 210	6 860	5 422	4 454	2 119	841	2 886	4 296	b
Number of occupational therapists	2023 Mar	both sexes public sector	1 071	107	48	282	145	195	62	27	45	160	b
Number of optometrists and opticians	2023 Mar	both sexes public sector	253	6	8	53	65	106	7	2	4	2	b
Number of pharmacists	2023 Mar	both sexes public sector	5 958	930	404	1 240	865	730	375	111	261	1 042	b
Number of physiotherapists	2023 Mar	both sexes public sector	1 172	138	49	223	261	165	76	30	72	158	b
Number of professional nurses	2023 Mar	both sexes public sector	75 358	11 293	2 557	15 720	18 294	8 603	6 587	1 497	5 253	5 554	b
Number of psychologists	2023 Mar	both sexes public sector	777	73	29	232	103	124	55	14	43	104	b
Number of radiographers	2023 Mar	both sexes public sector	2 970	380	150	888	587	214	122	66	116	447	b
Number of speech therapists and	2023 Mar	both sexes public sector	588	57	8	151	148	63	42	13	30	76	b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
audiologists													
Number of student nurses	2023 Mar	both sexes public sector	824			72	517	6	228		1		b

Reference notesa HPCSA, 2023.¹⁰⁸b PERSAL.⁴⁶

Table 13. Health personnel per 100 000 uninsured population by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Density of dentistry personnel (per 10 000 population)	2013-2021	both sexes WHO	1,1										a
Density of midwifery personnel (per 10 000 population)	2013-2021	both sexes WHO	50,1										a
Density of pharmaceutical personnel (per 10 000 population)	2013-2021	both sexes WHO	2,7										a
Density of physicians (per 10 000 population)	2013-2021	both sexes WHO	8,1										a
Dental practitioners per 100 000 population	2023 Mar	both sexes public sector	2,2	2,8	2,6	2,1	1,4	2,8	2,1	3,4	1,7	2,5	b
Dental specialists per 100 000 population	2023 Mar	both sexes public sector	0,3		0,0	0,7	0,0	0,1	0,0			0,5	b
Dental therapists per 100 000 population	2023 Mar	both sexes public sector	0,7	0,3	0,0	0,3	0,9	2,2	0,7	2,0	0,3	0,0	b
Enrolled nurses per 100 000 population	2023 Mar	both sexes public sector	56,6	58,8	44,6	56,8	91,7	51,2	27,7	21,2	28,4	49,6	b
Environmental health practitioners per 100 000 population	2023 Mar	both sexes public sector	1,2	0,3	4,0	1,3	0,8	1,2	1,6	2,8	1,8	0,0	b
Medical practitioners per 100 000 population	2023 Mar	both sexes public sector	37,5	39,9	35,3	38,5	40,0	31,2	31,3	40,0	35,1	42,4	b
Medical researchers per 100 000 population	2023 Mar	both sexes public sector	0,2	0,1		0,1	0,8	0,2	0,0	0,1		0,1	b

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Medical specialists per 100 000 population	2023 Mar	both sexes public sector	9,0	3,6	14,9	14,7	7,7	1,3	1,5	3,3	4,1	19,9	b
Nursing assistants per 100 000 population	2023 Mar	both sexes public sector	65,4	87,7	87,2	54,4	51,7	77,8	49,6	74,8	76,3	73,0	b
Occupational therapists per 100 000 population	2023 Mar	both sexes public sector	2,7	2,6	2,9	2,9	2,2	3,7	2,1	4,4	2,2	2,9	b
Optometrists per 100 000 population	2023 Mar	both sexes public sector	0,5	0,1	0,3	0,4	0,6	1,9	0,2	0,2	0,1	0,0	b
Pharmacists per 100 000 population	2023 Mar	both sexes public sector	12,5	16,4	17,4	10,5	9,6	13,7	10,0	13,2	8,9	18,6	b
Physiotherapists per 100 000 population	2023 Mar	both sexes public sector	3,0	3,3	3,2	2,5	3,2	3,3	2,6	5,2	3,0	3,1	b
Professional nurses per 100 000 population	2023 Mar	both sexes public sector	148,9	197,1	108,0	131,1	178,1	153,9	160,1	135,6	144,2	99,5	b
Psychologists per 100 000 population	2023 Mar	both sexes public sector	1,6	1,2	1,2	2,2	1,1	2,3	1,4	1,4	1,3	1,9	b
Radiographers per 100 000 population	2023 Mar	both sexes public sector	6,3	6,8	6,4	7,7	6,3	4,1	3,6	7,2	4,1	8,2	b
Speech therapists and audiologists per 100 000 population	2023 Mar	both sexes public sector	1,6	1,2	0,8	1,7	2,1	1,3	1,6	2,3	1,4	1,4	b
Student nurses per 100 000 population	2023 Mar	both sexes public sector	1,6			0,6	4,9	0,1	5,3		0,0		b

Reference notesa World Health Statistics, 2023.²⁴b PERSAL.⁴⁶**Definitions**

• Indicators are calculated as the number of the specified cadre of health professional per 100 000 uninsured population, as calculated using the webDHIS 2000-30 population time series and the Insight Actuaries modelled estimates for medical schemes coverage at district level circa 2018.

Table 14. Trends in overall provincial and local government health expenditure by programme (Rand million, nominal prices), 2012/13 – 2022/23

Rand million	Financial Year										
Programme	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Administration	3,019	3,578	3,599	4,313	4,462	4,690	5,129	5,368	8,799	7,596	7,273
2. District Health Services	53,586	57,991	64,181	69,854	76,540	83,671	90,978	98,688	109,448	115,084	116,406
3. Emergency Health Services	5,079	5,352	5,556	6,025	6,435	7,380	7,671	8,394	8,660	8,791	9,817
4. Provincial Hospital Services	27,741	26,420	28,694	29,576	29,675	32,262	34,275	36,609	37,623	39,134	40,607
5. Central Hospital Services	18,822	23,559	25,804	29,529	33,736	37,437	41,120	44,608	47,516	47,227	50,010
6. Health Sciences and Training	3,755	4,039	4,248	4,529	5,107	4,916	5,037	5,115	4,796	4,792	5,270
7. Health Care Support Services	1,640	1,877	1,322	2,834	1,796	1,806	4,661	2,301	3,469	3,073	2,936
8. Health Facilities Management	8,967	7,895	7,491	8,514	8,316	8,651	9,014	9,844	11,526	10,433	10,236
Local government expenditure	2,859	2,869	3,389	3,730	4,103	4,199	4,858	4,828	5,392	5,158	5,140
Other	4					-	-		-	-14M	-
Grand Total	125,473	133,581	144,283	158,903	170,171	185,013	202,744	215,755	237,229	241,273	247,697

Note: 'Other' includes any other expenditure not indicated as being allocated to any of the above budget programmes.

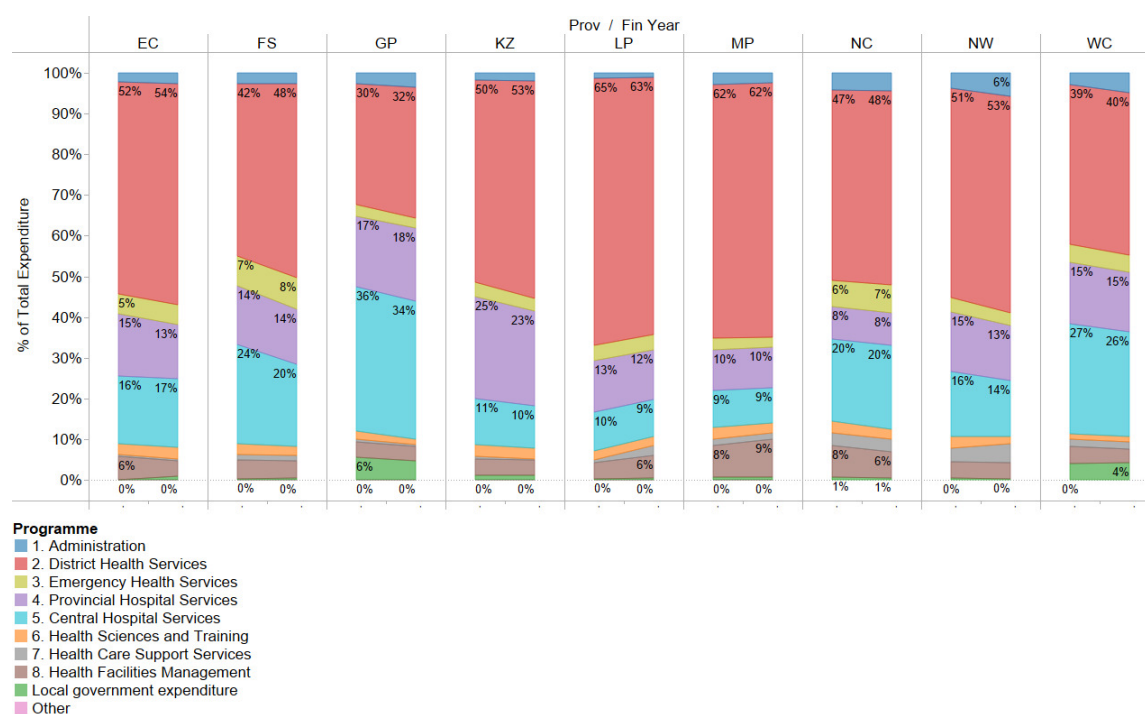
Source: National Treasury database.⁴⁵

Table 15. Provincial and local government health expenditure per province by programme (Rand million), 2022/23

Rand million	Financial Year 2022/23									
Programme	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC
1. Administration	7 273	847	324	1 826	1 120	280	333	282	1 204	1 057
2. District Health Services	116 406	15 077	6 005	19 494	27 224	15 406	10 497	2 785	7 866	12 050
3. Emergency Health Services	9 817	1 453	1 004	2 011	1 668	1 039	439	419	481	1 303
4. Provincial Hospital Services	40 607	3 927	1 688	11 082	12 379	2 718	1 680	454	2 174	4 507
5. Central Hospital Services	50 010	4 714	2 893	21 485	5 663	2 091	1 727	1 259	2 250	7 928
6. Health Sciences and Training	5 270	986	324	638	1 339	639	519	172	269	384
7. Health Care Support Services	2 936	115	159	437	222	225	282	133	776	585
8. Health Facilities Management	10 236	1 072	791	1 665	1 913	1 016	1 532	407	725	1 115
Local government expenditure	5 140	261	48	2 641	620	100	115	33	81	1 243
Grand Total	247 697	28 450	13 237	61 281	52 148	23 514	17 124	5 945	15 828	30 172

Source: National Treasury database.⁴⁵

Figure 24. Percentage of expenditure per programme by province, 2021/22 compared to 2022/23



Source: National Treasury database.⁴⁵

In addition, strengthening the NCR will contribute to better understanding the impact of emerging trends, such as the rise in NCDs, the intersection of HIV/AIDS and cancer, and the influence of lifestyle changes on cancer patterns. Comprehensive, high-quality data is essential for evaluating the effectiveness of ongoing cancer control efforts and for guiding future research and funding priorities. By investing in the NCR and addressing the current data limitations, South Africa can significantly improve its ability to monitor and combat the growing cancer burden, ultimately leading to better health outcomes for its population.

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This paper is a result of years' worth of combined efforts at all levels of the health system. We would like to acknowledge the National Department of Health for the use of data from the web-based District Health Information System and National Treasury for the finance and human resources data. We would particularly like to acknowledge the work done on this section of the *Review* over the years by Candy Day. We also appreciate the valuable input received from the reviewers and thank them for their time.

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Table 16. Health financing indicators by province

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
Claims ratio	2020	both sexes all ages med schemes	81,4										a
	2021	both sexes all ages med schemes	90,9										b
	2022	both sexes all ages med schemes	94,0										c
Expenditure per patient day equivalent (district hospitals)	2020/21	BAS real 2022/23 prices	4543	4962	3950	5402	4687	4505	4062	4716	4890	3785	d
	2021/22	BAS real 2022/23 prices	3920	3102	3628	4828	4435	4232	3778	4268	4363	3277	d
	2022/23	BAS real 2022/23 prices	3783	3819	3285	4230	3942	4030	3588	3620	4425	3077	d
Medical scheme beneficiaries	2020	both sexes all ages med schemes	8886933	664093	396451	3435040	1289664	472055	551551	181609	456057	1386299	a
			8895152	664509	396758	3436286	1290329	456321	555404	181845	472351	1387206	b
	2021	both sexes all ages med schemes	8938872	660064	400721	3496871	1274134	468362	556393	193501	469846	1384260	b
	2022	both sexes all ages med schemes	9037439	659733	408492	3524601	1284220	485310	566647	187979	489829	1399899	c
		female med schemes	4847929										c
		male med schemes	4189510										c
Medical scheme coverage	2020	both sexes all ages med schemes	14,8	7,0	4,0	39,0	15,0	5,0	6,0	2,0	5,0	16,0	a
	2021	both sexes all ages GHS	16,1	10,6	16,3	24,0	10,5	8,2	9,1	19,6	15,3	23,7	e
		both sexes all ages med schemes	14,9	7,0	4,0	39,0	14,0	5,0	6,0	2,0	5,0	15,0	b
	2022	both sexes all ages GHS	15,8	10,6	14,5	22,2	11,1	8,9	10,2	15,7	13,6	25,2	f
		both sexes all ages med schemes	14,9	7,3	4,5	39,0	14,2	5,4	6,3	2,1	5,4	15,5	c
		female all ages med schemes	53,6										c

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		male all ages med schemes	46,4										c
Pensioner ratio	2020	both sexes all ages med schemes	8,9										a
	2021	both sexes med schemes	9,0										b
		female med schemes	10,0										b
		male med schemes	7,8										b
	2022	both sexes med schemes	9,3										c
		female med schemes	10,3										c
		male med schemes	8,1										c
Proportion of population with large household expenditures on health as a share of total household expenditure or income	2010-2018	both sexes WHO >10%	1,4										g
		both sexes WHO >25%	0,1										g
	2012-2020	both sexes WHO >10%	1,0										h
		both sexes WHO >25%	0,1										h
	2013-2021	both sexes WHO >10%	1,0										i
		both sexes WHO >25%	0,1										i
Provincial & LG District Health Services expenditure per capita (uninsured)	2020/21	BAS real 2022/23 prices	2519	2861	2577	2005	2785	2875	2547	2676	2246	2495	d
	2021/22	BAS real 2022/23 prices	2496	2680	2487	1930	2880	2755	2688	2775	2395	2424	d
	2022/23	BAS real 2022/23 prices	2332	2509	2387	1771	2662	2726	2521	2531	2123	2301	d
Provincial & LG PHC expenditure per capita (uninsured)	2020/21	BAS real 2022/23 prices	1591	1539	1793	1552	1886	1349	1416	1658	1383	1595	d
	2021/22	BAS real 2022/23	1569	1480	1718	1436	1996	1328	1446	1715	1412	1511	d

Indicator	Period	Sex Age Series Cat	SA	EC	FS	GP	KZ	LP	MP	NC	NW	WC	Ref
		prices											
	2022/23	BAS real 2022/23 prices	1 479	1 397	1 644	1 339	1 818	1 367	1 355	1 590	1 378	1 428	d
Provincial & LG PHC expenditure per PHC headcount	2020/21	BAS real 2022/23 prices	842,1	720,5	931,7	1 078,0	838,8	610,7	791,6	815,7	793,3	928,1	d
	2021/22	BAS real 2022/23 prices	790,9	655,3	902,8	927,9	855,9	588,2	776,0	809,8	783,9	783,6	d
	2022/23	BAS real 2022/23 prices	719,4	599,7	817,9	836,7	761,5	595,9	701,3	697,5	732,2	683,6	d
Total net official development assistance to medical research and basic health sectors per capita (US\$), by recipient country	2019	WHO	1,9										g
	2020	WHO	0,8										h
	2021	WHO	1,4										i

Reference notesa Medical Schemes 2020.¹⁰⁹b Medical Schemes 2021.¹¹⁰c Medical schemes 2022.⁴⁸d DHB 2022/23.²¹e Stats SA GHS 2021.¹¹¹f Stats SA GHS 2022.³⁴g World Health Statistics 2021.¹¹²h World Health Statistics 2022.¹¹³i World Health Statistics 2023.²⁴**Definitions**

- Claims ratio: Percentage of member contributions that have been utilised for the payment of benefits claimed by members of medical schemes, as opposed to allocation of contributions for non-health benefits and the building of reserves.
- Expenditure per patient day equivalent (district hospitals) [Rand (real prices)]: Average cost per patient per day seen in a hospital (expressed as Rand per patient day equivalent).
- Medical scheme beneficiaries [Number]: Number of medical scheme beneficiaries, as reported by the Medical Schemes Council.
- Medical scheme coverage [Percentage]: Proportion of population covered by medical schemes.
- Pensioner ratio [Percentage]: Proportion of members of medical schemes who are 65 years or older, in registered medical schemes.
- Proportion of population with large household expenditures on health as a share of total household expenditure or income [Percentage]: Proportion of population (%) with total household expenditures on health > 10% and > 25% of total household expenditure or income.
- Provincial & LG District Health Services expenditure per capita (uninsured) [Rand (real prices)]: Provincial expenditure on District Health Services (all sub-programmes except 2.8 Coroner services) plus net local government expenditure on PHC per uninsured population.
- Provincial & LG PHC expenditure per capita (uninsured) [Rand (real prices)]: Provincial expenditure on sub-programmes of DHS (2.2 - 2.7) plus net local government expenditure on PHC per uninsured population.
- Provincial & LG PHC expenditure per PHC headcount [Rand (real prices)]: Provincial expenditure on sub-programmes of DHS (2.2 - 2.7) plus net local government expenditure on PHC divided by PHC headcount from webDHIS.
- Total net official development assistance to medical research and basic health sectors per capita (US\$), by recipient country.



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