African Health Policy Alliance

South Africa's Human Resources for Health Strategy 2030: System Constraints and Future Strategic Planning (2019 - 2025)

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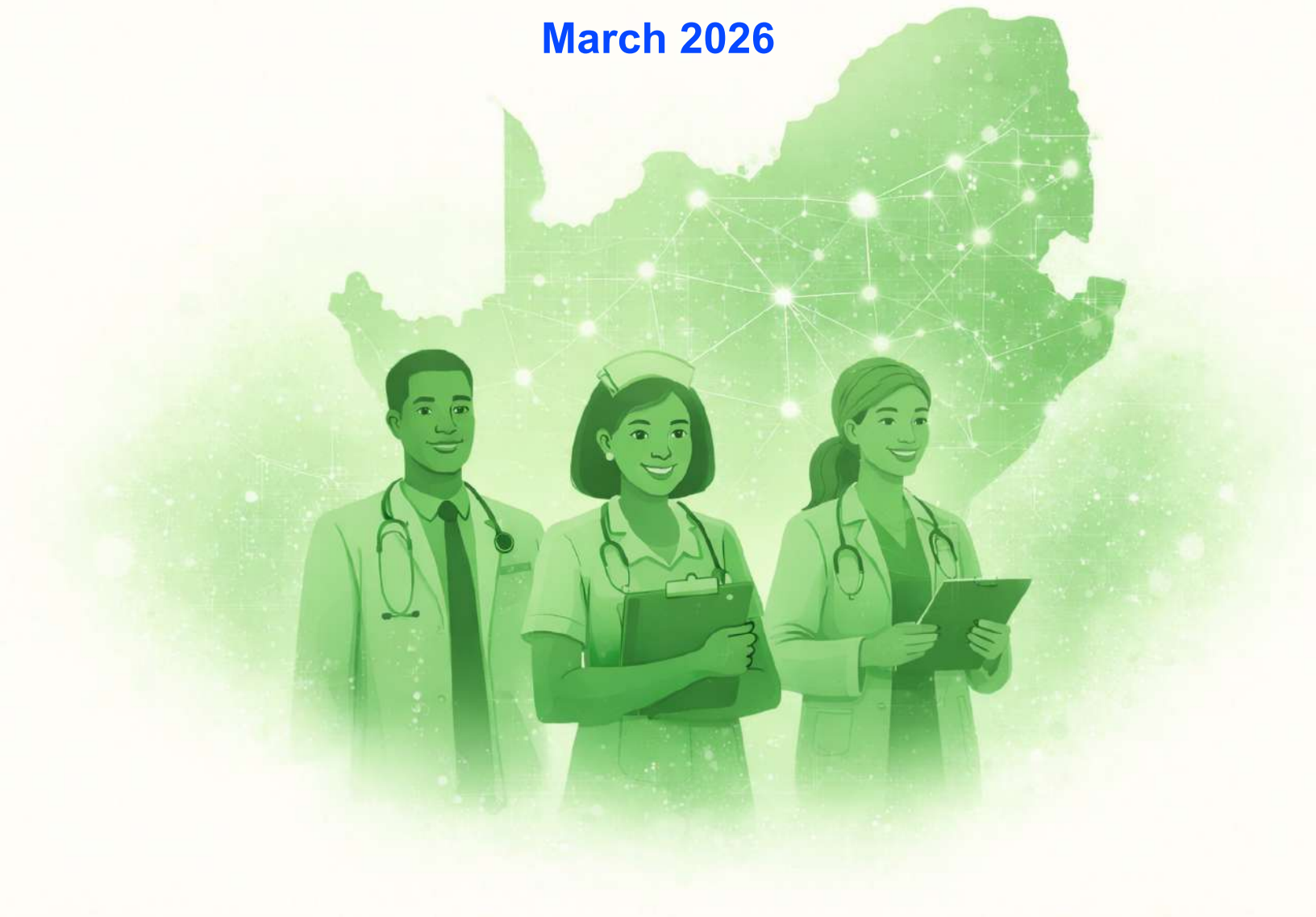

Executive Summary

South Africa's Human Resources for Health (HRH) Strategy 2030 positions the health workforce as central to achieving Universal Health Coverage (UHC) and implementing National Health Insurance (NHI). Despite relatively high aggregate workforce densities compared to the African region, the country faced a projected shortfall of approximately 97,000 health workers by 2025 due to the spending trends. More critically, workforce distribution remains highly unequal across sectors, provinces and rural–urban areas.
Implementation progress between 2019 and 2025 reflects a paradox: the Strategy is technically robust and well aligned with national and global frameworks (NDP 2030, SDG 3.c, NHI) yet systemically constrained in execution. Around 56,000 additional health workers had been recruited by 2023, but fiscal austerity, provincial hiring freezes and fragmented governance have limited sustained and equitable staffing gains, particularly in underserved areas. Major system constraints undermine implementation.

Education–labour market misalignment: Training outputs are not matched by funded posts, with bottlenecks in internships, community service placements and specialist training. This has resulted in the coexistence of unmet service needs and unemployed health professionals.
Persistent inequities in distribution: Approximately 70% of doctors work in the private sector, while rural areas, home to nearly half the population, remain severely underserved. These structural imbalances continue to limit equitable access to care.
Fiscal constraints and wage-bill ceilings: Budget limitations have led to frozen posts and delayed absorption of graduates, weakening the translation of workforce plans into actual service delivery capacity.
Fragmented HRH data systems: Workforce data remain incomplete and poorly integrated across payroll, regulatory and training systems, constraining evidence-based planning and monitoring. Data and Information Systems emerge as the central enabling constraint. While South Africa has developed a modern HRH registry and data warehouse, data quality, coverage and institutional use remain limited. Compared with countries such as Kenya and Brazil, the technical foundation exists but is not yet fully embedded in governance and decision-making systems.

Overall, South Africa enters the next HRH strategy cycle with strong policy design, measurable recruitment gains and promising digital infrastructure, but faces significant risks of stagnation without structural reform.
To address these challenges, the report proposes a **four-pillar implementation roadmap**:

- **Optimisation:** Improve deployment, working conditions and performance of the existing workforce.
- **Investment and alignment:** Align education, labour-market planning and budgets with service needs.
- **Governance:** Strengthen leadership, provincial capacity and public–private coordination.
- **Data and accountability:** Establish integrated, high-quality HRH information systems as core infrastructure.

The central recommendation is to treat HRH data systems as a foundational reform platform. Consolidating registries, improving data completeness, integrating public and private sector information, and institutionalising regular labour market analysis are essential prerequisites for effective workforce planning, equitable distribution and sustainable progress toward UHC and NHI.

1. Introduction and Strategic Context

HRH as a foundation for UHC and NHI

Human Resources for Health (HRH) are globally recognised as a core building block of health systems and a primary determinant of progress toward Universal Health Coverage (UHC) (WHO, 2018). Global analyses indicate that achieving at least 70% UHC service coverage requires approximately 134 health workers per 10,000 population across an appropriate skills mix. This threshold is significantly higher than the levels found in most African countries (Ahmat et al., 2022). Although South Africa's density of doctors, nurses and midwives is comparatively high within the region, equitable access and service quality remain constrained because of persistent maldistribution, skill mix imbalances and underinvestment in the public sector (Asamani et al., 2024).

In South Africa, HRH is positioned at the core of National Health Insurance (NHI) reforms. The HRH Strategy 2030, titled "Investing in the Health Workforce for Universal Health Coverage", is widely referenced as the main instrument for ensuring that the NHI benefits package can be delivered with the required numbers and skills across the system (NDoH, 2020). The Presidential Health Compact reinforces this by identifying HRH and information systems as central pillars. It mandates the development of an HRH operational plan and links HRH reforms with NHI, quality of care and employment creation (Presidency, 2024). Recent assessments of NHI readiness highlight staff shortages, skill gaps and distributional inequities as major risks to implementation (Mudzweda, 2025).

Alignment with national and global frameworks

The HRH Strategy 2030 aligns closely with the National Development Plan (NDP) 2030, which envisions a health system centred on Primary Health Care (PHC) and calls for equitable staffing, strengthened Community Health Worker (CHW) programmes and reduced inequalities between public and private sectors (DPME, 2014). These NDP priorities are reflected in the Strategy's emphasis on PHC reorientation, rural deployment, CHW expansion and community-based teams (NDoH, 2020).

At the global level, the Strategy advances commitments under Sustainable Development Goal (SDG) 3.c, which calls for increased investment in health financing and the recruitment, development and retention of the health workforce. It also follows WHO's Global Strategy on Human Resources for Health: Workforce 2030 and draws on the National Health Workforce Accounts (NHWA) framework. These provide global benchmarks for monitoring workforce stock, distribution and labour market dynamics. South Africa's engagement with NHWA reporting has strengthened comparability while also highlighting persistent data gaps (WHO, 2018; Asamani et al., 2024).

The "triple challenge" and HRH

South Africa's HRH planning is shaped by the broader national context of the triple challenge of poverty, inequality and unemployment. These constraints are described in the NDP as mutually reinforcing and deeply structural (DPME, 2014; Sachs, 2021). HRH investments are therefore intended to advance health system objectives as well as wider socio-economic goals, including youth employment, skills development and economic participation. The HRH Strategy references the High-Level Commission on Health Employment and Economic Growth and explicitly positions HRH expansion as a lever for employment creation (NDoH, 2020).

At the same time, fiscal and macroeconomic pressures limit the state's ability to expand the public sector wage bill. Medium-term fiscal consolidation, reductions in real non-interest expenditure and wage bill containment between 2019 and 2023 led to hiring freezes, delays in filling vacancies and erosion of capacity at the facility level (Sachs, 2021). This creates a structural tension because the HRH Strategy calls for expansion and greater equity, while fiscal frameworks restrict the creation of funded posts. Addressing this tension requires much stronger alignment between planning, budgeting and labour market analysis.

Methodological note and data limitations

This assessment focuses on implementation readiness rather than ex post impact evaluation for three reasons:

- Many staffing and distribution targets are set for 2025 and 2030, and intermediate indicators are not consistently reported in the public domain (NDoH, 2020).
- National and provincial HRH data remain fragmented across payroll systems, professional councils, training institutions and facility level systems, with inconsistent coverage and limited disaggregation since 2019 (NDoH, 2020; WHO, 2026).
- External shocks including COVID 19, fiscal tightening and evolving NHI legislation have altered baseline assumptions and implementation trajectories (Matseke, 2023; Sachs, 2021).

To address these limitations, the assessment triangulates evidence from the HRH Strategy 2030 and related NDoH plans, the Presidential Health Compact, WHO reports, peer reviewed literature and grey sources that include Think Tank analyses, media reporting and implementation briefs (NDoH, 2020; WHO, 2026). Where quantitative estimates diverge across sources or time periods, this is noted explicitly. Emphasis is placed on structural constraints, directional trends and system readiness rather than precise point estimates.

2. Situational Analysis: The HRH Crisis in South Africa

Workforce density and projected shortages

The WHO reported in 2018 that the average density of doctors, nurses and midwives in the African Region was 1.55 per 1,000 population, with only a few countries, including South Africa, exceeding the Sustainable Development Goal (SDG) 3.c threshold of 4.45 per 1,000 population (Asamani et al., 2024). Despite this comparatively high aggregate density, South Africa remains significantly below the estimated requirement of approximately 134 health workers per 10,000 population associated with achieving 70 % universal health service coverage (Ahmat et al., 2022). This relative adequacy at a continental level masks the reality that South Africa’s burden of disease, dual health system structure and service expectations require much higher effective workforce availability (De Villiers, 2021).

The HRH Strategy 2030 estimated that meeting service delivery and equity goals required roughly 97,000 additional health workers by 2025. It further noted that approximately 88,000 Primary Health Care (PHC) workers would be required for the PHC benefits package envisioned in national policy (NDoH, 2020; Spotlight, 2020). Between 2019 and

2023, an estimated 50,000 health workers were recruited through the Working for Health commitments, suggesting partial but incomplete progress toward this target (UNDP, 2024).

Public–private sector imbalance

Despite the overall density figures, there is an entrenched imbalance between the public and private sectors. Analyses of expenditure and staffing suggest that approximately half of total health spending and roughly half of the health workforce serve the 16% or so of the population covered by private schemes, leaving the majority reliant on an under-resourced public system whose 2019 staffing density was estimated at nearly 503 selected health workers per 100,000 public sector users, including only 43 doctors per 100,000, compared with 282 nurses and 112 CHWs, illustrating both the thin physician base and the system's heavy dependence on nursing and community-based cadres (NDoH, 2020). Estimates indicate that around 70% of doctors work only in the private sector, meaning that about 30% of physicians are available to serve the public sector where over 80% of the population seek care (De Villiers, 2021). For specialists, the imbalance is starker: recent reviews describe six-fold differences in population-to-provider ratios between private and public sectors and highlight the concentration of specialist services in metropolitan areas and private hospitals (Moodley, 2018).

These disparities undermine the HRH Strategy's goals of equity and efficient use of national human resources. Without robust public–private coordination mechanisms, integrated planning and incentives or regulation to influence the distribution and dual practice of professionals, increases in total national production risk being absorbed disproportionately by the private sector, with limited impact on public sector service coverage (NDoH, 2020).

Rural–urban and provincial inequalities

Long-standing evidence shows profound rural–urban inequalities in HRH distribution. Approximately 43–44% of South Africa's population lives in rural areas, yet only about 12% of doctors and 19% of nurses work in these areas, implying substantial under-service for rural communities. Comparative analyses describe six-fold differences in the number of people served per nurse and up to 23-fold differences in the number served per specialist doctor when comparing public and private sectors and rural versus urban areas (MacGregor, 2018). Provincial disparities are similarly marked: empirical work notes, for example, that the best-resourced province had one public sector doctor per 737 people while the worst had one per 5 805, and registered nurse ratios also varied more than twofold between provinces.

More recent qualitative and survey-based research during COVID-19 has confirmed that many public sector facilities, especially in poorer provinces, operate with high vacancy rates and rely heavily on overtime and agency staff, contributing to burnout and turnover (Matseke, 2023). While updated, fully disaggregated post-2019 provincial HRH data are not consistently available in the public domain, media reports and provincial oversight visits have highlighted vacancy rates exceeding 10–15% in key cadres in provinces such as the Eastern Cape and continued difficulties in filling posts in rural and remote facilities (Matseke, 2023).

Education and training pipeline: strengths and bottlenecks

South Africa has expanded health professions education over the past decade, with increased medical school intakes, new nursing college accreditation processes, growth in allied health programmes and is among the African countries with relatively higher training capacity (Asamani et al., 2024). The HRH Strategy models future workforce supply based on assumptions about graduate output, internship and community service absorption and specialist training numbers across priority disciplines (NDoH, 2020). However, several pipeline constraints have undermined these projections. These bottlenecks reflect a broader education-to-employment misalignment in which training output and mandatory post-graduate placement obligations are not consistently matched by funded internship, community service, medical officer and registrar posts, thereby weakening the return on public investment in health professions education (NDoH, 2020).

Internship and community service are mandatory for many health professions and are intended both to complete professional formation and to support staffing in underserved areas. While NDoH has emphasised that all eligible medical interns and most community service cadres are placed each cycle, recurrent episodes of delayed or partial placement, especially for dentists, physiotherapists, radiographers and other rehabilitation professionals, have been reported, often linked to provincial budget constraints (NDoH, 2023). As of late 2023, media and civil society reports highlighted nearly 200 unplaced health science graduates for community service posts and concerns that such gaps may become a regular feature against the backdrop of fiscal austerity (Bhekisisa, 2023).

At the same time, there is growing evidence of unemployed or under-employed doctors and other professionals who have completed community service but cannot be absorbed into permanent posts due to provincial wage-bill ceilings and frozen vacancies (MedicalBrief, 2024). This phenomenon indicates a mismatch between national training investments and funded establishment posts, and points to a labour market failure where skills are produced but not utilised in the public sector, even in the presence of service gaps. Specialist training capacity remains constrained in several disciplines, with the HRH Strategy itself acknowledging that targets for many specialties by 2025 were two to three times current projected availability, requiring substantial expansion of training posts and supervisory capacity (Spotlight, 2020).

Rural pipeline initiatives, including bursary schemes for rural-origin students, targeted recruitment and educational outreach, have shown promise but remain fragmented and insufficiently scaled (MacGregor, 2018). Reviews of rural pipeline programmes in sub-Saharan Africa underscore challenges such as poor preparation of rural school-leavers in sciences, financial barriers and inadequate support structures, all of which also apply in South Africa and limit the potential of such schemes to redress geographic maldistribution without broader education and HRH reforms (WHO, 2019).

Fiscal constraints, hiring freezes and labour market dynamics

South Africa entered the 2019–2025 period in the midst of significant fiscal consolidation, with National Treasury planning four years of nominal wage restraint and real reductions in government consumption, including health (Sachs, 2021). These measures translated into provincial cost-containment directives, vacancy freezes and delays in creating or filling posts, even where training pipelines were producing new graduates (Sachs, 2021). The HRH Strategy itself, as reported in media analyses, describes the fiscal and economic outlook as bleak and warned that, if HRH expenditure only grew in line with inflation, the shortfall in essential health workers would worsen by 2025 (Spotlight, 2020).

This macro–micro disconnect is visible in labour market outcomes. On one hand, there is a documented shortage of health workers in the public sector, with the HRH Strategy and subsequent analyses pointing to a projected 97,000-worker gap by 2025 and persistent vacancies in public facilities (NDoH, 2020). On the other, there are reports of hundreds of unemployed doctors and other professionals unable to find posts because provinces lack budget to create or fund positions, and because medico-legal liabilities and other pressures crowd out personnel budgets (SAnews, 2024). These dynamics reflect not only aggregate fiscal constraint but also inefficiencies and rigidities in HRH financing, including weak links between HRH planning, establishment design-and-control, wage negotiations and NHI requirements.

Labour market governance is further complicated by migration and dual practice. South Africa continues to experience emigration of health professionals to high-income countries, as well as internal migration from rural public facilities to urban private practice, driven by differential remuneration, working conditions and career prospects (OECD, 2013). While the HRH Strategy acknowledges these trends and proposes retention and rural incentive measures, comprehensive data on flows and the effects of specific policies remain limited, making it difficult to assess current mitigation efforts.

Governance and HRH data constraints

Governance of HRH in South Africa is formally anchored in NDoH, with provincial departments responsible for implementation and professional councils overseeing registration and standards, but practical coordination across these entities has historically been weak (NDoH, 2020). The HRH Strategy highlights challenges including fragmented decision-making, inconsistent adherence to staffing norms, and limited capacity for strategic HRH management at provincial and facility levels, particularly in relation to planning, deployment and performance management; in practice, several provinces continue to operate with weak HRH units that have limited analytical capability and insufficient influence over establishment control, budgeting and service-planning decisions (NDoH, 2020; Matseke, 2023).

Critically, HRH data systems have lagged behind service delivery and fiscal reforms. Prior to 2019, South Africa relied largely on administrative payroll systems, professional council registers and periodic surveys to estimate workforce numbers and distribution, each with major limitations for planning: payroll systems exclude non-state providers and have poor geographic detail; council registers include professionals who have emigrated or retired; and surveys are episodic and not linked to establishment control (NDoH, 2020; WHO, 2026). The HRH Strategy's modelling work itself required extensive efforts to clean and reconcile disparate datasets, and the report acknowledges ongoing data quality and completeness issues, particularly regarding cadres such as CHWs and mid-level workers (NDoH, 2020).

In response, NDoH, with partners such as HISP and Africa Centres for Disease Control and Prevention (CDC), has developed an integrated HRH information system architecture that includes an HRH registry built on Fast Healthcare Interoperability Resources (FHIR) standards and a District Health Information Software 2 (DHIS2) based data warehouse supporting analytics and dashboards (HISP, 2022). The HRH registry consolidates individual workforce records from multiple primary sources into an authoritative repository, and by early 2022 held over one million records (HISP, 2022). The data warehouse aggregates and visualises this information, enabling managers to monitor workforce stock by cadre and location and to respond more rapidly, as seen in its use to identify ICU-trained

staff and priority facilities during the COVID-19 response (HISP, 2022). Even so, the system does not yet provide a fully unified, routinely updated picture of vacancies, attrition, migration and workforce flows across public and private sectors, which limits its usefulness for real-time labour market stewardship (WHO, 2018).

While these developments are significant, they do not yet amount to a fully-fledged, interoperable NHWA system. Key gaps include incomplete coverage of cadres (especially CHWs and contracted workers), limited integration with education and training data, partial inclusion of private sector information, and absence of standardised health labour market analysis outputs that link HRH data to budget and service delivery indicators (WHO, 2018; Africa CDC, 2026). Moreover, there is limited public reporting of the HRH registry's contents, and systematic use of its analytics for policy-making is still emerging. This partial implementation of Goal 5 constrains the capacity to monitor progress on the other four goals and to adjust course in real time.

3. Assessment of the 5 Strategic Goals

Goal 1: Effective HRH Planning and Strategy

Strategic coherence. The HRH Strategy 2030 offers a comprehensive, labour market–informed framework for planning, with explicit modelling of future workforce needs under different scenarios, alignment to NDP 2030 and NHI, and detailed consideration of the quadruple burden of disease and PHC reorientation (NDoH, 2020). It incorporates international guidance on labour market analysis and UHC-linked threshold densities and recognises the need to plan across the full skill mix, including CHWs and mid-level cadres (NDoH, 2020). Compared with many middle-income countries, this level of analytical sophistication is a strength.

Governance and institutional arrangements. Planning responsibilities are primarily located within NDoH's HRH unit, with inputs from provincial departments, professional councils and training institutions through the Ministerial Task Team and various working groups (NDoH, 2020). However, there is limited evidence that this planning function is fully institutionalised in routine intergovernmental processes or that it systematically shapes establishment decisions and training intakes. Fragmented authority over training, wage bargaining and private sector growth further weakens the leverage of strategic HRH planning (NDoH, 2020).

Financing and implementation mechanisms. The HRH Strategy outlines indicative costing and investment needs, including the billions of rand required to avoid severe shortages by 2025 and to reach equity targets across provinces (NDoH, 2020). Yet, there is limited alignment between these estimates and actual medium-term expenditure frameworks, which have instead emphasised wage restraint and overall spending cuts (Sachs, 2021). There is no dedicated HRH conditional grant or national funding window to protect priority HRH investments, making implementation vulnerable to provincial fiscal pressures and financial implications of medico-legal claims (Matseke, 2023).

Workforce production, deployment and retention strategies. The strategy proposes a mix of production, deployment and retention interventions, many of which are consistent with WHO recommendations and global evidence (NDoH, 2020). However, implementation has been uneven: while recruitment has increased and community service continues to channel new graduates into public facilities, retention in rural areas remains

weak, and many proposed incentive and career path reforms have not been fully operationalised (Matseke, 2023).

Data and monitoring readiness. From a planning perspective, Goal 1 relies heavily on the robustness of Goal 5. The initial HRH modelling was constrained by fragmented data and required substantial assumptions; ongoing monitoring of whether projected recruitment and distribution trajectories are being met remains limited (NDoH, 2020; Matseke, 2023). Without a mature NHWA-based system and integrated labour market analysis, the ability to update plans, test alternative scenarios and link HRH policies to UHC outcomes is constrained.

Goal 2: Institutionalised Leadership and Governance

Strategic coherence. Goal 2 seeks to strengthen leadership and governance for HRH at all levels, including clarifying roles and responsibilities, enhancing HRH management capacity and embedding HRH considerations in broader health sector reforms such as NHI (NDoH, 2020). This is aligned with global HRH action frameworks that place governance and management systems at the heart of sustainable workforce development (WHO, 2018).

Governance and institutional arrangements. The establishment of the HRH Ministerial Task Team, HRH committees and the HRH unit within NDoH, along with the Presidential Health Compact's governance structures, reflects progress in institutionalising HRH leadership (NDoH, 2020; Presidency, 2024). However, several gaps persist: HRH leadership capacity at provincial and district levels remains variable; HRH is not consistently integrated into strategic decision-making on infrastructure, technology and financing; and there is limited formalised engagement with private sector and professional associations on national workforce planning (Matseke, 2023).

Financing and implementation mechanisms. Governance reforms under Goal 2 are not strongly resourced; there are few dedicated budget lines for HRH management capacity building, HRH observatories or provincial HRH units, and weakly resourced provincial HRH functions continue to constrain implementation fidelity (NDoH, 2020). The absence of performance-linked financing for HRH governance outcomes limits incentives for provinces to prioritise HRH reforms amidst competing demands. International experience from Brazil's HRH observatories underscores the importance of sustained investment in HRH units, information systems and management training to consolidate governance gains (Salles, R., et al., 2023).

Workforce production, deployment and retention strategies. Governance structures influence production and deployment indirectly through policies on bursaries, internship allocations, rural incentives and establishment norms. While South Africa has multiple such instruments, inconsistencies in application across provinces and weak monitoring blunt their effects (Matseke, 2023). For example, bursary schemes for rural-origin students are not systematically linked to post placements and career paths, and there is limited accountability when provincial departments underfill critical posts.

Data and monitoring readiness. Leadership and governance reforms require robust indicators on HRH management performance, including timeliness of recruitment, adherence to staffing norms and effectiveness of retention interventions. Current HRH data systems do not yet systematically generate or report such governance indicators, and

there is no widely used dashboard for HRH governance performance at provincial or district level (HISP, 2022; WHO, 2026).

Goal 3: Intelligent and Equitable Workforce Distribution

Strategic coherence. Goal 3 tackles one of South Africa's most intractable problems: maldistribution of health workers between provinces, sectors and rural/urban areas (NDoH, 2020). The strategy proposes intelligent deployment, including normative staffing models, rural and hardship incentives, expanded use of CHWs and team-based PHC, and policy instruments to address public–private imbalances (NDoH, 2020). This is consistent with global evidence on rural recruitment and retention, task-shifting and community-based care (WHO, 2019).

Governance and institutional arrangements. Implementation of equitable distribution strategies is largely delegated to provinces within the intergovernmental fiscal framework, with national guidance on staffing norms and the location of community service posts (NDoH, 2020). While this allows flexibility, it also leads to variability in the degree to which provinces use available instruments and, in their ability, to fund establishment growth. There is limited enforcement of national norms and no systematic mechanism to prevent provinces from freezing posts in rural facilities while filling urban posts.

Financing and implementation mechanisms. Fiscal constraints and medico-legal payouts have significantly undermined the implementation of Goal 3. Even where norms suggest that certain facilities should have additional staff, provincial departments often lack budget to create or fund posts, leading to high vacancy rates and reliance on overtime and sessional contracts (Matseke, 2023). The lack of ring-fenced funding for rural posts, CHWs or scarce-skill incentives means that equity-oriented HRH measures are vulnerable to across-the-board cuts.

Workforce production, deployment and retention strategies. The community service programme remains a key instrument for distributing new graduates to underserved areas, and the HRH Strategy envisages expanding its scope and strengthening support and supervision (NDoH, 2020). However, as noted, budget constraints have periodically limited the number of funded posts, and some cadres have faced delayed placement, undermining the programme's equity and training objectives (Bhekisisa, 2023). Rural pipeline strategies and expanded CHW programmes offer additional levers but have not yet been deployed at sufficient scale to fundamentally alter distribution patterns (Matseke, 2023).

Data and monitoring readiness. Equitable distribution requires granular, timely data on workforce numbers, vacancies and service demand by facility and district, disaggregated by cadre and employment sector. While the integrated HRH registry and data warehouse have created the technical means to visualise such patterns, there is limited public evidence that they are being used systematically to drive redistribution decisions, and data gaps for CHWs and contracted staff remain problematic (HISP, 2022; WHO, 2026). Without reliable denominators linked to HRH data, intelligent deployment remains constrained.

Goal 4: Production of a Skilled Workforce

Strategic coherence. Goal 4 emphasises aligning health professions education with population health needs, PHC and NHI, and ensuring that graduates possess the competencies required for integrated, team-based care across levels of the system (NDoH,

2020). This includes reforms to medical and nursing curricula, expansion of mid-level cadres, strengthening of CHW training and increased interprofessional education, all consistent with global recommendations (WHO, 2019).

Governance and institutional arrangements. Responsibility for training is shared between NDoH, the Department of Higher Education and Training, universities, nursing colleges and professional councils, which creates coordination challenges. While structures such as the South African Committee of Medical Deans and other professional associations engage with government on curriculum and training issues, there is no single joint HRH education planning platform that links national workforce projections, education financing and accreditation decisions (NDoH, 2020).

Financing and implementation mechanisms. Expansion of training capacity has been partially supported through public funding for health sciences faculties and nursing colleges, and through bursary schemes, including those targeting rural-origin students (Moodley, 2018). However, budget cuts and uncertainties have affected the ability of universities and colleges to grow enrolments and maintain quality, and there is limited evidence of systematic alignment between HRH Strategy projections and higher education funding envelopes (Sachs, 2021). Specialist training posts are constrained by available funded registrar positions and supervisory capacity, with several disciplines facing shortfalls relative to projected needs (NDoH, 2020).

Workforce production, deployment and retention strategies. The production of a skilled workforce is not solely a function of enrolment numbers; quality of training, exposure to rural and PHC settings, and supportive transition to practice are critical. Reviews of the intern programme emphasise the importance of ensuring that junior doctors receive adequate supervision and exposure to surgery, obstetrics and emergency care, while also contributing meaningfully to service delivery in high-burden settings. Similarly, rural pipeline and community-based training initiatives have demonstrated potential but face logistical and resource challenges (Moodley, 2018).

Data and monitoring readiness. Data on student enrolments, graduations, drop-out rates and training locations are held by higher education institutions and councils, but are not yet consistently integrated into the national HRH information system (WHO, 2026). This weakens the ability to model future workforce supply and to adjust training policies in response to labour market signals. Countries such as Kenya and several Indian states have explicitly linked HRH registries to education data to monitor coverage and to drive curriculum and intake adjustments, highlighting an area for South Africa to emulate (IntraHealth, 2021).

Goal 5: Data and Information for Decision-Making

Strategic coherence. Goal 5 recognises that robust, interoperable HRH information systems and NHWA implementation are foundational for effective planning, governance, equitable distribution and education reforms (NDoH, 2020; WHO, 2018). It aligns with WHO guidance that calls on countries to consolidate a core set of HRH data and progressively implement NHWA to support national and global monitoring of workforce dynamics (WHO, 2026). In the South African context, Goal 5 is the central enabling constraint: without high-quality, integrated data, the ambitions of Goals 1–4 cannot be fully realised or course-corrected.

Governance and institutional arrangements. NDoH, with technical partners, has developed a modern HRIS architecture with two core components: an HRH registry, based on FHIR and fed by multiple transactional systems, and a DHIS2-based data warehouse that aggregates and visualises HRH data for planners and managers (HISP, 2022; NDoH, 2020). Governance arrangements for this architecture include agreements with data-providing entities and oversight by NDoH information systems and HRH units, but formal national HRH data governance policies and multi-sectoral steering mechanisms are still emerging (WHO, 2026).

Financing and implementation mechanisms. Initial investments in the HRIS architecture have been supported by partnerships and donor funding, including technical assistance from WHO, CDC and others, but sustainable domestic financing for system maintenance, expansion and data quality improvements is not yet fully institutionalised (UNDP, 2024). There is limited information on whether dedicated budgets exist for NHWA implementation, data quality audits and capacity building for data use at provincial and district levels.

Workforce production, deployment and retention strategies. The HRH information system already supports some deployment and emergency response functions, for example, identifying cadres and locations for targeted vaccine roll-out during COVID-19 and mapping ICU-trained staff (HISP, 2022). However, systematic integration with workforce production, routine deployment decisions and evaluation of retention strategies is at an early stage.

Data and monitoring readiness; pathway to a unified system. South Africa has moved further than many African peers in building the technical underpinnings of an integrated HRH information system, but it has not yet fully realised the potential of NHWA as a comprehensive, interoperable and policy-linked framework (Africa CDC, 2026). Key elements of a credible pathway to a unified HRH information system include consolidation of core registries, comprehensive coverage of cadres and sectors, standardisation and mapping to NHWA indicators, integration with education and finance data, and institutionalised data use through HRH observatories and routine labour market analysis (WHO, 2018; Salles, R., et al., 2023).

Comparatively, Kenya has used NHWA cycles to underpin a health labour market analysis that informed policy options for addressing mismatches between supply and demand, supported by an interoperable iHRIS platform used at national and county levels (IntraHealth, 2021; WHO, 2026). Brazil's registry and broader health data integration initiatives demonstrate how a unified, regularly updated registry of facilities, human resources and services can support planning and regulation in a decentralised system (Salles, R., et al., 2023). Several Indian states have shown how binding HRH registries to salary release and ensuring minimum datasets can rapidly improve coverage and data quality for decision-making (WHO, 2026). These experiences underscore that South Africa's existing HRH registry and data warehouse form a solid base, but that institutional governance and systematic NHWA implementation are required to achieve a truly unified system.

4. Findings and Implementation Roadmap

Key strengths, gaps and bottlenecks

Strengths.

- A comprehensive, analytically robust HRH Strategy 2030 aligned with NDP 2030, NHI and the Presidential Health Compact, incorporating labour market concepts and explicit projections (NDoH, 2020).
- Demonstrable recruitment gains since 2019, with an estimated ~50,000 additional health workers recruited and further integration of contract workers towards a national target of 97,000 new jobs by 2025 (Presidency, 2024).
- A modern HRH information system architecture using FHIR and DHIS2, with an HRH registry holding over one million individual workforce records and a data warehouse providing dashboards for planning and emergency response (HISP, 2022).
- Established policy instruments for internship and community service, CHWs, rural allowances and bursaries, providing levers to influence distribution and career pathways (NDoH, 2020).
- Growing engagement with global HRH initiatives, including NHWA and health labour market analysis, and emerging comparative learning from countries such as Kenya and Brazil (IntraHealth, 2021; Salles, R., et al., 2023).

Major gaps.

- Persistent, severe maldistribution between public and private sectors, provinces and rural/urban areas, with high vacancy rates in many public facilities and continued concentration of specialists and advanced services in urban private hospitals (De Villiers, 2021; Moodley, 2018).
- Misalignment between HRH Strategy investment requirements and medium-term budget frameworks, leading to underfunding of staffing norms, rural posts and CHW expansion (Sachs, 2021).
- Fragmented governance across national and provincial levels, higher education and finance, and weak institutionalisation of HRH leadership and management, particularly below the national level (NDoH, 2020).
- Incomplete and inconsistently integrated HRH data across payroll, regulatory, education and service-delivery systems, limiting the maturity of NHWA implementation, obscuring real-time information on vacancies, attrition and labour-market flows, and constraining monitoring of strategy execution (NDoH, 2020; WHO, 2026).

System bottlenecks.

- Fiscal austerity and wage-bill ceilings that result in frozen posts, delayed absorption of graduates and paradoxical coexistence of unemployment among health professionals with shortages in facilities (Sachs, 2021; Bhekisisa, 2023).
- Bottlenecks in internship and community service placement for certain cadres, and inadequate scaling of rural pipelines and mid-level cadres (Bhekisisa, 2023; WHO, 2019).

- Limited capacity and incentives for provincial HRH management, including weak integration of HRH data into routine management and lack of performance-linked accountability for staffing norms and equity (Matseke, 2023).
- Underdeveloped public–private coordination on HRH, including absence of mechanisms to align specialist distribution, dual practice and training contributions with national equity goals (De Villiers, 2021).

Strategy-to-budget alignment

The HRH Strategy's costing exercises highlight the scale of additional investment required to avert severe public sector shortages, but medium-term national budgets have tended towards reduced real spending and wage restraint (NDoH, 2020; Sachs, 2021). This misalignment suggests that the strategy has not yet fully penetrated fiscal decision-making processes. There is no dedicated HRH financing instrument akin to disease-specific conditional grants, nor explicit use of fiscal incentives to drive provincial staffing equity and training expansion.

Internationally, some OECD and middle-income countries have used multi-year HRH investment plans, sometimes linked to performance-based funding or earmarked contributions to training and rural staffing, to reconcile workforce strategies with fiscal frameworks (OECD, 2013). South Africa's Working for Health commitments, which connect HRH expansion to employment and economic growth, offer an opportunity to reframe HRH spending as an investment rather than a cost, but this has not yet translated into durable budgeting reforms (UNDP, 2024).

Provincial implementation capacity and governance fragmentation

Implementation of the HRH Strategy depends heavily on provincial departments, which vary in management capacity, financial health and political support. Provinces facing high medico-legal claims, historical under-investment and weak HRH units are less able to translate national norms into funded posts and filled positions (Matseke, 2023). Fragmentation is exacerbated by limited coordination between provincial HRH managers, higher education institutions, district health management teams and Treasury counterparts.

The Presidential Health Compact and its second phase provide a potential platform to address these governance gaps by specifying roles, timelines and accountability mechanisms across stakeholders (Presidency, 2024). However, there is limited publicly available evidence of systematic monitoring of HRH-related commitments under the Compact, and the alignment between Compact interventions, HRH Strategy actions and provincial performance agreements remains weak.

Missing results architecture and measurable milestones

While the HRH Strategy outlines goals, objectives and some indicators, it does not yet function as a fully articulated results framework with clear baselines, annual targets, roles, responsibilities and data sources for all key metrics (NDoH, 2020). Many indicators, such as vacancy rates, rural retention, quality of care outcomes linked to staffing or data system maturity, are not systematically reported or linked to performance contracts. A more operational results architecture would include a concise national scorecard, updated at least annually, tracking province-level vacancy rates, distribution ratios, community service

placement, funded versus filled posts, and HRH data completeness, with explicit assignment of responsibility across NDoH, provinces and partner institutions (WHO, 2018).

Global good practice, including NHWA-based scorecards and HRH observatories in Latin America and selected African countries, shows the value of simple, high-visibility dashboards that track a manageable set of indicators such as total health workers per 10,000 population by cadre, rural-to-urban ratios, public–private distribution, CHW coverage and completeness of HRH data modules (Salles, R., et al., 2023; IntraHealth, 2021). South Africa's existing HRH registry and data warehouse could underpin such a results architecture, but this will require deliberate design and governance.

5. Four strategic pillars for the next HRH cycle

Pillar 1: Optimisation (evidence-based performance improvement)

Objective: Maximise the effectiveness and equity of the existing and near-term workforce through better deployment, task-sharing, working conditions and management, while structural investments are scaled up.

Priority actions include systematic use of HRH registry analytics for deployment decisions, strengthening team-based PHC and scope-of-practice optimisation, improving working conditions and support to reduce burnout and attrition, and enhancing HRH management capacity at provincial and district levels. All optimisation interventions should be designed with embedded metrics captured through the HRH information system and used in iterative improvement cycles (HISP, 2022; WHO, 2018).

Pillar 2: Investment and Alignment (education and labour-market alignment)

Objective: Align education, training and labour-market investments with projected HRH needs under NHI and UHC, ensuring that public spending produces and absorbs the right mix of skills in the right locations.

Priority actions include reconciling HRH strategy projections with medium-term budgets through a joint HRH–Treasury working group; establishing a national HRH education and training platform; scaling rural pipeline and mid-level cadre programmes; and mitigating labour market failures by temporarily absorbing unemployed professionals into strategically placed posts (Sachs, 2021; Moodley, 2018). Investment decisions should be based on integrated datasets linking education outputs, vacancy patterns and population health needs.

Pillar 3: Governance (institutional capacity and accountability)

Objective: Clarify roles, strengthen leadership and enhance accountability for HRH outcomes across national, provincial and local levels, and between public and private sectors.

Priority actions include clarifying and formalising HRH governance arrangements, strengthening provincial HRH leadership and accountability, enhancing public–private coordination and institutionalising HRH observatories or steering groups (NDoH, 2020; Presidency, 2024). Governance reforms must be anchored in transparent HRH data, with

regular public reporting and use of dashboards to monitor commitments under the Presidential Health Compact and HRH Strategy (HISP, 2022; Presidency, 2024).

Pillar 4: Data and Accountability (HRH information systems and monitoring)

Objective: Treat the HRH information system and NHWA implementation as foundational infrastructure, ensuring complete, interoperable, high-quality data and embedding a culture of data use for planning, management and accountability.

Priority actions include consolidating and standardising HRH data architecture, achieving comprehensive coverage and NHWA alignment, integrating HRH data with education, finance and service delivery, building capacity and a culture of data use, and enhancing transparency and public accountability (WHO, 2018; Africa CDC, 2026). Without a unified, interoperable HRH information system and regular NHWA reporting, South Africa cannot reliably plan, budget for, monitor or evaluate HRH reforms.

6. Conclusion

Between 2019 and 2025, South Africa's HRH Strategy 2030 has provided a coherent, forward-looking framework for aligning workforce development with UHC and NHI, catalysed recruitment and system design work, and initiated a transition towards modern, interoperable HRH information systems. Yet the country's HRH crisis remains acute: aggregate densities remain below UHC-relevant thresholds, maldistribution between sectors, provinces and rural/urban areas persists, education and labour-market alignment are weak, and fiscal austerity continues to undermine implementation.

Global experience from Brazil, India, Kenya and OECD countries demonstrates that success in HRH reform hinges on credible, data-driven planning, sustained and aligned investment and strong governance anchored in interoperable information. South Africa has made important strides on planning and digital architecture but has under-realised the potential of its HRH registry and NHWA engagement, and has yet to fully align fiscal, educational and governance systems with HRH goals.

Looking ahead to the next HRH strategy cycle, the central imperative is to treat data and accountability not as a technical add-on but as the foundational constraint whose resolution unlocks progress on planning, governance, distribution and education. A unified, interoperable HRH information system, fully mapped to NHWA and integrated with education, finance and service delivery data, is essential for tracking progress towards UHC and NHI, informing difficult trade-offs in a constrained fiscal environment, and ensuring that South Africa's health workforce strategy becomes implementable as well as aspirational.

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