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REVIEW

Profiling the unique passage of South Africa's health system reforms towards realisation of universal health coverage

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ABSTRACT

Thirty years into democracy, South Africa's health system is rated as the best-developed on the African continent and is geared towards closing the divide between the public and private healthcare sectors, but the country still faces immense social, economic and health inequities which thwart the fulfilment of universal health coverage. In tracing the journey of South Africa's health system development to highlight persistent challenges and future directions for solutions, key issues such as the various negative determinants of health, the burden of disease, patients' experience of care, the paucity of strategic health information, and the dearth of human resources for health, surface as a tableau of polycrisis. Integrated, multi-sectoral approaches to promote health as a human right, well-governed implementation of policy to holistically address gaps in service delivery and data management, and authentic community participation in monitoring health system performance can support action for reform to improve its quality, responsiveness, efficiency and resilience.

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South Africa's experience of health system strengthening for universal health coverage

Representing almost half of the world's population, the shared commitment of Brazil, Russia, India, China, and South Africa (BRICS) to national, regional and global achievement of universal health coverage (UHC) is a seminal effort in health co-operation. Reflecting on South Africa's health system challenges and future directions can provide important footholds for motivating such collaboration, and lay a foundation for jointly addressing fundamental problems and finding solutions to address slow progress.

With the expansion in 2024 of the BRICS membership to include five new countries (Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates), this grouping represents about 45% of the global population, with the original five member states accounting for about 27% of the world gross product[1].

BRICS countries accounted for three of the top 10 countries with tuberculosis (TB) diagnoses in 2020, including South Africa (0.33 million), and globally, Human Immunodeficiency Virus (HIV) is the only primary communicable disease with a prevalence rate still increasing in BRICS countries [1].

South Africa has the largest economy on the African continent, with its Gross Domestic Product (GDP) amounting to just over US$ 373 billion in 2024[2]. South Africa also has Africa's highest expenditure per capita on health care, estimated at about US$ 584 per capita in 2021[3], with expenditure having risen from US$ 121 per capita in 2002, representing an average annual growth rate of 7.75% in this period. In 2021 it was estimated that South Africa spends at least 8.3% of its GDP on health[3] a relatively high level by developing country standards. The country's healthcare system is also rated as the best on the African continent, ranking 49th out of 89 countries in the 2024 Global Healthcare Index[4]. According to the World Health Organization's UHC service coverage index, South Africa's index score was 0.71 out of a possible 1 in 2021; this is slightly above the world average of 0.68, and considerably above the 0.44 average for Africa.

Tracing the historical roots of South Africa's health system, Coovadia, et al. [2] noted that 15 years after democracy, and despite the State's endeavours towards progressive realisation of the right to health, the country was still grappling with massive health inequities, reflecting racial dif-

[1] BRICS. Brics to add Argentina, Egypt, Ethiopia, Iran, Saudi Arabia and UAE as new members. BRICS-plus website. Published August 24, 2024. Accessed September 11, 2024. https://www.brics-plus.com/post/brics-to-add-argentina-egypt-ethiopia-iran-saudi-arabia-and-uae-as-new-members

[2] Galal S. GDP of African countries 2024, by country. Statista website. Published July 8, 2024. Accessed September 12, 2024. https://www.statista.com/ statistics/1120999/gdp-of-african-countries-by-country/

[3] World Health Organization Global Health Expenditure database. Current health expenditure (% of GDP) – South Africa. World Bank Group website. Accessed September 12, 2024. https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=ZA

[4] 2024 Global Healthcare Index. 2021 GHS Index Country Profile for South Africa. Accessed September 12, 2024. https://ghsindex.org/country/south-africa/

ferences in living conditions and healthcare access, varying health status between provinces, rural and urban settings, and men and women. Manifesting the post-apartheid health policy vision for an integrated, comprehensive national service, with free Primary Health Care (PHC) delivered via a district health system as the foundation for public health sector services, has been constrained by factors such as inadequate human resource capacity and planning, poor stewardship, leadership, and management, the impacts of the HIV epidemic on the public health system, and restricted spending in the public health sector [2].

Analysis by Zondi and Day[5] of South Africa's UHC coverage trends and related information gaps indicates that the country did reasonably well in increasing population coverage between 1998 and 2019 – expanding access to the range of health services and reaching more of the population, with a general reduction in inequity. However, quality and operationalisation challenges have persisted, and although information systems improved steadily in scope and data quality over the period, much more is required to support the realisation of UHC.

Rispel, et al.[6] summarised progress made in providing quality health care during 25 years of democracy, notably an enabling legal and policy environment, numerous quality-improvement initiatives, increased life expectancy of the population, and reduced mortality rates. This progress is juxtaposed with gaps in ethical leadership, management and governance, as well as a human resources for health (HRH) crisis, contributing to poor quality of care and avoidable loss of lives. They note that malpractice and medical litigation are threats to the realisation of the right to health care, that fragmentation of interventions limits their impact, and that health information system gaps hamper the measurement and monitoring of improvements. To ensure high-quality UHC the country, their recommendations were to enhance governance and leadership for quality and equity; revolutionise the quality of care; invest in and transform human resources; and measure, monitor and evaluate policy implementation.

During the country's health system evolution over 30 years, the terrain of challenges has become increasingly broad and complex within a context of persistent socio-economic disparities, having escalated to a multiplicity of challenges which urgently requires an integrated whole-systems approach to ensure effective UHC. This juncture presents an inflection point for steadfastly confronting these challenges towards realising tangible health benefits for everyone in the country, throughout their life course, as a moral and constitutional obligation.

Learning from South Africa's health system transformation

The President of the South African Medical Research Council recently mapped the contemporary multiplicity and severity of these challenges[7], describing "a relentless burden of infectious and non-communicable diseases"; inadequately resourced, under-skilled and demotivated staff to provide health care for a growing population, resulting in suboptimal quality

[5] Zondi T, Day C. Measuring National Health Insurance: towards Universal Health Coverage in South Africa. In: Moeti T, Padarath A, editors. South African Health Review 2019. Published 2019. Accessed September 12, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/05%20SAHR_2019_Measuring%20National%20Health%20Insurance.pdf

[6] Rispel L, Shisana O, Dhai A, Dudley R, English R, Grobler GP, et al. Achieving high-quality and accountable universal health coverage in South Africa: a synopsis of the Lancet National Commission Report. In: Moeti T, Padarath A, editors. South African Health Review 2019. Published 2019. Accessed September 12, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/06%20SAHR_2019_Achieving%20a%20high%20quality%20health%20system.pdf

[7] Sobuwa Y. SAMRC president highlights dire state of South Africa's health sector: calls for urgent reforms. Health-e News website. Published September 5, 2024. Accessed September 12, 2024. https://health-e.org.za/2024/09/05/samrc-president-highlights-dire-state-of-south-africas-health-sector-calls-for-urgent-reforms/

of care in key programmes; deficient health management, and a crisis of health governance. Broken equipment and sub-standard infrastructure, medicine shortages, and poor infection control at facilities both cause and are exacerbated by public-sector medico-legal claims that require expenditure from much-needed health budgets on settling court cases. We elaborate on several of these issues in the following sections.

Social determinants of health

Addressing the social determinants of health is essential for achieving UHC, as non-medical factors such as poverty and access to basic services, education, housing and employment play a critical role in shaping health outcomes. These determinants create structural barriers that limit access to health care, especially among the country's most vulnerable population. High levels of unemployment and income inequality restrict the ability of many South Africans to afford healthcare services, even in a system that offers free primary health care. According to the latest Quarterly Labour Force Survey, the rate of unemployment in South Africa in June 2024 was estimated to be 33.5%, and this figure rises to almost 43% when those who have given up trying to find work are included[8]. Adverse housing and living conditions are also a factor, particularly in informal settlements where overcrowding, poor sanitation and limited access to clean water contribute to higher rates of communicable diseases such as TB and waterborne illnesses. Improving healthcare access alone will not resolve the many inequities that are deeply rooted in such socio-economic conditions, and it is against this backdrop that the South African public health system is functioning.

Infectious diseases

Tuberculosis remains a leading cause of death in the country, claiming an estimated 54 200 lives in 2022, and with around 280 000 falling ill with the disease – a reduction from 552 000 cases in 2015[9]. HIV co-infection is a major contributor to TB incidence, which complicates diagnosis and treatment, and usage of preventive therapy remains suboptimal, particularly among child household contacts of people with living with TB[9].

South Africa is the epicentre of the global HIV pandemic, with approximately 7.8 million (12.7%) people living with HIV (PLHIV)[10]. The country has the largest treatment programme in the world and this has reduced mortality, incidence and prevalence over recent years. In 2022, among people aged 15 years and older, 90% were aware of their HIV status, 91% who were aware of their status were taking treatment, and 94% of those on taking treatment were virally suppressed[10]. This compares with 85-71-87 in 2017[10] against the UNAIDS 95-95-95[11] targets to fast-track epidemic control. The previously declining trend in life expectancy at birth has been reversed, with life expectancy increasing by 5.75 years from 55.8 years in 2000 to 61.5 years in 2021[12]. Despite this significant achievement, in mid-2023 only 75% of those diagnosed with HIV are on treatment, and of

[8] Maluleke R. Quarterly Labour Force Survey – Q2: 2024. Statistics South Africa website. Published 2024. Accessed September 11, 2024. https://www.statssa.gov.za/publications/P0211/Presentation%20QLFS%20Q2%202024.pdf

[9] Tomlinson C. In-depth: What new WHO TB numbers mean for SA. Spotlight website. Published November 10, 2023. Accessed September 10, 2024. https://www.spotlightnsp.co.za/2023/11/10/in-depth-what-new-who-tb-numbers-mean-for-sa/

[10] Human Sciences Research Council. The Sixth South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2022 (SABSSM VI). Accessed September 13, 2024. https://hsrc.ac.za/news/sabssm-vi/

[11] Joint United Nations Programme on HIV/AIDS. Understanding Fast-track: Accelerating action to end the AIDS epidemic by 2030. Accessed September 13, 2024. https://www.unaids.org/sites/default/files/media_asset/201506_JC2743_Understanding_FastTrack_en.pdf

[12] World Health Organization. Health data overview for the Republic of South Africa. World Health Organization website. Accessed September 13, 2024. https://data.who.int/countries/710

those previously initiated on antiretroviral therapy, an estimated one million people disengaged from treatment[13].

Case management for patients' continuity of care and treatment adherence is therefore a key area for attention, along with combination prevention strategies to maintain HIV-negative status, integrated and community-based services, the Welcome Back treatment re-engagement campaign, enhanced adherence counselling, and adherence support groups. HIV self-screening and index contact testing are modalities that improve case-identification.

There is a need to prioritise the health and rights of adolescent girls and young women and key populations, as they are disproportionately affected by HIV due to various socio-economic factors, including gender inequalities, poverty, and lack of access to education and health care. In 2021, 65.7% of HIV-positive adults older than 15 years were women, while HIV prevalence among young women (aged 15–49 years) was double (24.5%) that of their male counterparts (12.1%)[14]. The prevalence of HIV among some key populations is higher than in the general population[14]. Targeted prevention efforts should therefore focus on young people and deploy appropriate communication channels, platforms, influencers and messaging to lower the rate of new infections and enable improved linkage to care and adherence to treatment.

Non-communicable diseases and obesity

The mortality rate and disease burden of non-communicable diseases (NCDs) gives cause for deep concern, especially noting the experience of NCDs comorbidities aggravating the risk of severe COVID-19 illness. South Africa has the highest prevalence of obesity in Sub-Saharan Africa [3], and is an epidemic affecting just under one third (31%) of South African men, two thirds (68%) of South African women, and 13% of children under the age of five[15,16], heightening their risk of heart disease, stroke, hypertension, diabetes, cancer, gallbladder disease, osteoarthritis, gout, fatty liver, and breathing problems, among other illnesses. Statistics South Africa data show that obesity-related diseases were the fifth-highest cause of mortality in the country, and deaths due to cardiovascular disease, cancer, diabetes and chronic lower respiratory diseases increased by 58.7% from 1997 to 2018[17]. Moreover, a 2023 systematic review and meta-analysis of obesity, hypertension and diabetes prevalence among South Africa's HIV-positive population [4] indicates that the country is experiencing "a syndemic of NCDs among PLHIV" – a daunting predicament, given its 14.75% HIV prevalence[18].

NCDs such as diabetes and its comorbid conditions (e.g. renal failure, amputations and blindness) place a heavy financial and organisational burden on the country's already strained health system arising from in-

[13] Section27. One in four people with HIV not on treatment, according to new estimates. Published April 5, 2024. Accessed September 10, 2024. https://section27.org.za/2024/04/one-in-four-people-with-hiv-not-on-treatment-according-to-new-estimates/#:~:text=It%20is%20calculated%20that%20in,were%20thus%20previously%20on%20treatment

[14] South African National AIDS Council (SANAC). Gender Assessment of the HIV Response – South Africa. SANAC website. Accessed September 13, 2024. https://sanac.org.za/wp-content/uploads/2024/01/Gender-Assessment-of-the-HIV-Response-South-Africa_Low-Res.pdf

[15] National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC), and ICF. South Africa Demographic and Health Survey 2016. Pretoria, South Africa, and Rockville, Maryland, USA: NDoH, Stats SA, SAMRC, and ICF; 2019. Accessed September 14, 2024. https://dhsprogram.com/pubs/pdf/FR337/FR337.pdf

[16] World Obesity Organisation. Global Obesity Observatory. Economic impact of overweight and obesity in South Africa. Accessed September 10, 2024. https://data.worldobesity.org/country/south-africa-197/#data_economic-impact

[17] Statistics South Africa. Rising non-communicable diseases – a looming health crisis. Published October 17, 2023. Accessed September 10, 2024. https://www.statssa.gov.za/?p=16729

[18] Human Sciences Research Council. New HIV survey highlights progress and ongoing disparities in South Africa's HIV epidemic. 27 November 2023. Accessed September 10, 2024. https://hsrc.ac.za/press-releases/hsc/new-hiv-survey-highlights-progress-and-ongoing-disparities-in-south-africas-hiv-epidemic/

creased demand for extensive and efficient acute and chronic care services[19]. The direct cost to South Africa's health system of those diagnosed with diabetes is R2.7 billion (notwithstanding the costs associated with advanced organ damage, long-term disability and other diabetes-related complications, and the indirect toll of loss of jobs and income)[19]. The cost of diagnosing and treating all cases would be R21.8 billion a year, rising to R35 billion in real terms by 2030 – not including those in the population who are pre-diabetic (which was found to be 67% of all men and women in 2016[20]).

Despite policy and regulation in the form of the National Department of Health's 2015–2020 and 2022–2027[21] National Strategic Plans for the Prevention and Control of Non-Communicable Diseases, Strategy for the Prevention and Control of Obesity in South Africa 2023–2028[22], and the Health Promotion Levy[23], key factors that perpetuate the country's diet-related NCD epidemic are the commercial determinants of health, combined with the country's economic and social disparities in terms of access to healthy food.

Further policy measures to reduce overweight and obesity through healthier diets are stronger regulation on food package labelling, increasing the threshold percentage of the Health Promotion Levy and extending this tax to pure fruit juices, banning junk-food advertising to children, and blocking the establishment of fast-food outlets near schools. Introducing strengthened tobacco and vaping legislation (in line with South Africa having signed the WHO Framework Convention on Tobacco Control[24]), as well as legal measures to curb health harms wrought by hyper-consumption of alcohol, would also constitute progressive action to stem the NCD burden through more comprehensive prevention interventions.

Systems for strategic health information

According the World Health Organization, "the goal of a health information system is often narrowly defined as the production of good-quality data. However, the ultimate goal is more than this – it is to produce relevant information that health system stakeholders can use for making transparent and evidence-based decisions for health system interventions"[25] and building health system resilience.

Building resilient health systems and tracking their performance requires robust data systems and management. Reliable evidence is needed to ground UHC policy in three key aspects: population coverage, service coverage, and coverage with financial risk protection, all with an equity focus [5]. While rights-based approach to UHC requires that it be fully inclusive, the quest for equity necessitates attention on the most vul-

[19] Hofman KJ, Goldstein S. Diabetes is South Africa's second-biggest killer disease: hiking the sugar tax would help. Daily Maverick. Published November 1, 2023. Accessed September 10, 2024. https://dev.dailymaverick.co.za/article/2023-11-01-lets-hike-the-sugar-tax-to-urgently-help-reduce-diabetes-sas-second-biggest-killer-disease/

[20] National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC), and ICF. South Africa Demographic and Health Survey 2016. Pretoria, South Africa, and Rockville, Maryland, USA: NDoH, Stats SA, SAMRC, and ICF; 2019. Accessed September 14, 2024. https://dhsprogram.com/pubs/pdf/FR337/FR337.pdf

[21] South African National Department of Health. National Strategic Plan (NSP) for the Prevention and Control of Non-Communicable Diseases (NCDs) 2022–2027. Pretoria: NDoH; 2022. Accessed September 13, 2024. https://bhekisisa.org/wp-content/uploads/2022/06/NCDs-NSP-SA-2022-2027-1.pdf

[22] South African National Department of Health. Strategy for the Prevention and Control of Obesity in South Africa, 2023–2028. Pretoria: NDoH; 2023. Accessed September 10, 2024. https://www.health.gov.za/wp-content/uploads/2023/05/Obesity-Strategy-2023-2028_Final_Approved.pdf

[23] South African Revenue Service. Health Promotion Levy on Sugary Beverages. Rates and Monetary Amounts and Amendment of Revenue Laws Act 14 of 2017 (see from page 46). Government Gazette. Published December 14, 2017. Accessed September 13, 2024. https://www.sars.gov.za/customs-and-excise/excise/health-promotion-levy-on-sugary-beverages/

[24] World Health Organization. WHO Framework Convention on Tobacco Control. Geneva: WHO; 2003. Accessed September 14, 2024. https://iris.who.int/bitstream/han

[25] World Health Organization. Framework and Standards for Country Health Information Systems. Second edition. Geneva: WHO; 2008. Page 10. Accessed September 14, 2024. https://www.afro.who.int/sites/default/files/2017-06/AHO_Country_H_Infos_Systems_2nd_edition.pdf

nerable populations, prioritising those with the least access to care, and the currently available data are inadequate for this purpose.

Access to good-quality data housed in a single, comprehensive data repository for monitoring and evaluating progress towards attainment of health-related goals is crucial for the successful attainment of UHC[26]. Historically, it has been noted that whilst much data are collected, they are mostly not processed or not used at an appropriate level and tend to be of an administrative nature[27].

While there are effective reporting platforms, primary collection of the data used, including medical records, is reliant on paper-based systems. Management of these paper-based records in compliance with relevant policies and procedures has been a significant challenge within the South African context, leading to incomplete documentation, large-scale duplication, and generally poor quality of the data being fed into electronic reporting systems, with the upshot being reports that do not accurately reflect factual realities. To resolve these issues, there has been a gradual roll-out of electronic health records, with varying levels of implementation across provinces. Interoperability and interface between the different systems remains a challenge, hindering the seamless flow of information across levels of care.

Key developments aimed at strengthening the health information system in South Africa include the development of a District Health Management Information Systems policy and adopting implementation of South Africa's National eHealth Strategy[28], which is central to achieving a well-functioning, patient-centred, electronic national health information system based on agreed scientific standards of interoperability.

The current National Digital Health Strategy 2019–2024[29] aligns with the country's National Development Plan (NDP)[30] and the intended health system transformation towards UHC. Strategic interventions include strengthening leadership capacity for digital health; appropriate multi-stakeholder engagements and collaboration; sustainable interventions and funding; strengthened governance structures and oversight mechanisms; the development of appropriate digital applications for improving health services; the development of a Human Resources Information System, establishing a robust physical and network infrastructure; effective and safe sharing of health information across health systems and services; and an integrated information architecture and interoperability.

Other priorities include digitising health systems, expanding mobile health (or mHealth) for community-based interventions, and building health workers' digital capacity and technology skills.

The National Department of Health's commitment to achieving UHC was foregrounded in its response to the Central Chronic Medicine Dispensing and Distribution programme's paper-form data entry processes leading to inefficiencies and a lack of transparency between stakeholders. To address these challenges, the electronic Synchronised National

[26] English R, Masilela T, Barron P, Schönfelt A. Health Information Systems in South Africa. In: Padarath A, English R, editors. South African Health Review 2011. Durban: Health Systems Trust; 2011. Accessed September 14, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/sahr_2011.pdf

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[29] South African National Department of Health. National Digital Health Strategy for South Africa 2019–2024. Pretoria: NDoH; 2019. Accessed September 11, 2024. https://www.health.gov.za/wp-content/uploads/2020/11/national-digital-strategy-for-south-africa-2019-2024-b.pdf

[30] Presidency of the Republic of South Africa – National Planning Commission. National Development Plan 2030: Our future – make it work. Pretoria: NPC; 2011. Accessed September 11, 2024. https://www.gov.za/sites/default/files/gcis_document/201409/ndp-2030-our-future-make-it-workr.pdf

Communication in Health system was developed and implemented. This introduced a digitised and streamlined process across provinces for online patient registration; selection of approved medicine collection points; pre-programmed selection of medicines and dosages based on approved provincial medicine formularies; transmission of electronic prescriptions to courier pharmacy service providers; barcode scanning and management of patient medicine parcels, and automated reporting at various levels within the health system. The insights for good practice gained from this roll-out can support sustainable implementation of healthcare technology in South Africa.

Since the COVID-19 pandemic, the development of health information and digital systems has accelerated in South Africa. However, there are ongoing challenges with many health reporting systems not being interoperable, which results in data inconsistencies, problems with identifying patients through the continuum of care, and poor quality and accuracy of data. It is important to implement digital health platforms that enable interoperability among the various fragmented health information systems, such as those for clinical management, laboratory services, demographic administration, programme monitoring, tuberculosis, vaccination services, differentiated models of care, mHealth, and other sub-systems to improve quality, cohesiveness and functionality and to reduce duplication and cost.

Despite the existence of the earlier eHealth strategy[31] and the National Department of Health commissioning a National Health Normative Standards Framework for eHealth in South Africa (which provided a foundational basis for interoperability as articulated in the eHealth strategy), development in the health information systems sector has occurred in silos and as the need arises for completion of various task- and programme-based services. These legacy systems have made it difficult to implement an overall integrated digital information system that can serve the needs of the patient, the healthcare worker, and the Department of Health.

Other challenges needing prioritisation are the secure sharing of data between different systems, more equitable access to high-quality telecommunications infrastructure, patient confidentiality, and the development of procedures and systems for identity verification of users of the health system.

In 2014, the first steps towards roll-out of the country's Health Patient Registration System (HPRS) in 700 Primary Health Care facilities in the 10 pilot National Health Insurance districts were initiated. As the patient's entry-point into the health system, the HPRS is a central, standardised, automated system that maintains a Master Patient Index of all people who use public-sector healthcare services to improve their quality and continuity of care, as well as national health system efficiencies. The vision is to draw down information about each individual patient from various linked health data systems and collate this into a single electronic health record inspired digitalisation. The outcome is a holistic picture of the person's healthcare interactions, clinical history, tests and diagnoses, medication prescriptions, other forms of treatment, and referrals, thus enabling healthcare providers to rapidly assess the patient's health pathway. Ensuring the interoperability of data systems creates a shared health information exchange that streamlines the patient's experience of accessing care, and reduces the facility's administrative time and costs.

[31] Masilela TC, Foster R, Chetty M. The eHealth Strategy for South Africa 2012–2016: how far are we? In: Padarath A, English R, editors. South African Health Review 2013/14. Durban: Health Systems Trust; 2014. Accessed September 13, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/2%20The%20eHealth%20Strategy%20for%20South%20Africa%202012-2016%20-%20how%20far%20are%20we%20-%20SAHR2014.pdf

Currently, the HPRS has been introduced in 3 150 facilities, with more than 60 million registered users and 35 million with verified identity documentation[32]. Implementation of the HPRS contributes to South Africa's health infostructure and is highly advantageous for health system governance towards meeting the needs of healthcare users. More accurate data drawn from integrated systems, shorter timeframes between end-of-reporting periods, and timeous data feedback loops for programme management, all help to improve health service delivery and ensure universal health coverage.

Like all modern health systems, South Africa's health system functions sub-optimally if management decisions (at all levels) are not based on objective evidence and information. There have been wide-scale improvements in both the quality and quantity of information available over the past two decades. An example of this is the Health Systems Trust's *District Health Barometer*[33], which provides a vast range of cross-sectional and longitudinal information, with comparisons among districts and provinces on key health performance indicators. The 2019/20 edition of the Barometer reported on the computation of a UHC service coverage index[34], which is discussed later in this article. One of the key issues highlighted was the inadequacy of current data systems to capture the full scope of NCDs across various populations. NCDs such as diabetes, hypertension and cancer require long-term monitoring, yet much of South Africa's health data collection remains fragmented, with reliance on paper-based systems in rural areas and a lack of integration between public- and private-sector data. This leads to data gaps, particularly on vulnerable communities where NCD prevalence is high but under-reported, thus complicating efforts to measure the true extent of service coverage, impacting treatment access and health outcomes.

However, there are significant opportunities for development. The increasing implementation of digital health systems, such as the District Health Information System and the HPRS, creates the potential for more accurate and timeous data collection. Expanding these systems for a stronger focus on NCDs could greatly improve the ability to track service coverage. Additionally, leveraging mHealth initiatives to reach rural populations can enhance data collection and service delivery, ensuring that more individuals living with NCDs are included more accurately when measuring UHC service coverage.

Health research to inform UHC

An important source of strategic information to guide policy and measure progress towards UHC is research. In 2013, following the adoption of a resolution to promote UHC the previous year, the World Health Report addressed the theme of 'Research for Universal Health Coverage'[35], advocating for good-quality research to inform strategies for service provision. The report also highlighted that individual studies have the potential to improve access to health services and suggested strategies

[32] South African Government. Accelerating Health System Strengthening and National Health Insurance (NHI) Implementation. 2nd Presidential Health Compact| 2024–2029. Pretoria. Published August 22, 2024. Accessed September 13, 2024. https://www.stateofthenation.gov.za/assets/downloads/Second%20Presidential%20Health%20Compact%202024-2029.pdf

[33] Massyn N, Peer N, English R, Padarath A, Barron P, Day C. District Health Barometer 2015/16. Durban: Health Systems Trust; 2016. Accessed September 14, 2024. https://www.hst.org.za/publications/District%20Health%20Barometers/District%20Health%20Barometer%202015_16.pdf

[34] Day C, Gray A, Cois A. Universal Health Coverage – the service coverage index at district level. In: Massyn N, Day C, Ndlovu N, Padayachee T, editors. District Health Barometer 2019/20. Durban: Health Systems Trust. Published December 2020. Accessed September 14, 2024. https://www.hst.org.za/publications/District%20Health%20Barometers/DHB%202019-20%20Section%20A,%20chapter%206%20-%20Universal%20Health%20Coverage.pdf

[35] World Health Organization. The World Health Report 2013 – Research for universal health coverage. Geneva: WHO; 2013. Accessed September 11, 2024. https://iris.who.int/bitstream/handle/10665/85761/9789240690837_eng.pdf?sequence=2

for enabling research and innovation [6]. South Africa boasts a robust and diverse health research ecosystem, with numerous academic institutions, research organisations, and governmental and non-governmental entities contributing to the knowledge base. The country also has several policies and entities that co-ordinate research at national level, such that South Africa's journey towards UHC has been significantly informed and shaped by ongoing research efforts and strategic use of the information emanating therefrom.

The impact of research is most evident in the country's HIV programme. South Africa has been recognised as a global leader in this regard, and nearly every aspect of the programme is informed by locally generated research which is also internationally relevant. Most studies have investigated the effectiveness of various service delivery platforms which have been adopted to ensure the highest coverage among people living with HIV.

Despite these strengths and past successes, there are ongoing challenges in translating research findings into policy and practice, and a significant distance between researchers, policymakers and implementers, which hinders decision-making at all levels of the health system. There is also a lack of sufficient capacity, human resources and finance to meet the country's research needs. Several focus areas, such as non-communicable diseases, are disproportionately under-resourced and thus under-researched, leading to weak adoption of some prevention, treatment and care interventions and providing services at scale.

Strategic information reporting and research has become increasingly dependent on 'big data' available in various information systems. The adoption of data privacy regulations, specifically the Protection of Personal Information Act (POPIA) [7] has made it increasingly difficult to access data [8]. This has been largely due to varied interpretations of the Act and lack of guidance in its implementation. Although there have been efforts to address the challenges related to POPIA, these have been unsuccessful. For instance, the Academy of Science of South Africa recently led efforts to develop a POPIA Code of Conduct for Research, but this was returned by the Information Regulator and its progress has stalled.

Patients' experience of care

The Ritshidze ('Saving Our Lives') Project focuses on community-led clinic monitoring of health service outcomes and processes in South Africa for appropriate, respectful and responsive health service delivery. Recent Ritshidze reports have highlighted that public health facilities are not providing services at the standards set forth in national guidelines nor fulfilling the expectations of users. Findings from national December 2023[36] and February 2024[37] reports present evidence that key populations continue to experience hostile and discriminatory attitudes by staff; that people without identity documents are denied services; and people who miss appointments are made to wait longer and loudly chastised in public areas of the facility. Frequent medicine stock-outs, long waiting times, lost patient files and poor protection of patient confidentiality make visiting a clinic a tortuous experience for those seeking health care.

In terms of key programme service delivery, Ritshidze authors emphasise that tuberculosis control must be strengthened, and that more

[36] Ritshidze Project. Ritshidze Report: South Africa – State of health. Published December 2023. Accessed September 10, 2024. https://ritshidze.org.za/wp-content/uploads/2023/12/National-Community-Meeting-07.12.23.pdf

[37] Ritshidze Project. State of healthcare for key populations. 3rd edition. Published February 2024. Accessed September 10, 2024. https://ritshidze.org.za/wp-content/uploads/2024/02/Ritshidze-State-of-Healthcare-for-Key-Populations-2024.pdf

must be done in the realm of HIV treatment literacy and viral load suppression by thoroughly implementing guidelines for treatment adherence, differentiated models of care, and multi-month dispensing. Department of Health staff should be properly trained on patient re-engagement procedures and implementation of 'Undetectable = Untransmittable' messaging, along with assessments to improve their capabilities for implementing index contact testing and HIV prevention modalities. All Operation Phuthuma-supported sites with waiting times longer than three hours should be evaluated, and specific improvement plans should be developed for each facility to reduce these times to less than two hours.

Human resources for health

Assessing progress towards universal health coverage in BRICS, Marten, et al. [9] note that although reforms create an entitlement to a broad range of services, delivery will not be possible without additional staff. South Africa has the lowest doctor-patient ratio of 0.9 per 1000 when compared to other BRICS countries[38]. The situation is exacerbated by the maldistribution of health professionals between the private and public sectors, as well as uneven allocation of public-sector health professionals between the provinces[39].

For example, the 2030 HRH Strategy estimated[40] that in 2019, there were only seven medical specialists per 100 000 employed in the public sector compared to 69 per 100 000 in the private sector. In the public sector, the Western Cape Province was found to have 25.8 medical specialists per 100 000 population compared to only 1.4 per 100 000 in Limpopo.

Nurses play a critical role in achieving UHC in South Africa, but the profession faces significant challenges. Despite being the largest group of health providers, concerns about nursing shortages, declining interest, a lack of caring ethos, and a disconnect between nurses' needs and those of the communities they serve persists. Key issues needing attention include nursing education reforms, ethics, quality of care, and the work experiences of nursing managers, particularly at PHC clinics. Workforce concerns – such as the competence of new entrants, student selection, and agency work – also have a negative impact on professionalism and quality of care.

Community Health Workers (CHWs) are pivotal to achieving UHC and are featured in South Africa's National Development Plan[41]. Their significance was demonstrated during the COVID-19 pandemic when South Africa became the first country to implement mass community screening using CHWs[41]. However, CHWs face several challenges, including lack of formal recognition, tenuous employment, and limited access to training, certification, and career pathways. Accurate data on their deployment is also lacking. Similarly, clinical associates remain underutilised, with only 130 of 220 registered associates employed in the public sector in 2013, despite the country's healthcare personnel shortages. Additionally, work-

[38] Motsoaledi A. Discussion: Health Minister Aaron Motsoaledi comments on sector challenges. eNCA. Published September 7, 2024. Accessed September 7, 2024. https://www.enca.com/top-stories/discussion-health-minister-aaron-motsoaledi-comments-sector-challenges

[39] The state of SA's healthcare system 30 years on. Interview with Dr Mvuyisi Mzukwa, Chairperson of the South African Medical Association (SAMA). eNCA. Published May 4, 2024. Accessed September 7, 2024. https://www.enca.com/videos/state-sas-healthcare-system-30-years

[40] South African National Department of Health. 2030 Human Resources for Health Strategy: Investing in the Health Workforce for Universal Health Coverage. Pretoria: NDoH; 2020. Accessed September 14, 2024. https://www.health.gov.za/wp-content/uploads/2023/06/2030-HRH-Strategy-Final.pdf

[41] Madikizela L, Matlala M, Mosikare O. Leveraging Community Health Workers for intensified case-finding: experience from South Africa's COVID-19 response. In: Govender K, George G, Padarath A, Moeti T, editors. South African Health Review 2021. Durban: Health Systems Trust; 2021. Accessed September 14, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/Chapter18_SAHR21_04022022_OD.pdf

force data management issues, reported as early as 2010, continue to hamper effective healthcare planning.

Human resources for health in relation to health system responsiveness was the focus of the 2018 *South African Health Review*[42], which recommended enhancing HRH technical capacity and expertise in the National Department of Health to provide strategic leadership and support for the entire health system; recruitment of public servants with the right skills, competencies, ethos and values; and the equitable allocation of staff to rural and underserved areas, as well as an inclusive approach to planning that incorporates higher education institutions and other stakeholders to ensure greater coherence between health worker training and service delivery platforms.

Leadership and governance

Leadership and governance are widely recognised as critical entry points for strengthening health systems and achieving national and global health goals. The 2008 World Health Report[43] highlighted leadership reforms as one of the four essential sets of reforms needed for health systems to address existing health challenges more effectively.

South Africa's health system faces numerous challenges, including tensions between the National and Provincial Health Departments, with a key issue being that policy formulation is often disconnected from the realities of on-the-ground planning and delivery, through insufficient blending of top-down expertise with bottom-up experience. Governance at local level for PHC health service delivery is particularly important, as this stratum is where communities' needs, characteristics, experiences and preferences can be identified and met through public participation and engagement, and the objectives of a people-centred health system and positive health outcomes fulfilled.

Leadership, implementation and operational challenges also persist at district level. District Health Management teams have limited influence over policy, strategy and budgets, and decisions regarding workforce planning and staff appointments are made at higher levels. There is also a lack of mechanisms for district-level feedback to inform national policies, and district managers often fail to consistently use data for evidence-based decision-making, particularly in areas of planning and performance management[44].

Rispel[45] avers that to repair South Africa's health sector transformation fault-lines, "addressing the leadership, management and governance failures requires political will; meritocratic appointment of public service managers with the right skills, competencies, ethics and value systems; effective governance at all levels of the health system to enforce laws; appropriate management systems; and citizen involvement and advocacy to hold public officials accountable." Enabling environments for conscientious health service delivery can be established through strong political volition and leadership that supports local stakeholders, community structures, non-governmental capacity, civil society health activists, and the persistently unsung and poorly sustained body of CHWs.

[42] Rispel LC, Padarath A, editors. South African Health Review 2018. Durban: Health Systems Trust; 2018. Accessed September 14, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/SAHR%202018.pdf

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[45] Rispel L. Analysing the progress and fault-lines of health sector transformation in South Africa. In: Padarath A, King J, Mackie E, Casciola J, editors. South African Health Review 2016. Durban: Health Systems Trust; 2016. Accessed September 14, 2024. https://www.hst.org.za/publications/South%20African%20Health%20Reviews/2%20Analysing%20the%20progress%20and%20fault%20lines%20health%20sector%20transformation%20in%20South%20Africa%20.pdf

In terms of the legal framework for ensuring patients' rights of access to quality health care, the 1997 White Paper on Transforming Public Service Delivery[46] sets out the eight Batho Pele ('People First') principles to govern responsive service provision, and the National Patients' Rights Charter[47] was introduced in 2008 by South Africa's National Department of Health in accordance with section 27(1)(a) of the Constitution. It could be argued that gaps between principles and practice are evident in patients' experience of care, as described earlier.

The need for co-created solutions

To address this confluence of crises, several authors advocate for enhancing the quality, accessibility and affordability of Primary Health Care services within a well-functioning District Health System, because efficient and cost-effective disease prevention, early detection and treatment, consistent care, rehabilitation and appropriate palliation, enable improved access to quality services and reduce escalation to tertiary services[48] [10]. Others urge for more regulatory interventions that address the various determinants of health in order to lower demand for health services, and symphonic application of health promotion so as to mitigate South Africa's growing burden of infectious and non-communicable diseases – and in turn, to curb their related social and financial costs[49].

A call for inter- and multi-sectoral collaboration and eradication of disciplinary silos is common to much of the UHC-focused literature, and integrated agency for progress towards a salutogenic environment is essential for achieving health system transformation from disease-focused to people-driven health care. This approach befits the adoption of a systems lens to the health sector challenges in South Africa.

The World Health Organization's Health Systems Framework[50] – comprising the six building blocks of service delivery; health workforce; health information systems; access to essential medicines; financing; and leadership and governance – enables precise categorisation of health sector policies, and implementation and monitoring thereof. However, it does not accommodate other sectoral influences and actions, nor those that influence health promotion and protection, service uptake or the various determinants of health.

It is therefore important to parse the component crises prevailing in South Africa's health system along with the broader context of other systemic and structural factors that have a bearing on health, in order to discern the dynamic interplay of these connections. For example, *Sanders*, in his seminal book entitled *The Struggle for Health* [11] identifies the economic and political forces of globalisation and neo-liberal capitalism as existential threats that shape the health outcomes of communities; these determinants undermine equal access to quality health services.

[46] Republic of South Africa. Transforming Public Service Delivery White Paper (Batho Pele White Paper). Government Gazette Vol. 388, No. 18340, 1 October 1997. Accessed September 14, 2024. https://archive.gazettes.africa/archive/za/1997/za-government-gazette-dated-1997-10-01-no-18340.pdf

[47] South African National Department of Health. Patients' Rights Charter. Pretoria: NDoH; 2008. Accessed September 12, 2024. https://knowledgehub.health. gov.za/system/files/elibdownloads/2023-04/PATIENTS%252520RIGHTS%252520CHARTER%252520-%252520Eng.pdf

[48] Naledi T, Vallabhjee K, Mosam A, Heywood M. What would it take to turn National Health Insurance into universal healthcare? Daily Maverick. Published July 30, 2024. Accessed September 14, 2024. https://www.dailymaverick.co.za/article/2024-07-30-what-would-it-take-to-turn-national-health-insurance-into-universal-healthcare/

[49] Goldstein S, Vallabhjee K, Naledi T, Mosam A, Heywood M. For universal healthcare and NHI to succeed, SA needs effective health promotion programmes and institutions. Daily Maverick. Published August 18, 2024. Accessed September 6, 2024. https://www.dailymaverick.co.za/article/2024-08-18-for-universal-healthcare-and-nhi-to-succeed-sa-needs-effective-health-promotion-programmes-and-institutions/

[50] World Health Organization. Monitoring the building blocks of health systems: A handbook of indicators and their measurement strategies. Geneva: WHO; 2010. Accessed September 10, 2024. https://iris.who.int/bitstream/handle/10665/258734/9789241564052-eng.pdf

A systematic approach is therefore required to address the country's disease burden and health system challenges within the context of globalisation and neo-liberal capitalism, combined with the structural stressors of increasing unemployment and poverty, inequality, infrastructure, energy and logistics failures, mismanagement of public finances, and severe human resources for health shortages. This approach prepares the ground for systemic changes that underpin ethical and effective health governance to honour the social contract and transcend the unevenness of health system responses to multi-dimensional challenges – targeted efforts to address risks and leverage opportunities, build capacity, apply better fiscal policies, ensure efficiency and accountability, and institute emergency response systems, all focusing on system resilience and sustainability.

Four lessons for other countries

South Africa's experience in pursuing UHC offers several valuable lessons for other countries, particularly those grappling with health inequities and resource constraints.

The first key learning is the importance of political will and policy commitment. South Africa's National Health Insurance framework reflects the government's clear intent to achieve UHC, demonstrating that even in countries with deep socio-economic divides, significant health system reforms can be driven by bold, top-down policy initiatives. This commitment can inspire other nations to prioritise health as a fundamental right and to invest in long-term strategies for expanded access to healthcare.

A second lesson is that South Africa's globally recognised HIV treatment programme, which reaches millions of people, is a model that highlights how targeted health interventions can be scaled to improve coverage for other conditions, such as NCDs.

A third critical lesson is the need for health data system integration. South Africa's implementation of digital health platforms shows how technology can improve health governance, data collection, and service delivery. Countries seeking to improve health outcomes should focus on developing robust, interoperable digital systems to ensure accurate measurement and monitoring of UHC progress, enabling real-time, data-driven decision-making.

The fourth lesson inheres in the importance of addressing health workforce challenges, which are faced by many other countries. Ensuring adequate training, equitable distribution, and retention of healthcare workers, particularly in rural areas, is crucial for delivering quality services.

Fulfilling the right to health in an ecology of wellbeing

Achieving optimal standards and innovation for a homogenous South African health system require a culture of servant stewardship for pooling of skills, resources and experience. Public and private healthcare sector collaborative efforts should prioritise health promotion and disease prevention, while addressing all aspects of service delivery shortcomings as well as health information system and digital health solutions.

Practical steps in this direction would entail establishing a National Health Commission and/or an independent Health Promotion and Development Foundation to prioritise 'health in all policies' and health promotion financing, with health literacy and health education being systemised and invigorated at facility level. These bodies should also consider structured incorporation of indigenous knowledge systems, including traditional medicine and communitarian values.

Intersectoral collaboration mechanisms such as KwaZulu-Natal Province's Operation Sukuma Sakhe can be emulated, adapted and scaled up to implement co-ordinated, sustainable strategies that enable consistent use and delivery of high-quality health and other public services premised on the District Development Model; this model calls for collaborative planning on the basis of a detailed, technically driven consultative process within all levels of government and with communities and stakeholders – resulting in a single strategically focused 'One Plan' for each district and metropolitan space in the country. Grafted upon this, forging multisectoral partnerships to generate research evidence and data sets can support formulation and refinement of UHC-orientated health policy and its implementation.

From our perspective, a more integrated approach to health data management is needed to ensure uniform standards across the public and private health sectors. Strengthening digital health infrastructure, ensuring interoperability across platforms, and focusing on equity-driven metrics will be critical for providing a more accurate picture of South Africa's progress towards UHC. Regular, standardised national health surveys that incorporate socio-economic indicators will also enable a more accurate reflection of service coverage across the country.

The global context of South Africa's journey towards UHC also presents opportunities for international collaboration to improve the health of large populations and support global health governance, especially among BRICS nations, which collectively have significant experience in addressing similar healthcare challenges. By continuing to strengthen its digital infrastructure, focus on health workforce development, and address gaps in service delivery, South Africa is poised to emerge as a leader in UHC implementation within the region.

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