NATIONAL HEALTH LABORATORY SERVICE

STRATEGIC PLAN

2025-2030

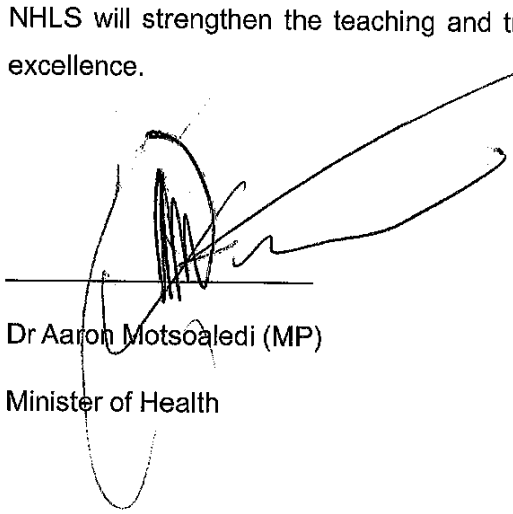
National Health Laboratory Service

Contents

STATEMENT BY THE EXECUTIVE AUTHORITY

I am pleased to endorse the National Health Laboratory Service's (NHLS) Strategic Plan, which the Board established under Prof Jeff Mphahlele, NHLS Board Chairperson, and Prof Koleka Mlisana, Chief Executive Officer. The NHLS 2025-2030 Strategic Plan considers the key policies, regulations, and requirements for which the NHLS is responsible and accountable.

It also accurately reflects the impact and outcomes that the NHLS will endeavour to achieve during the MTDP 2025-2030. The NHLS aims to enhance its service platform as a core focus. By so doing, the NHLS will strengthen the teaching and training platforms, thereby establishing itself as a centre of excellence.



Dr Aaron Motsoaledi (MP)

Minister of Health

STATEMENT BY THE ACCOUNTING AUTHORITY

I am privileged to present the National Health Laboratory Service (NHLS) Strategic Plan for 2025-2030. This plan emphasises our commitment to enhancing health outcomes for marginalised South Africans by providing high-quality diagnostic pathology services.

The NHLS is instrumental in delivering essential pathology services to over 85% of the South African population, underscoring our pivotal role in disease diagnosis and patient care. Given that approximately 70% of clinical decisions are based on pathology results, our mission is critical to public healthcare delivery and the overall well-being of our communities.

Our strategic focus for the next five years is enhancing organisational efficiency and quality. We will implement performance management systems, optimise workflows, and adopt best practices, all underpinned by robust governance and sound financial management.

We recognise and value the dedication and expertise of our personnel and are committed to fostering an inclusive environment that promotes professional development. Investing in our workforce enables us to navigate current and future challenges effectively.

Understanding the crucial role of technology, we plan to modernise our laboratories and digitise our processes to enhance service speed and accuracy. Integrating advanced technologies will improve our diagnostic capabilities and position the NHLS as a Centre of Excellence in the public healthcare ecosystem.

Receiving a qualified audit opinion has compelled us to reinforce our auditing processes, ensuring transparency and compliance with regulatory standards. Additionally, we are refining our service delivery model to enhance our efficiency in addressing stakeholder needs.

Equitable access to diagnostic services remains a fundamental aspect of our mission. We are committed to supporting non-academic facilities and expanding laboratory capacity to serve underserved communities effectively.

The Strategic Plan for 2025 - 2030 encapsulates our commitment to transformation and excellence, providing a framework for sustainable growth. With the collaboration of our partners and employees, the NHLS is positioned to effect positive change for millions of South Africans.

On behalf of the Board, I extend my sincere gratitude to all individuals who have contributed to the NHLS's success. Your commitment inspires us to strive toward a healthier and more equitable South Africa.

Professor Jeffrey Mphahlele
NHLS Board chairperson

OFFICIAL SIGN OFF

It is hereby certified that this Strategic Plan 2025-2030:

- was adopted by the management of the National Health Laboratory Service (hereunder referred to as the NHLS) under the guidance and support of the Board;
- considers all the relevant policies, legislation, and other mandates for which the NHLS is responsible and accurately reflects the outcomes and outputs for the 2025 – 2030 Medium Term Development Plan (MTDP).

Dr Clothilde Oliphant
Chief Operating Officer
Strategic Initiatives

Professor Jaya George
Acting Executive Manager
AARQA

Professor Adrian Puren
Executive Director
NICD

Professor Spoponki Kgalamono
Executive Director
NIOH

Ms Makgopelo Mkhwanazi
Executive Manager
Human Resources

Mr John Mukomana
Acting Executive Manager
Information Technology

Ms Violet Gabashane
Senior Manager
Monitoring and Evaluation

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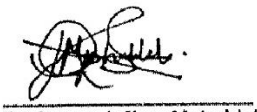
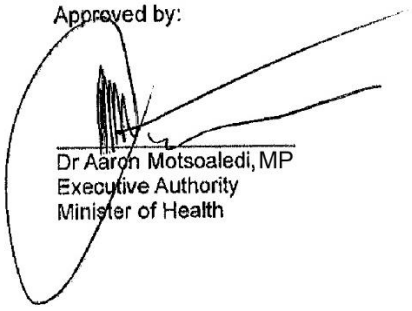
Ms Pumeza Mayekiso
NHLS Chief Financial Officer

Professor Koleka Mlisana
NHLS Chief Executive Officer



Professor Jeffrey Mphahlele
NHLS Board Chairperson

Approved by:



Dr Aaron Motsoaledi, MP
Executive Authority
Minister of Health

PART A: OUR MANDATE

1.0. Constitutional Mandate

In terms of the provisions of the Constitution of the Republic of South Africa, 1996 (as amended), the NHLS is, among others, guided by the following sections and schedules, and its role is to contribute towards:

1) The Constitution, which places obligations on the state to progressively realise socio-economic rights, including access to health care.

Section 27:

(1) Everyone has the right to have access to –

(a) health care services, including reproductive health care;

(2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights; and

(3) No one may be refused emergency medical treatment.

2.0. Legislative and other mandates

The NHLS is directly responsible for implementing, managing, and ensuring compliance with the legislation outlined below

2.1. National Health Act, 61 of 2003

The National Health Act ("NHA") provides a framework for a structured, uniform health system that is cognisant of the obligations imposed by the Constitution and other laws of the Republic concerning health services. The objective of the NHA is, *inter alia*, to provide for a common goal to actively promote and improve the national health system and deliver quality healthcare services in South Africa, premised on a system of cooperative governance and management in all spheres of government.

2.2. The National Health Laboratory Service Act, 37 of 2000

The National Health Laboratory Service (NHLS) was established in terms of the National Health Laboratory Service Act, 37 of 2000, as amended, ("the NHLS Act") to provide quality, affordable and

sustainable health laboratory and pathology related public health services. The NHLS was established to:

- provide cost-efficient diagnostic health laboratory and pathology services to all public-sector healthcare providers, any government institution inside or outside of the Republic that may require such services, and any private healthcare provider that requests such services;
- support and conduct health research; and
- provide training for health science education.

2.3. Public Finance Management Act (PFMA), 1 of 1999 (as amended)

The Public Finance Management Act 1 of 1999 ("PFMA") was promulgated to regulate financial management in the national government and its public entities to ensure that all revenue, expenditure, assets, and liabilities of the government and its public entities are managed efficiently and effectively. The PFMA also provides for the responsibilities of persons entrusted with financial management in government. Section 27(4) of the PFMA makes provision for the development of measurable objectives that must be included in the annual budgets of national and provincial institutions. Section 55(2)(a) makes provision for the reporting of performance against predetermined objectives in institutions. The PFMA promotes reporting against predetermined measurable objectives outlined in short and medium-term plans.

2.4. National Health Insurance Act, 20 of 2023

The National Health Insurance (NHI) Act 20 of 2023 establishes the National Health Insurance (NHI) Fund as a legally defined organ of the state. The NHI Fund is a health financing system designed to pool funds to provide access to quality and affordable personal health services for all South Africans based on their health needs, regardless of their socio-economic status. The State becomes a **single-payer** and **purchaser** of healthcare services on behalf of the population.

2.5. National Public Health Institute of South Africa Act, 1 of 2020

The National Public Health Institute of South Africa Act ("NAPHISA Act") aims to provide access to health care services to all South Africans by conducting integrated and coordinated disease and injury surveillance, research, monitoring, and evaluation of services and interventions concerning

communicable diseases, non-communicable diseases, injury and violence prevention, occupational health and safety, and environmental health.

NAPHISA Act will perform its functions in harmony with the NHLS to avoid duplication and ensure segregation of duties between the two entities.

2.6. Criminal Procedure Act, 51 of 1977

The Criminal Procedure Act ("CPA") applies to the NHLS insofar as criminal proceedings require experts in biochemistry, microscopy, or any branch of pathology or toxicology in terms of section 212(4)(a)(v). The CPA is also applicable where, in criminal proceedings, the collection, receipt, custody, packing, marking, delivery, or despatch of fingerprints or body prints, articles of clothing, specimen, bodily samples, crime scene samples, tissue, or any other object of whatever nature is concerned, as envisaged by section 212(8)(a) of the CPA.

2.7. Inquests Act, 58 of 1959

The Act provides for the holding of inquests in cases of deaths and alleged deaths and the reporting of the circumstances of deaths believed to be caused by non-natural causes.

2.8. National Road Traffic Act, 93 of 1996

This Act regulates road traffic in South Africa. It requires the testing and analysis of blood samples taken from drivers suspected of driving under the influence of alcohol or other prohibited substances believed to impair their mental faculties.

2.9. Foodstuffs, Cosmetics and Disinfectants Act, 54 of 1972

Provides for the regulation of foodstuffs, cosmetics, and disinfectants, in particular safety and quality standards that must be complied with by manufacturers, as well as the importation and exportation of these items.

2.10. Medicines and Related Substances Act, 101 of 1965

This bill provides for the establishment of the South African Health Products Regulatory Authority (SAHPRA), the licensing of manufacturers and importers of active pharmaceutical ingredients, and the regulation of medicines and other medical products. It also provides for transparency in the pricing of medicine.

2.11. Companies Act, 71 of 2008

The National Health Laboratory Service is the holding company of its subsidiary, the South African Vaccine Producers (Pty) Ltd, a registered company listed on the Companies and Intellectual Property Commission (CIPC).

2.12. Occupational Health and Safety Act, 85 of 1993

The Occupational Health and Safety Act (OHSA) provides for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery, the protection of persons other than persons at work against hazards to health and safety arising from or in connection with the activities of persons at work. The Act also gives effect to establishing an advisory council for occupational health and safety.

2.13. National Environmental Management: Waste Act, 59 of 2008

The Act regulates waste management to protect health and the environment by providing reasonable measures to prevent pollution and ecological degradation and secure ecologically sustainable development. The Act also provides for institutional arrangements and planning, norms and standards regulating the management of waste measures by all spheres of government, and compliance therewith.

2.14. Compensation for Occupational Injuries and Diseases Act, 130 of 1993

The Act provides a no-fault compensation system for injured employees who contract diseases during employment. The objective is to compensate for disablement caused by occupational injuries or diseases sustained or contracted by employees, death resulting from injuries or diseases, and other related matters.

2.15. Protection of Personal Information Act, 4 of 2013

The Protection of Personal Information (POPI) Act aims to align South Africa with existing data protection laws worldwide. The purpose of this Act is to, among others:

- Promote the POPI processed by public and private bodies.
- Introduce certain conditions to establish minimum requirements for processing personal information.

- Provide for establishing an Information Regulator to exercise certain powers and perform certain duties and functions in terms of this Act and the Promotion of Access to Information Act.
- Regulate the flow of personal information across the borders of South Africa.

The POPI Act applies to all private and public organisations that process personal information, referring to information processed electronically, recorded manually, and used in health and public authority records. With specific reference to Sections 19 to 22, the Act differentiates between a Responsible Party and an Operator Party and allocates different responsibilities to these parties. In any agreement, it is essential to clarify these roles upfront and ensure that all parties comply not only with the general provisions of the Act but also with specified responsibilities.

POPI Act obligations apply throughout the full period that the organisation processes personal data. So do individuals' rights with respect to personal data. The POPI Act includes data disposal; data must be disposed of securely and in a way that does not prejudice the interests and rights of the individual concerned.

The Act deals extensively with the following issues:

- Data collection.
- Data preservation.
- Third-party access.
- Compromised data; and
- Compliance.

2.16. Promotion of Access to Information Act, 2 of 2000

The purpose of the Promotion of Access to Information Act (PAIA) is to promote the right to access information and to foster a culture of transparency and accountability in South Africa. Furthermore, PAIA aims to encourage an open democracy where individuals from all walks of life are empowered to engage with the government and participate in decisions that affect their lives. The introduction of the POPI Act necessitated several changes to this Act but did not fundamentally change its principles or content. Access to health information is covered in Sections 30 (public) and 61 (private) of the Act, while Sections 34 (public) and 63 (private) deal with the mandatory protection of privacy of a third party who is a natural person. The Act provides for access requests through an Information Officer who is obligated to comply with the protection clauses in the Act.

2.17. Promotion of Administrative Justice Act, 3 of 2000

The purpose of the Promotion of Administrative Justice Act (PAJA) is to ensure administrative action that is lawful, reasonable, and procedurally fair and that anyone whose rights or legitimate expectations are materially and adversely affected by administrative action is furnished with written reasons for any such administrative action. The Act, therefore, ensures that the state's decisions (administrative actions) or organs of the state do not unfairly prejudice any person.

3. Policies, Planned Legislation, and Guidelines

3.1. National Development Plan: Vision 2030

The National Development Plan (NDP) is a long-term vision for the country, which provides a broad strategic framework to guide key government choices and actions and focuses on the critical capabilities needed to transform the economy and society. The plan highlights that accelerated development in South Africa requires the active support of all citizens, leadership in all sectors that puts the country's collective interests ahead of narrow, short-term goals, and radically improved government performance.

The NDP sets out nine (9) long-term health goals for South Africa. Five of these goals relate to improving the health and well-being of the population, while the other four deal with strengthening health systems. NHLS's role is to contribute to and align its services with the National Development Plan Vision 2030.

By 2030, South Africa should have achieved the following:

- Raised the life expectancy of South Africans to at least 70 years;
- Progressively improved TB prevention and cure;
- Reduced maternal, infant, and child mortality;
- Significantly reduced the prevalence of non-communicable diseases;
- Complete health system reforms;
- Primary healthcare teams that provide care to families and communities;
- Universal health care coverage; and
- Filled posts with skilled, committed, and competent individuals.

3.2 Sustainable Development Goals

The **Sustainable Development Goal 3 (SDG 3)** - **"Ensure healthy lives and promote well-being for all at all ages" -** sets a comprehensive framework to address global health challenges by 2030. It builds on the Millennium Development Goals (MDGs) progress and targets nine specific objectives to improve global health outcomes. These targets aim to:

Reduce Maternal Mortality

- Achieve a global maternal mortality ratio below 70 per 100,000 live births.

End Preventable Child Mortality

- Reduce neonatal mortality to no more than 12 per 1,000 live births.
- Reduce under-five mortality to no more than 25 per 1,000 live births.

Combat Epidemics and Communicable Diseases

- End epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases.
- Combat hepatitis, waterborne diseases, and other communicable illnesses.

Address Non-Communicable Diseases and Mental Health

- Reduce premature mortality from non-communicable diseases by one-third through prevention and treatment.
- Promote mental health and well-being.

Prevent and Treat Substance Abuse

- Strengthen efforts to address narcotic drug abuse and harmful alcohol use.

Achieve Universal Health Coverage (UHC)

- Ensure financial risk protection.
- Provide access to quality essential health services, medicines, and vaccines.

Enhance Research and Development

- Focus on developing affordable vaccines and medicines for diseases impacting developing countries.
- Uphold the Doha Declaration on TRIPS to protect public health and ensure access to medicines.

Strengthen Health Systems

- Increase health financing.
- Expand and retain a skilled health workforce, especially in developing nations and small island states.

Enhance Global Health Security

- Strengthen capacities for early warning, risk reduction, and management of health risks at the national and global levels.

The **National Health Laboratory Service (NHLS)** is critical to supporting the realisation of Sustainable Development Goal 3 (SDG 3) by ensuring efficient, high-quality, and cost-effective pathology diagnostic services.

3.3 Alignment to the Medium-Term Development 2024-2029.

The outcome of the general elections on 29 May 2024 resulted in the formation of the Government of National Unity (GNU). A Statement of Intent (Sol) binds the GNU and lays the foundational principles and minimum priorities programme. On 13-14 July 2024, Cabinet Lekgotla agreed on a minimum Programme of Priorities and approved that this be translated into the draft MTDP 2024-2029 as a more detailed plan. Following the opening of the Parliament Address on 18 July 2024, the President announced and confirmed the Strategic Priorities and the priorities for the 7th Administration of Government.

The MTDP Priorities are as follows:

- Priority 1 - Inclusive growth and job creation.
- Priority 2 - Reduce poverty and tackle the high cost of living
- Priority 3 - Build a capable, ethical, and developmental state

The NHLS MTDP 2025-2030 Strategic Plan contributes to Priority 2 and aligns its outcomes to the NDoH outcomes, as outlined below.

Statement of Intent: Investing in People through education, skills development, and affordable quality healthcare.

Strategic Priority 2: Reduce poverty and tackle the high cost of living.

Outcome: Improved access to affordable and quality health.

MTDP Priorities	NDOH Outcomes	NHLS Outcomes	NHLS Output
Pursue achievement of universal health coverage through the implementation of the National Health Insurance to address inequity and financial hardship in accessing healthcare	Improved access to affordable and quality healthcare.	An efficient and effective organisation	Improved clinically relevant turnaround times. Improved clinic-laboratory interface. Digitised business processes Improved stakeholder engagement. Resilient IT systems.
	Financial management strengthened in the health sector	A financially stable organisation	Maintain the liquidity position of the NHLS.
	Governance of Public Entities strengthened	An efficient and effective organisation	Audit opinion of the Auditor General. Corruption free organisation. Strengthened compliance with regulatory and legal requirements.
Improved the quality of health care at all levels of health establishment, inclusive of private and public facilities.	Improved access to affordable and quality healthcare.	High-quality services	Strengthened total quality management systems. Cutting edge health research. A robust and efficient surveillance system and outbreak response
Improve resource management by optimising human resources and healthcare infrastructure and implementing a single electronic record.	Employment in line with equity targets	An efficient and effective organisation	Highly skilled and competent workforce.

4. Relevant Court Rulings

There are no court rulings that will have a significant ongoing impact on operations or service delivery obligations.

PART B: OUR STRATEGIC FOCUS

BACKGROUND

The NHLS is a national public entity (Schedule 3A) established under the National Health Laboratory Service Act, No.37 of 2000. The Board governs the NHLS, which has the mandate to provide quality, affordable diagnostic services.

The NHLS is critical in providing pathology services to approximately 80% of South Africans. The laboratory services provided by the NHLS are integral to disease diagnosis and patient management, as it is known that about 70% of clinical management decisions are dependent on pathology and laboratory services. The NHLS also provides disease surveillance, specialised diagnostic services, outbreak response, public health research through the National Institute for Communicable Diseases, and specialised occupational health services, research, and capacity building via the National Institute for Occupational Health. With the advent of the NHI, the organisation's market size could increase by expanding its services to the private sector.

The NHLS service delivery model operates through six regions and is purposefully designed to ensure efficient access coverage through NHLS presence in public health facilities. The model is aligned with the public health system, which is based on provincial and district health and supports effective planning (including budgeting), joint monitoring, and evaluation of the NHLS plans.

In the last two years, the NHLS extended its services to include Forensic Chemistry Laboratory services through four laboratories based in Johannesburg, Pretoria, Durban, and Cape Town. By expanding capacity in each of these laboratories, the NHLS intends to transform FCL into an efficient and effective service to meet its mandate.

The NHLS also provides clinical diagnostic media products to all NHLS laboratories, private laboratories, and some African countries. The NHLS intends to strengthen the Diagnostic Media Products (DMP) units to become revenue-generating by expanding the products and broadening the non-NHLS market. SAVP, a private entity and subsidiary of the NHLS, is the only South African antivenom manufacturer for treating snake, scorpion, and spider envenomation. It remains the only producer of a monovalent antivenom effective against the bite of the Boomslang.

The NHLS, the biggest laboratory network on the African continent, boasts a National Priority Program for TB and HIV, enabling the country to implement the world's most extensive antiretroviral therapy

(ART) program. More than 3.4 million HIV-infected individuals access antiretroviral (ARV) drugs. The NICD also hosts a TB Reference Centre, a national Cancer Registry, and a Bio Safety level IV laboratory, with a National Biobank hosted by the NIOH.

1. VISION

“A center of excellence for innovative laboratory and clinical medicine”

2. MISSION

Our mission is to advance excellence in clinical and laboratory medicine by delivering accessible, affordable, and high-quality services. We are an employee-centred organisation that strives to provide patient-centred services while fostering community health and well-being through innovation, collaboration, and equity.

3. VALUES

The following values form the guiding principles that govern and align the behavior of all NHLS employees:

Value	Description
Employee centered.	We cultivate an environment where we actively listen and try to understand and empathise with others' experiences and challenges without judgment or assumptions.
Service Excellence	We consistently push boundaries to achieve the highest-quality results, and this spirit of excellence inspires and motivates employees to continuously improve.
Transformation	We invest in staff professional growth by sharing knowledge and experience, peer networking, education through training, and seeking development opportunities.
Innovation	We are committed to fostering an environment that supports pushing past the status quo with bold and progressive scientific and public health research and business models.
Integrity	We commit to acting ethically and transparently in all business dealings, prioritising the right thing over personal gain.

4.0 SITUATIONAL ANALYSIS

The NHLS, as a public entity in South Africa, is affected by the surrounding environment and needs to plan on how to respond to the changes affecting its operations. It is imperative to understand all the levels and how the organisation and its activities are affected by many factors.

4.1 EXTERNAL FACTORS

4.1.1 POLITICAL FACTORS

4.1.1.2. Political Landscape

The NHLS, as a public entity, is sensitive to changes in political leadership at both a national and regional level. This represents a microcosm of significant global political shifts in governance and policy. South African politics continue to be characterised by inherent instability, with rapid changes affecting political continuity and leadership visibility at all levels of government. Differences in provincial governance structures also contribute to the level of ability to execute services in different geographical regions.

4.1.1.3. National Legislative and Policy Changes

The NHLS operates within a national legislative and policy framework, which means that many pieces of legislation and policies enacted at any level of governance will have a differential impact on its performance. Key developments affecting the NHLS directly include the National Health Insurance (NHI) Act 20 of 2023, the National Public Health Institute of South Africa (NAPHISA) Act 1 of 2020, and the amendments to the National Health Laboratory Service Act 5 of 2019.

The NHI Act represents a critical opportunity for the NHLS, currently uniquely positioned as the sole provider of pathology and associated services to the public health sector, to expand and adapt its laboratory service offering to the regions, in line with the NHI mandate and expectations. It must be noted, however, that other laboratory service providers are currently positioning themselves as potential competitors to the NHLS, and this may constitute potential threats and opportunities for the organisation. For this reason, the NHLS must understand how the NHI impacts its mandate to provide diagnostic services in the public sector and develop a service improvement plan that will align to the NHI requirements.

The NAPHISA Act 1 of 2020 is designed to separate the National Institute for Occupational Health (NIOH) and the National Institute for Communicable Diseases (NICD) from the NHLS. This will allow

for a change in focus and might improve the financial positions of all three, especially if the cross-subsidisation of surveillance activities is independently funded from core NHLS service delivery. It must, however, be noted that both the NICD and the NIOH are dependent on NHLS laboratory routine data and services, together with support services, including human resources, finance, and procurement, so it is likely that a prolonged handover period will be required to allow for complete independence. In addition, the outputs in terms of teaching, training, and research (both grants and publications) of both institutes are significant and may impact the parent organisation's future targets.

4.1.1.4. Political stakeholder engagement and influence

The primary shareholder of the NHLS remains the National Department of Health (NDoH). However, there are several additional and subordinate dependencies, including, amongst others, the National Department of Higher Education and Training (DHET), the National Department of Science and Innovation (DSI), the National Treasury, and the National Department of Employment and Labour (DEL), as well as provincial Departments of Health. Efficient stakeholder engagement is critical to ensuring financial and organisational sustainability and improving NHLS's financial position is a testament to a highly effective and responsive relationship with these stakeholders. These stakeholders may, however, also influence the organisation's priorities, particularly since many have representation on the NHLS board.

4.1.2. SOCIAL FACTORS

4.1.2.1. Population size

According to Statistics South Africa's (Stats SA) mid-year 2022 population estimates, the South African population is estimated at 60,6 million, an increase of 640 074 (annual growth rate of 1,06%) from 2021 mid-year population estimates. Gauteng still comprises the most significant proportion of the South African population, with approximately 16,1 million (26,6%) people living in the province, followed by KwaZulu-Natal with 11,5 million (19,0%) and the Western Cape with 7,2 (11,9%).

The increase in population in South Africa occurs when the economy and budget continue to decline, and healthcare costs rise. The COVID-19 pandemic has added more pressure with the rise in infections, deaths, and unemployment. Stringent financial management is critical when unemployment is rife, and many societies depend on the public sector for healthcare. The NHLS, as a provider of pathology services to more than 80% of the South African population, must accomplish this while being financially viable.

4.1.2.2. High Burden of Disease

South Africa is a middle-income country with a high burden of communicable and non-communicable diseases, which can be diagnosed quickly and considered both preventable and treatable. Through the National Priority Programmes (NPP), the NHLS has shown itself to be responsive to many communicable diseases affecting the public sector. The integration of testing for non-communicable diseases within an “ideal clinic” setting remains an additional key priority, as does the use of additional technical solutions and resources, including point-of-care technology and electronic laboratory tools, to ensure that there is increased efficiency throughout the laboratory value chain and that patient ownership of laboratory results is assured.

HIV

It is estimated that the overall HIV prevalence is approximately 13,9% in the country and has increased from an estimated 3,68 million in 2023 to approximately 8,45 million people living with HIV (PLWHIV) in 2022. HIV prevalence among the youth aged 15-24 has remained stable over time. The number of AIDS-related deaths has declined consistently since 2009, from 202,573 to 85,796 in 2022. The country has the most extensive ART programme in the world. Currently, 5.7 million people are on antiretroviral treatment. However, over 1,8 million still miss out on treatment despite the progress made in South Africa.

TB

The (TB) incidence rate has decreased from 834 per 100,000 in 2015 to 468 per 100,000 in 2022, a 44% reduction in the incidence rate, exceeding the target of a 20% reduction by 2020. The TB notifications have also been on a decline from the peak in 2009, when a total of 406,082 people were reported to have TB, to 224,621 in 2022. This is largely attributable to the improvement in coverage for Antiretroviral Treatment and treatment for TB infection (TPT) for people living with HIV. Much as there has been a reduction in the TB mortality rate from 46 per 100,000 in 2015 to 39 per 100,000 in 2021, the mortality rates remain high among People Living with HIV (PLHIV), with an estimated 31,000 people dying of TB disease, compared to 23,000 in HIV negative population.

Malaria

South Africa's malaria cases increased by 14% from 6,486 cases in 2021/22 to 7,381 cases in the 2022/2023 financial year. The number of deaths also increased by 32%, with 61 deaths reported in 2021/22 and 91 deaths reported in the 2022/2023 financial years.

Neglected Tropical Diseases

Schistosomiasis (Bilharzia) is one of the neglected tropical diseases (NTDs) endemic in South Africa. It is estimated that 25 million people are at risk of urogenital schistosomiasis in South Africa, and around 4 million are infected with the disease. South Africa is one of only two African countries yet to implement the World Health Organization's (WHO) recommended preventive Mass Drug Administration (MDA) strategy. Implementing MDA can significantly reduce the prevalence of bilharzia infection in South Africa.

Non-Communicable Diseases

Diabetes is increasing in proportion as the underlying cause of death, which increased from 5,5% in 2016 to 5,9% in 2018. Diabetes type 2 prevalence increases with age, with people over 45 at an increased risk. This is a major public health concern with the significant rise in the aging population projected in South Africa. Various national and global agencies are researching the prevention and control of NCDs to enhance the country's response to the prevention, management, and control of NCDs. According to StatsSA, NCDs contribute 59,3% of all deaths. Mental disorders are currently the leading cause of Disability Adjusted Life Years (DALYs) in South Africa, accounting for 13,8% of the disease burden, higher than HIV (11,8%) and musculoskeletal disorders (10,4%).

4.1.3. ECONOMIC FACTORS

4.1.3.1. National Budget Constraints

Currently, several factors are negatively affecting the country's economic landscape. All these factors either directly or indirectly affect the NHLS daily. The following are some of the most prevalent macroeconomic issues:

- Increased commodity prices, particularly fuel prices,
- The Rand remains extremely volatile due to internal and external factors around the globe, which directly impact exchange rates and influence the price of, amongst others, the reagents, consumables, and equipment
- Increasing cost of employment.

These factors have necessitated increased cost-cutting measures, including a moratorium on increasing headcount within the civil service and reductions in conditional grants allocated for teaching, training, and research, as well as to the NICD and the NIOH. These factors have also impacted the provincial ability to pay for NHLS core services. All these factors negatively impact NHLS operations.

Figure 1: Illustration of reduction in conditional grants

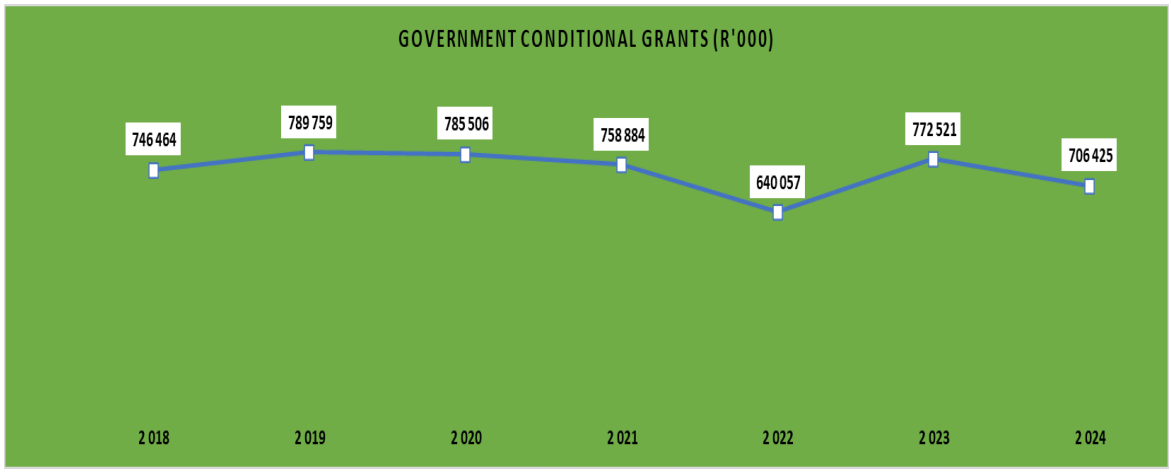


Table 1: Projected grants shortfall for FY 2023/24

INSTITUTION	NDoH TRANSFER R'000	ACTUAL EXPENSE R'000	VARIANCE R'000
National Institute for Communicable Diseases	250,574	432,812	-182,238
National Institute for Occupational Health	81,275	153,367	-72,092
Forensic Chemistry Laboratories	143,828	241,680	-97,852
Teaching, Training and Research	230,748	415,333	-184,585
TOTAL	**706,425**	**1,243,192**	**-536,767**

Conditional grants covered only 57% of the costs for the institutions.

The NHLS continues to utilise funds to improve the FCL's operational performance and sustain the NICD and NIOH operations. This involves a significant investment in employee costs for appointing professional, technical, and support staff. Furthermore, a capital replacement program is being instituted to ensure the modernisation and removal of outdated, poorly functioning equipment and the appropriate costs of enhanced quality assurance practices in the FCL.

4.1.3.2. Current risks to the financial sustainability of the NHLS

The NHLS Board and management team have instituted financial practices that require enough cash reserves to cover, at minimum, six (6) months' total expenses. The NHLS generates its revenue through its operations, and therefore, the necessary working capital must be available to operate effectively and continuously.

Debt collection is a critical performance target for the National Health Laboratory Service (NHLS) and is essential to ensuring the organization can fulfil its mandate daily. Achieving this objective requires all NHLS customers to make timely, full payments for the services provided. However, this goal is currently hindered as provinces struggle to settle their debts due to budgetary constraints.

Table 2: Payment made by the provinces as of the 31 December 2024

Financial Year	Billed	Paid	Current FY Paid	Current FY Paid
2017/18 FY	6 853 179 391	6 460 692 554	5 073 794 418	74%
2018/19 FY	7 443 862 217	7 467 825 794	5 938 154 677	80%
2019/20 FY	8 512 189 840	8 710 862 652	6 925 180 890	81%
2020/21 FY	9 588 389 515	9 250 544 995	7 494 017 060	78%
2021/22 FY	11 114 327 234	10 054 114 821	8 105 674 757	73%
2022/23FY	10 787 745 876	10 302 218 255	8 090 447 211	75%
2023/24FY	10 931 514 700	9 247 762 189	6 875 073 792	63%
2024/25 YTD	7 692 562 429	6 756 095 894	3 797 027 139	49%

4.1.4. TECHNOLOGY

Technology is a cornerstone of the NHLS's business operations, enabling the organisation to deliver high-quality diagnostic testing solutions. The digitisation of all NHLS functions remains a top priority to enhance business processes and operational efficiency. However, several challenges impede the organisation's progress toward full digital transformation. These challenges include aging Information Technology (IT) infrastructure, a shortage of IT skills, electricity availability issues, and delays in the Supply Chain Management processes that delays the timely replacement of critical systems and tools.

Despite these challenges, technology presents significant opportunities for the NHLS. These include capabilities such as remote identification of instrument malfunctions, remote laboratory management, the adoption of innovations like digital pathology, and real-time surveillance. Key IT platforms, such as the Laboratory Information Management Systems (LIS), Oracle E-Business Suite (EBS), Clinical Data Warehouse (CDW), and Enterprise Content Management (ECM), play an integral role in the NHLS's daily operations and research initiatives.

The NHLS's operations depend on a secure and robust informatics/data backbone. A comprehensive review and upgrade of the NHLS information systems is essential to ensure sustained efficiency and innovation. This effort should align closely with a national human disease data acquisition, analysis, and storage strategy, encompassing collaboration with the National Department of Health and the Department of Science, Technology, and Innovation (DSTI).

While the NHLS has prudently managed its cash flow, this approach has resulted in a gradual capital replacement programme, including the delayed upgrade of IT infrastructure. With improved financial capacity, the NHLS is now positioned to undertake an extensive capital replacement initiative to modernise its laboratories. This modernisation will ensure the NHLS remains at the forefront of cutting-edge pathology services and technologies.

This modernisation includes upgrading the equipment fleet, focusing on genomic technologies that are integral across all pathology disciplines. Equipment procurement should prioritise systems capable of performing large-scale human genomic analyses and supporting viral and bacterial genome sequencing. This dual capability will ensure the NHLS can effectively address current and future diagnostic and research needs.

4.1.5. ENVIRONMENTAL FACTORS

4.1.5.1. Climate change

Ongoing global warming is expected to drive significant climate changes in South Africa, posing numerous challenges to infrastructure and operations. Currently, parts of South Africa are experiencing severe floods, leading to infrastructure failures that pose substantial risks to the NHLS. These risks include power outages, water scarcity (due to drought or infrastructure collapse), and inadequate road, transportation, and port services. Additionally, rising temperatures are likely to escalate cooling costs.

The NHLS often operates from buildings over which it has limited control. Many of these facilities are in disrepair, posing significant threats to service delivery and quality. Continuous efforts are required to mitigate these challenges. Furthermore, the NHLS is both a net energy consumer and a waste producer. Achieving sustainability will necessitate innovative approaches to laboratory design and function.

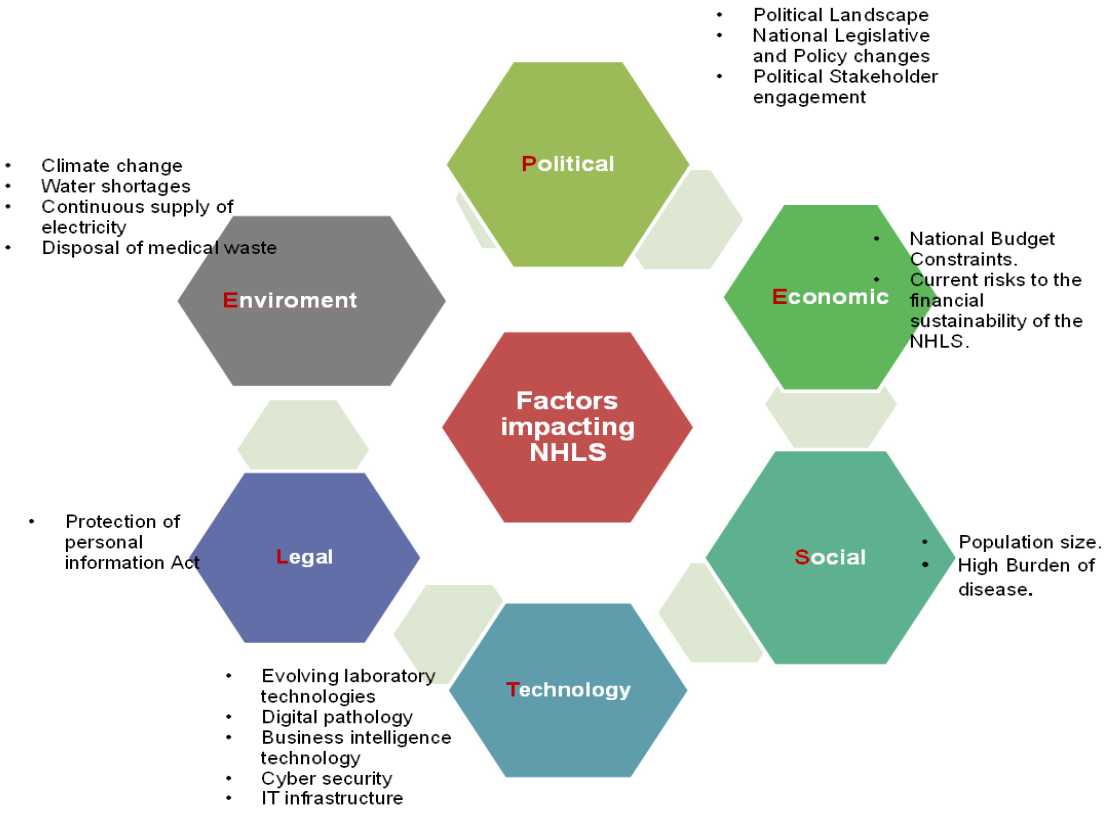
To address these challenges, the NHLS has developed a business continuity plan to ensure resilience in service delivery. The Strategic Plan for the Medium-Term Development Plan (MTDP) 2025–2030 will outline specific strategies for various departments to tackle or circumvent these obstacles, ensuring sustainable operations and the continued delivery of high-quality services.

4.1.6. LEGAL

4.1.6.1. Protection of Personal Information Act (Act No 4, 2013)

The POPI Act ensures the confidentiality of all private individuals, and this important right is the bedrock of a quality laboratory service. However, POPIA can affect key functions of the NHLS, including surveillance, especially in a public health emergency, and research conducted through the NHLS network.

Figure 2. PESTLE analysis of the environment in which NHLS must operate.



4.2. INTERNAL ENVIRONMENT

4.2.1. MTSF 2020-2025 Review

The NHLS plays a critical role in South Africa's health system and has demonstrated remarkable resilience and performance despite the numerous challenges faced during the MTSF period of 2019/2020 to 2024/2025. Below are key points highlighting its contributions, achievements, and ongoing efforts:

Key Achievements

Mandate Fulfilment Amid COVID-19:
Despite the unprecedented challenges posed by the pandemic, the NHLS successfully upheld its mission to support disease prevention, control, and overall health improvement in South Africa.

Financial Stability:
The NHLS maintained a stable financial status and was able to meet liabilities. It consistently exceeded the standard liquidity ratio of 2:1.
Continued implementing cost-containment measures to ensure long-term financial sustainability.

Audit Performance:
Despite performing well over the past four years, the NHLS received a qualified audit opinion mainly due to delays in implementing the action plans to address previous audit findings. The delays were due to vacancies in critical positions. To enhance future audit outcomes, the NHLS needs to develop robust action plans that target the root causes of these challenges.

Target Achievement:
Achieved 72% of its set targets in the unaudited 2023/2024 financial year, an improvement from 70% in 2022/2023. This progress reflects the organisation's commitment to advancing its objectives despite medium-term challenges.

Increase in Test Volumes:
Demonstrated a 3% average annual increase in test volumes, with recovery and sustained growth following a dip during the 2020/2021 COVID-19 disruptions.

Laboratory Accreditation:

Implemented a Total Quality Management System, boosting SANAS-accredited laboratories to 62% by 2023/2024.

Expanded from 80 to 134 accredited laboratories during the MTSF period, reinforcing the quality and reliability of diagnostic services.

Role in Disease Outbreak Management:

The NICD consistently provided vital epidemiological updates to the National Department of Health, aiding swift responses to communicable disease outbreaks.

Challenges Encountered

Load-Shedding:
Power outages disrupted the IT network, affecting operational efficiency and laboratory processes.

Equipment Transition:
The shift from outdated to modern laboratory equipment led to temporary service disruptions, negatively impacting test turnaround times.

Future Outlook

Commitment to Excellence:
The NHLS remains dedicated to delivering high-quality services to South African citizens, ensuring its strategic positioning as a preferred service provider under the National Health Insurance (NHI) framework.

Focus on Sustainability:
Continued implementation of quality management systems and financial prudence to maintain and enhance service delivery.

Addressing Operational Challenges:
Efforts will be intensified to mitigate the impacts of load-shedding and improve infrastructure resilience to minimise disruptions.

The NHLS's sustained achievements underscore its indispensable role in South Africa's health infrastructure, and its proactive strategies highlight its commitment to evolving challenges while ensuring quality healthcare services.

4.2.2. ORGANISATIONAL STRUCTURE

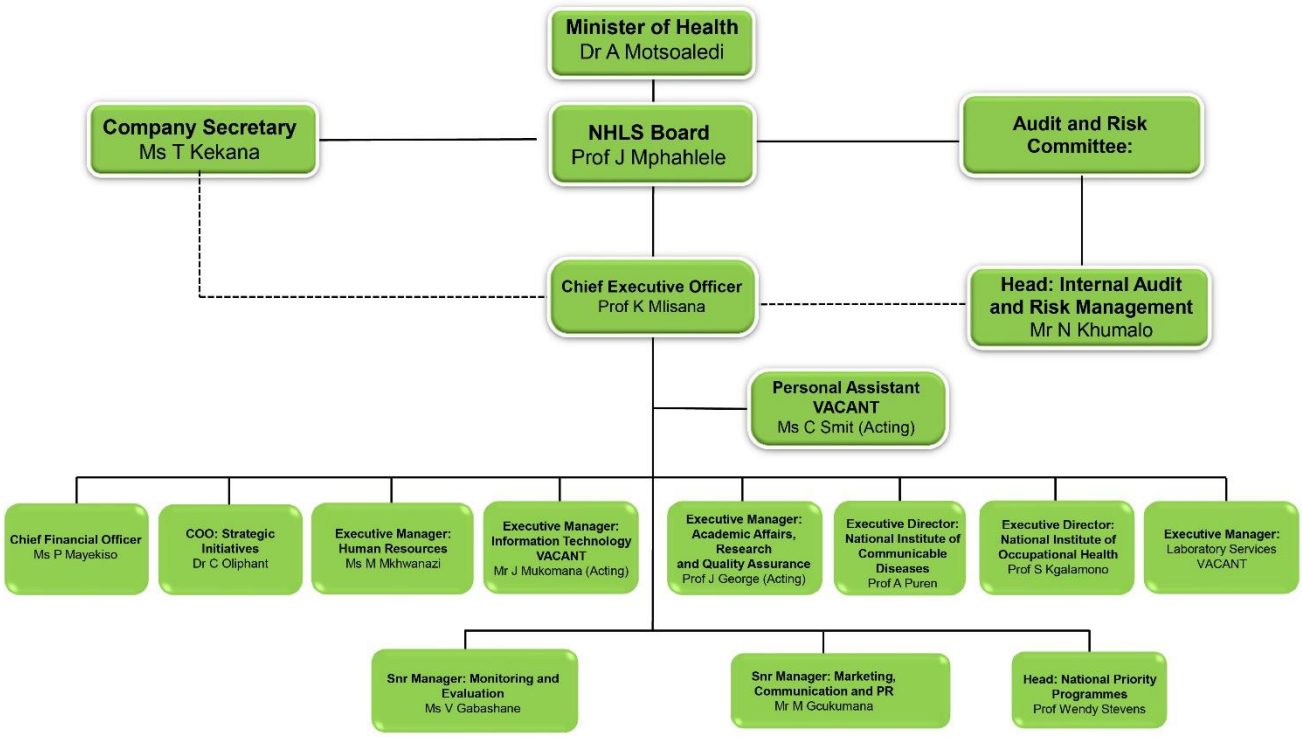
The NHLS Board of Directors (The Board) is the NHLS's accounting authority regarding the NHLS Act (Act 37 of 2000). The Minister of Health appoints members of the Board following nominations from different constituencies. The Minister then appoints an appropriate person or persons who qualify to be appointed in terms of the NHLS Act from the nominated persons.

The Board appoints the Chief Executive Officer (CEO) and the Executive Managers accountable to the CEO. The Company Secretary has dual reporting lines. He/she is accountable to the Board functionally and to the CEO administratively. Similarly, the Head of Internal Audit and Risk is functionally accountable to the Audit and Risk Committee, the sub-committee of the Board, and administratively accountable to the CEO.

The CEO appoints managers to his/her office to ensure the effective running of the office. The following managers are operationally accountable to the CEO:

- Senior Manager: Monitoring and Evaluation;
- Senior Manager: Communications, Marketing and Public Relations.

Figure 3: Organogram of the NHLS



4.2.3. LABORATORY SERVICES

The NHLS operates an extensive and integrated network of laboratories designed to support South Africa's healthcare system across all levels of care.
It operates in **six regions**, encompassing a **national network of 233 laboratories** across South Africa's nine provinces. These laboratories include national laboratories, provincial tertiary laboratories, regional laboratories, and district Laboratories. In addition, service depots complement the laboratory network to ensure accessibility and efficiency.

Laboratories are strategically situated within healthcare facilities across the provinces. This proximity ensures that diagnostic services are readily available and aligned with the needs of patients and healthcare providers at each facility.

The NHLS adopts a tiered approach, providing diagnostic services tailored to the facility's level of care. The tiered model integrates services to ensure seamless patient care as individuals transition from primary healthcare facilities to higher levels of care. Close collaboration with healthcare providers ensures diagnostic capabilities match the clinical requirements at each care level.

Implementing the NHI Act 20 of 2023 allows NHLS to re-engineer laboratory structures to match the NHI needs. The NHLS must prepare a service delivery model aligning with the fund's requirements. For the NHLS to achieve this, the following areas need to be strengthened:

- Service Delivery Model.
- Equitable Access to diagnostic pathology services.
- Expansion of pathologist's support to non-academic sites.
- Modernisation of laboratories and digitisation of business processes.

Service Delivery Model.

The present model for delivering laboratory diagnostics is complex and subject to many drivers for change.

Although laboratory services in the NHLS have significantly developed and improved over the last decade, additional refinements and cost controls are essential to keep pace with the significant development of clinical health services envisaged by the NHI.

The NHLS faces a critical juncture in reimagining its service delivery model to address inconsistencies, embrace technological advancements, and align with a future-oriented vision of healthcare in South Africa. Below is a structured response that outlines the considerations and recommendations for designing and delivering an optimised service improvement plan.

- The development of the Laboratory automation plan/policy that outlines the roadmap for Total laboratory automation (TLA) across key disciplines such as Medical Microbiology.
  TLA benefits include:
    - Increased standardisation and accuracy.
    - Reduced operational costs and turnaround times.
    - Enhanced throughput for high-volume tests.
- Centralisation of non-urgent testing: The NHLS must consider creating provincial super laboratories equipped with high-throughput TLA systems to centralise non-urgent tests and National Priority Programmes. Centralisation has the benefits of improved efficiency in handling high-volume tests and streamlined workflows.
- Develop a logistics plan to ensure timely specimen transport from healthcare facilities to super laboratories.
- Implement the Point of Care Testing (POCT) to complement the centralised model. POCT enhances diagnosis and treatment decisions with rapid and reliable results. It

improves turnaround time and integrates testing into clinical workflow, thus optimizing efficiency. The added benefit of POCT is that it may reduce overall costs associated with hospitalisation.

The NHLS's hybrid and organic service delivery model must evolve into a deliberate, optimised, and technology-driven framework to address regional inconsistencies and enhance service efficiency. By leveraging automation, centralisation, and POCT, the NHLS can build a cohesive and future-ready service model. Success hinges on robust governance, stakeholder collaboration, and cultural and operational change commitment.

The NHLS faces the challenge of attracting skilled pathologists, especially in Anatomical and Chemical Pathology. To mitigate this challenge, the NHLS has put plans in place to implement Digital Pathology in all the Anatomical Pathology laboratories to support laboratories that don't have anatomical pathologists. The NHLS has already submitted a tender to procure scanners to implement the Digital Pathology solution in histology laboratories that have histology laboratories but do not have pathologists.

In addition, the NHLS developed a pathologist coverage plan to strengthen pathologists' support for all laboratories without resident pathologists. The national pathology coverage plan aims to improve clinicians' access to pathologists and enhance clinical interface, which improves patient management. Approximately 50% of the plan has been implemented in the MTEF 2020-2025.
Service Delivery Pathologists add value to the NHLS through their active involvement in training and clinical consultations with clinicians. They are not restricted or limited by joint or honorary lecturer appointment requirements. They can directly impact research and development on the service delivery platform. However, these positions remain unattractive due to the lack of opportunity to progress. To add value to regional and district laboratories, the NHLS must develop a plan to employ service-only pathologists, including career progression.

The training of Clinical Pathologists must be a strategy focus for this cycle. These multidisciplinary laboratory specialists can ideally serve non-academic hospitals efficiently, ensuring access to pathologists and enhancing clinical interface. Therefore, building a larger pool of clinical pathologists in the next five years is imperative.

4.2.4. FORENSIC CHEMISTRY LABORATORIES

The Forensic Chemistry Laboratories (FCLs) were fully integrated with the NHLS on 1 April 2022. Four FCLs in South Africa are in Cape Town, Durban, Pretoria, and Johannesburg. The four laboratories serve the total population of South Africa, and clients include the South African Police Service, Forensic

Pathology Services, Mortuaries of the Department of Health in the provinces, the National Prosecuting Authority, and local authorities (municipalities).

The core business of the FCLs includes the forensic testing of antemortem and post-mortem blood samples for alcohol content, the testing of biological tissues and fluids for the presence of poisons and/or drugs in instances of unnatural deaths (toxicology analysis), and the analysis of foodstuffs and cosmetics to assess compliance with safety and quality standards in terms of the Foodstuffs, Cosmetics, and Disinfectants Act, Act 54 of 1972.

At the time of integration, the FCL experienced challenges regarding the turnaround time of results in the blood alcohol and toxicology sections, which resulted in significant backlogs.

Samples in the laboratory's blood alcohol and toxicology sections are classified as backlog when more than 90 days have passed since sample registration without the sample being processed and authorised. Baseline assessments and quality audits highlighted areas requiring strategic intervention to support the core functions in the FCL.

The challenges that impact the FCL's ability to address the service demand effectively include insufficient laboratory processing capacity (limited number and capacity of laboratories), lack of standardisation across the laboratories, insufficient technical expertise and support, and outdated laboratory information management systems.

During its first years of full integration, it focused on establishing robust management structures and functional systems to ensure effective and efficient service delivery. A new management structure was established, all vacant laboratory positions were filled, and existing infrastructure and equipment were repaired and/or replaced. An additional laboratory was established in Pretoria, increasing the service offering for blood alcohol and toxicology analysis at this laboratory.

The FCLs aim to achieve an effective and efficient service offering through improved turnaround times, eliminating historical backlogs, and high-quality laboratory management practices across all laboratories.

The strategic focus areas of the FCLs are as follows:

Increase analytical capacity and technical expertise

- Acquire additional laboratory space and the relevant analytical instruments to meet service demands.

- Ensure functional laboratory instruments and implement automated systems and/or modernisation of equipment as indicated.
- Appoint additional staff where expansion of services is planned and implement shift systems and overtime.

Strengthen management systems

- Standardise laboratory processes, optimise workflow, and improve monitoring systems and controls.
- Strengthen monitoring and supervising laboratory processes, turnaround times, and outputs.

Strengthen support systems

- Establish an effective quality management system integrated with the Quality Assurance Division of the NHLS
- Establish modernised information management and reporting systems

4.2.4. ACADEMIC AFFAIRS, RESEARCH AND QUALITY ASSURANCE.

Academic Affairs, Research, and Quality Assurance (AARQA) incorporates the Academic Affairs and Research (AAR) and the Quality Assurance departments. It shares the responsibility for the teaching and training with the learning academy. It is responsible for the research mandate of the NHLS and oversees the organisation's quality assurance support and management programme. AARQA strives to consistently adhere to accreditation and compliance measures across all laboratories by benchmarking quality assurance standards for the NHLS. The in-house Health Technology Assessment (HTA) programme focuses on the pre-evaluation of new *in vitro* Diagnostic Devices to facilitate the practical and reliable introduction of technological advancement in the service platform and provide an opportunity for competitive and open selection of innovative approaches to diagnostic technology.

AARQA aims to become a high-performing academic, research development, grant support, and quality management team instrumental in augmenting opportunities for developing pathology experts in innovative scientific research and enabling quality assurance across all disciplines.

Strategic Focus:

Enhancing research and development

- To advance the development of the NHLS scientific community by providing training on
- Research skills such as grant writing, preparation of manuscripts, early career development, and mentorship.
- To advance the development of the NHLS scientific community by providing support for specialisation, innovation, and translational outputs.
- To improve grant administrative and management service experience to our customers and stakeholders through vigilant attention to their requirements (identify innovations, support commercialisation).
- Establishing a database for research equipment and policies for sharing equipment is critical.
- Increase NHLS funding specifically to support early career development.

Enhancing quality assurance across the NHLS

- Obtaining ISO 15189 accreditation for NHLS district and regional laboratories (100%)
- ISO 17043 accreditation for Forensic Chemistry Pathology Laboratories
- ISO 9001 certification for support departments
- Implementing HPV EQA programmes,
- Work towards establishing a Genomic Sequencing EQA programme.
- This plan will also strengthen the NHLS as a Health Technology Assessment (HTA) reference site for diagnostic pathology within the NHI framework and automate QAD systems to enhance efficiencies and real-time reporting.

Enhancing the pathology platform within the NHLS

- To develop a multidisciplinary strategy for high-quality point-of-care testing that is evidence-based and NHLS-driven.
- To formulate a Human Resources plan for pathologists that is sustainable and sensitive to organisational and national needs
- Develop and implement “non-academic” pathologists to support non-academic labs.
- Digital pathology for Anatomical Pathology and haematology
- Develop centers of excellence; registrars can rotate through these, such as transplantation, mass spec, and inborn errors.
- Develop a strategy for the retention of pathology professionals within the NHLS
- Implement newborn screening

- To efficiently support antimicrobial stewardship programmes using the latest software programmes and NHLS dashboard to access antibiograms and implement a systematic, sustainable education programme for clients on collecting good quality specimens

4.2.5. SURVEILLANCE OF COMMUNICABLE AND NON-COMMUNICABLE DISEASES

The NICD provides reference microbiology, virology, epidemiology, surveillance, public health research, and training in communicable diseases. It incorporates the National Cancer Institute and serves as a publicly trusted source of information during outbreaks and as part of its routine surveillance of priority infectious diseases and cancer statistics.

The NICD collaborates closely with the National and Provincial Departments of Health in planning policies and programme to support communicable disease control and elimination efforts and provides specialized laboratory testing. A key role is to detect, respond to, and report timely during communicable disease outbreaks by providing technical support and critical laboratory diagnostic services.

Several NICD laboratories are WHO collaborating partners, providing reference diagnostic services and surveillance for communicable diseases such as influenza, poliomyelitis, tuberculosis, and measles. The NICD is a premier research, surveillance, and diagnostics institution in communicable diseases. The NICD houses biosafety level (BSL) 3 laboratories and the only suited high containment BSL 4 laboratory in Africa. The Sequencing Core Facility at the NICD conducts next-generation sequencing for diagnosis and outbreak support. Surveillance for malaria and arbovirus vectors is a key function of the NICD, which also houses five insectaries for culturing a wide range of mosquito species that are of public health importance.

The NICD monitors disease trends using a variety of methods and data repositories. Data sources include the NICD Surveillance Data Warehouse (SDW), a repository of NHLS laboratory pathology test results and private sector laboratory data, and the recently established Notifiable Medical Conditions mobile application that collects real-time data on certain communicable diseases of public health importance. This enables the collation and interpretation of up-to-date intelligence on communicable disease incidence in South Africa. This information can be used to calculate outbreak response thresholds, predict future disease trends, and inform control policies and regulatory practices.

South Africa's public health needs and priorities guide the NICD's research agenda. Specifically, the **NDoH Programme 3** (Communicable and Noncommunicable Diseases Communicable Diseases) develops policies and supports provinces in ensuring the control of infectious diseases with the

support of the National Institute for Communicable Diseases. It improves surveillance for disease detection, strengthens preparedness and core response capacity for public health emergencies in line with International Health Regulations (IHR), and facilitates the implementation of influenza prevention and control programmes, tropical disease prevention and control programmes, and malaria elimination.

The NICD's strategic plans are based on the Sustainable Development Goals (SDG) and the Presidential Health Summit (PHS)/Compact 2023, Pillars 9 and 10. The SDG goals and the PHS Pillar 10 inform the National Department of Health's 2019-2024 APP Programme 3. The following is a summary of the key SDGs and Pillars.

- SDG 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases.
- SDG 3.d Strengthen the capacity of all countries, particularly developing countries, for early warning, risk reduction, and management of national and global health risks.
- SDG 3. b Support the research and development of vaccines and medicines
- In addition to the 9 Pillars from the first Presidential Health Compact convened in 2018, Emergency Preparedness and Disaster Prevention were identified as critical areas for intervention and adopted as the 10th Pillar in 2023.
- PHC Pillar 9: Develop an Information System that will guide the health system policies, strategies, and investments

The NICD intends to consolidate and expand current activities to address the strategic imperatives of the NDoH regarding (1) Diseases intended for elimination of control by 2030; (2) Emergency and Pandemic Preparedness; (4) Advances in Technology for communicable and non-communicable diseases; (4) Responses to Climate change/Emergency; (5) Business Continuity plan for NICD. What is new in the NICD plan is the development of prediction and modeling and integrated data analysis of disease surveillance for both communicable and non-communicable diseases, technology advances for communicable and non-communicable diseases, and responses to climate change.

Strategic Focus

Detect, Predict, and Model for the control of infectious diseases

The WHO has called the final decade of the sustainable development goals a decade for disease elimination. Meeting the 2030 targets of ending long-term epidemics of infectious diseases such as HIV, TB, viral hepatitis, and neglected tropical diseases (schistosomiasis) requires an integrated response. The NICD intends to develop data modelling and forecasting tools for its pandemic

preparedness approaches and disease control. In addition, the NICD intends to integrate fragmented disease surveillance across different centres and incorporate data related to cancers, non-communicable diseases, community-based surveillance, and event-based surveillance.

Objectives

- **Predict**: Model and forecast, integrate the needed data sources, support research and innovation in outbreak analytics and science for real-time action, and establish appropriate forecasting horizons.
- **Inform**: Translate and communicate forecasts with key decision-makers across sectors.
- **Innovate** capability for data sharing and integration; maximise interoperability with data standards and utilise open-source software and application programming interface capabilities with existing and new data streams.
- **Build and reorganise** institutional capacity for surveillance
- Implementation of an Integrated Data Analytics and Surveillance Reporting Unit across NICD to improve healthcare
- **Implementation of electronic case surveillance** for priority diseases, including communicable and non-communicable diseases
- **Build collaboration mechanisms and** public and private sector agreements for data sharing.

Emergency and Pandemic Preparedness post After Action Reviews (AAR)

The AAR aims to identify best practices and challenges encountered during the response to the COVID-19 pandemic, identify/evaluate preparedness and response mechanisms in response to emerging public health threats, and provide opportunities to validate existing tools and identify areas for enhancement.

Objectives

- To provide an opportunity to share experiences and collectively analyse the NICD response to COVID-19 by identifying best practices and challenges.
- To document and apply lessons learnt from the response efforts to strengthen health systems and capacities for emergency preparedness and response.
- To develop a plan for sustained vigilance, strengthening emergency preparedness and response and building health system resilience as part of recovery, resetting, and recalibration.

- Implementation of facility management operational plans for High-security containment facilities (Biosafety Security Level 3 and 4 laboratories).

Pathogen Genomics, Surveillance, and Technology development

Whole Genome Sequencing (WGS) is a powerful technology that can determine the transmission of infectious agents in populations, detect and support the control of outbreaks, and provide improved information for diagnosing and treating infectious diseases.

- Country-specific pathogen genomics policy
- Implementation of advanced technologies for infectious disease detection for surveillance and outbreak responses
- Exosome sequencing for improved non-communicable disease diagnostics

Climate Change and Communicable Diseases

Climate change poses significant global challenges to public health systems, affecting vulnerable populations and exacerbating health disparities in South Africa. With its diverse ecosystems and socio-economic vulnerabilities, South Africa faces unique, multifaceted risks from climate change. Climate change affects public health, exacerbating the spread and severity of infectious disease outcomes nationwide.

Objectives

- To identify and analyse the current and projected impacts of climate change on public health in South Africa.
- To assess the economic costs associated with these impacts, including healthcare expenditures, loss of productivity, and infrastructure damages.
- Evaluate existing policies, strategies, and interventions to address climate change-related health risks.
- To propose evidence-based recommendations for enhancing resilience and reducing vulnerabilities to climate change in the public health sector.

Business Continuity Plan for NICD

Continuous budget cuts limit the NICD's capacity to fulfill its mandates effectively, including filling critical vacant posts, surveillance and monitoring, and evaluating declining infrastructure. The NICD has experienced a further 21% reduction in its budget allocation for the current financial year and a 41% reduction overall for the past five years. The key objective is to sustain the NICD's core functions,

deliver on the strategic priorities, and have the most significant impact on the nation's health. To achieve the objective, we require strengthening the organization's capabilities and taking advantage of the opportunities that new surveillance systems and technologies provide.]

Objective

- The Chief Executive Officer, Executive Manager: Information and Communication Officer, and Executive Manager: Human Resources in consultation with the NICD Executive Director to develop plans for sustainable income and finances through board-approved and dedicated allocation to reverse the current deficit to fill key posts, invest in core technologies and facilities.

4.2.6. OCCUPATIONAL AND ENVIRONMENTAL HEALTH AND SAFETY

The NIOH, a division of the National Health Laboratory Service (NHLS), has a rich history dating back to its establishment in 1946 as the Pneumoconiosis Research Unit. Initially dedicated to supporting miners' health, particularly in relation to pneumoconiosis, the NIOH has since evolved to provide leadership, support, and guidance on all aspects of occupational health across all sectors of the economy, including the informal economy.

In 2002, with its strong laboratory and analytical service capabilities, the NIOH became a part of the NHLS, further enhancing its capacity to deliver high-quality occupational health services and research. The NIOH is recognised as a WHO Collaborating Centre for Occupational Health, a national centre of excellence and a regional hub of expertise in occupational health.

The NIOH provides a broad range of occupational, environmental, and safety services (OESS), including developing, providing, monitoring, and evaluating occupational health policies, systems, and programs. The NIOH offers tertiary-level clinical occupational health services, investigates occupational disease outbreaks, and supports workers' compensation processes. Through its diverse services, the NIOH is a vital source of knowledge and expertise for the South African government, industry, organized labour, healthcare professionals, the Southern African Development Community (SADC), and the broader sub-Saharan region.

Internally, within the NHLS, the NIOH is mandated to deliver occupational health, safety, and environmental services to NHLS employees nationwide. This includes focusing on prevention practices, managing workplace incidents, and supporting worker health through the Occupational Health and Safety Information System (OHASIS). The NIOH also provides specialised occupational hygiene, medicine, and ergonomics services.

As part of its commitment to worker's health, the NIOH offers a unique statutory service under the Occupational Diseases in Mines and Works Act 78 of 1973 (ODMWA), conducting autopsies for miners in South Africa and neighbouring labour-sending countries (Eswatini, Lesotho, Mozambique, etc.). Additionally, the NIOH maintains the PATHAUT database, a critical surveillance tool for cardiorespiratory diseases, which has been instrumental in shaping mining practices and generating knowledge that supports the prevention of occupational diseases since 1975.

The NIOH's global standing is further strengthened through collaborations with the International Labour Organization (ILO) and the WHO. Its expertise in developing and strengthening occupational health policies, systems, programs, and services has had a significant impact not only in South Africa and the SADC region but also globally, particularly in low- and middle-income countries.

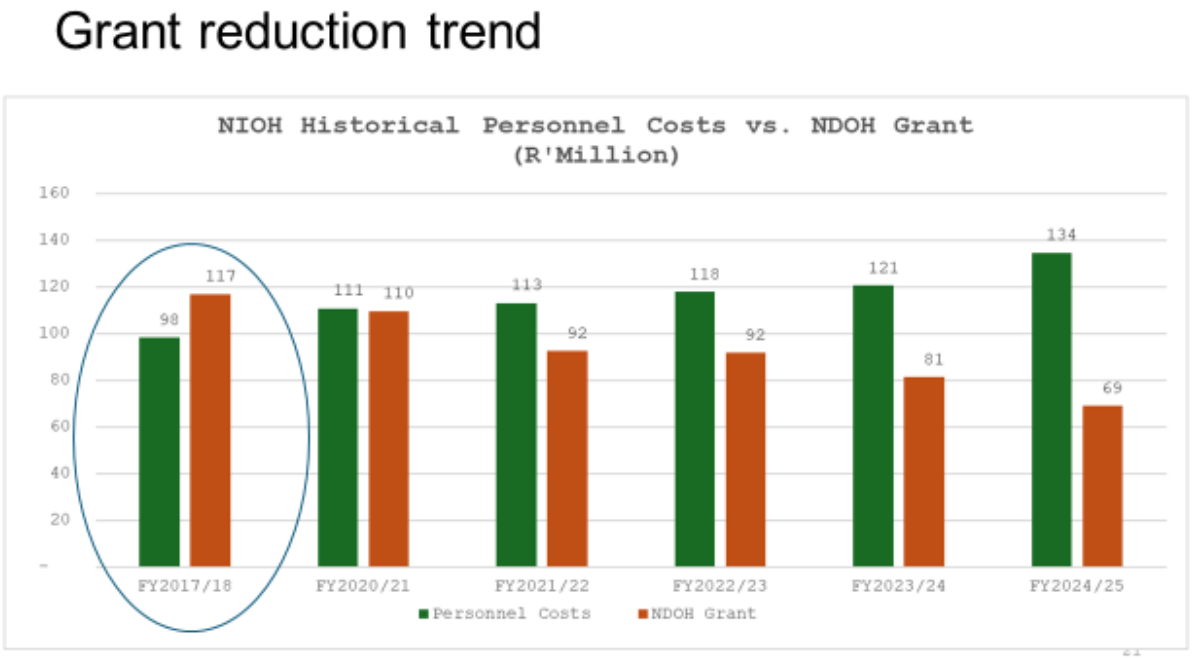
The NIOH has made notable contributions to national and international occupational health research and has played a pivotal role in legislative and policy reforms. With its SANAS-accredited laboratories, the NIOH is the only public-sector institute in South Africa accredited for five ISO standards. The Institute's laboratories offer specialised, non-routine occupational health tests, many of which are exclusive to the NIOH.

The NIOH is also home to the National Biobank, South Africa's first biobank dedicated to supporting high-quality human biological materials for research. The Biobank adheres to international best practices and regulatory processes, ensuring ethical standards are upheld in collecting, processing, and storing samples. It serves a range of national and international entities, including government bodies, universities, and private institutions, including one in the United Kingdom.

The NIOH has made significant strides in achieving its mandate, particularly in quality assurance and training. It continues to offer specialised services and research support to various stakeholders, including provincial and central governments, the informal economy, and the private sector. Through its work, the NIOH contributes to improving worker health and safety standards in South Africa and across the globe.

Despite these successes, the NIOH faces several challenges, particularly in relation to a declining conditional grant. This financial shortfall has had unintended consequences, including the inability to attract or replace skilled staff due to limited resources. As a result, the NIOH faces difficulties in fully meeting its mandate and objectives, affecting the sustainability and delivery of its critical services.

Figure 4: NIOH 1: Grant reduction trend



Strategic Focus

The NIOH is a critical national resource that significantly improves worker's health and prevention at workplaces. The organisation has operated in a challenging financial environment, and budget constraints have resulted in capacity gaps from human capital and infrastructure upkeep; operationally, the organisation cannot fulfill parts of its mandate. The organisation has made good strides in cementing stakeholder relationships with industry bodies and institutes of higher learning. The lack of a national occupational health and safety policy has allowed occupational health to remain fragmented, with limited coordination among government departments responsible for aspects of occupational health and safety. These challenges provide opportunities for change and growth, and the 5 pillars mentioned below seek to address some of the challenges. The strategic plan, therefore, will focus on the following

Financial Resources (Revenue Generation)

- **To mobilise financial, infrastructural, and technological resources required to maintain the NIOH as a centre of excellence by**:

    - identifying funding opportunities and diversifying revenue streams.
    - To take advantage of training as an avenue for revenue generation
    - Consolidate training and accreditation of courses
    - Develop a marketing strategy for the various training courses to generate income

- Contribute to Occupational Hygienist training by offering OHTA courses

HR Capacitation

- **To build appropriate technical capacity within all categories of staff, including the management level, to address brain drain**
    - Organisational Development reviews certain positions and develops a new organizational structure that responds to the environment's needs, focusing on specific departments.
    - To fill in the role of an operations director or a deputy director, allow the executive director to
    - do more strategic work.
    - Training and development to upskill individuals towards being fit for purpose
    - Talent management to ensure succession planning and business continuity
    - Capacitation of NIOH to accredit occupational health services

Technological Advancements

- **To develop national surveillance systems backed by dynamic IT platforms and explore AI to improve efficiency.**
    - MOU with strategic partners, e.g, Compensation Fund, Department of Employment and Labour, and Department of Mineral Resources and Energy, to gain access to data

Collaborative partnerships

- **To establish and strengthen collaboration with a wide range of stakeholders to maintain an excellent reputation and foster new fruitful relationships**
    - NIOH management to focus on key stakeholder engagements

Support Universal Health coverage

- **Support efforts aimed at increasing equitable access to quality occupational health services in line with NHI**
    - Pilot mobile occupational health services for SMMEs and the informal economy in an industrial area in Ekhuruleni

4.2.7. STRATEGIC INITIATIVES

NHI and NAPHISA Impact on the NHLS

4.2.7.1. NHI STRATEGY

The NHI Act establishes and maintains the NHI Fund, which will serve as the single purchaser and single payer of public health care services and aims to achieve universal access to quality health care services.

The NHLS is committed to providing universal access to quality healthcare services for all South Africans. The key objective is to strategically position the NHLS to meet the demands and opportunities presented by the NHI. To prepare the organisation for NHI, several factors that will ensure equitable access to quality diagnostic services are imperative for the NHLS to consider. These factors include.

- Ensuring alignment with mandatory accreditation requirements to facilitate contracting with the NHI Fund
- Development of a benefits package for diagnostic services in line with the NHI Act and Regulations
- Development of a financing mechanism for pathology services and reimbursement model for pathology services, in line with the NHI Act and Regulations.
- Organisation of pathology services and strategic expansion of service delivery footprint to ensure accessibility of the service across levels of care
- Enhanced efficiency and optimisation of resources, through expansion of digital pathology services, automation of services and electronic gatekeeping.
- Alignment of NHLS support and IT systems with planned patient record systems, procurement processes, and other electronic systems in the NHI Fund

One key focus area in NHI implementation is for NHLS to establish robust engagement mechanisms with the NDOH-NHI office to ensure active participation in the planning of accessible pathology services.

Additionally, a Steering Committee with clear Terms of Reference must be established to coordinate NHLS's preparations for the NHI. The committee will oversee the implementation of strategic focus areas in preparation for the NHI. These areas include:

- Developing an NHLS-NHI service model to position the organisation as the provider of choice under the NHI.
- Development of a funding and revenue model for the NHLS under the NHI
- Supporting the work of Quality Assurance to ensure full accreditation of laboratories.

- Coordinating strategic projects to accelerate the accreditation of laboratories to ensure compliance with NHI standards.
- Preparing the internal environment for the NHI (i.e. policy review, change management activities, etc).
- Recommending individuals to be part of the various NHI committees.

It is important for the NHLS to have direct involvement in the NHI implementation process and to maintain communication with NDoH on all areas affecting pathology services.

4.2.7.2. NAPHISA STRATEGY

NAPHISA aims to provide integrated and coordinated disease and injury surveillance, research, monitoring, and evaluation of services and interventions directed towards the major public health problems affecting persons in South Africa. NAPHISA's core functions will be to:

- Coordinate surveillance systems that monitor diseases and injuries
- Provide specialised reference laboratory and referral services
- Provide training and workforce development
- Conduct research and support public health interventions aimed at reducing the burden of diseases and injuries and thus improving the health of the population

The organisations that will form NAPHISA are the NICD, NIOH, and Cancer Registry.
The NDOH does not coordinate the setting up of NAPHISA, and it will instead be Coordinated by the CEO of NHLS and chosen representatives from NHLS, NICD, NIOH, and Cancer Registry.
The following will kickstart and guide the process;

- A steering committee with clear Terms of Reference needs to be established.
- Stakeholder engagement is required with the National Department of Health to create a road map for the establishment and operationalizing NAPHISA
- A funding vehicle for NAPHISA needs to be identified

4.2.7.3. DIAGNOSTIC MEDIA PRODUCTS (DMP)

There are three DMP Units in Eastern Cape, Western Cape, and Gauteng. The company produces microbiological culture media and reagents for clinical diagnostic laboratories. The products are sold Internally to NHLS labs. private laboratories and some in African countries. The Johannesburg DMP site renovation project nearing completion, and routine operations will resume in a few months.

Operational efficiency and effectiveness

- Short-term: Implement a business continuity plan to return to production
- Optimise media production capability across three DMP units
- Ensure optimal turnaround times on production and delivery of products to laboratories
- Explore opportunities to expand product offering
- Ensure market-related pricing of products

Offer a high-quality service

- Maintain quality management systems to reduce e.g. contamination and wastage in production processes
- Strengthen quality management systems towards ISO 9001:2015 certification

Commercial

- A business plan needs to be prepared that will do the following:
    - Assess the current status of DMP;
    - Benchmark products and prices against the private sector;
    - Conduct market analysis;
    - Define the resources required for DMP to become a completely independent and sustainable function unit;
- A purely commercial strategy of sales and marketing needs to be undertaken
- Products must be marketed and detailed to the laboratories that could use the products. Sales calls, whether in person or via a telesales route, need to be followed. Monthly budgets need to be assigned to each salesperson.
- Marketing could be done by;
    - Develop an electronic product brochure that could be sent to the relevant laboratories using the product.
    - Attending the relevant science and medical conferences.

4.2.8. SOUTH AFRICAN VACCINE PRODUCTS (SAVP)

The SAVP is a wholly owned subsidiary of the NHLS. The company is licensed with the South African Health Products Regulatory Authority (SAHPRA) as a manufacturer and distributor of antivenom for treating snake, scorpion and spider envenoming. The World Health Organisation has acknowledged a deficit in the supply of antivenoms in various regions of the world aggravated by the relatively small number of antivenom producers worldwide. The antivenom products manufactured at the SAVP are

regarded as effective. They are in high demand, particularly the polyvalent snakebite antivenom, which protects ten (10) species of venomous snakes in the region.

SAVP is mandated to ensure an adequate supply of safe, quality, and efficacious antivenom products to meet the local, regional, and international need for treatment against envenomation caused by bites or stings from specific species of snakes, scorpions, and spiders. The antivenom production process is labour intensive and subject to a regulatory framework guiding sterile product manufacturing. Over the past five years, antivenom production at SAVP was hampered by ageing infrastructure and equipment, leadership instability with losses of senior management staff, and interruptions in electricity and water supply that resulted in frequent interruptions in production schedules and posed a risk to Good Manufacturing Practices. All vacant positions were filled, and investments in backup power supply (generators) and uninterruptable power supply systems to meet energy demands, implementation of renovation projects, and procurement of modernised equipment were undertaken to improve production outputs and ensure compliance with GMP.

The SAVP strategy aims to achieve optimal and sustained production capability of safe, effective, and high-quality antivenom products adequate to meet the needs of local and international customers. In addition, the NHLA will focus on improving its revenue generation capability.

Strategic Focus:

Sustained and optimal antivenom production capability that meets treatment needs and builds stock reserve

- Address infrastructure needs for GMP compliance and expansion of production capability
- Modernise processes and equipment to improve production lead times
- Increase the number of horses to ensure increased and sustained immunised plasma production

High-quality modernised manufacturing facility

- Develop, modernise, and maintain quality management systems across all departments
- Implement recommendations of WHO 2024 risk-benefit assessment to achieve product listing
- Strengthen records management and information management systems

Cost-effective manufacturing and distribution of antivenom

- Ensure cost-effective manufacturing processes
- Develop cost-effective distribution and delivery processes with local clients.

Regulatory compliance

- Ensure maintenance of relevant licences and memberships (SAHPRA, South African Pharmacy Council, South African Veterinary Council)

Appropriately skilled human resources in sufficient numbers

- Review and address staffing needs to ensure regulatory compliance and optimise production capability (e.g. full-time veterinarian, regulatory pharmacist
- Identify opportunities for collaboration with academic and research institutions

4.2.9. STRATEGY OFFICE - STRATEGY, BUSINESS INTELLIGENCE and M&E DEPARTMENT (SBIME)

The Strategy Office embedded within the CEO's office operates as a shared service provider, facilitating the development of the organisational strategy and empowering departments and regions to achieve their objectives. Through continuous monitoring and evaluation, including root cause analysis of project outcomes and leveraging data-driven insights, the Strategy Office enhances agility across the organisation.

Business Intelligence (BI) is pivotal in enabling organizations to make informed, data-driven decisions at all operational, tactical, and strategic levels. By fostering a shift from intuition-based to analytics-driven decisions, BI equips organizations with the ability to:

- Identify market trends, customer behaviours, and key performance metrics.
- Optimise operations by highlighting opportunities for cost reduction, process improvements, and resource allocation.

A well-implemented BI strategy transforms raw data into actionable insights, providing a competitive advantage and streamlining operations across industries.

4.2.10. ADMINISTRATION STRATEGIC FOCUS

4.2.10.1. Financial Management

The function of the NHLS’s finance department is primarily focused on critical areas to ensure the financial stability, growth, and integrity of the organisation's finances.

The NHLS faces challenges in achieving an unqualified audit opinion, primarily due to delays in implementing audit action items. The NHLS is committed to implementing necessary measures to address this and aims to achieve a clean audit opinion within the next five financial years.

Since its inception, NHLS revenue has steadily grown due to several factors:

- The incorporation of all NHLS provinces.
- Tariff increases.
- Expanded testing programmes.
- Enhanced collaboration with stakeholders.

Despite the steady growth, the NHLS faces persistent debt collection challenges with provincial health departments. A significant portion of revenue growth depends on the tariff increases granted by the NDoH.

However, due to the financial constraints faced by the provincial DoH, the NHLS struggles to secure annual tariff increases aligned with the Consumer Price Index (CPI). In the 2024/25 financial year, the NDoH has proposed a mere 1% tariff increase, which is significantly below the CPI.

The proposed low tariff increase poses several risks, such as:

- **Operational Challenges:** The NHLS heavily relies on tariff increases to maintain efficient and effective operations.
- **Financial Sustainability:** With rising CPI costs and higher-than-CPI salary increases, the minimal tariff increase will negatively affect long-term financial sustainability.

In the short term, the NHLS plans to mitigate the impact by:

- Reducing costs wherever possible.
- Implementing efficiency measures across the organisation.

However, if this trend continues in the coming years, the NHLS's financial sustainability will be severely compromised.

The NHLS must collaborate with the NDoH to ensure that future tariff increases are at least CPI-aligned. Failure to do so will further exacerbate the organisation's financial pressures.

Over recent years, below-inflation tariff increases have negatively impacted the NHLS's financial performance. Below is a comparison of the tariff increases requested versus those granted:

Table 3: Tariff increase trends over the past six years.

Year	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Requested	5.7%	5.0%	3.9%	4.0%	4,2%	4,7%
Granted	5.7%	5.0%	3.9%	3.0%	4.23%	2.0%

Reducing the provinces' budget has negatively impacted their ability to service their debt. Despite the poor customer payments, the NHLS has effectively managed its cash flow to ensure that there is always an approximately six (6) month cash reserve available to ensure the NHLS's financial stability. The NHLS continuously endeavours to pay its suppliers within 30 days.

Diversify Revenue Streams

The NHLS's primary revenue stream is billing for services provided to its customers on a fee-for-service basis. For the financial year ended 31 March 2024, the NHLS billed **R11.5 billion** in test revenue, which comprised **114 million tests**. Revenue from NHLS customers contributed approximately **87% of the total revenue generated**, highlighting the critical importance of maintaining and expanding these service offerings.

The NHLS strives to do the following to grow and strengthen its revenue base:

- Explore the private sector and local government market.
- Reduce loss-making tests (where possible).
- Increase utilisation of priority tests through campaigns and programmes.
- Consolidate and expand niche areas and services such as DMP within NHLS through business re-engineering
- Expand the base to include new services such as Forensic Chemistry Laboratories
- Increase current donor funding and expand the base of donor funding to include new donors

Debt collection from the provincial DoH has been ongoing for many years. As of 31 March 2024, the provincial DoH owed the NHLS R7,7 billion (2022/23 R6,3 billion). The NHLS must develop a strategy to address this long-standing debt.

The NHLS will continue to engage the NDoH and the provincial DoH to reduce their debts and amounts owed to the NHLS.

The strategic objectives are as follows:

Achieve a clean audit opinion by 31 March 2030

- Implementation of processes to ensure compliance with procurement laws and regulations.
- Establishment a monitoring process to ensure compliance
- Ensure all internal controls are effective in all areas monitored continuously.

Increase in revenue generation by 2% on a year-on-year basis

- Increase test volumes and diversify revenue stream

Reduction in debtors' days over the 5 years

- Constant engagement with customers to improve debt collection
- Stakeholder engagement with funders like Global Fund to settle debt of provinces

Maintain a 6-month cash flow coverage

- Cash flow is managed daily to maintain 6-month cash flow coverage.
- Reduce controllable expenses by 2% on a year-by-year basis through stringent management and control over expenditures to be incurred.

Creditors' days to be 30 days or less

- Re-engineering of processing to ensure all NHLS suppliers are paid within 30 days on an annual basis.
- Negotiate with suppliers for a 1 or 2% reduction on invoices paid within 20 days or less.

4.2.10.2. Supply Chain Management

The overarching objective of the NHLS Supply Chain Management (SCM) function is to improve and modernise procurement systems to ensure timely, efficient, and cost-effective procurement of goods and services. SCM operates fairly, equitably, transparently, competitively, and cost-effectively, maintaining the highest integrity in every transaction, bid, and supplier interaction. These principles align with the PFMA, Treasury Regulations, and the Code of Conduct for SCM practitioners.

Current Challenges and Mitigation Strategies

Irregular Expenditure

- The NHLS is incurring irregular expenditures due to non-compliance with legislation, including improper procurement processes and expired contracts.

- **Mitigation:**
  - Clear the current tender and RFQ backlog by **31 March 2025**.
  - Deploy temporary resources/contractors to expedite the process.
  - Employ additional permanent SCM practitioners to capacitate the department fully.

Manual Processes

- SCM processes are heavily manual, resulting in inefficiencies.
- **Mitigation:**
  - Modernise and automate SCM processes, including e-documentation and safeguarding records.
  - Transition to a fully digitised supplier and contract management system.

Supplier and Contract Management

- Ineffective management of suppliers and contracts.
- **Mitigation:**
  - Implement effective supplier selection, onboarding, and negotiation practices.
  - Develop a contract management system using KPIs to measure performance and assess supplier risk.

Promoting B-BBEE and SMMEs

- **Objective:** Comply with the Preferential Procurement Regulations, 2022, to support businesses owned by historically disadvantaged individuals (HDIs), black women, youth, people with disabilities, and military veterans.
- **Implementation:** Include locality-specific procurement to promote regional enterprises.

Strategic Objectives for SCM

Strategic Overview of Corporate Procurement (5-Year Plan)

- Develop a strategic procurement position for equipment acquisition (e.g., placement vs. outright purchase).
- Promote open systems to allow the use of diverse reagents/consumables.
- Aggregate demand into national contracts for strategic sourcing.
- Establish framework agreements for high- and low-volume goods and services.

Reduction of Irregular Expenditure (5-Year Plan)

- Enforce proper procurement processes and compliance with legislation.
- Procure items exclusively from valid contracts.
- Monitor adherence to all relevant laws and regulations to reduce irregular expenditure.

Simplify Business Processes (5-Year Plan)

- Enhance interfaces with systems like the Central Supplier Database (CSD).
- Improve turnaround times for tender awards by simplifying and streamlining business processes.

Development of e-procurement (By 2027)

- Roll out phased automation of the SCM process, leading to a fully integrated e-tendering and contract management system.
- Prioritize the integration of automation phases to ensure seamless functionality.

The NHLS SCM department is focused on addressing its challenges while modernising and automating its systems to meet long-term strategic goals. The NHLS aims to strengthen its supply chain operations and contribute to organisational sustainability by improving efficiency, ensuring compliance, and promoting inclusivity through preferential procurement.

4.2.10.3. Logistics Strategic Focus

While NHLS has made significant strides in recent years, it faces challenges with its client needs and market demand. The challenges include delays of the couriers on the Blood Samples Collections, Impacting the Service Level Agreements and Customer Service. The organisation's Logistics department's ability to adapt to changing healthcare needs, leveraging technology, and maintaining high-quality standards will be crucial for its future success. Critical areas such as Digitisation, Customer Care, and Quality Management are crucial for the NHLS to remain Competitive. NHLS competes with the private sector regarding turnaround times, provision of specialised services, and quality of service. The provision of the internal pool fleet faced critical challenges in its lease arrangements, jeopardising efficiency and cost-effectiveness and impacting the sustainability of the business. The current fleet lease has proven that, through due diligence and committed change, the organisation will achieve much more cost-effective suppliers with increased efficiencies. The Logistics Strategic objective is as follows:

Digitisation of the Logistics Process by 2030

- Implementation of a Digitised System for Tracking and Monitoring by 2030
- Implement a real-time business intelligence reporting system by 2026 to support agile
- decision making.
- Implement a fully Digitised specimen Tracking System by 2030 for Traceability and
- customer feedback.
- Automation of Stores and Warehousing processes by 2030 to improve stock integrity and controls

4.2.10.4. Facilities Management

Facilities management ensures that the NHLS provides conducive and secure laboratories, office accommodation, occupational health & safety, secure physical security services, and contract management solutions. NHLS must transition to a diverse alternative energy and water sources portfolio to secure a sustainable future, reducing reliance on traditional, finite resources and mitigating environmental impact. To strategically invest in modernising and standardising regional infrastructure assets, ensuring efficient, equitable, and sustainable delivery of essential services to all NHLS Laboratories.

Current Status of NHLS Infrastructure

The NHLS infrastructure faces challenges due to aging infrastructure, energy and water constraints, and equipment breakdowns. These issues have resulted in increased turnaround times for laboratory tests.

Many NHLS facilities are outdated, impacting efficiency and safety due to a lack of refurbishment.

A lack of consistent maintenance has resulted in a backlog of repairs and life cycle upgrades due to lack of maintenance.

Resources and infrastructure are not evenly distributed across the country, leading to disparities in service delivery because of unequal distribution.

Despite these challenges, the NHLS continues to provide essential laboratory services to the South African population. The organisation is committed to addressing these infrastructure issues and improving service delivery.

The NHLS must develop a comprehensive infrastructure plan for five (5) years that will address the backlog and the following challenges:

- Provide alternative solutions for the Energy and Water crisis and environmentally friendly practices.
- Upgrading existing facilities with modern equipment, technology, and safety features.
- Building new facilities in high-demand areas and limited access to laboratory services.
- Concentrate on projects that address the most pressing infrastructure gaps, such as those impacting essential services like HIV/AIDS, TB, and COVID-19 testing to prioritize High-Impact Projects.

4.2.11. INFORMATION AND COMMUNICATION TECHNOLOGY

Information and Communication Technology (ICT) is critical to delivering effective, efficient, timeous, and patient-centred care. The NHLS has invested substantially in infrastructure and innovative and efficient IT systems, which will contribute to improved efficiencies and operational processes. There are six strategic focus areas to move the organisation forward to build on the success and investments made. These focus areas will allow the organisation to improve its infrastructure and applications, improve the security of patient and financial data, and concentrate on skills development and capacity building for staff. Additionally, the strategy will address whether IT has the proper structure to service the NHLS in the NHI.

4.2.11.1. OD Structure of the IT department

- Review the current structure of the IT department to determine whether it is suitable for routine and crises servicing the NHLS.
- Identify the gaps and areas of challenge
    - Research other high-performance IT departmental structures and produce a report with recommendations for change as needed
- Rethinking and setting up the help desk service or call centre.

4.2.11.2. IT Infrastructure

- Replacement of aging infrastructure, including datacentres to align with improved networks
- Strengthening of MPLS and finalisation of migration to SANREN
- Develop a comprehensive Disaster Recovery Plan
- Develop a backup process for onsite and offsite backups. This will include the following;
    - Identifying and determining the scope of which data is critical.
    - Determining a schedule for regularly creating backups and testing the backups of the data.

    - Consideration should be given to the type of backup the organisation will need. It is therefore recommended that a project team be assembled to do this.
- Improved Hardware and software management, including NHLS subunits and consolidation of systems.
- To improve the bandwidth for the entire organisation to allow, amongst others, digital pathology, AI in pathology, and video conferencing to be implemented quickly.
- Improved communications through video conferencing and upgraded and updated ECHO infrastructure for multi-purpose use.

4.2.11.3. Systems and Applications

- To evaluate if Oracle and TrakCare are still fit for purpose, whether these upgrades are required to position the NHLS for NHI, or if better applications are available.
    - Current analysis and functionality must be done, followed by a market analysis of systems that are competitors to Oracle and TrakCare.
    - Digitisation of processes, i.e., rocure to pay, e-procurement, document management, records management.
- Rolling out strategic projects such as order entry and specimen tracking.

Maintenance of Licences

- Developing clear SOPs and monitoring systems to manage licenses across the NHLS platform. This will allow the process to be mapped and accountabilities to be assigned.

Cybersecurity

- The organisation must proactively approach cybersecurity by developing a cybersecurity framework.
- Create awareness and educate all internal stakeholders on cybersecurity and its risks. This can be done in collaboration with the Communications department and at regular intervals.
- Device management plan and process:
    - Ensuring all devices have anti-virus software with patches updated regularly.
    - Offsite work should be done through a VPN.
    - Multi-factor authentication for logging into devices.
- Encrypted databases and limited data access depending on an individual's role and seniority.
- Network segmentation and application controls should be implemented.
- emails filtering
- Plans to ensure immutable Backups might mean some offsite/inter-province setups and costs.
- Investigate Cloud-based operations and the associated costs.

4.2.11.4. HR Capacity Building

- Staff training is needed to improve how the staff delivers the service to stakeholders and allow for cross-functional work.

4.2.12. HUMAN RESOURCES

The five pillars of the HR strategy are aligned with the NHLS strategic plan and focus on the following areas:

- Develop an employer reputation to enhance the NHLS brand identity to attract top talent.
- Embedded remuneration and reward principles to remuneration for work of equal value by addressing grade discrepancies within the organisation.
- Establish clear performance objectives and expectations to ensure differentiation across different levels and provide role clarity.
- Celebrate diversity and inclusion within our workforce, recognise the contribution of all staff, and enhance the organisation's overall success through individual, team, and organizational developmental programs.
- Continually identify, grow, and manage internal talent and staffing to uphold an international profile.

With the pillars mentioned above, HR seeks to provide professional HR strategic partnership to the organisation, enabling it to achieve its goals through its most valued assets, the NHLS employees. The specific activities of the HR strategy are the following:

4.2.12.1. HR Strategic Outcomes

The strategic objectives are the divisional response to the identified challenges and areas of improvement. They aim to build an effective and efficient HR business that is a strategic partner to the NHLS, thus enabling the business to achieve its objectives by ensuring the availability of competent skills at the right time.

4.2.12.2. Performance and Talent Management

Supporting business performance by providing an integrated talent management framework that aligns business strategy with team and individual goals and performance outcomes. Talent management focuses on an employee through the employee life cycle from attraction to exit.

Figure 5: Employee Life Cycle

The above diagram presents a high-level indication of the focus areas at every stage of the employee life cycle, aiming to ensure an effective talent management process from start to finish.

4.2.12.3. Recruitment

The current recruitment practices require more flexibility and targeted approaches to increase turnaround times. Currently, most core resources are circulated internally, thus limiting growth. A more focused pool of recruitment service providers should be sourced with a broader view of headhunting at the regional level should the regular bulletin not yield results.

To increase the pool of potential employees, the NHLS must embark on career days with the universities, potentially from the high school level, to trigger interest. Internships should not only focus on core functions, but this approach should also be used to create a pool for support functions supported by a strong mentorship program.

Ensuring employees new to the organization are productive within the first 30 days of appointment is imperative. This should be enabled through an extensive induction programme that transitions to online access for easy access anywhere in the organization.

4.2.12.4. Development

It is best practice for employers to outline their expectations for new and old employees. Performance contracting should happen within the first 30 days of employment and by the end of the first month of the financial year for existing employees.

At the point of contracting, it is imperative that developmental needs are identified and initiatives put in place to address them. The organisation should target 100% contracts for eligible employees, and a

quality review of the KPIs should be conducted annually to ensure alignment with the organisation's objectives. The performance management system will improve and integrate this plan with the learning module. Workplace skills drive the employee development plan as the Skills Development Act requires. A thorough analysis of the program on the WSP versus the organisational objectives and return on investment should be conducted annually to ensure a balance between work and study.

4.2.12.5. Retention

The employee turnover rate at NHLS is lower than the national and health sector rate. However, the employees that tend to leave occupy critical positions, leaving a visible opening in the organisation's performance. The most common reason for exiting is the lack of career growth and better financial opportunities. There is a need for clearly defined career paths for the different occupational groups, with developmental plans aligned. organisations often hear about the employees' dissatisfaction when they leave employment through exit interviews; even though they are essential, stay interviews will be introduced to core and critical roles to ensure that issues are resolved before deciding to exit.

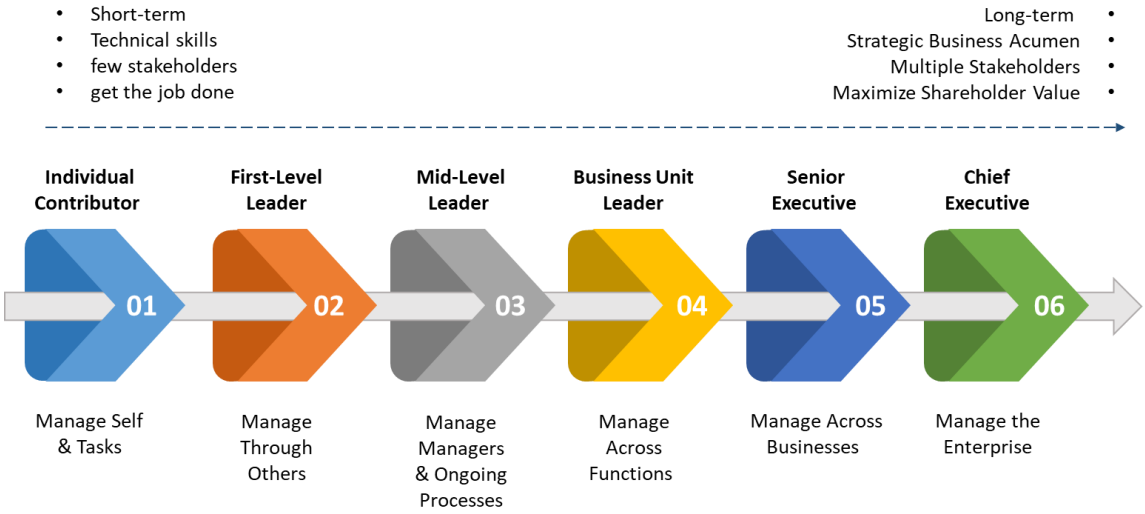
The current talent management strategy will be revised to enable the development of a retention strategy that could be customized to specific employee categories where a need exists. The current scales will be reviewed to align organisational structure and encourage growth into senior positions.

4.2.12.6. Leadership Development

The NHLS leadership team needs to ensure that the employees are at maximum productivity levels by ensuring they have the skills and capabilities and that the organization has a pool of future-fit employees. To do this, the leadership team must possess the right capabilities and be empowered to execute their duties.

The leadership pipeline model is best suited for targeted efforts in leadership development. It is based on identifying, developing, and recruiting managers. It will be used to develop competencies at different levels to ensure succession at different levels.

Figure 6: Leadership pipeline framework



The leadership pipeline model depicts leadership responsibility at all employment and career paths. A leadership competency model will be developed to add competencies to be achieved and assessed at every level.

An NHLS leadership academy program will be developed to facilitate the development of these competencies in line with career pathing and succession management.

4.2.12.7. Governance And Compliance

To ensure effective management of the organisation's most valued assets, it must align with legislation and limit the risk associated with poor governance and practices.

In doing so, it is imperative to have policies that ensure consistency and transparency in people management. Thus, policies must be reviewed to align with legislative changes and processes that can be adopted consistently throughout the organisation. A project plan for policy review and development drives the process for the past year and beyond as a matter of priority and urgency.

Governance will focus on HR risk assessment and mitigation, audit findings and improving the causes of the findings, and ongoing reporting and monitoring of progress against set targets.

4.2.12.8. HR Digital Transformation

Most of HR's functions are managed manually, resulting in HR resources being unable to demonstrate their capability because they spend their time being pulled to administrative functions throughout the levels. This presents a bottleneck that makes strategic business partnering difficult.

HR functions must be automated through the implementation of e-recruitment. This will allow end-of-the-end recruitment in the system, reducing the time taken to approve advertisements, initial screening, and appointment sign-off.

HR modules on Oracle should interface to ensure a flow on talent management; integration of the learning and performance modules is essential, including performance improvement. To drive customer centricity, the HR community must gather perceptions about their service through an annual survey. To support this, a service desk system should record turnaround times for responding to queries. As a support function, HR is targeting an 85% satisfaction rate by the end of 2025.

4.2.12.9. Strategic Objectives

The HR strategic objectives provide a big picture of what the division needs to do to provide professional HR strategic partnership to the organisation, enabling it to achieve its goals through its most valued assets, the NHLS employees.

Enhanced performance and talent management

- Drive a people-centric and high-performance culture
- Align performance management to employee development
- Create remuneration structures that enable career development
- Develop career pathing for core and support functions
- Review and implement succession management strategies
- Develop retention strategies for critical, core, and scarce skills

Build and grow leadership capacity

- Develop a leadership competency framework for all leadership levels
- Develop and implement a leadership academy for NHLS
- Develop and launch a leadership academy
- 360 assessments to be done routinely
- Assessment of leadership against identified competencies

Enhanced governance and compliance

- Develop a workforce planning model
- Develop, review, and socialise HR policies and processes

- Develop and monitor the HR risk management plan
- Ensure alignment of HR processes with legislation
- Continuous monitoring of HR practices through reporting

Digital transformation of the HR division

- Develop and implement an e-recruit system
- Automate overtime claims
- Integrate HR modules
- Develop an HR digital help desk
- Design business intelligence reporting
- Transform to virtual learning and development

4.2.13. COMMUNICATIONS, MARKETING AND PUBLIC RELATIONS STRATEGIC FOCUS

The communication strategy defines the approach for engaging with various stakeholders, outlining the overall communication objectives, and establishing core principles to guide all interactions. It identifies key stakeholder groups and their specific communication needs, articulates the primary messages for the NHLS, and details deliverables and communication channels. The department must be sufficiently capacitated to execute the NHLS Communication Strategy fully.

Strategic Focus:

Improved media relations

- Issuing of media releases on topical issues;
- Organising media briefings/interviews/ roundtables with the CEO and key NHLS people;
- Profiling of key NHLS professionals/managers in selected media;
- Media training of key personnel;
- Media monitoring to ensure effective issues management and generation of reports;
- Opinion/ Thought Leadership articles in selected print media on strategic issues relevant to health and NHLS business.

Improved internal communication and employee engagement

- CEO Brown Bag Sessions/Town Hall meetings with selected employee groups;

- CEO / Executive Regional Roadshows.
- Create educational and internal awareness campaigns on NHLS' vision, mission, values, ethics, policies, and procedures.
- General staff engagement session – to inform employees about new organisational developments (such as performance feedback).
- Production of a quarterly internal newsletter.

Strong and meaningful relations with all stakeholders

- CEO / EXCO sessions with key industry stakeholders.
- Participation in relevant industry events and forums.
- Provide PR and events management support for key NHLS industry events.
- Strategic partnerships with key stakeholders.
- Continuous updating of stakeholder database.

Well-managed and optimised NHLS brand

- Implementation of corporate / NHLS branded uniforms for selected employees.
- Development of NHLS promotional material.
- Revamping and updating of NHLS intranet and external website.
- Develop social media policy.
- Update and review of the Corporate Identity manual.
- Exposure of learners to the NHLS environment and operations.
- Production of information and marketing material.

To test the effectiveness of the integrated communication and marketing strategy, several monitoring and evaluation mechanisms will be used:

- Media monitoring services, to which the NHLS can subscribe to measure the value of publicity generated (print, radio, television), will provide evidence of the NHLS's success or failure to improve its media profile.
- Similarly, monitoring social media through service providers will also indicate improved visibility via social media through increased followership and revealing discussion trends and brand sentiment overall.
- The monitoring of electronic newsletter subscriber numbers and the number, origin, and

preference of web visitors will serve as success indicators.

Internally, a baseline survey about an individual's preference and experience regarding communication channels is essential to measuring progress over time. Ultimately, to determine success against targets holistically, feedback mechanisms must be tailored and implemented for the different components/projects/stages that all contribute to the overall strategic aim.

4.2.14. SWOT Analysis

Despite the challenges experienced by the NHLS, it has been an organisation that has survived and thrived over the years. The organisation has provided good-quality pathology results to the Department of Health and its patients.

Table 4: The internal challenges and opportunities.

STRENGTHS	**WEAKNESSES**
• National Pathology Laboratory footprint. • Internationally renowned intellectual capital. • Sustainable partnership through relevant research and development. • Gold standard for establishing public health care. • Sole mandate to train pathologists. • Exclusive national central data warehouse.	• Aging infrastructure. • Limited ownership of the value chain. • Limited developmental opportunities. • Inadequate distribution of critical and scarce skills. • Inability to retain a skilled workforce.
OPPORTUNITIES	**THREATS**
• SANAS accreditation • Digital transformation. • Other sources of income to enhance revenue streams. • Adoption and implementation of new technologies. • Operationalising business intelligence to improve data-driven decisions.	• Competition with the implementation of NHI. • Budget reduction for provinces. • The decrease in a conditional grant. • Cyber security and outdated IT infrastructure. • High attrition of skilled and competent staff. • Disease outbreaks.

5.0 STRATEGIC PRIORITIES FOR THE MEDIUM-TERM DEVELOPMENT PLAN (MTDP)

In the next five years, the NHLS aims to focus on and prioritise the service platform, thus enhancing the training platform and becoming a center of excellence in Africa.

- Strengthening Teaching and Training;
- Focus on expanding funding sources for research,
- Improving and Strengthening Supply Chain Management;
- Building a secure and resilient IT infrastructure
- Digitisation of all processes
- Strengthening the current BI unit to inform business decision-making process internally and for the country.
- Patient and People-centric;
- Financial sustainability
- Water and energy supply strategies, and
- NHI readiness.

6.0 STRATEGIC FOCUS

The NHLS is driven by a clear purpose: to deliver an affordable, high-quality, cost-effective, efficient, and responsive service to the needs of the patients and clients.

The introduction of National Health Insurance (NHI) will fundamentally change the health system over the next few years. The NHLS will operate in an increasingly competitive and demanding environment and must have a strong, sustainable, and efficient service to deliver for the NHI and the future.

Technology is advancing rapidly, and the NHLS needs to respond quickly to such changes through its structure and service delivery.

For the next five years, the NHLS will focus on the following:

- **Patient-centered approach to service delivery**
    - Hybrid service delivery model by centralizing and decentralizing in certain areas
    - Integrated technology across disciplines
    - Automation of technology
    - Improved logistics and specimen tracking systems

- **Employee-centered approach to building a fit-for-purpose, future-focused organisation to gain a competitive advantage over the private sector pathology laboratories**
    - Increase the training of pathologists
    - Collaboration across disciplines; stop the silo’s
    - Partnerships with the private sector to improve and enhance the training of pathologists
    - Staff Retention Strategies and improved working conditions (flexible working policy)

- Provide clear career progression
- Capacity building programmes for all staff categories

- **Digitisation of all key corporate departments**
  - Digitising business processes
  - Become a paperless organization in the next five years.
  - Business intelligence for data-driven decision making

- **Introduction of new technologies in laboratories**
  - Digital pathology
  - AI in pathology
  - Next Gen Sequencing
  - Rapid Diagnostic Tests
  - Point-of-Care testing
  - Automation in laboratories
  - Service-appropriate diagnostic platforms (open vs closed molecular platforms; placement vs outright purchase of diagnostic systems)

- **Increase in revenue generation**
  - Increase test volumes by improving logistics and reducing blood sample rejection due to transportation challenges
  - Reduce the number of outsourced tests by identifying the top 10 outsourced tests and developing plans to reduce such outsourcing.
  - Diversification of revenue streams

PART C: MEASURING PERFORMANCE

1. Institutional Performance Information

1.1. Measuring the Impact

IMPACT: "BETTER CLINICAL OUTCOMES FOR PATIENTS."

IMPACT STATEMENT	The NHLS will improve health care for the people of South Africa by providing a rapid, reliable, efficient, and affordable service that leads to better clinical outcomes.

OUTCOMES and OUTPUTS

OUTCOME	OUTPUTS
An Efficient and Effective Organisation	Improved clinically relevant turnaround times.
	Highly skilled and competent workforce
	Improved supply chain management systems
	Improved clinic-laboratory interface
	Digitised business processes
	Performance-driven workforce
	Employee-centred organisation
	Sustainable source of energy and water.
	Improved stakeholder engagement
	Improved infrastructure and property management.
	Resilient IT systems.

OUTCOME	OUTPUTS
High-Quality Services	Strengthened Total Quality Management Systems
	Cutting-Edge Health Research
	A robust and efficient surveillance system and outbreak response
A Financially Stable Organisation	Improve/ maintain the liquidity position of the NHLS
Good Governance	Audit opinion of the Auditor-General
	Corruption-free organisation
	Strengthened compliance with regulatory and legal requirements

OUTCOME	AN EFFICIENT AND EFFECTIVE ORGANISATION	
OUTCOME INDICATOR	**BASELINE**	**FIVE-YEAR TARGET (2025/30)**
Percentage of critical laboratory tests conducted within the predefined turnaround times	New	90%
Percentage of occupational and environmental health laboratory tests conducted within the predefined turnaround times	76%	90%
Percentage of the blood alcohol tests conducted within 90 days	82%	90%
Percentage of the new toxicology tests conducted within 90 days	New	50%
Percentage reduction of backlogged toxicology cases.	7%	100%
Percentage of the perishable food samples conducted within 30 days.	75%	90%
Percentage of the non-perishable food samples tested within 60 days.	48%	90%
Percentage of facilities where POCT will be implemented.	0%	100% implementation
The number of anatomical pathology laboratories where digital pathology will be implemented.	Not Implemented	14 anatomical pathology laboratories
Number of pathology registrars admitted and trained in the NHLS.	64	70
The pass rate of pathology registrars.	New%	80%
Number of intern medical scientists admitted and trained by the NHLS	50	50
Number of qualified medical scientists (NHLS trained) registered with the HPCSA.	50	50
Number of intern medical technologists/ medical laboratory scientists admitted and trained in the NHLS.	315	250
Number of field epidemiologists qualified.	8	12
Develop and implement an Information and Communication Technology Strategy	New	100% implementation
Develop and implement a specimen-tracking system	Development in progress	100% implementation
Digitisation of all business processes	New.	100% implementation
Percentage of employees trained as per the approved training plan (WSP).	60%	70%
Percentage of employees with approved performance contracts.	98%	98%
Percentage of employees with reviewed performance contracts.	98%	98%
Employee engagement	60.6%	70%
Percentage turnaround time for awarding tenders below R10m within six (06) months / 180 days.	New	80%
Percentage turnaround time for awarding tenders above R10m within nine (09) months / 270 days	New	80%

Automation of SCM processes and the contract management system.	New	Track the SCM automation improvement
Develop and implement the NHLS infrastructure plan.	New	50% implementation
Develop and implement a sustainable energy supply for the NHLS	New	100% implementation
Develop and implement a sustainable water supply for the NHLS	New	100% implementation
Develop and implement the communication strategy	New	100% implementation
A number of published newsletters in a year.	New	4
A number of town hall meetings held in a year.	New	4
A number of stakeholder forums held in a year.	New	2

OUTCOME	**HIGH-QUALITY SERVICES**	
OUTCOME INDICATOR	**BASELINE**	**FIVE-YEAR TARGET (2025-30)**
Percentage compliance achieved by laboratories during annual quality compliance audits.	94%	95%
The percentage of laboratories achieving proficiency testing scheme performance standards is 80%.	91%	98%
Number of laboratories that are SANAS accredited.	175	215
Number of ISO-9001 certified departments.	5	8
Number of articles published in peer-reviewed journals.	597	700
Implement the pathologists' national coverage plan.	40%	90%
Number of occupational, environmental health, and safety assessments completed	22	20
Number of occupational health surveillance reports produced	5	5
Percentage of Integrated Diseases Surveillance and Response Reported	95%	90%
Percentage of outbreaks of Category 1 notifiable medical conditions responded to within 24 hours after notification	100%	100%
National Antimicrobial Resistance Surveillance Reporting (One Health)	New	60%

OUTCOME	A FINANCIALLY STABLE ORGANISATION	
OUTCOME INDICATOR	**BASELINE**	**FIVE-YEAR TARGET (2025-30)**
Ratio of current assets to current liabilities.	4,4:1	2:1
Cash flow coverage ratio (operating cash in-flows / total debt)	3,5:1	2:1
Number of creditors' days	25 days	30 days
Number of debtors' days	192 days	140

OUTCOME	GOOD GOVERNANCE	
OUTCOME INDICATOR	**BASELINE**	**FIVE-YEAR TARGET (2025-30)**
Audit opinion of the Auditor-General	Qualified	Clean
Percentage reduction in irregular expenditure	New	80%
Percentage of allegations reported through the NHLS's tipoff platform that are investigated and completed within 180 days.	93%	95%

KEY STRATEGIC RISKS.

No.	Risk name	Inherent Risk	Risk Owner	Root Cause	Controls /business processes and risk-mitigating plans
1	Failure to procure timely and minimise irregular expenditure (Procurement)	High	CFO	• Lack of clear understanding of requirements • Unfilled vacancies	• Updating the contract management system. • Participate in existing contracts (transversal contracts). • Review of Supply Chain Management (SCM) Organogram • Greater application of consequence management. • Ongoing information sessions concerning the different procurement requirements (Training) with end-users. • All tenders above R10 million are audited before award. • Review the process to identify and minimise bottlenecks (efficiency). • Tender turnaround times (TAT) were set in the Annual Performance Plan (APP).
2	Aging Infrastructure and equipment	Moderate	CFO	• Poor monitoring and maintenance of infrastructure and equipment.	• Appointment of Facilities Managers. • Infrastructure development and maintenance. • Equipment Modernisation. • Procurement of new laboratory equipment.
3	Poor collection (non-payment) of billed services	High	CFO	• Inability to collect debts of billed services due to cost containments (budget cuts) • Disputed invoices	• Continuous engagement with Departments of Health (DoH) and other stakeholders.
4	Failure to meet the demand of tests	Moderate	COO Area Managers Head of FCL	• Forensic Chemistry Laboratory (FCL) backlog • Insufficient resources available to meet demand. • Unavailability of equipment and systems.	• Recruitment of additional forensic analysts for the toxicology section. • Procurement of analytical instruments for all FCL labs • Acquiring additional space for the Pretoria and KZN FCL. • Software Update for the Labware System (LIMS). • Migrate Labware System to Trakcare.

No.	Risk name	Inherent Risk	Risk Owner	Root Cause	Controls /business processes and risk-mitigating plans
					• Implementation of Point of Care Testing (POCT). • Development of Order Entry Tracking on Trakcare. • TAT for priority tests was set on the APP. • Continuous engagement with Departments of Health, Academia, and other stakeholders. • Acquiring a panel of pathology service providers through the tender process. • Expansion of HIV Viral Load Testing Laboratories
5	Rising cost of employee compensation	High	Executive Manage: HR	• Increasing compensation costs above inflation. • Poor monitoring of agreed adjustments. • Changing economic pressure and climate. • Recruitment of additional personnel in response to cyberattack incident.	**For D1 and below:** • Negotiating a wage in accordance with Treasury Medium Term Expenditure Framework (MTEF) guidelines with Senior management at the Bargaining and Labour Relation Forum (BLRF) engagement platforms. • Conclusion of wage negotiations in line with the Board mandate / Resolution. **For D2 and above:** • Alignment with Treasury guidelines and make recommendations to the Board for approval. • Implementation of Board approved wage increases within the relevant financial year. • Labour costs are monitored through the budget process.
6	Skill shortages (**Pathologists**) in key disciplines to execute strategy and business objectives	High	Executive Manager: AARQA	• Skill poaching in scarce disciplines. • Working environment that is not conducive. • Delays in registrar/student progress due to cyberattack incident.	• Implement the umbrella and bilateral agreement with the universities. • Review of the Umbrella agreement. • Design an enabling strategy to balance NHLS mandates effectively ○ Develop and implement a skills retention plan. ○ Develop a clear career progression path.

No.	Risk name	Inherent Risk	Risk Owner	Root Cause	Controls /business processes and risk-mitigating plans
					○ Motivate to ensure adequate grants to fund sufficient training needs of the NHLS. ○ Enabling completion of research project towards degree requirements. • Establishment of Head of Department (HOD) development programme. • Review current performance agreements to align with NHLS mandates and effective implementation thereof. • Finalising staffing requirements of the organisation and filling vacant posts.
7	Laboratories' Failure to obtain SANAS Accreditation	Moderate	Executive Manager: AARQA	• Inadequate and insufficient laboratory personnel. • Delays in SANAS audits due to cyberattack incident	• Laboratories target for SANAS accreditation Strategy is in place. • Annual Quality Compliance Audit for laboratories, not SANAS accredited.
8	Failure to provide IT services that meet business requirements	Extreme	CIO	• Inadequate attraction and retention of IT resources • Vulnerability of information security measures • Poor turnaround time in resolving queries. • Insufficient broadband capacity. • Failure to resolve IT audit findings. • Inadequate cybersecurity training and awareness.	• Recruitment of critical IT positions. • Complete capacitation of IT security resources. • Increase information security awareness. • Improve turnaround time for resolving reported IT failure/downtime. • Development of NHLS IT strategy. • MTN was appointed as a new service provider for MPLS. • Review and update of IT policies and procedures. • Resolving audit findings. • Upgrading IT Infrastructure and acquiring software and tools to monitor the IT environment.
9	Inability to operate during disaster	Extreme	BCM – Steering Committee	• Outdated Disaster Recovery Plans	• Business Continuity Management (BCM) Steering Committee has been established.

No.	Risk name	Inherent Risk	Risk Owner	Root Cause	Controls /business processes and risk-mitigating plans
	(Business continuity)			• Lack of proper planning and preparation to continue during a disruption. • Vulnerability of information technology security • Business Continuity Plan (BCP) not approved, tested and communicated. • Unavailability of water	• Braamfontein is the NHLS Disaster Recovery (DR) site. • Schedule regular data back-ups. • Schedule regular disaster recovery testing. • Implementation of Disaster Management Plan. • Implementation of Disaster Recovery Policy. • Review and updating of Business Continuity Plan (BCP). • Generators have been installed in critical sites. • Installation of Solar Power Panels and invertors. • Water tanks are in place. • Laboratory test referral process is in place. • Activation of laboratory downtime procedures. • Appointment of additional personnel during crisis • Acceptance of volunteers from universities and the public/private sector.
10	Unavailability of electricity-dependent critical systems	Extreme	CFO	• Extended load-shedding/ reduction • Lack of backup electricity supply	• Procurement of additional generators to power the entire campus. • Installation of one (1) megawatt Solar Plant/farm to support data centre. • Application to the City of Johannesburg for exemption from Load-shedding
11	Failure to obtain pathology services (Loss of Revenue)	High	Executive Manager: AARQA	• Implementation of Point of Care Testing (POCT) by Department of Health (DoH) • Implementation of phase 2 of the National Health Insurance (NHI) Bill	• Piloting Point of Care Testing (POCT) in the Gauteng and KZN regions. • Applied for more funding to roll out POCT across the country. • Appointment of NHI Manager to support NHLS initiatives that will respond to NHI requirements. • Appointment of Point of Care (POCT) service providers

No.	Risk name	Inherent Risk	Risk Owner	Root Cause	Controls /business processes and risk-mitigating plans
					• Establish a Technical Working Group including Expert Chairs, Area Managers, QA, and NHI experts at NIOH.

PART D: TECHNICAL INDICATOR DESCRIPTORS: 2025-2030 STRATEGIC PLAN

Indicator Title	Percentage of critical laboratory tests conducted within the predefined turnaround times
Definition	It measures the time it takes from registration on the Laboratory Information System (LIS) of the tests until the results are reviewed/authorised.
Source/collection of data	The data comes from the information captured on the LIS and is interfaced with the NHLS CDW for consolidation. A report is then generated from the CDW. The expert committees compile a list of critical tests and the expected turnaround times. CDW raw data and the spreadsheet are provided as a portfolio of evidence
Method of calculation/assessment	The total number of critical tests **(Annexure A**) tested and authorised within pre-defined turnaround times is divided by the total number of tests (Annexure) tested and authorised. Turnaround time is calculated from the time of registration to the time of authorisation. The calculation excludes all the tests which were rejected for any reason. The NHLS is currently finalising the development and piloting of the specimen tracking system to measure the entire value chain (from collecting specimens from the health facility to delivering results at the health facility). The system will be implemented in the 2026/2027 FY. For this FY, the NHLS will measure the turnaround time from registration to review for 2025/2026.
Assumptions	None
Desired performance	90%
Indicator Responsibility	Area managers

Indicators Title	Percentage of occupational and environmental health laboratory tests conducted within the predefined turn-around time
Definition	It is a measure from when specimens were received until completion, expressed as a percentage.
Source/collection of data	NIOH database and an Excel spreadsheet of all the tests performed and the time it took to complete them.
Method of calculation	Total number of occupational and environmental health laboratory tests completed within predefined turnaround time in testing laboratories only (Analytical Services, Immunology, Microbiology, Occupational Hygiene, Pathology) divided by the total number of occupational and environmental health laboratory tests received in testing laboratories only (Analytical Services, Immunology, Microbiology, Occupational Hygiene, Pathology), expressed as a percentage.
Assumptions	None
Desired performance	90%
Indicator Responsibility	NIOH Head of Analytical Services

Indicators Title	Percentage of the blood alcohol tests conducted within 90 days
Definition	It measures the time taken from registering blood alcohol samples for testing in the laboratory (registration on the laboratory information management system (LIMS)) until a laboratory manager authorises the test results for the sample.
Source/collection of data	The data comes from the information captured on the laboratory information system or LIMS. Raw data for the LIMS is submitted as a portfolio of evidence.
Method of calculation	The total number of blood alcohol tests performed and reviewed within 90 days is divided by the total number of blood alcohol tests requested, expressed in percentage. The TAT calculation starts when the specimen is registered on the laboratory information system and lasts until the test is reviewed.
Assumptions	None
Desired performance	90%
Indicator Responsibility	Head of Forensic Chemistry Laboratories/ COO: Strategic Initiatives

Indicator Title	Percentage of the new toxicology tests conducted within 90 days
Definition	It is a measure of the time taken from the registration of toxicology samples for testing in the laboratory (registration on LIMS) until a laboratory manager authorises the test results for the sample authorises the test results for the sample.
Source/collection of data	The data comes from the information captured on the laboratory information system or LIMS. Raw data from LIMS is provided as a portfolio of evidence.
Method of calculation	The total number of new toxicology tests performed and reviewed within 90 days is divided by the total number of requested new toxicology tests, expressed in percentage. The TAT calculation starts when the specimen is registered on the laboratory information system and lasts until the test is reviewed. (New specimens are received in the laboratory at the beginning of each financial year, i.e., 1 April.
Assumptions	None
Desired performance	50%
Indicator Responsibility	Head of Forensic Chemistry Laboratories/ COO: Strategic Initiatives

Indicator Title	Percentage reduction of backlogged toxicology cases
Definition	The term “backlog” refers to all samples from the previous financial year (31 March of the previous financial year) that were not tested and completed.
Source/collection of data	The data comes from the information that is captured on LIMS. Raw data from LIMS is provided as a portfolio of evidence.
Method of calculation	The total number of backlogged toxicology cases tested and reviewed or authorised is divided by the total number of backlogged toxicology cases.
Assumptions	Nones
Desired performance	100%
Indicator Responsibility	Head of Forensic Chemistry Laboratories

Indicator Title	Percentage of the perishable food samples tested within 30 days of sampling
Definition	It measures the time taken from registering perishable food samples on the laboratory information management system until the test results for the sample are authorised.
Source/collection of data	The data comes from the information that is captured on the LIMS. Raw data from LIMS is provided as a portfolio of evidence.
Method of calculation	The total number of perishable food samples tested and reviewed or authorised within 30 days is divided by the total number of tests perishable food samples tests requested in the same period, expressed in percentage. The TAT calculation starts when the specimen is registered on the laboratory information system until the test is reviewed or authorised.
Assumptions	None
Desired performance	90%
Indicator Responsibility	Head of Forensic Chemistry Laboratories

Indicator Title	Percentage of the non-perishable food samples tested within 60 days of sampling
Definition	It measures the time taken from registering non-perishable food samples on the laboratory information management system until the test results for the sample are authorised.
Source/collection of data	The data comes from the information that is captured on the LIMS. Raw data from LIMS will be provided as a portfolio of evidence.
Method of calculation	The total number of non-perishable samples tested and reviewed or authorised within 60 days is divided by the total number of non-perishable sample tests requested in the same period, expressed in percentage. The TAT calculation starts from the specimen's registration date until the test is reviewed or authorised.
Assumptions	None
Desired performance	90%
Indicator Responsibility	Head of Forensic Chemistry Laboratories

Indicator Title	Percentage of facilities where POCT will be implemented
Definition	Point of Care Testing (POCT) is performed at or near the site of patient care to affect immediate clinical decision-making and optimise patient management. Without an accessible laboratory service, POCT is intended to increase access and equity.
Source/collection of data	The plan sets the placement of the instruments and monitors key performance indicators. The results will be provided as a portfolio of evidence.
Method of calculation	Total number of facilities where POCT is implemented / Total number of facilities where POCT is supposed to be implemented as defined by the POCT plan, expressed as a percentage.
Assumptions	Provinces can change the facility as and when the need arises. The NHLS will have to adjust to the province's requirements at that time.
Desired performance	100% implementation.
Indicator Responsibility	Chief Executive Officer

Indicator Title	The number of anatomical pathology laboratories where digital pathology will be implemented.
Definition	Currently, the pathologists in the anatomical pathology laboratories examine glass slides under the microscope. The NHLS has a shortage of anatomical pathologists. As a result, the slides are referred to laboratories with pathologists. This impacts the turnaround time of results. With digital pathology, the slides can be scanned and sent to any anatomical laboratory where the pathologists are. The pathologists will then be able to view those slides wherever they are. This means there is no need to refer glass slides to other laboratories, thus improving the turnaround times of results.
Source/collection of data	The implementation means that the laboratories have the instruments placed and are functional. The results signed by the off-site pathologists will be provided as a portfolio of evidence.
Method of calculation	Count
Assumptions	Uninterrupted internet connections and server storage space are critical for successfully implementing digital pathology.
Desired performance	14 anatomical pathology laboratories
Indicator Responsibility	Chief Executive Officer

Indicator Title	Number of pathology registrars admitted and trained in the NHLS
Definition	The number of registrars appointed in the NHLS to be trained.
Source/data collection	Human Resource Information System, which will confirm the appointment of pathology registrars.
Method of calculation	Count
Assumptions	The demand from the laboratories drives the intake of the registrars.
Desired performance	70
Indicator Responsibility	National Manager: Academic Affairs and Research

Indicator Title	The pass rate of pathology registrars
Definition	The KPI measures the pass rate of pathology registrars after writing part 2 of the exams.
Source/data collection	Results from the College of Medicine are provided as a portfolio of evidence.
Method of calculation	The total number of pathology registrars who passed the Part 2 exam is divided by the total number of pathology registrars who wrote the Part 2 exams, expressed as a percentage.
Assumptions	Although the NHLS trains the registrars, the ultimate outcome depends on the trainee's effort.
Desired performance	80%
Indicator Responsibility	National Manager: Academic Affairs and Research

Indicator Title	Number of intern medical scientists admitted and trained in the NHLS
Definition	The number of intern medical scientists appointed in the NHLS to be trained.
Source/collection of data	Human Resource Information System, which will confirm the appointment of the intern medical scientists.
Method of calculation	Count
Assumptions	The demand in the laboratories determines the intake of intern medical scientists.
Desired performance	50
Indicator Responsibility	National Manager: Academic Affairs and Research

Indicator Title	Number of qualified medical scientists (NHLS trained) registered with the HPCSA
Definition	Once the intern medical scientists complete their 2-year training in the NHLS, they submit a portfolio of evidence of their training to the HPCSA for assessment. Once the HPCSA approves the portfolio of evidence, they are registered with the HPCSA as qualified medical scientists.
Source/collection of data	The HPCSA register is provided as a portfolio of evidence
Method of calculation	Count
Assumptions	The HPCSA registers medical scientists based on the availability of assessors to assess the training portfolio, which can sometimes be a limiting factor.
Desired performance	50
Indicator Responsibility	National Manager: Academic Affairs and Research

Indicator Title	Number of intern medical technologists/medical laboratory scientists admitted and trained in the NHLS
Source/collection of data	Human Resources Information System, which will confirm the appointment of intern medical technologists/medical laboratory scientists.
Method of calculation	Count (Number)
Assumptions	The UoT's output sometimes drives the number of intakes. Sometimes, the UoTs train more than the NHLS can absorb, but because the students won't graduate if they don't complete their internship, the NHLS has to extend itself and accept the interns.
Desired performance	250
Indicator Responsibility	Executive Manager: Human Resources

Indicator Title	**Number of field epidemiologists qualified**
Definition	The total number of Field Epidemiologists qualified and were admitted to NICD for training. Candidates enrol in the appropriate training facilities to complete their qualification in field epidemiology.
Source/collection of data	A copy of the certified results from the training facility or a copy of the qualification from the training facility.
Method of calculation	Count (Number)
Assumptions	The outcome depends on the student's effort.
Desired performance	12
Indicator Responsibility	Executive Director: NICD

Indicator Title	**Develop and implement an Information and Communication Technology Strategy.**
Definition	The IT department is critical to the NHLS's efficient functioning. It must have an approved strategy that guides the activities that will lead to organizational improvements.
Source/collection of data	N/A
Method of calculation	N/A.
Assumption	None
Desired performance	100% implementation.
Indicator Responsibility	Executive Manager: Information and Communication Technology

Indicator Title	**Develop and implement a specimen-tracking system**
Definition	The specimen tracking system tracks samples from when they are collected from a health facility to when they are completed, and the results are returned to the health facility. This measures the entire value chain to ensure value added to patient care by delivering timely results.
Source/collection of data	Reports that show the tracking of the samples
Method of calculation	N/A
Assumptions	The tracking of specimens depends on the availability of an internet connection in health facilities.
Desired performance	100% implementation
Indicator Responsibility	Executive Manager: Information and Communication Technology

Indicator Title	Digitisation of the business processes
Definition	The NHLS aims to convert all business processes from manual to digital to improve efficiencies in the organisation.
Source/collection of data	N/A
Method of calculation	N/A
Assumptions	Availability of sufficient skilled and competent staff to carry out the necessary duties.
Desired performance	Paperless
Indicator Responsibility	Executive Manager: Human Resources

Indicator Title	Percentage of employees trained as per the approved training plan (WSP)
Definition	As part of the continuous development of NHLS employees, the NHLS encourages staff to enroll in job-specific courses to help them develop their skills appropriately.
Source/collection of data	Spreadsheet from Human Resources
Method of calculation	The total number of employees trained in the financial year as per the WSP is divided by the total number of employees registered on the WSP in the same financial year.
Assumptions	The training depends on the admission of the applicants by the institution to which they applied. Sometimes, numbers are unmet because the applicants either did not apply or were not admitted because they didn't meet the requirements.
Desired performance	70%
Indicator Responsibility	Executive Manager: Human Resources

Indicator Title	Percentage of employees with approved performance contracts.
Definition	Alignment of individual, team, and organisational performance to ensure delivery of strategy and appreciation of the contribution
Source/collection of data	Performance Management System – HRIS
Method of calculation	The number of employees with approved performance agreements is divided by the total number of employees expressed as a percentage.
Assumptions	All the employees are at work during the contracting.
Desired performance	98%
Indicator Responsibility	Executive Manager: Human Resource

Indicator Title	Percentage of employees with reviewed performance contracts.
Definition	Alignment of individual, team, and organisational performance to ensure delivery of strategy and appreciation of contribution
Source/collection of data	Performance Management System – HRIS
Method of calculation	The number of employees with reviewed performance agreements is divided by the total number of employees expressed as a percentage.
Assumption	All the employees are at work during the evaluations.
Desired performance	98%
Indicator Responsibility	Executive Manager: Human Resource

Indicator Title	Employee engagement
Definition	The KPI seeks to determine how motivated and connected the employees are towards their workplace.
Source/collection of data	The employee engagement survey outcome.
Method of calculation	N/A
Assumptions	Biase response from stakeholders.
Calculation type	Non-cumulative
Desired performance	70%
Indicator Responsibility	Executive Manager: Human Resources

Indicator Title	Percentage turnaround time for awarding tenders below R10m within six (06) months / 180 days.
Definition	The tenders must be awarded within 180 days after the end-user has requested.
Source/collection of data	The supply chain management unit should provide data on the spreadsheet.
Method of calculation	The total number of tenders below R10 million awarded within 180 days from the date of the request is divided by the total number of requisitions submitted to the demand department, expressed in percentage.
Assumptions	None
Desired performance	80%
Indicator Responsibility	Head: SCM/Chief Financial Officer

Indicator Title	**Percentage turnaround time for awarding tenders above R10m within nine (09) months / 270 days**
Definition	The tenders must be awarded within 270 days after the end-user has requested.
Source/collection of data	The supply chain management unit should provide data on the spreadsheet.
Method of calculation	The total number of tenders above R10 million awarded within 270 days from the date of the request is divided by the total number of requisitions submitted to the demand department, expressed in percentage.
Assumptions	None
Desired performance	80%
Indicator Responsibility	Head: SCM/Chief Financial Officer

Indicator Title	**Automation of the SCM processes and the contract management system**
Definition	The NHLS aims to use a digital system that tracks contract expiry dates and sends automated alerts to relevant stakeholders before expiration. The contract tracking must be linked with financial reporting to prevent unauthorised use of expired contracts and avoid irregular expenditure.
Source/collection of data	N/A
Method of calculation	N/A
Assumptions	None
Desired performance	Track the SCM automation improvement
Indicator Responsibility	Head: SCM/Chief Financial Officer/Executive Manager: ICT

Indicator Title	**Develop and implement the NHLS infrastructure plan.**
Definition	The NHLS infrastructure is old and outdated, impacting service delivery and employee safety. The NHLS needs to develop a plan to improve the working environment, thus increasing productivity.
Source/collection of data	Evidence of renovations and upgrades.
Method of calculation	The total number of facilities that have been renovated/upgraded is divided by the total number of facilities that need to be renovated/upgraded, which is expressed as a percentage.
Assumptions	The SCM processes are completed in time to allow for the renovations in the same financial year.
Desired performance	50% implementation
Indicator Responsibility	Head of Facilities

Indicator Title	Develop and implement a sustainable energy supply for the NHLS
Definition	NHLS must transition to a diverse alternative energy and water sources portfolio to secure a sustainable future, reduce reliance on traditional, finite resources, and mitigate environmental impact.
Source/collection of data	Evidence of installation
Method of calculation	The total number of facilities where the alternative energy source is installed is divided by the total number of facilities where the alternative energy source is installed, expressed as a percentage.
Assumptions	The SCM processes are completed in time to allow for the renovations in the same financial year.
Desired performance	100% implementation
Indicator Responsibility	Head of Facilities

Indicator Title	Develop and implement a sustainable water supply for the NHLS
Definition	NHLS must transition to a diverse alternative energy and water sources portfolio to secure a sustainable future, reduce reliance on traditional, finite resources, and mitigate environmental impact.
Source/collection of data	Evidence of installation
Method of calculation	The total number of facilities where the alternative water source is installed is divided by the total number of facilities where the alternative water source is installed, expressed as a percentage.
Assumptions	The SCM processes are completed in time to allow for the renovations in the same financial year.
Desired performance	100% implementation
Indicator Responsibility	Head of Facilities

Indicator Title	Develop and implement the communication strategy
Definition	The communication strategy defines the approach for engaging with various stakeholders, outlining the overall communication objectives, and establishing core principles to guide all interactions
Source/collection of data	N/A
Method of calculation	N/A
Assumptions	None
Desired performance	100% implementation
Indicator Responsibility	Manager: Communications, Marketing and Public Relations

Indicator Title	A number of published newsletters in a year.
Definition	New letters are essential in sharing information with our stakeholders
Source/collection of data	Publications
Method of calculation	Count
Assumptions	None
Desired performance	4
Indicator Responsibility	Manager: Communications, Marketing and Public Relations

Indicator Title	A number of town hall meetings held in a year.
Definition	This improves the CEO's interaction with the NHLS employees.
Source/collection of data	Minutes of the meetings
Method of calculation	Count
Assumptions	None
Desired performance	4
Indicator Responsibility	Manager: Communications, Marketing and Public Relations

Indicator Title	A number of stakeholder forums held in a year.
Definition	Sharing of information and establishing a healthy working relationship with external stakeholders.
Source/collection of data	N/A
Method of calculation	Cumulative Year-end
Assumptions	None
Desired performance	2
Indicator Responsibility	Manager: Communications, Marketing and Public Relations

Indicator Title	Percentage compliance achieved by laboratories during annual quality compliance audits
Definition	This indicator measures the percentage of laboratories that achieve 80% compliance using internal quality compliance audits. The target laboratories are those that were not SANAS accredited at the time of the audit.
Source/collection of data	Spreadsheet with percentage scores obtained by laboratories audited. Manual collection of data by Quality Assurance.
Method of calculation	The total number of laboratories achieving a minimum score of 80% with the quality compliance audits divided by the total number of laboratories audited. (Audited laboratories refer to the laboratories that are not SANAS accredited only).
Assumptions	None
Desired performance	95%
Indicator Responsibility	National Quality Assurance Manager/Executive Manager: AARQA

Indicator Title	Percentage of laboratories achieving proficiency testing scheme performance standards of 80%
Definition	The indicator measures the percentage of laboratories achieving a minimum average score of 80% in all NHLS proficiency testing schemes in which they are enrolled in the financial year. This does not include external Performance Testing Schemes (PTS).
Method of calculation	The average of laboratories achieving 80% and above, divided by the average of the total number of laboratories participating in the PTS, is expressed as a percentage.
Assumptions	None
Desired performance	98%
Indicator Responsibility	National Manager: Quality Assurance/Area Managers

Indicator Title	Number of laboratories that are SANAS accredited
Definition	This indicator measures the number of laboratories accredited by SANAS Assessors during an accreditation visit per laboratory. The total number of laboratories excludes the depots.
Source/collection of data	SANAS accreditation certificates or SANAS assessment outcome letters. The SANAS accreditation certificate is active for a four-year cycle; however, SANAS assesses the accredited laboratories annually and issues a letter of recommendation to indicate that the laboratory remains accredited. The laboratory is considered accredited for the duration of the accreditation cycle. Assessments are done annually in some laboratories and every two years in others to maintain the accreditation status.
Assumptions	None
Method of calculation	Count
Desired performance	215
Indicator Responsibility	National Manager: Quality Assurance/Area Managers/ AARQA Executive Manager

Indicator Title	Number of ISO 9001-certified departments
Definition	This indicator measures the number of support departments that have ISO 9001 certification.
Source/collection of data	The ISO 9001 certificates or the assessment outcome letter
Method of calculation	Count (Number)
Assumptions	
Desired performance	8
Indicator Responsibility	National Manager: Quality Assurance/Executive Managers of the respective departments

Indicator Title	Number of articles published in the peer-reviewed journals
Definition	The indicator measures the number of peer-reviewed articles published by, and in collaboration with, NHLS researchers.
Source/collection of data	NHLS Research database. The database captures all the research peer-reviewed articles published by the NHLS staff, including the NICD and NIOH publications.
Method of calculation	Count
Assumptions	None
Desired performance	700
Indicator Responsibility	National Manager: Academic Affairs and Research

Indicator Title	Develop and implement the pathologists' national coverage plan
Definition	A plan is needed to ensure equitable access to quality pathology services for all people and access to pathologists for all healthcare practitioners nationally.
Source/collection of data	A report from AARQA indicating progress made in the implementation of the plan.
Method of calculation	The calculation is based on the plan and the milestones.
Assumptions	None
Desired performance	90%
Indicator Responsibility	Executive Manager: AARQA

Indicator Title	Number of occupational, environmental health, and safety assessments completed
Definition	An occupational, environmental, and safety assessment is a report or letter with recommendations to address the issues reported. It is not a project or substantial collaborative effort involving more than one man-week.
Source/collection of data	Records of reports or letters concerning risks in the workplace are sent to clients.
Method of calculation	Count
Assumptions	None
Desired performance	20
Indicator Responsibility	Head of Occupational Hygiene

Indicator Title	Number of occupational health surveillance reports produced
Definition	Pathological (macroscopic and microscopic) examination of cardiorespiratory organs and submission of a diagnostic report to the Medical Bureau for Occupational Diseases (MBOD) per case received.
Source/collection of data	Cardiorespiratory organs from current and former miners are sent to the NIOH from regions within South and Southern Africa.
Method of calculation	Count
Assumptions	None
Desired performance	5
Indicator Responsibility	NIOH Head of Pathology

Indicator Title	Percentage of Integrated Diseases Surveillance and Response conditions reported.
Definition	This is described by the percentage of cases followed up at the sites with enhanced surveillance for the organisms prioritised under the GERMS protocol.
Source/collection of data	The departmental enhanced site surveillance operational report (IT database).
Method of calculation	The total number of cases followed up at the sites with enhanced surveillance for the organisms prioritised under the GERMS protocol is divided by the total number of cases matching the exact case definition and expressed as a percentage.
Assumptions	None
Desired performance	90%
Indicator Responsibility	Executive Manager: NICD

Indicator Title	Percentage of outbreaks of category 1 notifiable medical conditions responded to within 24 hours after notification
Definition	Measure the speed with which we can respond to outbreaks. All outbreaks notified to NICD are documented and stored in the database.
Source/collection of data	All the organisms responsible for the outbreaks are documented and kept in the database. The date of notification of the outbreak and the time it took for NICD to respond are also documented.
Method of calculation	The total number of notified outbreaks responded to within 24 hours is divided by the total number of outbreaks notified, expressed in percentage.
Assumptions	None
Desired performance	100%
Indicator Responsibility	Executive Director: NICD

Indicator Title	National Antimicrobial Resistance Surveillance Reporting (One Health)
Definition	This indicator measures the proportion of resistance to indicator antimicrobials for bacteria and fungi of clinical importance in human, animal, and environmental health.
Source/collection of data	Electronic routine laboratory data Periodic active surveillance at sentinel sites
Method of calculation	The total number of isolates tested resistant to an indicator antimicrobial using data captured from all NHLS laboratories is divided by the total number of isolates tested for that antimicrobial at all NHLS laboratories, expressed as a percentage.
Assumptions	None
Desired performance	60%
Indicator Responsibility	Executive Director: NICD

Indicator Title	Ratio of current assets to current liabilities
Definition	This is a measure of short-term liquidity.
Source/collection of data	The current assets and current liabilities figures are obtained from the balance sheet report generated by the Financial Accounting Section monthly.
Method of calculation	Current assets/current liabilities
Assumptions	None
Desired performance	2:1
Indicator Responsibility	Chief Financial Officer

Indicator Title	Cash flow coverage ratio (Operating cash in-flows / total debt)
Definition	Current assets/current liabilities
Source/collection of data	NHLS Cash Flow Report and Creditors Age Analysis as of the end of the reporting period.
Method of calculation	Cash and cash equivalents or payables from exchange transactions.
Assumptions	None
Desired performance	2:1
Indicator Responsibility	Chief Financial officer

Indicator Title	Number of creditor days
Definition	The creditor days' ratio measures how quickly invoices are being paid to suppliers. The longer it takes for the NHLS to make payments for services rendered or goods received, the greater the number of creditors' days.
Source/collection of data	The creditors' figure is obtained from the monthly Excel Age Analysis report generated by the Accounts Payable Department. The net creditors figure is used, and it excludes the South African Vaccine Producers (SAVP) (NHLS subsidiary). Purchase figures are determined through an Oracle account inquiry and are obtained by selecting the parent expenditure accounts for production and support operations.
Method of calculation	(Total month-end trade creditors/ YTD purchases annualised) x 365 days
Assumptions	None
Desired performance	30
Indicator Responsibility	Chief Financial Officer

Indicator Title:	Number of Debtors' days
Definition	The "debtor days" ratio measures how quickly cash is collected from debtors. The longer it takes for the NHLS to collect payments for services rendered, the greater the number of debtor days.
Source/collection of data	The debtor's figure is obtained from the monthly Excel Age Analysis report generated by the Accounts Receivable Department. The net debtors' figure is used, and it excludes the SAVP (NHLS subsidiary). The net debtor figure refers to total debt, which incorporates both government and private sector debt. Revenue figures are determined via an account query in Oracle, which results from selecting the higher-level revenue account (5000 range) and other income (grants, income from teaching, miscellaneous sales).
Method of calculation	(Total month-end trade debtors/YTD test revenue and other income annualised) x 365 days.
Assumptions	Provinces' ability to pay their debt
Desired performance	140
Indicator Responsibility	Chief Financial Officer

Indicator Title	Audit opinion of the Auditor General
Definition	Our Annual Financial Statement (AFS) is prepared following GRAP, and our internal policies and information are made available to the public within the necessary framework and timeframes.
Source/collection of data	Audit opinion
Method of calculation	N/A
Assumptions	None
Desired performance	Clean
Indicator Responsibility	Chief Financial Officer

Indicator Title	Percentage reduction in irregular expenditure
Definition	Percentage for which irregular expenditure for the financial year is reduced.
Source/collection of data	Irregular expenditure register
Method of calculation	(Last financial year – current financial year) is divided by the last financial year, expressed as a percentage.
Assumptions	None
Desired performance	80%
Indicator Responsibility	Chief Financial Officer

Indicator Title	Percentage of allegations reported through the NHLS tipoff platform that are investigated and completed within 180 days
Source/collection of data	A spreadsheet provided by the Internal risk management and audit department
Method of calculation	The total number of allegations reported through the NHLS tipoff platform investigated and completed within 180 days is divided by the total number of allegations reported through the NHLS tipoff platform, expressed as a percentage.
Assumptions	None
Desired performance	95%
Indicator Responsibility	Head of Internal Risk Management and Audit.

ANNEXURE A: List of critical Tests and the defined turnaround times.

Discipline	Critical Test	Defined turnaround time
Microbiology	CSF microscopy only	24 hours
	TB NAAT	48 hours
Haematology	FBC	8 hours
	INR	3 hours
	APTT	3 hours
	Fibrinogen	3 hours
	D-Dimer	3 hours
	Bone marrow aspirate	12 hours
Chemical Pathology	Urea and Electrolytes (U&E)	8 hours
	Creatinine	8 hours
	Glucose	8 hours
	CRP	8 hours
	Lipase	8 hours
	CSF protein	4 hours
	Troponin	2 hours
Anatomical Pathology	Non-gynae fluids and FNA for Cytology	5 days
Virology	HIV VL	96 hours
	HIV PCR	96 hours`