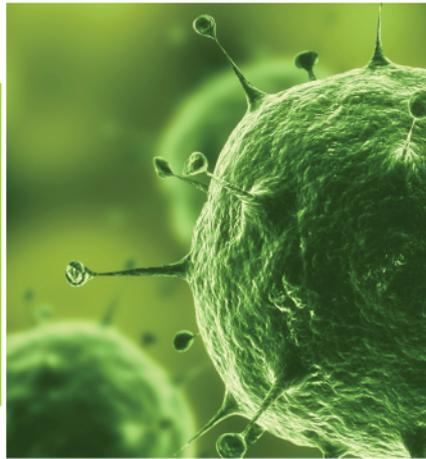




NATIONAL HEALTH  
LABORATORY SERVICE

# Annual Report 2010-2011

Embracing diversity. Building unity.



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## Chairperson and Chief Executive Officer's Report



### Chairperson

*Adv Sesi Baloyi*

### Chief Executive Officer

*Mr Sagie Pillay*

We are delighted to present the annual report for the 2010/11 financial year to our shareholders: the national Department of Health (NDOH), the public and our many partners. This has been an exciting year with many new changes initiated to better our service offering, improve turnaround times (TAT) and deliver lower costs. Our strategic direction is aligned to the Minister of Health's 10-point plan and was borne out of a series of engagements with the NDOH, taking into consideration the Minister's strategic outputs as agreed in the Negotiated Service Delivery Agreement. Of the four national strategic outputs, pertinent to our mandate were the following outputs:

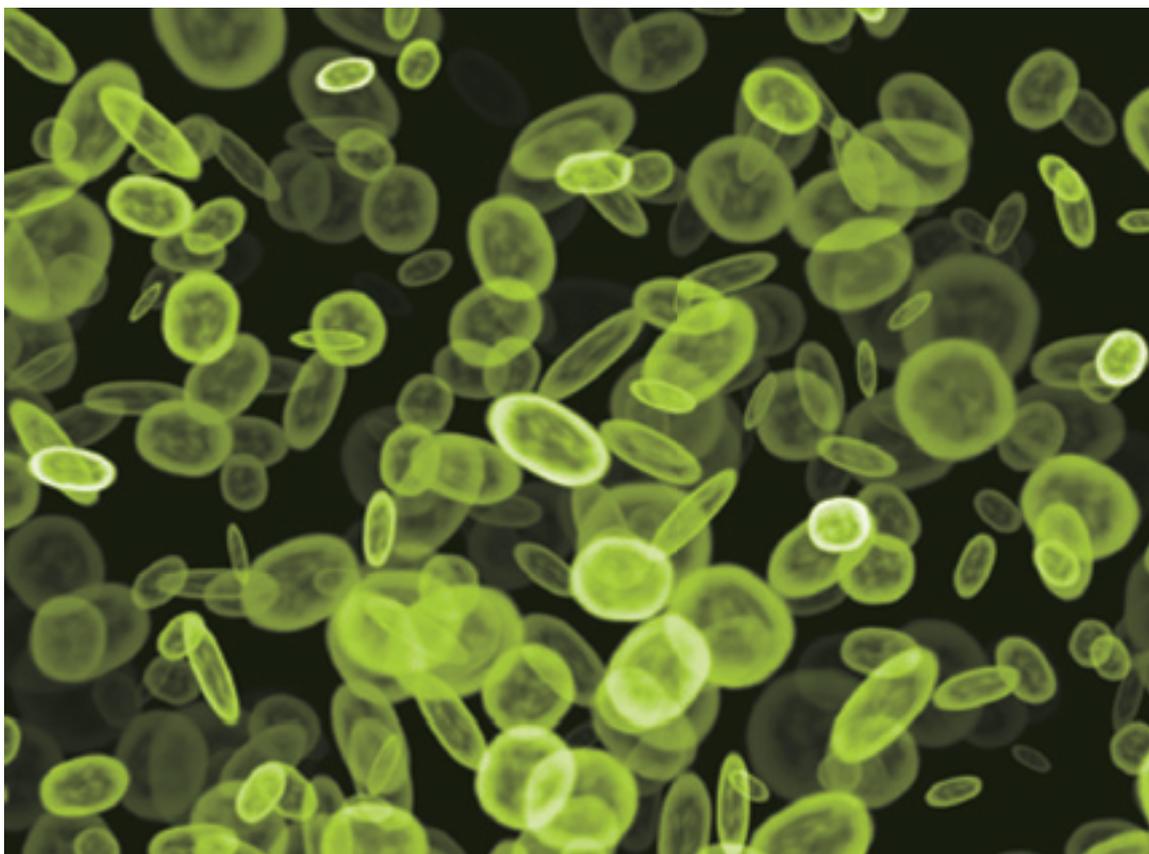
Output 3: Combating HIV and AIDS and decreasing the burden of diseases from tuberculosis

Output 4: Strengthening health system effectiveness

Below are the highlights to some of the key initiatives and achievements by the NHLS:

- For the fifth year in succession, we are confident to report that NHLS received a clean audit report. For the period under review, the total test volumes achieved were 74,1m which translated to revenue of R3,446m, a revenue increase of 13% when compared to the previous year.
- To respond to the challenges of affordability, we reduced our prices for the priority programmes of HIV, TB and pap smears on average by 10%, resulting in a R217,7m saving to provinces when compared to the previous year.
- Through significant improvements in efficiency, procurement and productivity, the NHLS again successfully maintained the general price increase on all other tests at 1%, well below inflation.
- Our commitment to improved customer satisfaction is translating into tangible action and is clearly working. An annual customer satisfaction survey showed a good increase in customer satisfaction by 6.9% - from 59.7% to 66.6%. We will continue to strive for overall customer satisfaction.
- Closer working relationships have developed with the Western Cape Province to reduce unnecessary and inappropriate tests, resulting in the only province staying within its laboratory budget for the year. We hope to replicate this with other provinces.
- To improve result TAT, we piloted Mhealth solutions in the Eastern Cape and Free State provinces, using mobile phones and internet platforms for clinicians to access results at the bedside.
- Together with the NDOH, the NHLS was the first laboratory diagnostic service provider on the African continent to introduce GX technology for the diagnosis of TB and rifampicin resistance. This is groundbreaking technology that produces a result within two hours resulting in quicker response to patient treatment compared to microscopy and cultures which can take up to between 48 hours and four weeks, respectively.

- The training mandate which is conducted in partnership with the eight faculties of health sciences and universities of technology remains a key responsibility for the NHLS. Our commitment to producing the next generation of world class pathologists, technologists, technicians and scientists was further enhanced in this year. NHLS trained 213 pathologists (a 2.9% improvement on the previous year), 392 technicians (an 8.6% improvement on the previous year) and 372 technologists (a 2.9% decrease from the previous year).
- The NHLS is an evidence-based organisation with a strong research culture. Research must be relevant and appropriately underpin the organisation's strategy. Together with the faculties of health sciences, our academic departments produced 329 publications. The National Institute for Communicable Diseases (NICD) and the National Institute for Occupational Health (NIOH) collectively produced 137 research publications.
- To provide enhanced and more integrated HIV and TB services, a single National Priority Programmes Division was created under the leadership of Professor Wendy Stevens, a world renowned authority in her field.
- Test volumes during this year increased by 5.51% to over 41 million tests with HIV reaching a total of 5.7 million tests and TB over 5.9 million tests. TB yielded a 33.21% increase in volumes (1.5 million tests). This is attributable to the successful HIV Counselling and Testing campaign initiated by the Minister of Health. Close to 10 million people were tested for HIV and 2.5 million for TB.
- During this financial year, the NHLS successfully awarded a lower cost CD4 and viral load tender and replaced the previous platform with more cost-effective and leading edge platforms. We achieved this within the minimum time possible and without disruption to service.
- To ensure competitive salary packages for pathologists, technologists and scientists, we improved salaries significantly for the above categories to align with public sector professionals and other science organisations. Approximately R212m was committed to close this gap. Given the huge challenges of attracting and retaining pathology professionals in rural areas, a scarce skills and rural allowance was introduced effective from July 1, 2010. This has already produced positive benefits with a reduction in rural vacancies.

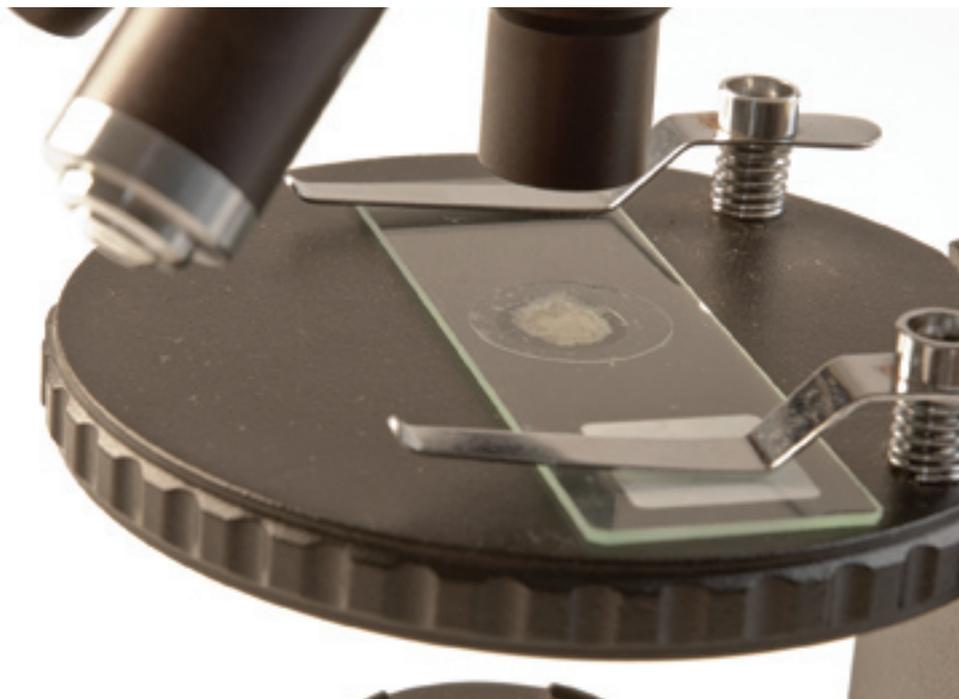


- The TrakCare Lab information system was successfully implemented in KwaZulu-Natal (KZN), on budget and within the set timeframes. The new billing system for the KZN region is fully functional, allowing the KZN DOH to migrate with ease to the fee for service system, with effect April 1, 2010.
- The NIOH initiated work on HIV in the mines and released a major report for the Department of Mineral Resources, Department of Labour and the NDOH which will assist them to make policy decisions and initiate action.
- For the year under review, the NICD continued to work closely with the NDOH and provinces to strengthen its communicable diseases surveillance and interventions. Training of 19 masters' level field epidemiologists was achieved through the South African Field Epidemiology Laboratory Training Programme. In partnership with the University of Pretoria, three graduates were placed in the regional offices of NHLS while 12 were hired by nine provinces to strengthen surveillance on the ground. Four students were hired by the NDOH.
- To improve planning, monitoring and cost-containment three new reports were developed and implemented for use by provincial and institutional managers. These reports bring volumes, test profiles and costs into a single view.

While the NHLS enjoyed a successful year, there is growing concern about the non-payment of bills by some of our customers which saw debtors' days unprecedentedly rising to 154 days and R1,786 billion owed collectively by provinces. We increased our methods and efforts to recover payment and will continue to seek ways with our customers to secure payment and to assist them in managing their expenditure for laboratory services.

This report outlines in detail the success of the organisation. While many successes were achieved, not all the targets set were achieved during the year under review. The audited Balanced Scorecard shows that 43% of strategic targets were met. A review of the targets not achieved shows that most of the causative factors were outside our control. The reason for non achievement is outlined in the report (see Key Performance Indicators). Many of the priority programmes' TAT targets were not met due to volume increases and poor measurement. This was a learning experience, where after review the lessons learned were constructed into corrective action plans, to be implemented in the coming financial year.

It is important to note that while pathology spend is the third highest cost driver for our customers, a review of the data shows that laboratory costs constitute 3.4% of provincial health expenditure, which translates into 2.75% of total health expenditure. This is by comparison below the spend of the other publically



funded health systems internationally. This was the result of close cooperation between NHLS and our customers. Appropriate use of laboratory testing improves diagnosis, screening, treatment monitoring and medical jurisprudence. Laboratory diagnostics is crucial for the healthcare decision-making process, contributing to improved outcomes and, most importantly, downstream cost savings.

We continued to explore ways to strengthen systems, improve quality, reduce costs and be more responsive to the needs of our customers. Work was initiated this year to engage staff in a series of road shows to embed a new values-driven organisational culture. Over 36% of staff participated in this exciting new process and contributed to the development of the following values:

- Cultivate an employee-centric focus
- Build a customer and employee-centric focus (showing appreciation, recognition and acknowledgement, and facilitate relationships)
- Develop pride in the organisation (through academic and service excellence, brand credibility, and passion for success)
- Transform our way of working (team work, accountability and continuous learning and growth)
- Build an internal community and cohesion (with shared values of integrity, respect, transparency, open communication, trust engagement and a positive spirit)
- Show dedication to the community, clients and employees (through strategic partnerships that involve and fulfil their needs)
- Be socially responsible (delivering an ethical, trustworthy, reliable and compassionate service to all South Africans)

This is possible - due to a team of highly skilled, focussed and world class professionals and support staff. We again pay tribute to our most important resource, our employees, for their high standards, innovation, passion and energy with which they grasp the challenges and tasks. At the end of August 2010, Professor Barry Schoub retired from the NHLS as the Executive Director

of the National Institute for Communicable Diseases (NICD) after 35 years' service. He is a renowned pathologist who made an outstanding contribution to the national public health system and acquired a sound international standing. His service and contribution to the NHLS has grounded the NICD in excellence.

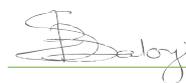
Our gratitude goes to our customers for working closely with us to ensure better healthcare to patients. The innovation and new ways of doing business would not have been possible had it not been for donor and technical support received from our national and international partners.

We value the professional and mature partnership that has evolved with Labour and the crucial role played by organised Labour in the success that we report on.

This year saw very strong and collaborative relationships continue with the National Department of Health and provincial health departments. We thank the Minister and the Deputy Minister of Health and the NDOH for their unwavering support and guidance.

We also thank the executive management team and the Board of Directors for providing clear strategic direction and excellent stewardship of the NHLS.

Lastly the NHLS will celebrate 10 years of unfaltering service on 1 October 2011. We look forward to a continuing partnership with all our stakeholders towards a second decade of innovative solutions that are relevant, sustainable and affordable.



**Sesi Baloyi**

*Chairperson*



**Sagie Pillay**

*Chief Executive Officer*

## Board of Directors



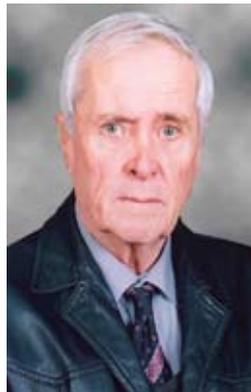
**Adv Sesi Baloyi**  
Chairperson representing the  
Minister of Health



**Dr Ralph Mjijima**  
Vice Chairperson representing  
the Minister of Health



**Mr Sagie Pillay**  
Chief Executive Officer



**Mr John Coates\***  
Western Cape Department of  
Health



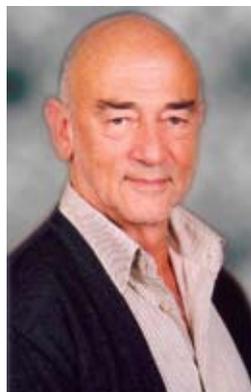
**Ms Sibongile Shezi**  
KwaZulu-Natal Department  
of Health



**Ms Sylvia Khokho\***  
Free State Department of  
Health



**Mr Ronald Moyo**  
Public Nominee  
(Finance)



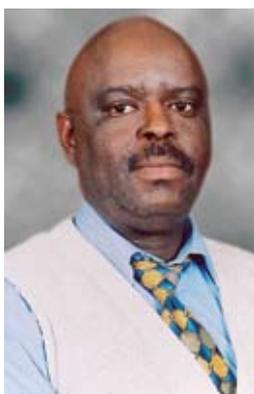
**Prof Adriaan Sturm**  
Council of Higher Education  
(University of Technology)



**Dr Nokuphila Mazamisa\***  
Gauteng Department of  
Health



**Prof Nanette Smith\***  
Council of Higher Education  
(Universities of Technology)



**Dr Litha Matiwane**  
*Eastern Cape Department of Health*



**Prof Gregory Hussey**  
*Public Nominee (Research)*



**Dr Thokozani Mhlongo**  
*Mpumalanga Department of Health*



**Mr Jake Ntjana\***  
*North West Department of Health*



**Ms Mariaan Malherbe**  
*Limpopo Department of Health*



**Mr Nkululeko Ndebele\***  
*Company Secretary*

### Not pictured here:

**Mr Andre Venter\***  
*National Department of Health*

**Dr Yogan Pillay**  
*National Department of Health*

**Mr Jonathan Mallet\***  
*Northern Cape Province*

**Ms Nozuko Yokwana\***  
*Public Nomination: Community Development*

**Ms Antoinette Richardson**  
*South African Local Government Association*

\* Member has resigned during the financial year

## Financial Overview



### Chief Financial Officer

*Mr Devendra Erriah*

#### Overview

For the second year in succession, the year commenced with lower prices for priority tests than the previous year and below-inflation increases for other tests. Overall, test prices reduced by 1%. This was possible due to improved efficiencies and better cost control.

The increasing debtors book has meant the year was characterised by a strong focus conserving cash, reducing overheads, a drastic delay of capital expenditure and delaying payments to creditors. Efforts to improve operational cash flow, include actively engaging with customers at various levels offering discounts for prompt settlement of debt. Despite concerted efforts, customers are failing to honour their debt obligations. This has severely hampered the NHL's ability to operate effectively, and is not sustainable.

#### Turnover

Turnover for the year increased by R397m or 13% from R3,049m to R3,446m. The increase was attributable to the conversion of the KwaZulu-Natal flat-rate billing model to a fee-for-service model from 1 April 2010.

While growth in revenue is currently in double-digits, the rate of growth in revenue has been declining since 2007.

#### Gross margin

Gross margin as a percentage of turnover increased by 2.2% from 29.1% in 2010 to 31.3% in 2011. This increase is attributable largely to the change in sales mix.

#### Overheads

Overheads increased by R98m or 10% from R938m to R1,036m. This is largely attributable to an increase in temporary employee numbers as well as salary increases.

The planned implementation of Oracle Release 12 has led to a R15m increase in software development expenses.

Other significant increases related to an increase in the cost of utilities.

## Provision for post retirement medical aid

In previous years provision was only made for applicable members who were over 40 years old; in the current year provision was made for all applicable members. This increased the provision by R25m from R23m to R48m.

## Cashflow

The accounting surplus of R264m did not materialise into cash due to the poor payment pattern by certain provinces. Debtors have increased by R340m, resulting in a cash deficit of R83m, despite reducing capital expenditure to R122m (R98m lower than 2010).

## Segmental analysis of net cash deficit

This net cash deficit of R83m is made up as follows:

	Rm
Subsidy to National Institute for Communicable Diseases	(85)
Subsidy to National Institute for Occupational Health and the National Cancer Registry	(16)
Funding of teaching and training, and research	(374)
Laboratory services	392
<b>Net cash deficit for the year</b>	<b>(83)</b>

NHLS is mandated by the NHLS Act of 2000 to fund the Institutes and teaching, training and research from the laboratory test fee-for-service. The impact of this on test prices is 14%.

## Working capital management

Inventory of R73m (2010 - R69m) is managed at 31 days which is 19 days better than the prior year of 50 days.

Debtors of R1,786m (2010 - R1,328m) are at 154 days (2010 - 126 days) due to the poor payment pattern of certain provinces. This has resulted in creditor days extending from 45 days in 2010 to 62 days in the year under review.

## Capital expenditure

During the current financial year, capital expenditure amounted to R122m compared to the prior year of R220m and was funded purely from internal resources.

## Capital expenditure was spent as follows to maintain existing infrastructure:

	2011	2010
	Rm	Rm
Laboratory equipment	43	90
Land & Buildings	33	69
Computers	34	48
Other	12	13
<b>Total</b>	<b>122</b>	<b>220</b>

The reduction in the spend on computers is as a result of a decision to rent, instead of owning, computers. Further, there are capital expenditure approvals of R240m which will be executed in the next financial year.

## Approval to retain surplus

In terms of the Public Finance Management Act (PFMA), an application was submitted to National Treasury to retain the cash surplus of R127m. The approval, granted on 21 July 2011, was on the basis that the NHLS funds its own operating and capital expenditure as well as working capital requirements. Any cash surpluses generated will be utilised to finance the growth and rationalisation of the NHLS.

## Group salient information

Financial performance (R'000)	12 months 2007	12 months 2008	12 months 2009	12 months 2010	12 months 2011
Revenue	1,745,558	2,232,292	2,676,092	3,049,497	3,446,125
Gross Margin	688,037	786,695	857,371	886,101	1,078,482
Operating surplus	164,148	221,446	156,253	185,102	245,100
Net surplus	183,234	245,183	189,010	206,171	264,114
<b>Cash position (R'000)</b>					
Cash Generated from Operations	149,478	28,232	25,279	315,505	8,859
Net Cash Generated from Operations	168,564	51,969	59,202	337,128	28,230
Net increase/(decrease) in cash	42,526	(74,874)	(116,582)	121,052	(83,209)
Cash-on-hand available for NHLS operations	291,908	250,950	127,371	244,865	127,259
Cash-on-hand available for grants held in trust	5,040	5,210	12,207	15,495	50,162
Total reported cash-on-hand	296,948	256,160	139,578	260,360	177,421
<b>Subsidies received from government (R'000)</b>					
Government Funding of National Institutes	55,911	54,549	57,248	66,875	68,202
<b>Teaching &amp; research (R'000)</b>					
Grants funding received during the year	37,347	52,714	67,286	174,773	67,507
Teaching income generated by universities	6,059	3,449	1,812	20,241	22,015
<b>Capex % spend by category</b>					
Laboratory equipment	42%	54%	47%	35%	26%
Land & Buildings	15%	19%	18%	33%	20%
Motor vehicles	2%	2%	4%	0%	0%
Office Equipment	3%	4%	6%	3%	3%
Computer equipment	34%	11%	15%	19%	21%
Other	4%	3%	2%	3%	3%
Work-in-Progress	0%	7%	8%	7%	27%
<b>Investments in capex activities (R'000)</b>					
Capital expenditure	126,647	126,537	178,126	213,309	108,594
Capex spend as % of turnover	7%	6%	7%	7%	3%
<b>Liquidity ratio analysis</b>					
Current Ratio	2,5 : 1	2,7 : 1	2,8 : 1	2,8 : 1	3,2 : 1
Acid Test Ratio	2,4 : 1	2,6 : 1	2,6 : 1	2,6 : 1	3,0 : 1
<b>Other ratio analysis</b>					
Growth in revenue %	32%	28%	20%	14%	13%

## Group salient information

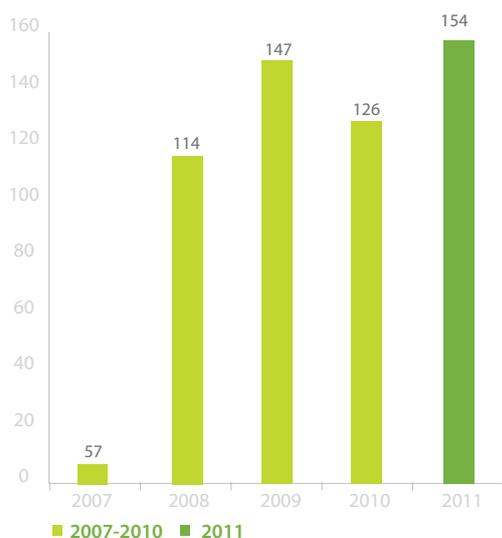


Figure 1: Days' Sales Outstanding

An upward trend has been exhibited for the past five years in days' sales outstanding.

This trend has been supported by the increasing tendency by the provincial health departments to default on their payment terms.

The severity of the impact on NHLS operations has resulted in NHLS having less than a month's cash cover to meet its current and future obligations.



Figure 2: Annual Test Price Increase vs CPI

Over the years, NHLS price increases were maintained below inflation.

2011 saw an overall test price decrease by 1% compared to an inflation rate increase of 4.1%

In contradiction to the trend shown over the the past five years which indicates a general increase in test prices.

This change demonstrates the NHLS's commitment to ensuring more affordable healthcare for all South Africans.

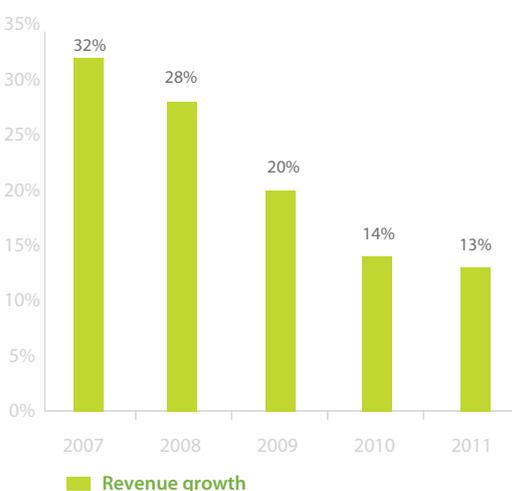


Figure 3: Growth in revenue %

Revenue growth trends have shown a consistent decline since 2007.

If KZN Region had not converted to the fee-for-service model, annual revenue growth in 2011 would have been 1%.

## Key Performance Indicators

### National Health Laboratory Service Performance Information 2010/11

Perspective	Strategic value driver	Measurement	Strategic initiatives to achieve strategic goals and KPIs	Target 2010/11	Actual results	Target comment
	Affordable laboratory services	Reduce price per test for HIV/AIDS & TB	KPI	5% reduction	10% achieved	Target achieved
<b>Customer Value (Service Delivery)</b>	"Best fit" service delivery model	Finalise laboratory service delivery framework & platform	Strategic initiatives/tasks	Framework & platform finalised	Only framework finalised.	Target partially achieved
		Finalise point-of-care testing policy	Strategic initiatives/tasks	Policy finalised	Point-of-care policy implementation plan finalised.	Target achieved
		Develop total turnaround time (TAT) methodology and piloted	Strategic initiatives/tasks	Methodology delivered in 1st quarter	Methodology delivered and piloted in 4th quarter.	Target partially achieved
		Decrease TAT TB microscopy (clinic-to-clinic)	KPI	85% within 48 hours	95% achieved	Target achieved
	Decrease TAT CD4 (clinic-to-clinic)	KPI	95% within 72 hours	86% achieved	Target not achieved. Remained at the same level as the prior year	
	Decrease TAT viral load (clinic-to-clinic)	KPI	80% within 4 days	52% achieved	Target not achieved. An improvement from 41% in prior year	
	Decrease TAT HIV PCR (clinic-to-clinic)	KPI	80% within 5 days	67% achieved	Target not achieved. An improvement from 55% in prior year	
	Decrease TAT cervical smears	KPI	80% within 2 weeks	47% achieved	Target not achieved - this is the first year of measurement	
	Improve customer satisfaction index from 2009 baseline of 54%	KPI	Improve CSI score by 7.5% from baseline	67% achieved	Target achieved	

# Key Performance Indicators

## National Health Laboratory Service Performance Information 2010/11

Perspective	Strategic value driver	Measurement	Strategic initiatives to achieve strategic goals and KPIs	Target 2010/11	Actual results	Target comment
<b>Customer Value (Service Delivery)</b>	Drive stakeholder collaboration	Develop structure for intersectoral collaboration, including framework for aligning priorities	Strategic initiatives/ tasks	Structure & framework developed	In progress	Target not achieved
	Promote innovation & research	Commission National Research Committee & agenda	Strategic initiatives/ tasks	Committee established & research agenda finalised	100% achieved	Target achieved
	Provide enabling health information & develop policy	Develop stakeholder accessibility to information through Information Management Unit (IMU)	Strategic initiatives/ tasks	Develop list and reporting framework (routine & ad hoc) for management information to stakeholders	List and reporting framework for Management of Information to stakeholders developed.	Target achieved
<b>30%</b>						
<b>Operational Efficiency (Internal Operations)</b>	Align resources with strategic service delivery priorities	Determine & implement standardised laboratory technology framework, plan and platform	Strategic initiatives/ tasks	Framework developed by June 2010 & plan implemented	Framework has been developed and the plan is in the process of being implemented.	Target partially achieved
		Determine & implement 10-year infrastructure plan	Strategic initiatives/ tasks	Situation analysis complete and infrastructure plan developed (aligned with DOH)	Infrastructure plan developed.	Target achieved
		Review TrakCare Lab LIS Rollout Implementation Plan (aligned to Service Delivery Framework & Platform) & Implement Current Year	Strategic initiatives/ tasks	Reviewed plan finalised & implement for current year plan	TrakCare LIS rollout review completed. In 4th quarter NHLS Board approved the phase II rollout of TrakCare LIS to the remaining regions of the NHLS.	Target achieved
	Deliver quality, timely accessible & customer-focused services	Increase % of academic & regional labs accredited	KPI	100% of scheduled	30% achieved at company level. SANAS did not have the available capacity to deal with NHLS volume.	Target not achieved

## Key Performance Indicators

### National Health Laboratory Service Performance Information 2010/11

Perspective	Strategic value driver	Measurement	Strategic initiatives to achieve strategic goals and KPIs	Target 2010/11	Actual results	Target comment
<b>25%</b>	Become "Employer of Choice"	Implement 10-year Human Resources Plan (including teaching & training of core professionals) (aligned to service delivery framework & platform)	Strategic initiatives/ tasks	Situation analysis complete and HR plan developed (aligned to Service delivery framework & platform)	The 10-year HR Plan is in progress, but is not yet completed.	Target not achieved
	Finalise & implement recruitment & retention strategy	KPI	Turnover rate of health professionals decreased by 0.5%	Retention framework developed and turnover rate reduced. Terminations: 2009/2010 were 23.4% & 2010/2011 were 9.6%. Improvements were 13.8%.	Target achieved	
<b>People Value (Learning and Growth)</b>	Develop & implement management & leadership development programmes	Strategic Initiatives/ Tasks	Year 1 plan implemented	Prepared concept document. 1st intake of the EDP, MDP and FDP leadership development programmes started in 4th quarter.	Target achieved	
	Develop succession plan (aligned with structure)	Strategic initiatives/ tasks	Plan developed & approved by Board	Framework and the succession plan developed but not approved by board.	Target partially achieved	
	Improve staff morale	KPI	Improve ESS by 5% from baseline	The 1st NHLS climate and culture survey conducted and the employee satisfaction index of 2.66. No follow up survey done to measure against baseline.	Target not achieved. The process of determining the organisational values commenced in February 2011 and will only be finalised in the new financial year. Therefore, the climate survey was postponed.	

# Key Performance Indicators

## National Health Laboratory Service Performance Information 2010/11

Perspective	Strategic value driver	Measurement	Strategic initiatives to achieve strategic goals and KPIs	Target 2010/11	Actual results	Target comment
<b>30%</b>						
<b>Financial Efficiency &amp; Sustainability</b>	Affordable laboratory services	Reduce debtors days to ensure cash flow	KPI	90 days	Achieved 154 days	Target not achieved due to the inability of certain provinces to pay according to the credit terms.
<b>15%</b>						
<b>100%</b>						

## Human Resources



### Executive Manager

*Ms Mpho Lecoge*

#### Overview

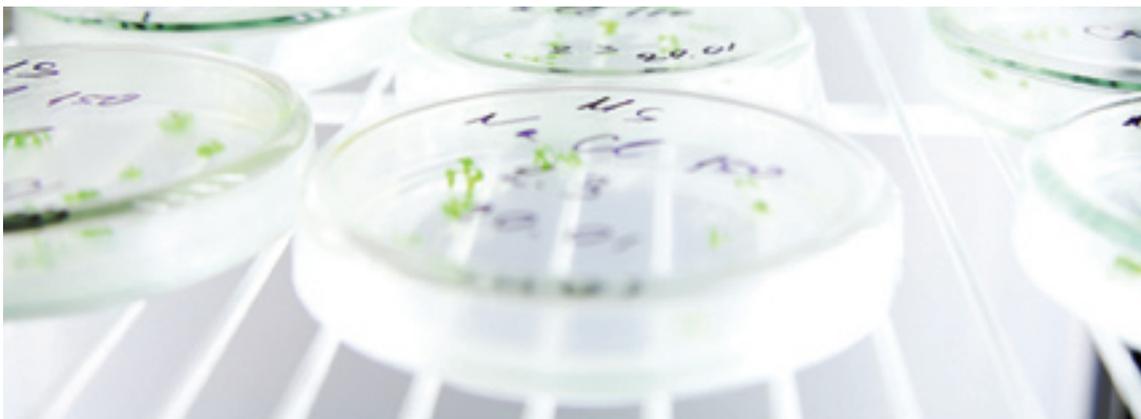
The 2010/2011 financial year was characterised by the implementation of a number of human capital-centred initiatives intended to develop organisational identity and improve employee morale. Effort was invested in addressing concerns and constraints identified in the 2009/2010 financial year.

The key strategic deliverables for the period under review were to improve employee morale, to develop and implement a leadership programme, to review the NHLS organisational structure, to finalise and implement the reward and retention strategy as well as to develop a 10-year human resources plan for the NHLS core occupations. A summary of the progress made is as noted below:

- The key initiative to address employee morale was the organisation-wide climate survey which was conducted to establish a baseline on the views of employees with respect to leadership, customer satisfaction, communication, teamwork, performance management, reward and staff development.

A 36% organisation-wide participation was achieved. The Chief Executive Officer communicated the outcome of the climate survey to a total of 1,700 employees across the NHLS. Ten events in the form of roadshows provided an opportunity for staff to engage the CEO directly on various concerns. Staff input was utilised in the formulation of NHLS values and enhancement of a performance-driven culture. A direct communication platform was created to enhance employees' access to the CEO.

- A comprehensive leadership development programme was delivered for the executive team and managers at various levels. Accredited training programmes which offer registered qualification were sourced and delivered. To provide structure to the leadership capacity building, a succession plan and an assessment centre were established. The organisational structure was reviewed to align it to the strategic goals of the NHLS. A workload model pilot study was commissioned to explore determination of human capital requirements particularly in core occupations (pathologists, medical specialists, medical scientists and medical technicians). Initial findings were tabled and further work is underway to refine the model. This approach aims to deploy the NHLS's human capital optimally.
- A reward and remuneration strategy and policy were developed to rationalise the entire organisation's pay practice. In light of the difficulty to attract and retain talent for the core occupations, significant adjustment on remuneration of these categories was implemented. A reduced turn-over of pathologists was observed in the 2010/2011 financial year. Revision of the salaries and introduction of a rural allowance were informed by this strategy and the public service occupation-specific dispensation model.
- The organisational structure was reviewed to align it to the strategic goals of the NHLS. A workload pilot study was commissioned to explore determination of human capital



requirements by job categories. Initial findings were tabled and further work is underway to refine the model.

- The 10-year human capital plan was not completed. The necessary enterprise resource planning systems were reconfigured to inform the development of the plan.

## Governance and management

### Remuneration and Human Resources Committee

All meetings of the Remuneration and Human Resources Committee (RHRC) of the Board took place as scheduled. A change of membership in accordance with the legislated term of service which welcomed new committee members. Professor Gregory Hussey replaced Mrs Sylvia Khokho as the chairperson. The RHRC successfully sourced candidates for the executive management vacancies that existed in the 2010/2011 financial year. Ms Kaamini Reddy was appointed as the Executive Manager for, Communications, Marketing and Public Relations. Dr Johan van Heerden was appointed as the Executive Manager for Academic Affairs, Research and Quality Assurance.

At the end of August 2010, Professor Barry Schoub retired from the NHLS as the Executive Director of the National Institute for Communicable Diseases (NICD) after 35 years' service. He is a renowned pathologist who made an outstanding contribution to the national public health system and acquired a sound international standing. His service and contribution to the NHLS was acknowledged by the CEO, and the Chairperson of the Board, Adv. Sesi Baloyi.

### Management

All 12 executive management positions were filled during the period under review; however, the Company Secretary position became vacant in the last quarter of the financial year. The executive management team focused on the organisational performance, audit and risk management as mandated by the Board.

### Organisational structure

The structure in Figure 1 represents the high level management of the NHLS. It illustrates the key functions in line with the NHLS mandate, being service delivery, teaching and training to promote health education, research and surveillance.

Operations primarily drive service delivery through the district and tertiary laboratories spread across all nine provinces of South Africa.

Surveillance consists of the National Institute for Communicable Diseases (NICD), the National Institute for Occupational Health (NIOH) and the National Cancer Registry (NCR). These are specialized divisions, making attraction of appropriate skills a challenge. These are also the areas where high calibre professionals are employed to provide short term service for specific research activities.

Corporate structure supports the core operations and surveillance as mentioned above. An addition to the corporate infrastructure is the Communications, Marketing and Public Relations division. It was introduced to elevate the profile of the NHLS and to improve both the internal and external communication. The other corporate departments are finance and administration, information technology, human resources and quality assurance.



Figure 1: NHLS macro structure

## Workforce profile

Table 1 and 2 illustrates the NHLS workforce profile for the past three financial years. Unlike in previous years, the headcount for permanent staff is presented separately from that of students, interns and registrars. The permanent headcount was 5,750; people in training totaled 1,042 and short term contract employees were 228 - a total workforce of 7,020

The headcount in 2010/2011 increased by 2.8% which is consistent with the increase recorded in the 2009/2010. The headcount for people in training increased by 1.7% in the period under review while an increase of 0.5% was recorded in the previous reporting period. The increase is attributed to the aggressive student recruitment programmes that the NHLS continued in collaboration with the universities of technology.

A summary of the workforce profile in tables 1 and 2 is given below:

- Of the 12 executive management positions, three are held by females, and all are black.
- The representation of pathologists and medical officers increased by 8.7% (from 207 to 225). The improved remuneration for the core occupations contributed significantly to retention in this category.
- The total number of registrars improved by 2.9% (from 207 to 213) in the reporting period.
- Medical scientists increased by 2.4% (from 207 to 212) with an increase of 29% in the African, coloured and Indian categories.
- Medical technologists increased by 2.2% (from 1,385 to 1,415) compared to 1% in the previous financial year. The increase is as a result of the absorption of those who successfully completed the internship programme. The pass rate for the NHLS was 53% which is 6% above the national average of 47%.
- Medical technicians increased by 23.5% (from 528 to 652) in the period under review. This category was mainly recruited to provide service where the NHLS experienced difficulty in attracting medical technologists.
- The corporate support staff was reduced by 13.5% in the period under review through firm controls on the creation of new positions and re-distribution of workload.
- A total number of 228 staff was employed on contract or temporary conditions for short term projects; most of these engagements are grant-funded research posts.



Table 1: NHLS Workforce Profile: Permanent Staff

NHLS Employee Category	African						Coloured					
	Female			Male			Female			Male		
	2008/ 2009	2009/ 2010	2010/ 2011									
Executive management	1	2	2	2	3	3	0	0	0	0	0	0
Senior management	7	11	15	12	19	23	0	0	1	3	0	0
Laboratory management	84	94	92	101	103	92	10	10	13	11	12	13
Pathologist and medical officer	22	22	26	13	10	12	2	3	5	2	2	2
Medical scientist	21	30	39	10	11	14	5	5	7	2	3	3
Medical technologist	492	528	574	260	265	290	97	92	89	32	31	29
Medical technician	153	237	294	129	146	192	17	24	37	15	20	25
Laboratory support	1168	1143	1167	661	607	624	160	152	152	77	72	80
Corporate support	119	195	168	135	172	167	41	45	36	21	26	17
Grand total	2067	2262	2377	1323	1336	1417	332	331	340	163	166	169

Table 2: NHLS Workforce Profile: Students

NHLS Employee Category	African						Coloured					
	Female			Male			Female			Male		
	2008/ 2009	2009/ 2010	2010/ 2011									
Registrar	32	40	49	18	20	15	6	3	5	6	6	10
Medical scientist - intern	29	24	25	12	9	11	0	2	3	0	1	2
Student medical technologist	253	229	220	112	106	93	23	13	13	3	6	9
Student medical technician	164	171	199	97	143	138	15	14	27	7	8	10
Grand total	478	464	493	239	278	257	44	32	48	16	21	31

Indian						White						Chinese	Total			Increase/ decrease	
Female			Male			Female			Male			Male	Total			Number of staff	2011 vs 2010
2008/ 2009	2009/ 2008	2010/ 2011	2008/ 2009	2009/ 2008	2010/ 2011	2008/ 2009	2009/ 2010	2010/ 2011	2008/ 2009	2009/ 2010	2010/ 2011	2010/ 2011	2008/ 2009	2009/ 2010	2010/ 2011		
0	0	1	3	3	3	0	0	0	2	2	3	0	8	10	12	2	20.0%
2	4	3	7	7	6	15	20	18	12	11	7	0	58	72	73	1	1.4%
17	15	21	17	17	13	91	82	79	28	27	25	0	359	360	348	-12	-3.3%
23	23	28	15	18	22	77	70	72	61	59	58	0	215	207	225	18	8.7%
20	25	28	7	7	7	97	95	85	31	31	28	1	193	207	212	5	2.4%
107	107	98	31	25	26	302	287	261	47	50	47	1	1368	1385	1415	30	2.2%
27	40	47	22	24	25	30	30	28	6	7	4	0	399	528	652	124	23.5%
50	41	45	53	46	51	176	116	133	10	9	8	0	2355	2186	2260	74	3.4%
22	34	27	28	29	28	83	109	80	34	29	30	0	483	639	553	-86	-13.5%
268	289	298	183	176	181	871	809	756	231	225	210	2	5438	5594	5750	156	2.8%

Indian						White						Chinese	Total			Increase/ decrease	
Female			Male			Female			Male			Male	Total			Number of staff	2011 vs 2010
2008/ 2009	2009/ 2010	2010/ 2011	2010/ 2011	2008/ 2009	2009/ 2010	2010/ 2011											
39	35	42	16	14	7	50	51	53	43	38	32	0	210	207	213	6	2.9%
15	16	9	3	4	4	14	13	6	4	5	4	1	77	74	65	-9	-12.2%
13	9	18	4	1	1	17	15	13	3	4	5	0	428	383	372	-11	-2.9%
11	8	7	5	6	3	4	10	8	2	1	0	0	305	361	392	31	8.6%
78	68	76	28	25	15	85	89	80	52	48	41	1	1020	1025	1042	17	1.7%

Figures 2, 3 and 4 depict significant highlights with respect to the core occupations within the NHLS for the last three financial years.

The representation of black\* pathologists increased by 23.3% and African female pathologists increased by 18%, compared to the previous financial year.



Figure 2: Pathologist and medical officer: total



Figure 3: Pathologist and medical officer: African



Figure 4: Pathologist and medical officer: black African

\*Black is the combination of African, Coloured and Indian

The black registrars have increased by 8.5%, and 53% of these are African females (Figures 5, 6 and 7).

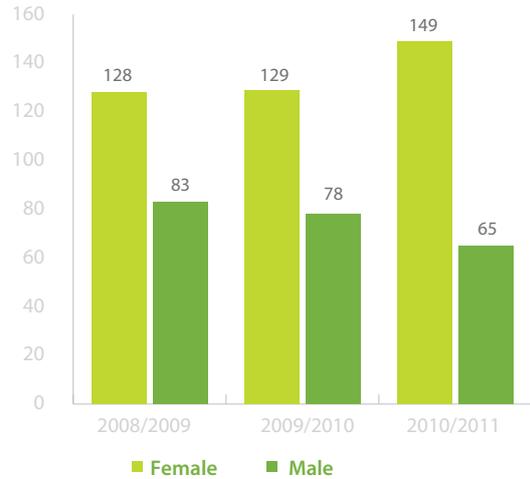


Figure 5: Registrars: total complement over 3 years

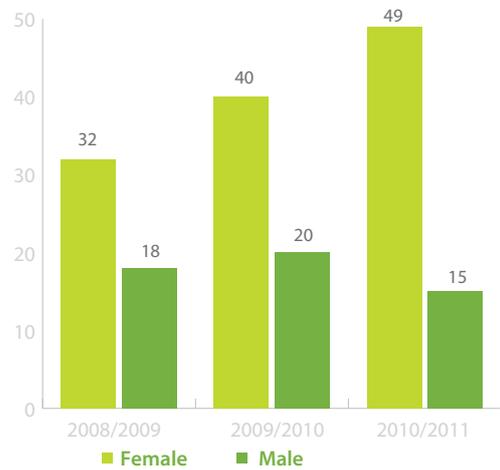


Figure 6: Registrars: African

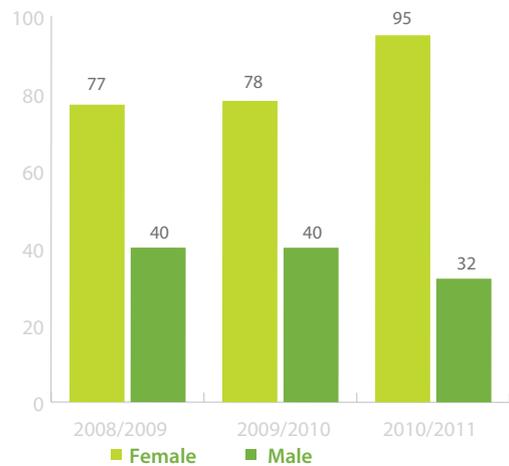


Figure 7: Registrars: black

Medical scientists are still predominantly white females whose representation has gradually decreased from 97 to 85 while African females have increased from 21 to 39 in the same period. Coloured males are also emerging in the medical scientist category (Figure 8).

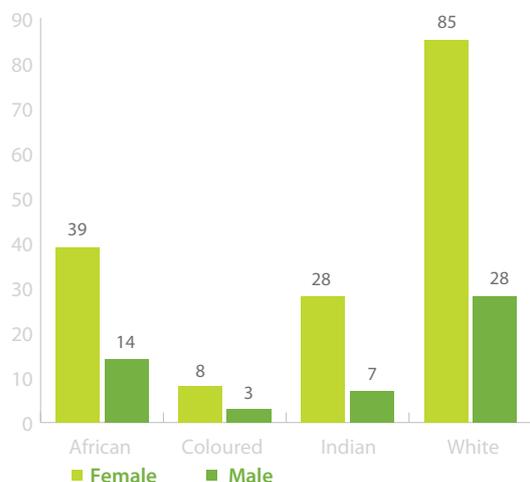


Figure 8: Medical scientists

However, student medical technologists were reduced by 2.9% in line with the organisational need realising that qualified medical technologists (Figure 9) have progressively increased since 2008.

Over the last three years, African female medical technologist have increased by a total of 16% from 492 to 574. This has been as a result of focused laboratory training initiatives which were implemented over this period.

African females also occupy the vast majority of medical technician positions making a total of 45% of the total complement of medical technicians, as reflected in (Figure 10).

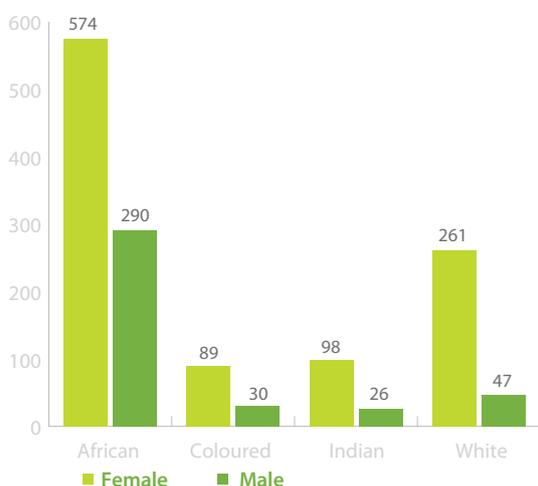


Figure 9: Medical technologists

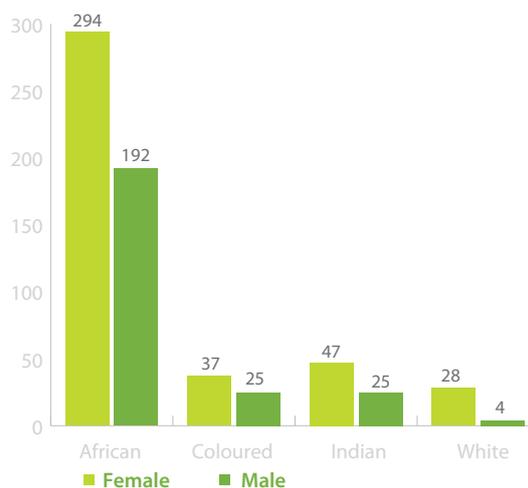


Figure 10: Medical technicians

## 2010-2011 Human Resources strategic deliverables

### Employee morale

Employee morale was addressed through a number of initiatives; the highlight was the organisation-wide climate survey which aimed to establish the views of employees with respect to issues such as leadership, customer orientation, communication, performance management, reward and staff development; among others. A 36% organisation-wide staff participation was realised. The feedback drawn was categorised by region, institute and corporate to aid focused feedback. The Chief Executive Officer (CEO) communicated the outcome of the climate survey to a total of 1,700 employees across the organisation. Staff engaged the CEO directly on various concerns relating to remuneration, welfare, infrastructure performance management, staff development and management. Staff provided input towards the formulation of the NHLS values and creation of a values and performance-driven culture. A direct communication platform was created to enhance employees' access to the CEO.

### Skills acquisition and turnover

The recruitment awareness and branding campaign initiative focus on sourcing students in rural communities to pursue careers in biomedical technology. An extensive campaign was run in rural communities nationally and a total of 16 out of the 61 (26%) were offered bursaries to study at various universities of technology.

Employee terminations during the period under review

were 596 of the total workforce of 7,020. This represents a turnover of 8.4% which is consistent with 8.24% recorded in 2009/2010 and a significant improvement to the 12.9% recorded in 2008/2009.

## Skills development and organisational development

The NHLS continues to provide both pathology related technical training and managerial skills training. During the period under review, the NHLS Learning Academy was launched. This Academy aimed to provide a platform to elevate the skills and competency levels to enhance production. It is also aimed at grooming internal NHLS talent.

Leadership development for various levels of management commenced in the period under review; 58 employees were enrolled and are due to complete in the course of 2011. Executive management held a team development intervention which emphasised the importance of a shared vision.

The training needs identified in the 2010 Workplace Skills Plan were aggressively addressed; a total of 4,796 training occurrences took place at a cost of R39,543,687, which is a remarkable achievement of 2.8% of payroll compared to the 1% stipulated in the Skills Development Act.

The NHLS also benefited skills development funding from several stakeholders such as the Centers for Disease Control and Prevention towards the improvement of the training laboratories and a learnership for 44 phlebotomy technicians. As such, the NHLS has received approximately R1.8 million in mandatory grants and R710,000 in discretionary grants. These funds were re-invested in the development of staff. The Department of Science and Technology donated funding of R970,000 for the development of medical scientists and medical technologists, and Basil Read also donated R200,000 for the same purpose. Beneficiaries for these programmes are identified as stipulated by the donors.

## Employment equity

The NHLS submitted the 2009 Annual Employment Equity report to the Department of Labour during this financial year in line with legislation. The Employment Equity Skills Development and Transformation (EESDT) Forum was strengthened by appointment of a chairperson to ensure organisational compliance to legislation. The NHLS invited the Department of Labour to conduct a workshop on the Legislated Employment Equity Framework as a guide for the EESDT Forum to improve on the existing initiatives within the NHLS. The outcome was the establishment of the Regional EESDT Forums and training of the members. In the future, employment equity target setting and reporting will be done at regional and organisation level.

The representation of black males and females in 2010/2011 is 83%; this is a gradual improvement from 82% in 2009/2010 and 81% in 2008/2009. The representation of executive and management appointments which met the employment equity criteria was 68%; 72% of these incumbents were females.

The representation of females in top and senior management positions was 47% in the period under review. This is a positive trend from the 45% in 2009 and 38% in 2008.

## Reward, conditions of employment and employee relations

The 2010 climate survey referred to in the overview, indicated that reward and remuneration required significant attention. This was successfully addressed for the core occupations with approval of the Board. Various other methods of reward are under debate between the executive leadership and the NHLS Board and will be implemented in the 2011 financial year. The management of the organisation and representatives of the recognised unions met regularly to discuss matters affecting staff welfare, development and productivity, among others. Various conditions of employment were debated and proposals for a review were tabled to the leadership for consideration. The relationship between labour and management was stable during the reporting period, enabling engagements, sound negotiations and solutions that were productive.

There has been a reduction in the number of grievances and disciplinary cases during the reporting period. Disciplinary incidents decreased by 4.6% from 237 to 226 with grievances reducing by 21.4% from 42 to 33. Continuous industrial relations training was implemented particularly aimed at the supervisory and managerial levels. This assisted newly appointed managers to minimise unfair labour practice complaints.

## HR Management Information Systems

To improve delivery in human resources service as well as provision of reliable information for business decisions, the Information Management Unit was established within the Human Resources function. During the period under review, focus was given to data cleanup and optimisation of the Oracle Enterprise Resource Planning System. Improvement in reporting was noted in the period under review; however, further development to enhance the management and automation of human resource processes is ongoing.

## Information Technology



### Executive Manager

*Mr Stelios Michas*

The Information Technology Department provides information systems that meet the needs of the organisation and support the achievement of the NHLS strategic objectives. The department's aim is to provide high quality information systems to support the NHLS in its provision of health laboratory services, health science education and health research.

This year was marked by a significant effort to improve the customer service provided to our user base. It was evident in both the internal measurements of IT service delivery which showed a 43% improvement and translated to an improvement of 9% in customer satisfaction as measured by the Customer Satisfaction Index.

### Laboratory Information Systems

The Laboratory Information Systems (LIS) Unit is responsible for the implementation, upgrade and support of the LIS used by the NHLS. Furthermore, some custom development is provided to support the quality assurance division of the NHLS.

### Implementation of the TrakCare Lab LIS

Following the successful implementation of the TrakCare Lab LIS in 52 KwaZulu-Natal laboratories last year, a further three new laboratories were computerised with the TrakCare Lab LIS during the reporting period. In addition, the system was implemented at 18 TB microscopy centres, and the Rietvlei laboratory in Northern Transkei was converted from the existing LIS to the TrakCare Lab LIS.

A Health Level 7 (HL7) interface has been developed between the TrakCare Lab LIS and the Soarian Medsuite hospital information system (HIS) at Inkosi Albert Luthuli Central Hospital which replaced the existing HIS early in 2011.

Board approval was granted for the implementation of the TrakCare Lab LIS in the remaining NHLS regions. This second phase of implementation will start in July 2011 and is planned to be completed by June 2013.

## Specimen tracking

A specimen tracking project was initiated and piloted in KwaZulu-Natal. Specimen tracking allows the NHLS to monitor and track the collection of patient samples from the Department of Health facility to the NHLS laboratory, and the delivery of laboratory results to the Department of Health facility or clinic. This allows the turnaround times to be accurately measured and eliminates the loss of specimens and reports while in transit. The specimens and laboratory reports are scanned by the driver at the point of collection and delivery, the information is then transmitted via a cellular data connection to TrakCare Lab LIS. The information will be used to produce audit and turnaround time reports in an effort to improve the overall service to the NHLS customers.

## Electronic provision of results

Electronic access to results is provided via SMS and the TrakCare Lab WebView. Results for the priority programmes are sent via SMS to clinics, and doctors in various hospitals can access results via WebView through an Intranet link from anywhere within the Department of Health's network or the Internet.

## Disa\*Lab LIS: site changes

The upgrading of the Disa\*Lab LIS to the latest version (16.04) continued during the year, with more than 40 sites being upgraded. Two additional laboratories, Khayelitsha and Isilimela, were introduced and taken live on Disa\*Lab.

## GeneXpert rollout

The LIS Unit supported interfacing a number of GeneXpert analysers in preparation of World TB Day. To achieve this, a number of laboratories were upgraded to Disa\*Lab V16.04.

## Electronic gate-keeping

To save costs for the Department of Health, an electronic gate-keeping (EGK) system was piloted and implemented at Tygerberg and Groote Schuur hospitals in the Western Cape. EGK uses the LIS to approve or reject laboratory tests based on the protocols for patient management devised by the hospital. It uses

a framework of automated rules embedded into the LIS that are directly related to the legitimate frequency, type of test, authority of the clinician and various other factors that define if any specific test should be conducted or rejected by the laboratory. The EGK system will be further implemented in the new financial year.

## Electronic results

A mobile cell phone solution to access Disa\*Lab results was rolled out to 213 clinicians in the Eastern Cape and 110 in the Free State during phase one of the Mobilabs project. In addition, 361 cell phones and 232 laptops were installed in the Eastern Cape and Free State, respectively, enabling clinicians to access WWDisa electronic results in the wards and clinics.

## IT Operations

The IT Operations Unit manages the design, implementation and maintenance as well as the proactive management of performance and capacity of the IT infrastructure of the organisation which includes the hosting of the various information technology systems. This unit is also responsible for IT disaster recovery management.

## Network enhancement

The network enhancement initiative has progressed during the reporting period to address some of the wide area network (WAN) challenges facing the organisation. The network enhancement project, which is being implemented in a phased approach, has identified the priority data links to be attended to, and successfully piloted the implementation of WAN optimisation devices to enhance the end user experience. Multiprotocol label switching is being considered to save costs and to enhance the reliability of the core network infrastructure.

The proof of concept satellite connectivity at three sites in KwaZulu-Natal proved to be successful and these sites were connected to the NHLS network using satellite technology. Third generation mobile tele communications devices were also installed in routers in the Eastern Cape to resolve unavailability of fixed line telecommunications infrastructure.

## Video conferencing

Video conferencing facilities have been installed in the NHLS Boardroom in Sandringham, Cape Town and Durban offices. The system has helped to reduce travel and accommodation costs and travelling time associated with attending meetings by executive managers, business managers and other NHLS employees. It has also increased collaboration among researchers within NHLS and other researchers outside NHLS.

## Managing performance and capacity

As part of the managing of performance and capacity, IT Operations embarked on an initiative to architect an integrated hardware and software environment for the Oracle EBS systems as well as some of the other Oracle systems currently deployed at the NHLS. The first phase was successfully completed, with new hardware being installed at Sandringham and at the disaster recovery site at Braamfontein and brought in to production.

## Data centres

The migration of all IT systems to the new data centre at Braamfontien has been completed following the construction of the centre in the previous year. Furthermore, a new data centre has been constructed at the Sandringham site. Migration of the IT systems to this new data centre will take place this year.

## Oracle Enterprise Resource Planning

The Oracle Enterprise Resource Planning (ERP) Unit provides support for the Oracle ERP suite of products, which includes the Financial, Procurement, Human Resources Management, Payroll and Customer Relationship Management. This unit's function also includes custom Oracle development.

The Oracle Unit performed well in supporting the NHLS business by achieving an overall service level agreement compliance of 92%. The main focus of the unit this year has been on the migration of the Oracle database to the new hardware platform based on Oracle's Real Application Cluster architecture to

enhance speed, fault tolerance, scalability and increase overall availability of the system.

Phase two of the upgrade project is to ensure that the application layer is installed and planning and preparations are well underway to upgrade to Oracle release 12 in the coming year.

The rollout of the Human Resources Self-Service to all NHLS regions was completed.

End-user training continued during the reporting period with a total of 745 users across the country being trained in various modules.

## IT Client Services

The IT Client Services department provides first and second line IT support to the organisation. It also manages the IT Service Desk which serves as the first point of contact for all IT-related support issues. It is further responsible to ensure that the service level obligations of the IT department are aligned to what the NHLS business requires by facilitating the service level management process. The goal is to ensure equilibrium in the supply and demand for IT services and the sustainability thereof.

With the appointment of a permanent manager, the department has evolved from what was traditionally called the IT Service and Support department to a more client-focused unit. The department was restructured to ensure that processes are aligned to the IT Information Library (ITIL) framework, which is a best practice approach that all major organisations have begun to adopt to ensure IT service delivery is in line with business requirements. The ultimate goal of the department is to become client centric and to transition from being a traditional IT service provider to an IT business partner.

Key projects that were expedited include the IT end user PC standardisation, IT staff co-sourcing, enterprise PC risk and vulnerability management. The objectives of these initiatives were geared to transition the IT Client Services department from being reactive, to being a more pro-active unit to ensure a more rewarding customer experience. The administrative overhead and support footprint will be streamlined and processes made more efficient to ultimately reduce the overall total cost of ownership of IT to the NHLS.

## Corporate Data Warehouse

The Corporate Data Warehouse (CDW) unit's function is to support the information needs of the NHLS and that of the Information Management Unit. The CDW unit continued its efforts to enhance the usage of information by the NHLS.

The CDW team enhanced the provision of information to the Department of Health by continued development of reporting to support the National Priority Programmes. This included the TB multidrug-resistant registers and early diagnosis of HIV infection in infants at 6 weeks. Monthly management summary reports by facility and by province have been developed and are automatically circulated to the relevant recipients within provincial and national government. An antiretroviral hotline has been developed which enables clinicians, who have registered on the system, to obtain results telephonically. The CDW has expanded its 'lab alert' surveillance to provide notifications via both e-mail and SMS for selected organisms. This was developed further to provide an automatic interface to the surveillance system put in place for the 2010 FIFA Soccer World Cup.

In providing automated data interfaces to patient management systems to facilitate improved patient care, the CDW continued to interface data daily to the WamTech TB Electronic Drug Resistance system (EDR). An interface to the Therapy Edge Patient Management System has been developed to provide a daily transfer of test results back to clinics using this system. In collaboration with the Desmond Tutu Tuberculosis Centre, an interface has been developed to transfer TB patient results to a patient management system developed for Cape Town City Health.

A large number of data mining requests in support of research and postgraduate studies, and to improve business efficiency, were processed. The CDW has also developed reports and dashboards for use within the NHLS to assist in monitoring turnaround times and other efficiencies within the labs.

## Communications, Marketing and Public Relations



### Executive Manager

*Ms Kaamini Reddy*

The Communications, Marketing and Public Relations department was added to the corporate structure in 2010 to create a single brand identity for the National Health Laboratory Service, to elevate its profile, to improve both the internal and external communication and develop a stakeholder relations strategy. The division's overarching aims in support of the NHLS's strategic vision are as follows:

- to help safeguard and strengthen the NHLS's brand and reputation as a leader for service, training and research;
- to support and promote positive communications within the NHLS and its institutes and mutually beneficial engagement with external stakeholders; and
- to manage well a range of events, activities and services that are important to the life, reputation and smooth running of the NHLS.

The Office of Communications, Marketing and PR looks back on a very productive year and continues to support the NHLS's strategic focus areas and missions through all of its quality initiatives and products. This summary provides a brief, highly selective glance at the unit's

successes and is followed by an in-depth description of the unit's comprehensive branded communications and marketing initiatives that occurred during the 2010 calendar year.

Since no previous communication, marketing and PR support existed within the NHLS, the operational delivery has been reactive. Many policies and strategies were drafted and the organisation requirements was motivated on a needs basis.

Budget will be available in the next financial year to capacitate the department with skilled personnel to deliver on the approved integrated marketing and communication strategy.

In the interim a monthly Communication Forum was established to harness the related functions which occur throughout the organisation. The Forum comprises communication managers from NICD and NIOH, four regional client liaison officers and representatives from the call centre. The aim of the Forum is to provide a cohesive and consistent communication, marketing and PR support service to the various initiatives across the NHLS.

All members of the Forum have been offered a corporate membership to PRISA which will provide much needed and relevant specialist skills.

## Brand Identity

A brand audit was conducted via an online survey, to establish how staff experienced the NHLS brand. Brand strategy workshops established the value proposition and determined the current brand value. The outcomes were as follows:

### NHLS Brand Positioning Statement

Pathology saves lives. It's a vital support service that the NHLS provides to the National Department of Health. With the largest national footprint of laboratories serving the South African public, the NHLS is an organisation which promotes medical and academic excellence through innovation and an environment of continuous learning. The intellectual capital which characterises this organisation is also seen in surveillance and occupational health services, further supporting the mandate which promotes the health of our nation.

### Brand Value Proposition

**“The leading enabler of healthcare to the nation.”**

The end result was a need to refresh the current NHLS brand and to align the brand identity of the NICD and NIOH as institutes of the NHLS.



The brand audit resulted in the development of a corporate identity manual with guidelines for all aspects of branding throughout the organisation. This included a more synergised visual identity of the websites for the NHLS, NICD and the NIOH. Content is currently being shared across all three websites which illustrates the inter relatedness of the units.



### Customer Satisfaction Survey

In recognition of the importance of understanding and meeting the needs of its customers, the NHLS measures the levels of satisfaction through an annual customer satisfaction survey.

The existing customer satisfaction survey required a few enhancements which could provide valuable insight into the strengths and weaknesses of the service provided both internally and externally. To that end a new measurement tool was developed to survey the satisfaction levels of a wider sample of customers for the NHLS. The tool will be implemented in the next financial year.

## Publications

An improved, enhanced content direction was implemented to the internal newsletter which provides regular, relevant and timely information to staff. The internal newsletter, LabRap, also went through a visual metamorphosis which aligned to the other communication elements emanating from the Communications office.



The 2009/10 Annual report was improved considerably to meet the needs of the various stakeholders. It also included the corporate adverts, which informed readers of the mandate and offerings of the NHLS.



Advertising messages were crafted with the intention to inform and create awareness of the NHLS and its offerings. Specific advertising material was crafted to suit various stakeholder segments.

The National Health Laboratory Service (NHLS) established in 2001 provides diagnostic pathology laboratory services to the national and provincial health departments, provides the only training for South African pathologists and conducts research specific to South African health conditions.

With a staff complement of 6700 and with a large footprint of laboratories in all nine of the country's provinces, the NHLS serves 80% of the population.

**Diagnostic services**  
Diagnostic pathology services are performed for the national and provincial health department, provincial and district hospitals, primary healthcare clinics and other state institutions, through a large network of laboratories. The private sector healthcare providers also access the NHLS product offerings.

**Diagnostic Media Products (DMP)**  
DMP manufactures and supplies a wide range of diagnostic reagents, ready to use kits and microbiological culture media to NHLS laboratories and private pathology laboratories.

**Paternity testing**  
Paternity or parentage testing to determine the parentage of a child is offered by the NHLS.

**Teaching and training**  
All pathologists in the country are trained by the NHLS in partnership with the country's medical schools.

**Research**  
NHLS scientists conduct research into disease particularly applicable to South Africa and which are vital to the medical welfare of our citizens. While a large part of the research programmes is financed by the NHLS staff grants in support of research are made by the SA Medical Research Council, the Cancer Association of South Africa, Pikoyelles Research Foundation, National Research Foundation, pharmaceutical companies, private donors and a number of international institutions.

**At the core of the NHLS is next generation pathology excellence that supports the mandate of the Department of Health.**

The National Health Laboratory Service offers more than just laboratory services.

### Specialised divisions

**The National Institute for Communicable Diseases (NICD)**  
The NICD provides a surveillance role where intelligence is gathered on communicable diseases. It also provides expertise to southern African regions regarding outbreak and communicable disease burdens, such as respiratory, diarrheal diseases, meningitis, HIV/AIDS, tuberculosis and malaria.

With extensive research capacity and the only bio safety level four laboratory in Africa, the NICD provides leadership in its role to prevent and curb communicable diseases.

**The National Institute for Occupational Health (NIOH)**  
The NIOH investigates occupational diseases and has laboratories for occupational environment analysis. The NIOH provides a range of services to support occupational health, including the statutory analytical services, advisory services, information services, specialised laboratories and health hazard evaluations.

**National Cancer Registry**  
The National Cancer Registry plays a vital role in maintaining and disseminating national and international awareness of the growing prevalence of cancer within our population.

**Artemisinin Unit**  
The Artemisinin Unit is a wholly owned subsidiary of the NHLS and the sole southern African producer of equine artemisinins for the treatment of babes from 11 of the most medically important species prevalent in southern and other parts of Africa, as well as for spider bite and scorpion sting.

Direction and guidance was provided to Isilumko with regards to aligning student market advertising material to that of the NHLS. Brand alignment and messaging were required in order to achieve NHLS brand awareness.





A review of the organisations' processes with regards to the ordering and procuring of promotional items was conducted and a more streamlined approach was adopted which provides consistence in brand identity and benefits the NHLS with cost savings due to economies of scale procurement.

## Media

The NHLS subscribes to Newsclip Media Monitoring which allows the organisation to measure and report media market share. With an annual advertising budget of R400 000.00 the NHLS generated advertising value equivalent (AVE) in excess of R3million across all three mediums of print, electronic and broadcast.

Daily reviews of all media across the country is disseminated to staff to keep abreast of news.

The NHLS is proud to have gained considerable awareness in the general press from the outstanding surveillance and research work being conducted.

### Cancer Registry to become law

The existing unofficial National Cancer Registry and National Childhood Cancer Registry maintained under the auspices of the National Health Laboratory Services, is soon to be legislated under the National Health Act.

Announcing this during her annual legislation review presentation to Institute of Health Risk Managers (IHRM) members recently, Evans Prins, of Benguela Health, said the legislation had already been drafted and distributed for comment at the beginning of the year.

The new law will require all health establishments diagnosing or treating cancer patients to report quarterly its prescribed to the Cancer Registry once promulgated.

"To ensure this," Prins noted, "all facilities and practices will have to establish a separate database of all information of patients diagnosed, treated or referred for treatment of cancer - and this will also apply to multiple practices treating the same patient."

Noting that maintenance and updating of such a register would be potentially extensive for medical practices - particularly general practices - nonetheless, Prins added, it should be seen as being important from an epidemiology, health systems planning and research perspective.

The meeting also noted that the registry would put South Africa in line with other international medical authorities in ultimately contributing to the worldwide aim of establishing all the causes of cancer.



The Communications department provides general support to all entities of the NHLS through events, proof reading, editing, branding, promotional items, press releases and communication plans. A specific project to note is the robust offering to the HR department with the development of an extensive internal communication campaign in delivering feedback from the Culture and Climate Survey Feedback road shows.

A specific brand identity was created for this internal Communications Campaign.



## Academic Affairs, Research and Quality Assurance



### Executive Manager

*Dr Johan van Heerden*

### Academic stakeholder relationships

The successful implementation of the teaching and research mandates of the NHLS can only be achieved through close collaboration with the nine universities, through their Faculties of Health Sciences, and the eight universities of technology, through their Faculties of Health and Biomedical Sciences, all closely related with the NHLS, as summarised in Table 1.

The Umbrella Agreement, signed with the universities in 2007, governs the complex working relationship that exists between the multiple institutions, given that staff is jointly employed by the NHLS and the universities, with joint responsibilities towards service, teaching and research. Similarly, the Umbrella Agreement signed with the universities of technology in 2009, recognises the joint role that these institutions play, in conjunction with the NHLS, towards the development of medical technology, including the training and qualification of medical technologists.

University	University of Technology
University of Cape Town	Cape Peninsula University of Technology
University of KwaZulu-Natal	Central University of Technology
University of Limpopo (Medunsa)	Durban University of Technology
University of Pretoria	Mangosuthu University of Technology
University of Stellenbosch	Nelson Mandela Metropolitan University
University of the Free State	Tshwane University of Technology
University of the Western Cape	University of Johannesburg
University of the Witwatersrand	Vaal University of Technology
Walter Sisulu University	

*Table 1: Universities and universities of technology in collaboration with the NHLS*

While the purpose of the two Umbrella Agreements is to govern the relationship between the NHLS and the universities and universities of technology, respectively, it is acknowledged that individual institutions are independent and unique entities. It is thus a requirement of the Umbrella Agreements that bilateral agreements be signed with each university and university of technology to govern the relationship between the NHLS and the institution, albeit within the context of the Umbrella Agreements. Significant progress has been made following consensus meetings between the NHLS and universities during the previous year: a draft bilateral agreement was developed to form the basis for ongoing negotiations towards concluded bilateral agreements, and negotiations with a number of the universities have reached an advanced stage. However, due to a very complex and detailed negotiation process, coupled with the necessary legal oversight, none of the bilateral agreements with the universities have yet been signed. A further extension to the Umbrella Agreement with the universities was signed to allow for ongoing negotiations. In terms of the bilateral agreements with universities of technology, a draft bilateral agreement was distributed for comment and a consultation process. This will be followed by bilateral discussions, planned for the next financial year.

## Academic teaching

The NHLS is mandated to provide health science education in pathology, in co-operation with its academic partners. The four core professional groups, as reflected in Figure 1, that are trained according to this mandate in conjunction with the universities and universities of technology, are:

1. Registrars qualifying as pathologists via MMed (Path) or FCPATH (CMSA);
2. Scientists qualifying with MSc and PhD;
3. Medical technologists with completed internship and who passed the HPCSA Board exam; and
4. Technicians with completed internship and who passed HPCSA Board exam.

There has been a substantial increase in the number of medical technologists and technicians who have qualified and this trend will be pursued. Although the number of scientists has decreased over recent years, 2010 showed a positive growth in this regard. The number of pathologists qualifying remains around the same levels as previous years. This is a somewhat concerning trend as the aim is to increase the output. However, proper planning has been lacking; this matter is now being comprehensively addressed and coming years should witness an improved output.

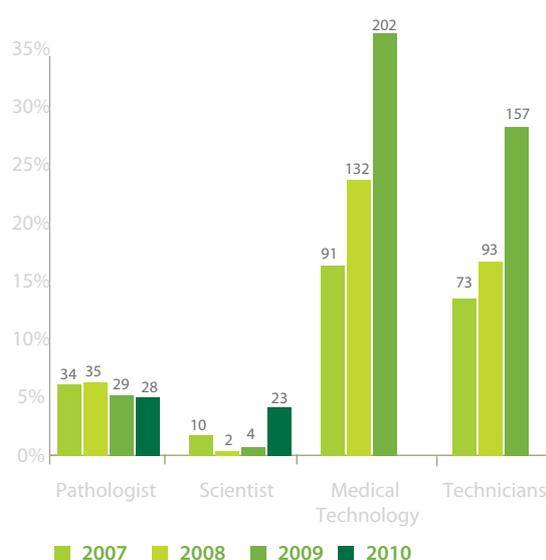


Figure 1: Core professionals qualified by year, 2007 – 2010

## Academic support

Execution of the teaching and research mandate of the NHLS is further demonstrated by the financial support for attending scientific congresses, courses and seminars. Figure 2a demonstrates the applications per institution for the last three years, while Figure 2b provides an overview per region.

While some regions and institutions have made extensive use of this opportunity, it is of some concern that a number of our partners have not fully utilised this avenue available to them, a matter which will be addressed in the next financial year.

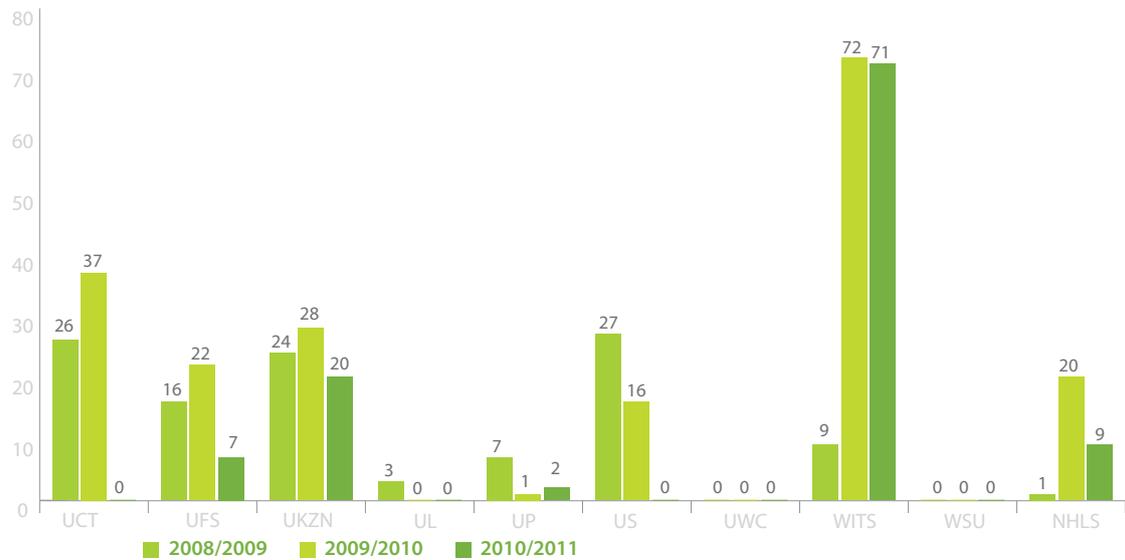


Figure 2a: Scientific travel grant applications per university, 2008/09 – 2010/11

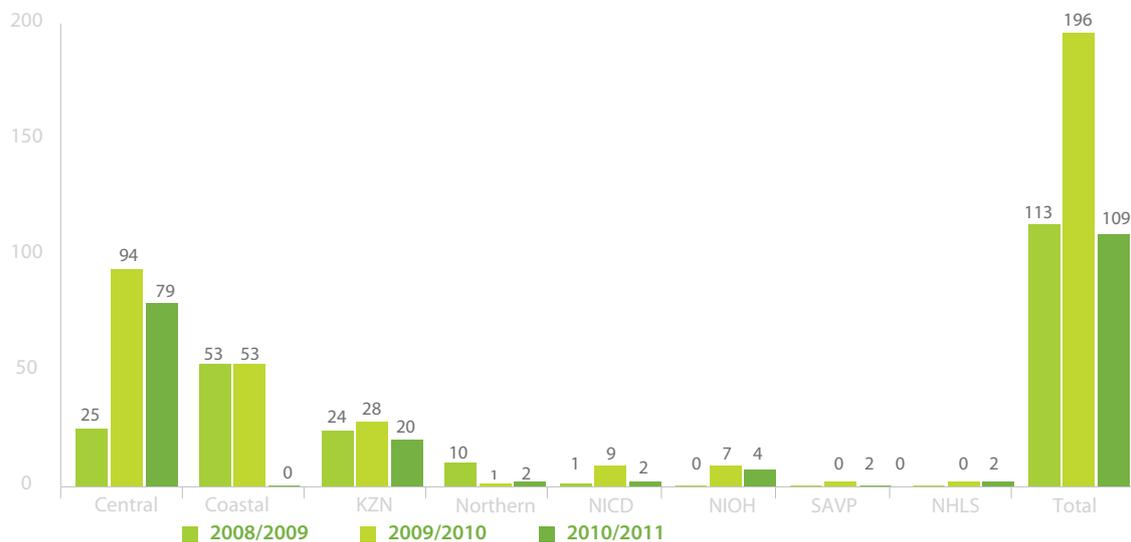


Figure 2b: Scientific travel grant applications per region, 2008/09 – 2010/11

## Research

### Research structure and agenda

In order to enable and support research effectively and efficiently throughout the NHLS, it is imperative to drive a central NHLS research agenda with contributions by the NHLS, NICD, NIOH and the academic partners. There has been closer collaboration during the year under review, as reflected through the establishment of the NHLS research team. This group has commissioned an in-depth review of existing research projects and publications throughout the NHLS and the universities to obtain a thorough understanding of the research capacity and initiatives within the organisation.

The outcome of this review is expected soon and will influence the future prioritisation, funding and translation of research within the NHLS.

### Grants administration office and grant-funded research

There has been significant progress with regard to the consolidation of the NHLS research grants administration and project management under a single centralised entity to maximise the effectiveness and efficiency of NHLS administered grants, but also to develop this capacity within the NHLS. Despite numerous teething problems, the Grants Office has made significant progress in terms of streamlining

grant management processes and improving service delivery across the organisation towards principal investigators and executive management, as well as towards the grantors in terms of accountability, reporting, monitoring and evaluation. During the year under review, the Grants Office strengthened its management structure and leadership. All Grant Office processes were reviewed and performance measurement targets have been established. Communication to both internal and external stakeholders is improving and continued emphasis is placed on meeting stakeholders' needs.

Three staff members attended a Grants Policy and Management Workshop hosted by the National Institutes of Health (NIH) in March 2011. One staff

member is receiving an NHLS bursary towards the completion of an MSc Project Management degree.

## Research funding

Most research activities at NHLS are funded by external grantors after successful application for funding by our researchers. An analysis of the research inputs for the year under review reveals a total of 177 new grants awarded to the value of R178,399,660 (approximate value, subject to the exchange rate). The average value of the awards is R1,007,908 per award. The percentage monetary contribution by grantor is illustrated in Figure 3. A detailed breakdown of the 22% contribution received from grantors other than the Centers for Disease Control and Prevention (CDC) is shown in Figure 4.

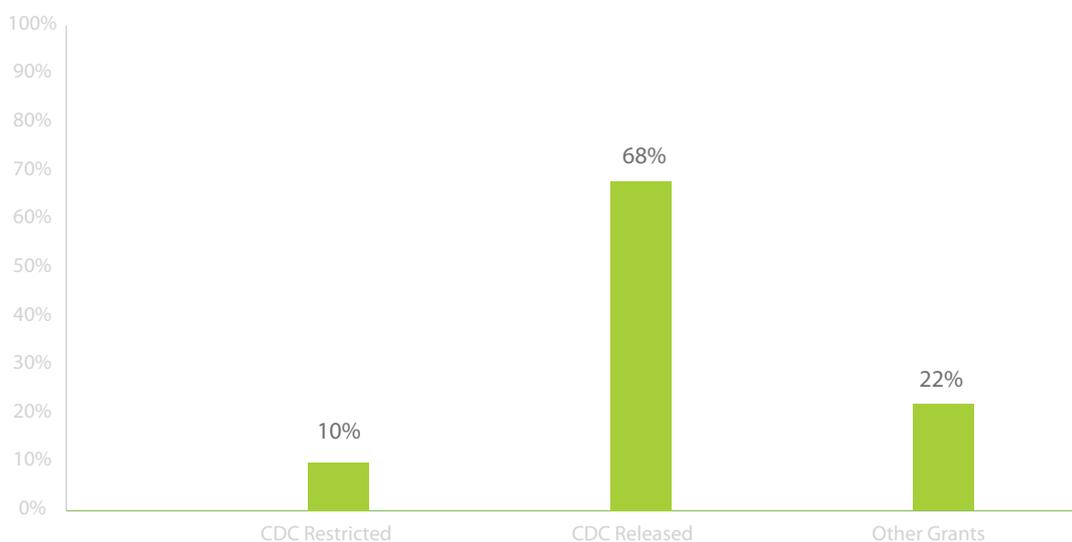


Figure 3: Percentage of monetary contribution by grantors

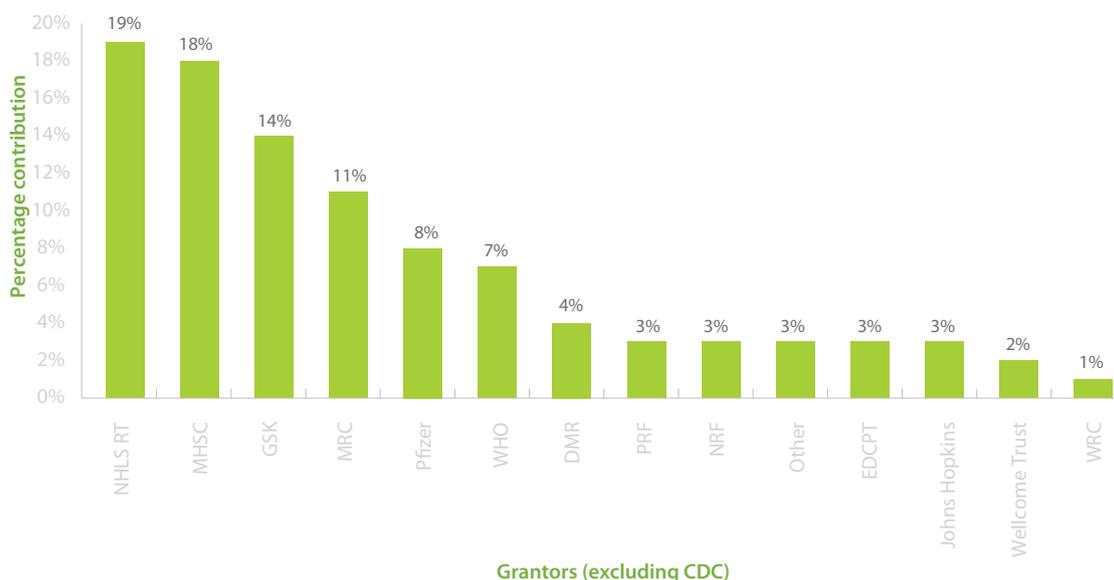


Figure 4: Percentage monetary contribution by grantors other than CDC

When considering the distribution of the number of grants awarded, it is evident that the majority of grants are still awarded to the NHLS by the NHLS Research Trust (69 new awards), demonstrating the continued important role that the Trust plays in encouraging research at the NHLS. The most significant monetary contribution towards NHLS research is from CDC, contributing R139,175,082 over the past year (78% of all new funding administered by the Grants Office), with R17,434,641 being restricted for most of the year. In the previous year, the CDC's monetary contribution to research was 90%; this has decreased to 78%, demonstrating an improved diversification of funders.

The distribution of grants per institution, as demonstrated in Figure 5, indicates where attention

is required in future to assist the more disadvantaged institutions with research funding and subsequent increased research activities.

### K-Projects

As further support to research activities, the NHLS funds K-Project research grants, which were developed to stimulate research by NHLS staff commencing their research activities and who are not yet eligible for funds from other sources. This contribution is reflected in Figure 6. It is clear from the analysis that some regions and universities are not making use of this opportunity and will be encouraged to do so in future.

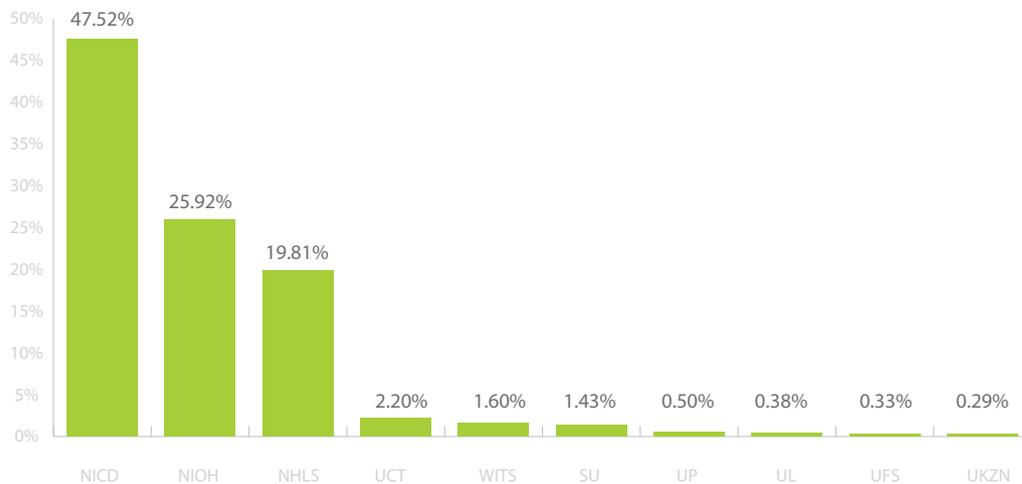


Figure 5: Funding contributions by the institute and university

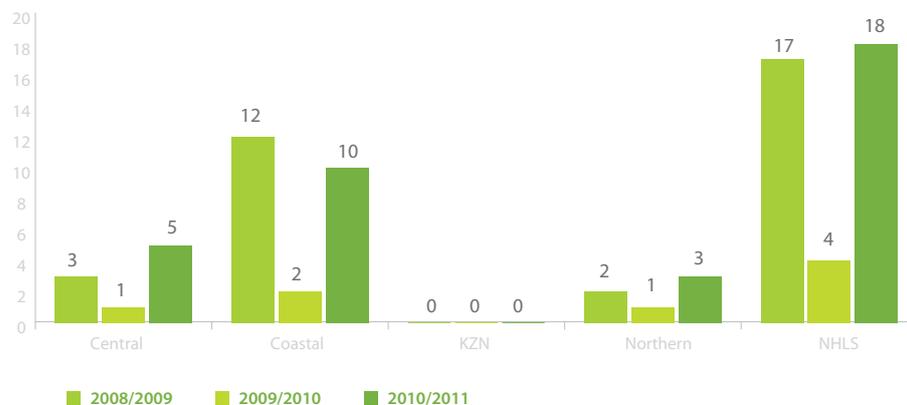


Figure 6: Approved K-project applications per University, 2008/09 – 2010/11

## Research outputs

Below (figures 7a, 7b and 8) the peer-reviewed publications of the research departments at the various universities and Institutions for the past two financial years are given.

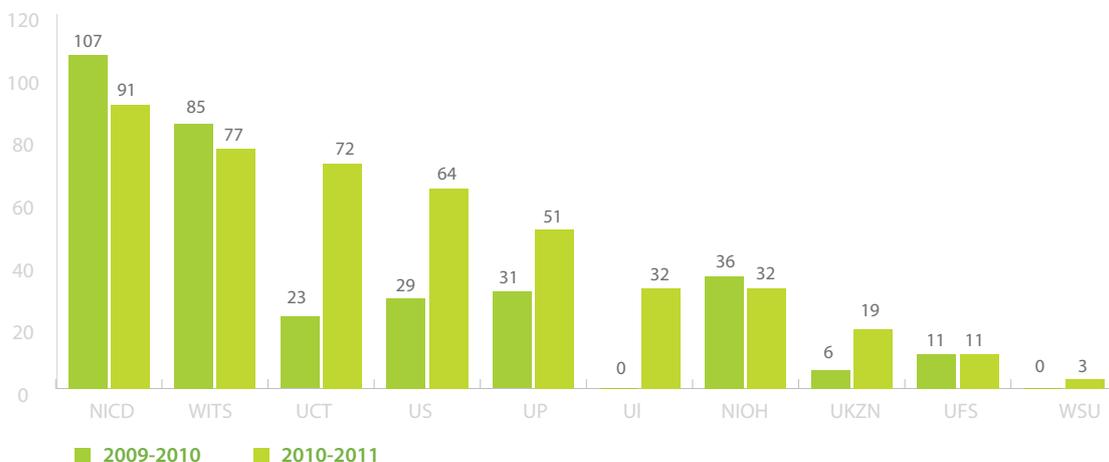


Figure 7a: Contributions to peer reviewed publications per institute

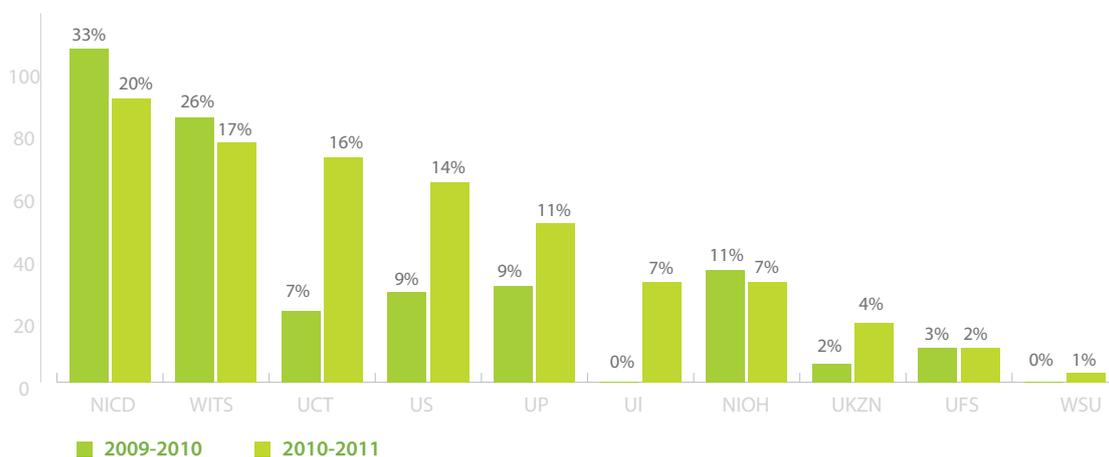


Figure 7b: Contributions to peer reviewed publications per institute

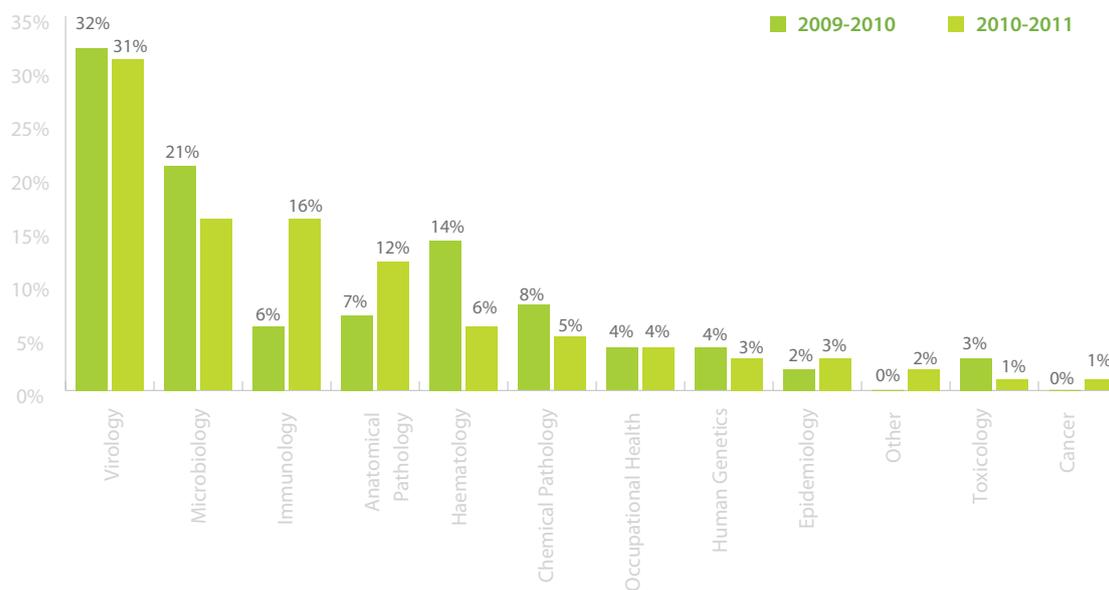


Figure 8: Peer reviewed publications per discipline

## Quality Assurance

### Mechanism and capacity for clinical trial

Limited work was done towards the establishment of mechanisms and a definitive comprehensive framework to support clinical research, an organisational objective which will enjoy priority during the next financial year.

The “Programme to support the South African Ministry of Health in the implementation of a national programme of global response to HIV”, sponsored by the Italian Government, continued during this year. The site in Agincourt was closed as the principal investigator resigned from the University of Witwatersrand, thus excluding activities in the Nelspruit laboratory. Mthatha laboratory received equipment donated by the project. All the agreements were signed during the 2010/2011 period. During the year, protocols were written for both the observational (pilot) study and the clinical trial. The observation study was conducted in Dr George Mukhari laboratory, as the Mthatha Clinical Research Unit is not yet available. The clinical trial protocol was drafted, submitted and approved by both the Medicines Control Council and the University of Limpopo (Medunsa Campus) Ethics Committee. Basic training for the clinical trial was done by the clinical research organisation and the phase II trial is planned to begin in the 2011/2012 financial year. Good clinical laboratory practice courses were organised with Qualogy (UK) for Dr George Mukhari and Mthatha NHLS staff as well as Clinical Research Unit staff and these were fully funded by the project. The project also partly funded

a good clinical laboratory practice course offered by PPD (USA), which 42 NHLS staff members attended.

### External customer satisfaction survey

In recognition of the importance of understanding and meeting the needs of its customers, the NHLS measures the levels of satisfaction and thereafter implements the Service Delivery Improvement Programme in a targeted manner. It is also a requirement for accreditation of laboratories with different ISO standards to get feedback from the clients.

The NHLS 2010/2011 strategy and the organisational Balanced Score Cards of all NHLS managers (executive, business, quality and laboratory) required an improvement of 3% to 5% per facility, compared to the previous financial year or a score of more than 75%.

The 2009/2010 Customer Satisfaction Survey (CSS) was conducted in all hospitals and a sample of clinics serviced nationwide by NHLS laboratories during 2009/2010. The 2010/2011 CSS was conducted in a similar fashion in September/October 2010 to measure improvement. A total of 3,576 responses were received for the 2009/2010 CSS and 4,531 for the 2010/2011 CSS. The results were analysed to determine the perceptions of customers regarding NHLS service delivery and scored according to weightings assigned to responses received. As per Figure 9, the 2010/2011 mean score achieved was 66.6%, compared to the 2009/2010 mean score of 59.7%, demonstrating a 6.9% improvement.

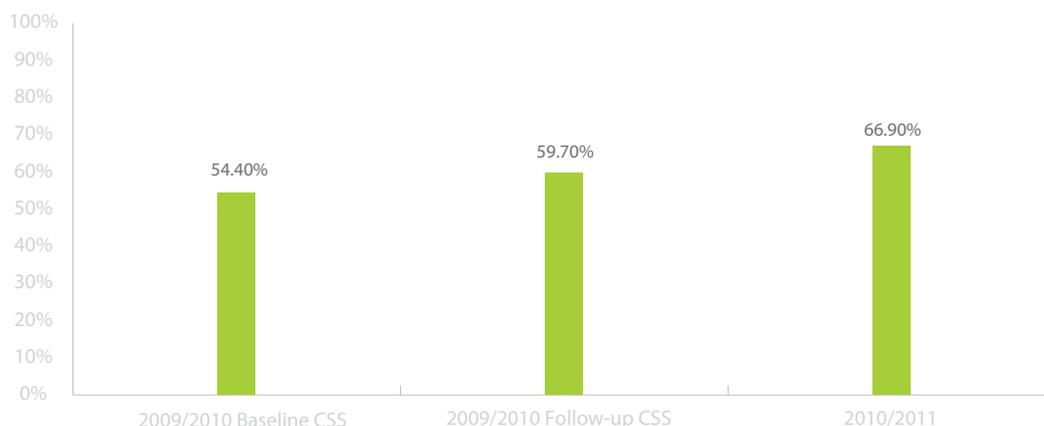


Figure 9: National CSS Results, 2009/10 – 2010/11

On average, the customer satisfaction levels were lower than the defined acceptable minimum of 75%. However, the Service Delivery Improvement Programme will provide useful information for the NHLS to improve this scenario. Customer satisfaction guarantees are not only achievable, they are essential to creating the proper customer-focused culture within the NHLS.

## Internal Customer Satisfaction Survey

The NHLS also measures the performance of the corporate support services among the staff. Figure 10 demonstrates the response received from the NHLS staff on the performance of different departments, reflecting an improvement across all departments.

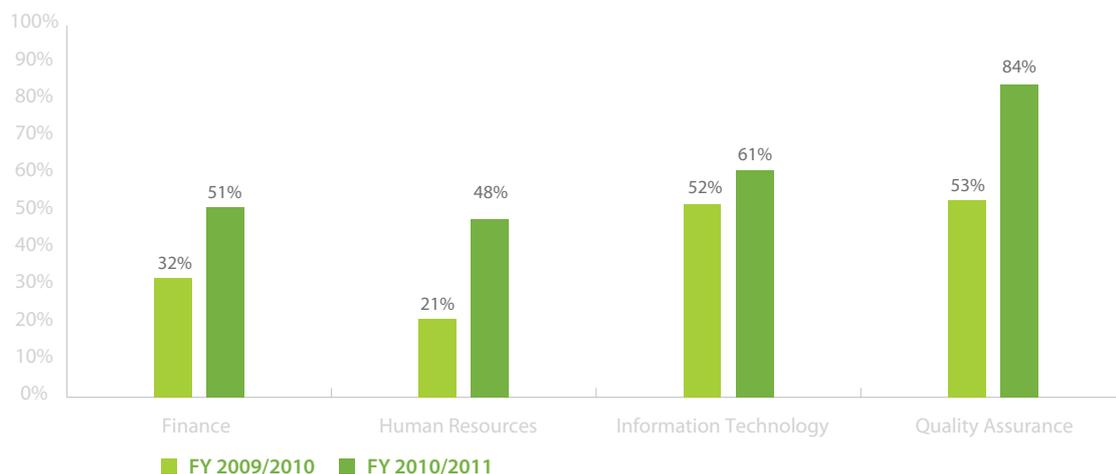


Figure 10: National ISS result, 2009/10 – 2010/11

## Accreditation

National QA aligned with the NHLS strategy by defining the laboratories according to levels of accreditation. In line with the NHLS strategy, a total of 184 laboratories/departments have to be accredited by the end of the 2014/15 financial year. This number excludes the 30 laboratories in NICD and NIOH. At this stage, NICD has 17/22 (77%) laboratories accredited and NIOH 2/8 (25%).

Only one new laboratory achieved accreditation in 2010/11 (from the Central Region), which changed the total number of laboratories accredited to 72. Two more laboratories applied for accreditation but the SANAS assessments were completed in the 2010/2011 year. Figure 11 reflects the current accredited laboratories.

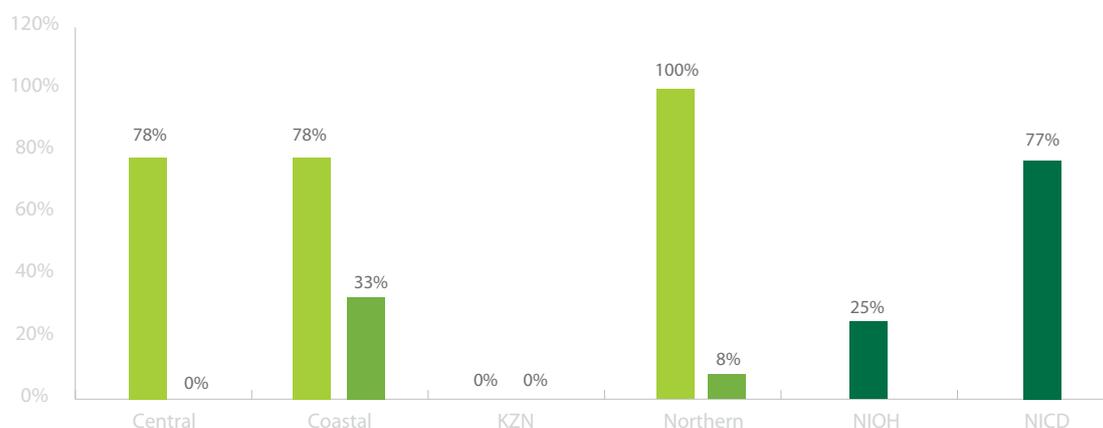


Figure 11: Number of accredited laboratories on 31 March 2011

## Management Matrix Report (Technical/Functional Audit)

The tool for auditing laboratories was changed and the name changed from Functional Audit to Management Matrix Report. A target of 75% was set and the majority of the laboratories exceeded the target. The score from the audits shows a national improvement of 2% - from 77% in 2009/2010 to 79% in 2010/2011, as demonstrated in Figure 12.

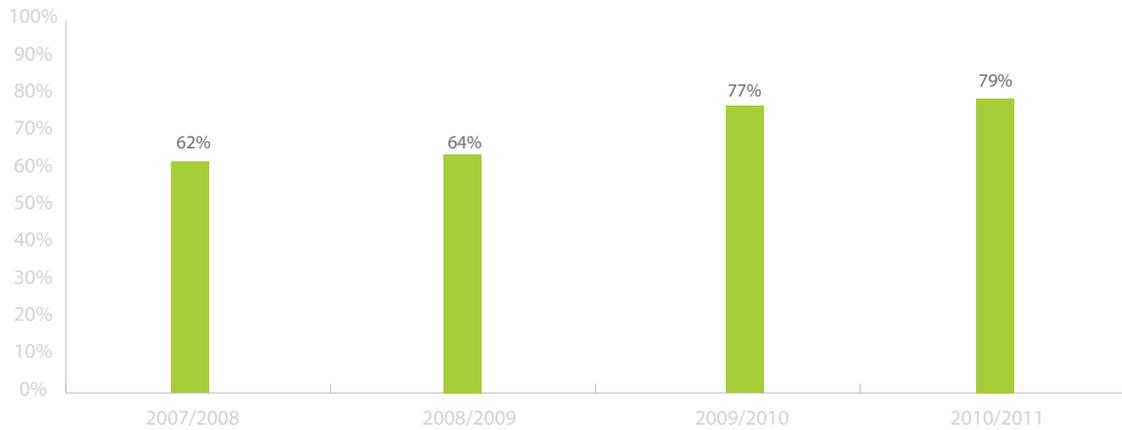


Figure 12: Management Matrix (Technical/Functional Audit) results, 2007/08 – 2010/11

## Proficiency testing

The total number of enrolments to the NHLS proficiency testing (PT) schemes increased from 2,599 in 2009/2010 to 2,868 in 2010/2011, an increase of 9%. The cycle of the schemes was aligned with the financial year.

A target of 95% was set for chemistry, haematology analyser and CD4 schemes, while a target of 80% was set for the microbiology and haematology morphology schemes. The majority of the laboratories achieved these targets, as demonstrated in Figure 13. Most of the laboratories that did not comply with the schemes' requirements are outside the NHLS.

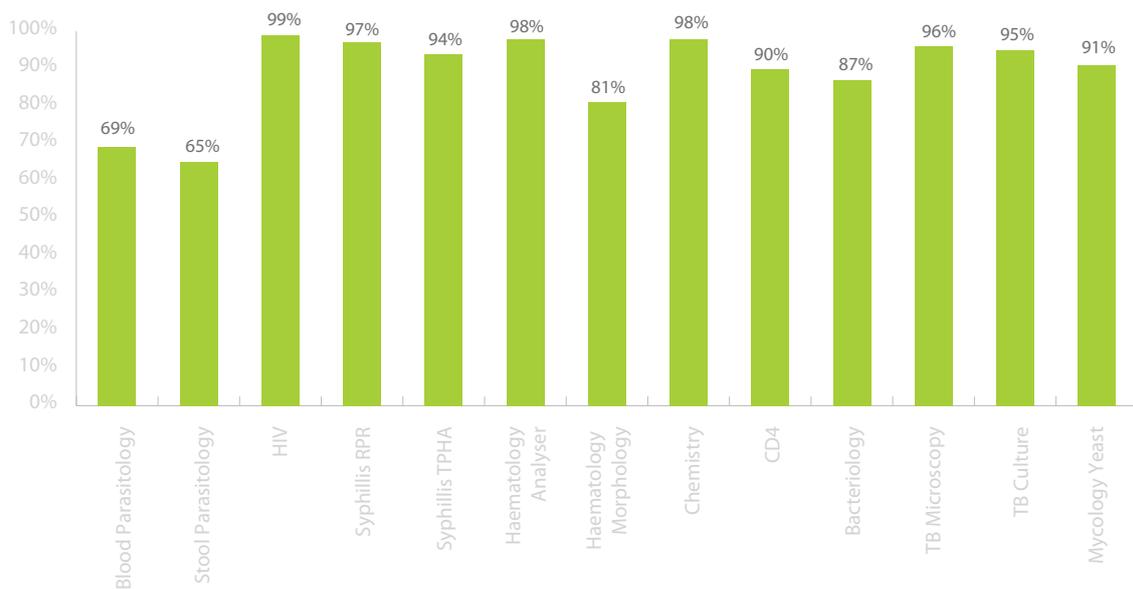


Figure 13: PT schemes results, 2010/11

## Electronic quality management system (Q-Pulse)

### Document control module

The Quality Assurance Department (QAD) embarked on a process to reduce the number of documents on the system. Even though this is not reflected in the total number of documents on Q-Pulse (12,182 in 2010/2011, compared to 11,967 in 2009/2010), the process resulted in approximately 1,000 documents being removed, and prevented many document repeats from being loaded on Q-Pulse. All laboratory documents are now loaded via the regional or institute QA managers who regulate content. The overall number is increasing as many laboratories are working towards accreditation and there are mandatory document requirements per laboratory.

### Internal audit module

Only a few individuals in the organisation use this module to schedule their audits. QAD plans to increase the use of this module in the coming financial year.

### Corrective action and preventative action module

The same individuals using the internal audit module use the corrective action and preventative audit module. QAD plans to increase the use of this module in the coming financial year.

## Information and knowledge management

An information management policy was introduced and adopted during the year under review. The policy was accompanied by a detailed application process, which is currently being managed in collaboration with the Corporate Data Warehouse. Some key reports have been developed and the process has provided extensive support to the National Priority Programmes. The Information Management Unit will be appropriately staffed and a comprehensive framework developed during the next financial year.

## Occupational health and safety

### Provision of essential occupational health, safety and environmental services

During the year under review, the NHLS Exco approved a plan to strengthen the occupational health service for employees. It was agreed to employ an occupational medicine practitioner, five occupational health nurses, five safety, health and environment officers (SHE officers) and a departmental secretary. All the vacant posts have been advertised. The transfer of all the relevant employees is being finalised and three of the new SHE officers have been appointed.



The structures making up the NHLS SHE Department, currently based within the Academic Affairs, Research and Quality Assurance Department will move to the NIOH in the new financial year.

## Occupational health information system

The NHLS introduced a health information system during the 2008/2009 financial year named SLIDE (Surveillance of Laboratory Injuries and Diseases). It was intended to introduce three modules to SLIDE:

- Incident recording and investigation
- Employee immunisations
- Work place risk assessments

Only the first module – incident reporting and investigation - was introduced and developed. To date, incidents have been captured for the 2008/2009, 2009/2010 and the 2010/2011 financial years. SLIDE operates via the Oracle portal and there has been some difficulty in accessing data. Figure 14 provides an overview of injuries, diseases and incidents reported for the year under review.

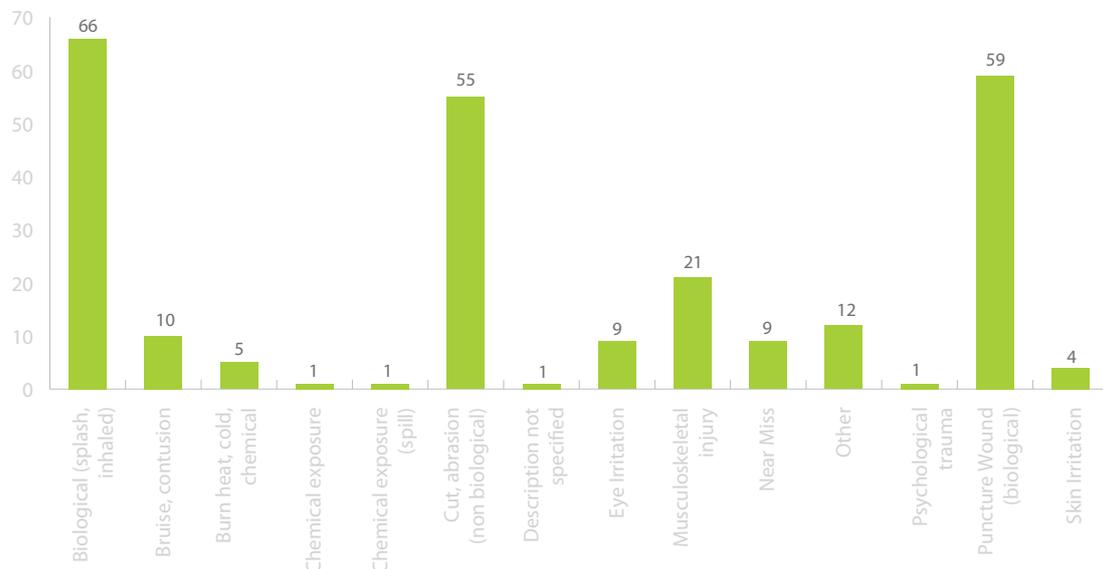


Figure 14: SLIDE Injuries, diseases and incidents, 2010/11

A decision was taken by Exco to stop the development of the in-house health information system, SLIDE, in favour of OHASIS (Occupational Health and Safety Information System). OHASIS is a comprehensive occupational health information programme that was developed by the University of British Columbia (UBC) and is intended for use in many varied occupational settings. The programme has been piloted in developing countries including South Africa, namely at Pelonomi Hospital in the Free State, in collaboration with Department of Public Service and Administration (DPSA). The following modules have been developed and are ready for implementation in OHASIS:

- Incident reporting and investigation;
- Employee health; and
- Workplace assessment.

The following modules are nearing completion or in the advanced stages of development:

- Infection control;
- Health & Safety Committee; and
- HIV and TB in the workplace.

It should be noted that it is intended that OHASIS be implemented in the public health sector and other government departments, as facilitated by DPSA. When the full OHASIS system evolves within the government sector, it is intended that their data repository be housed within SITA and that the NIOH Epidemiology Department assist them with analysis and reporting.

## Occupational health and safety audit

During the previous financial year, an audit was carried out across 318 regional laboratories in an effort to assess the level of awareness and compliance with the relevant occupational health and safety (OHS) policies and standard operating procedures of the NHLS. A second cycle of the OHS audits was carried out across the regional laboratories during the year under review to establish any improvement within the facilities. Once again, a comprehensive audit report was distributed to each laboratory highlighting the areas where deficiencies existed with comparative statistics.

A significant improvement was noted in the overall results obtained by each of the four regions of the NHLS. The overall results for the organisation improved from 62.6% in 2009/2010 to 78.6% in the 2010/2011 financial year.

## National Occupational Health and Safety Programme

In January 2011, the NIOH, in collaboration with the HR Department, participated in the launching of a national programme to provide post exposure prophylaxis and counselling to employees and their immediate families in the event of exposure to potentially infected body fluids in either an occupational environment or any other accidental exposure. The programme reflects the wider scope of the NHLS's responsibility across all the disciplines in which it is engaged. The National Health and Safety Programme is available to all employees, whether the employee is a contract worker or student, have existing medical aid cover or not. The primary benefits of the programme include:

- HIV/AIDS prevention programme – HIV preventative treatment and benefits in the event of a workplace exposure to HIV; and
- Trauma assistance – assistance in the event of a traumatic incident such as armed robbery, assault, sexual assault, etc.

In contrast to the previous HIV programme which was co-ordinated internally, this programme offers NHLS employees confidentiality due to the service being managed externally. The service ensures that all employees have access to testing and treatment within 24 hours of potential exposure in a confidential and secure environment.

## National Institute for Communicable Diseases



### Executive Director

*Professor Barry Schoub*

In the year under review, the NICD contributed substantially to its responsibilities for gathering intelligence on communicable diseases and providing guidance to national and provincial departments of health, as well as to the public and private healthcare professions.

### Surveillance activities

The NICD has carried out surveillance of viral, bacterial, fungal and parasitic communicable diseases in South Africa and, in several instances, neighbouring African countries. Active surveillance programmes have included National Microbiological Surveillance Unit surveillance of bacterial and fungal Infections. Some 18,779 laboratory-confirmed cases of bacterial and fungal infections were studied as part of this surveillance programme – about one-third of these coming from 25 active enhanced surveillance sites. Surveillance of influenza during the 2010 season was carried out at two levels – community surveillance for influenza-like illness (ILI) through the Viral Watch sentinel programme comprising 247 practitioners, and hospital-based surveillance for severe acute respiratory

infection (SARI) in five urban and rural hospitals. ILI surveillance examined 2,309 specimens and isolated influenza from 917 (40%). An ongoing assessment of the impact of the introduction of pneumococcal and rotavirus vaccines in 2009 was carried out throughout 2010. The Respiratory and Meningeal Pathogens Research Unit has demonstrated a significant reduction in invasive pneumococcal disease particularly due to serotypes incorporated into the PCV-7 vaccine. Similarly, a 49% reduction in rotavirus gastroenteritis and 20% reduction in all-cause gastroenteritis were seen at five sentinel urban and rural hospital sites. Microbiological surveillance of sexually transmitted infections comprised two components: a) the aetiology of three major sexually transmitted syndromes – male urethritis, vaginal discharge and genital ulcers, and b) antimicrobial resistance of gonococci from male urethritis syndrome patients against ciprofloxacin and cephtriaxone. The NICD also provided essential laboratory support for national surveillance programmes such as the rash-based programme which characterised the extensive measles outbreak of 2010 and also acute flaccid paralysis surveillance which is a constituent of the World Health Organization polio eradication initiative.

## Outbreak management

The Outbreak Response Unit continued to provide expertise and technical support to provincial authorities in all nine provinces for the management of communicable diseases outbreaks and also nationally as a component of the multisectoral National Outbreak Response Team. Training in early-warning recognition and outbreak management was provided throughout the country and the Outnet programme, a laboratory-based outbreak network, trained special Outnet representatives in the provinces. The Unit was also a component of the National Health Operations committee for the 2010 FIFA Soccer World Cup and provided a two-day workshop specifically for outbreak preparedness. Valuable lessons for management of mass gatherings were learnt. The Unit also instituted an automated laboratory alert in collaboration with the NHLS Corporate Data Warehouse. The Unit played a key diagnostic and management role in outbreaks during 2010, including Rift Valley fever, brucellosis, meningitis, malaria, rabies (31 human cases from KwaZulu-Natal, Eastern Cape, Limpopo, Mpumalanga, and, for the first time, Johannesburg). A Travel Health Unit established in 2008 provided a consultative service for pre-travel advice as well as guidance for the management of illnesses in returning travellers and visitors to the country – especially during the 2010 FIFA Soccer World Cup.

## Research

Researchers at the NICD have collaborated extensively with colleagues throughout the world and during 2010 published 97 articles in international and local journals and presented at numerous international and local scientific conferences. The largest research unit, the AIDS Research Unit, was in the forefront of HIV research in South Africa, including several clinical trials such as the provision of virology support to the groundbreaking CAPRISA 004 study demonstrating the prophylactic efficacy of 1% tenofovir vaginal microbicide gel. The Special Pathogens Unit investigated nearly twice the number of suspected viral haemorrhagic fever cases in 2010 as compared to 2009, including an Ebola outbreak in the Democratic Republic of the Congo and five confirmed cases of Crimean-Congo haemorrhagic fever in South Africa. The Rift Valley fever outbreak was studied intensively including its molecular epidemiology. The importance of bats as

a reservoir of a multiplicity of organisms, including agents of viral haemorrhagic fevers, severe acute respiratory syndrome and other infectious diseases is being investigated in the bat colony.

## Teaching and training

The South African Field Epidemiology Laboratory Training Programme enrolled 11 residents in 2010 and 12 residents continued into the second year. As part of the training the residents assisted in 11 outbreak investigations. The African Centre for Integrated Laboratory Training trained laboratory personnel from South Africa and from 13 countries on the African continent, especially in the fields of TB, HIV and malaria diagnostic technologies. During 2010, 20 courses were presented including the training of 60 technicians, 15 from each NHLS region. Staff of the NICD holding joint appointments at the universities of the Witwatersrand, Pretoria, Limpopo, Stellenbosch and Cape Town participated in undergraduate and postgraduate teaching as well as supervision of several PhD and MSc students in addition to the training of virology, microbiology and public health registrars.

## Special programmes

The National TB Reference Laboratory, established in 2006 to support the national TB control programme of the national Department of Health, monitors smear microscopy as well as PCR-based line probe assays for rapid diagnosis of TB and TB drug resistance. New molecular-based technologies were evaluated and both the Hain line probe assay and, more recently, the GeneXpert system were demonstrated to have great advantages over classical culture-based methods. The GeneXpert which provides reliable diagnosis of MDR-TB (using rifampicin resistance as a marker) was extensively validated in a multicentre trial in Cape Town and Durban and cleared for national rollout. Surveillance of drug-resistant TB from the Corporate Data Warehouse continues to demonstrate a modest increase in laboratory-confirmed multidrug-resistant TB with new cases approaching 6,000 per year. A similar trend was observed in the case of extensively drug-resistant TB – 431 cases in 2010. External quality assurance programmes for TB laboratories throughout the country have been established for smear microscopy in addition to smear microscopy rechecking through a quarterly blinded randomised recall.

## National Institute for Occupational Health and National Cancer Registry



### Executive Director

*Dr Barry Kistnasamy*

The year under review has consolidated the gains of the previous year and built on the successes of the National Institute for Occupational Health (NIOH) and the National Cancer Registry (NCR). All heads of section posts within the NIOH and the NCR have been filled. A key area of work was the enhancement of the safety, health and environment interventions, including the development of the occupational health system for the NHLS as well as strengthening policy and technical support in occupational health within the national Department of Health, Department of Labour and Department of Mineral Resources. Many decentralised activities were conducted with the provincial health departments, the South African Military Health Services, other national departments and public entities. An information system to support the Occupational Health System - OHASIS (Occupational Health and Safety Information System) - will be implemented during 2011/12 after having reviewed its implementation at Pelonomi Hospital in Bloemfontein during the past year. Of major significance was the review of the comments on the promulgation of the Regulations on Cancer by the Department of Health which were published in December 2009. The regulations set out the legal basis

for the reporting of cancers by health professionals, health facilities and pathology laboratories to the NCR. In January 2011, the NIOH, in collaboration with the NHLS Human Resources Division, participated in the launching of a national programme to provide post-exposure prophylaxis and counselling for employees and their immediate families in the event of exposure to body fluids in either an occupational, environmental or any other accidental exposure. The programme also covers trauma assistance that may be non work-related.

Diagnostic services were provided by the Pathology, Analytical Chemistry, Cytology, Immunology and Microbiology sections while Occupational Medicine provided services for referred workers, and Occupational Hygiene conducted risk assessments of workplaces. In the 2010/11 period, 1,502 autopsies were carried out as part of the compensation process in terms of the Occupational Diseases in Mines and Works Act: Act No. 78 of 1973. This is a decline of 8% over the previous year. The Analytical Chemistry section analysed 18,595 samples which was a substantial growth of 126% over the previous year. The section also developed new

methods for pesticide exposure. The Immunology section assessed 105 workers for occupational skin allergies. The test workup included an array of sensitisers and irritants and differed per individual depending on the workplace exposure. Forty-one bioaerosol samples were analysed. An allergy database was developed which contained a list of the common allergy tests available in South Africa. A total of 326 workers were assessed for various occupational diseases, mainly from the non-mining sector with a few workers with tuberculosis and occupational asthma from the mining industry; this represented an increase of 98% from the previous year. The Occupational Hygiene section finalised four reports for the Mine Health and Safety Council to improve dust measurement and reporting. The sections of Immunology and Microbiology and Analytical Services have maintained ISO 15189 accreditation for the fourth year in a row and the Occupational Hygiene Division has maintained its registration with the Department of Labour as an Approved Inspection Authority (AIA). The Pathology laboratory was accredited as a training laboratory for HPCSA intern medical scientists.

The NCR regarded the publishing of the backlog of data as a high priority and was supported in its efforts by the national Department of Health, the Medical Research Council and the Cancer Association of South Africa. The report on the 2002 data has been completed, the 2003 data have been coded and cleaned and the 2004 data have been coded and captured. A new capturing screen and data operating procedure were instituted for the 2005 data; the new procedure will ensure better quality data as the new system has a built-in checking facility. It is also expected that incoming data will be coded more rapidly. Cytology is both a screening and a diagnostic service. Cervical cytology smears had a steady year-on-year increase of 13%.

Research continues to be a strong focus of the NIOH and the NCR with 26 articles in accredited journals, chapters in two books, three reports and many presentations at conferences. There is ongoing research collaboration across the NHLS and with other local and international organisations. Links were made with the Organisation for the Prohibition of Chemical Weapons in The Hague and the International Atomic Energy Agency in Vienna. The strategic thrust in nanotoxicology has borne fruit with representation by the NIOH in various international committees within the Organisation for Economic Cooperation and Development as well as policy support to the Department of Science and Technology and Department of Trade and Industry. A strong research focus is on the priority diseases within South Africa with many research activities directed towards HIV and TB in the workplace. New research initiatives covering health technology assessment, biomedical waste and point-of-care have begun.

The NIOH and NCR contributed significantly to training and capacity development within the service activities and assisted with the continuous professional development of health professionals through linkages with the various professional societies and national and provincial government departments. Many of the staff members are involved in teaching on both the under - and postgraduate programmes at universities across South Africa and eight staff members obtained postgraduate qualifications during the period under review. Staff members also received recognition for their contribution to occupational health by receiving various awards and being invited to serve as members of national and international committees.

New initiatives underway include developing a programme for disability assessment and support for workers with disabilities in workplaces, mental health in the workplace and strengthening the Ergonomics section.



## South African Vaccine Producers



### Managing Director

*Mrs Megan Saffer*

South African Vaccine Producers (SAVP) is one of the few remaining producers of strategic life or limb saving antivenoms for the African species of snake as well as for the treatment of spider and scorpion envenomations.

### Stables

Antivenom production accounts for 65% of the total output from the facility's horse stables, and the demand for normal horse blood used in the preparation of media products has remained constant for the fiscal period. Stabling and paddocks are currently at capacity.

### Staffing

The head of the stables section has been serving the facility for the last 39 years. The senior animal caretaker retired at the end of September 2010, and due to the scarcity of skills and qualifications, this position has yet to be filled. Two more junior animal caretakers will be retiring in 2011 after 40 years and 15 years of service, respectively.

### Small Animal Unit

#### Demand for animals

The demand for animals remained fairly consistent during the reporting period, apart from the increased demand for animals supplied to the National Institute for Communicable Diseases, due mainly to the Rift Valley fever outbreak. Supplies to outside institutions remained the same; animals were also exported to the Namibian Standards Institute every two to three weeks for the monitoring of marine biotoxins.

SAVP currently utilises about half the animals bred in-house and the others are supplied to institutions like the Medical Research Council, Bioclones, National Control Laboratories as well as various universities and schools. These animals are used for safety testing, monoclonal antibody production, research, teaching, etc. Both the NHLS and these outside institutions require animals that are healthy and disease-free (specified pathogen-free).

## Staffing

The head of the unit retired after 30 years of service; the position was filled by a highly experienced animal technologist with over 19 years of service to this facility.

## Staff training

To produce animals of a high standard requires suitably trained and registered staff. The students who enrolled on the UK course for Animal Technologists are progressing exceptionally well, with two of the staff from the Small Animal Unit having almost completed their diplomas. All the students who enrolled for the animal technology course (six from the Small Animal Unit and one from the Stables) were given the opportunity to attend the SA Association for Laboratory Animal Sciences conference held in March 2011. This gave them the opportunity to meet colleagues working within other laboratory animal science facilities.

## Maintenance

To produce animals of a high standard requires an effective maintenance team. However, maintenance, electricity and water supply issues are a problem as disruption of these services often compromises the integrity of the barrier within the specific pathogen-free units. The majority of the maintenance is now outsourced, often resulting in delays when dealing with problems.

## Animal ethics

The NHLS Animal Ethics Committee (AEC) continued to approve applications via e-mail, as this seems to be the most convenient and least time-consuming way. Five applications for departments within the NHLS were approved, two of which are run in collaboration with the University of Pretoria. The Chairperson of the AEC, Professor J Frean, is in the process of making the AEC compliant with requirements as set out by the National Health Research Ethics Council.

## National Priority Programmes

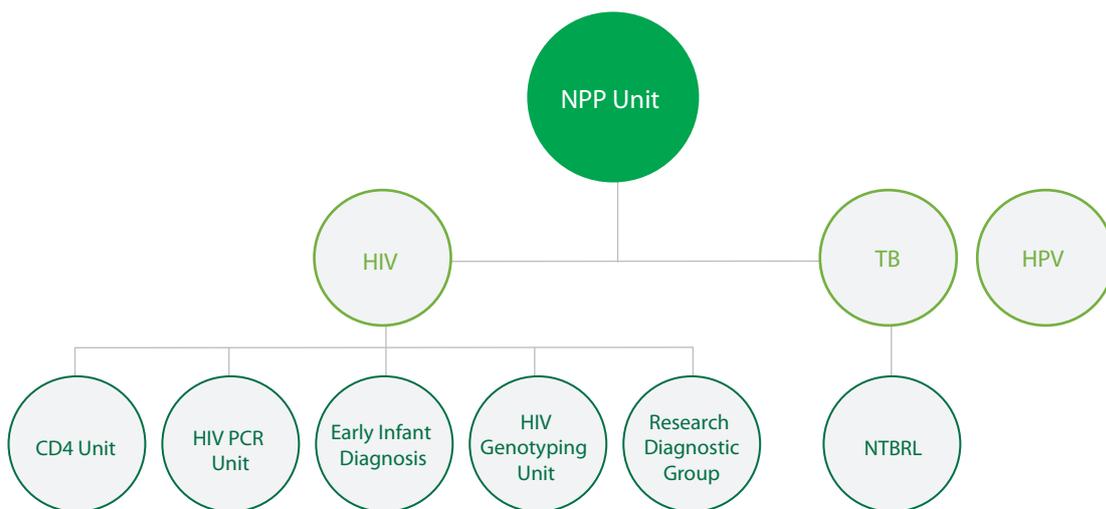
Head: Professor Wendy Stevens

The National Priority Programmes (NPP) Unit was established in 2010 to address HIV and tuberculosis (TB) diagnostics with the purpose of making laboratory services accessible, affordable and relevant. Furthermore, there is an imperative to ensure HIV laboratory services are fully integrated into those for TB and human papillomavirus (HPV) diseases. The unit's mission is to provide affordable, accessible HIV and TB diagnostic services that yield accurate, reliable, relevant and timely results aligned with national Department of Health (NDoH) strategy and are based on current scientific knowledge and international norms.

The aims of the NPP Unit are to:

- provide affordable, sustainable health laboratory services to support HIV clinical activities for both adults and children in South Africa;
- ensure appropriate rationalisation of laboratory services with respect to function and equipment;
- train a cadre of health professionals that can support this service adequately into the future;
- promote and undertake relevant research to ensure services remain appropriate and relevant;
- raise the profile of NHLS activities with respect to priority diseases such as HIV and TB;
- ensure HIV, TB and HPV laboratory services are aligned into the future; and
- foster close relations with healthcare

The main focus areas are HIV, TB and cervical cancer screening, and the following organogram was proposed for the unit: professionals involved in HIV and TB care.



### HIV units

#### CD4 Unit

Pathologist in charge: Professor DK Glencross

CD4 enumeration continues to be identified as one of the critical tests for both staging and monitoring HIV infection in South Africa. The testing number of CD4 samples is expected to increase by about 15-20% in 2011. According to the NDoH HIV/AIDS Strategic plan of 2007-2011, the NDoH had planned implementation of HIV counselling and testing (HCT) with a campaign aimed at testing 15 million people for HIV by July

2011. The adoption of new antiretroviral treatment (ART) guidelines should further facilitate increased ART enrolment. A significant rise in the number of CD4 tests reaching NHLS CD4 laboratories was experienced during the reporting period. The NPP Unit is working closely with the NDoH to ensure equitable access to CD4 testing across South Africa.

#### CD4 scaling up through automation

In order to increase CD4 testing capacity and to assist laboratories with the expected increase in CD4 samples, the NPP Unit has embarked on a project to increase CD4 automation in the laboratories. A process of consolidation (strengthening) of service in a tiered approach, according to service needs, has commenced.

At the higher end of service delivery, centralisation of services, by amalgamating laboratories into single high volume testing centres, has started. This approach has been supplemented with additional decentralised testing sites, to increase accessibility of service delivery in more remote sites. Furthermore, the Unit is collaborating and working with the NHLS point-of-care working group to assess and evaluate options to extend CD4 services where laboratory service is poor or non-existent. Increased automation, in at least 36 of the 59 NHLS CD4 sites that were upgraded according to specific workload, has dramatically improved sample throughput in these labs by removing a considerable portion of the labour intensive aspects of CD4 testing. The second phase of this implementation of extended automation in the remaining laboratories commenced early in 2011 to ensure adequate capacity across the remaining CD4 sites.

#### **Supporting the NHLS CD4 network**

Currently, the Johannesburg-based NPP CD4 team supports approximately 59 NHLS panleukogated (PLG)/CD4 laboratories across the NHLS network, both through training initiatives on the web as well as workshop-based teaching. As per previous years, four technical PLG CD4 training workshops were conducted and more than 350 laboratory personnel have been trained to date. Such training initiatives ensure that quality of PLG CD4 testing is maintained across the organisation, that instrument downtime is minimised, and that reporting turnaround times are maintained. Courses to train personnel on new automated systems viz. the MPL/CellMEK system commenced in 2011. Web-based teaching and training is available through the dedicated PLG/CD4 user website, developed during 2006 ([www.PLGCD4.net](http://www.PLGCD4.net)). Further technical support is offered through provision of NHLS CD4 proficiency testing (PT) external quality assessment samples which are sent six times per annum and administered through the NHLS Quality Assurance Department (QAD) scheme. This CD4 PT programme, also known as the CD4 AFREQAS, currently supports an additional 500 registered laboratory users across 20 African countries and was originally developed and implemented through the CD4 NPP team, who continue to offer technical support to participating NHLS and other CD4 laboratories.

#### **Consolidated NHLS CD4 service delivery**

The NPP CD4 team has further played an active role in ensuring integration and consolidation of service

by visiting CD4 laboratories across all regions to assess CD4 capacity and needs across the NHLS. This planned approach has ensured that services offered have matched actual client needs to ensure timeous and quality servicing and support to the NDoH. The NPP CD4 team further facilitates validation of all new NHLS CD4 laboratories and supports sites preparing for SANAS accreditation. All standard operating procedures for standardised CD4 testing across the NHLS CD4 network have been developed through the NPP team, in collaboration with the CD4 Reference Laboratory, and are currently available through QPulse, collated through the QAD.

#### **Research and development**

Several candidate technologies have been evaluated by the NPP CD4 team for implementation. During 2010, this included the Accuri/Reamatrix reagent system, BDS FACSCount (with CD4%) at offsite point-of-care (POC) clinic sites in collaboration with the Reproductive Health Research Unit (RHRU), Johannesburg, and true POC systems viz. Pima and PointCARE technologies (also in collaboration with RHRU). Other systems evaluated included the SemiBio CD4 slide system. Additional supplementary evaluations have included testing of Cryptococcal lateral flow strip assay on CD4 samples with counts less than 100 CD4 cells/ $\mu$ l. Implementation of this assay into NHLS CD4 laboratories, in collaboration with the US Centers for Disease Control in South Africa and the NDoH, is planned for 2011/12.

An additional focus of the CD4 Reference Laboratory/NPP CD4 team remains ongoing development and evaluation of PLG CD4, to improve both within and between-laboratory reproducibility of NHLS laboratories. Continuous, within-sample quality control viz. Bead Rate monitoring (bead count rate -BCR), a novel system developed with the Johannesburg CD4 Reference Laboratory, unique to PLG CD4 testing, has been successfully implemented across all NHLS CD4 laboratories to ensure ongoing sample-to-sample quality control on each and every CD4 sample tested across the organisation. These data are currently collated through the Central Data Warehouse (CDW) for ongoing analysis of sample and instrument performance, both within and between laboratories. Novel calibration standards and other continuous quality control monitoring systems to ensure instrument maintenance and identify pre-emptive instrument breakdown before laboratory downtime are being developed as part of the PhD activities of

the Johannesburg CD4 Reference Laboratory manager, Denise Lawrie.

## HIV PCR Unit

Pathologist in charge: Dr Sergio Carmona

The NPP Unit's main focus so far has been HIV and has involved working with and supporting all HIV viral load laboratories within the NHLS. Key to this activity has been the continuous monitoring of laboratory performance. To facilitate this, a reporting tool was developed.

The NPP team, in conjunction with the CDW, designed a dashboard containing current information related to HIV diagnosis and monitoring. The aim was to facilitate monitoring of HIV sample volumes and turnaround times for NHLS labs routinely performing CD4 testing, HIV viral load testing, and HIV DNA PCR. More importantly, the tool has been developed in order to improve our diagnostic performance in public health service.

The dashboard details number of HIV tests performed for 2011, as compared to 2009 and 2010. It also indicates the turnaround time achieved for transport from lab to lab, for registration of sample to result entry, and for sample result entry to result reviewing. This information can be displayed for the NHLS in total, or per region, province or lab. The ARV dashboard has proven extremely valuable to the NHLS in monitoring performance, and in providing clearer insight as to where our service can be further improved upon.

The NPP team has embarked on assisting laboratories to attain accreditation.

### Training and laboratory support for HIV PCR testing

The NPP has been pursuing training needs to address performance gaps in Good Laboratory Practice and technical aspects of HIV testing. A training programme has been developed to cover viral load testing and quality systems as a collaborative effort between the NPP group and the suppliers of the technology.

### External quality assurance (EQA)

An HIV-1 RNA viral load EQA programme was provided by Quality Control for Molecular Diagnostics (QCMD) in conjunction with the Specialized Molecular Diagnostics Unit at NICD, who are the South African QCMD representatives.

Laboratory training manuals as well as staff training has been conducted for all viral load sites as to the importance of EQA in the lab, running of the EQA panels, online result entering and result interpretation. Training has proved beneficial with 100% participation in the EQA programme.

## Early infant diagnosis (EID)

Pathologist in charge: Professor Gayle Sherman

This programme delivers HIV diagnostic services for infants and children in collaboration with Departments of Health, provincial and national prevention of mother-to-child working groups and other partners, conducts and research to improve diagnostic algorithms.

Activities include provision of monthly PCR statistics reports per facility, liaising between clinics and PCR laboratories, monitoring quality of EID samples, and troubleshooting problematic clinical cases. Technical expertise is provided for policy development on infant diagnosis nationally (NDoH and HIV Clinicians Society) and internationally (WHO).

Training on EID is supplied to doctors, nurses, counsellors and facility managers nationally, and training materials are developed and updated.

Research activities include the assess laboratory and field-based HIV tests for use in infants and children diagnostic algorithms, and clinical research is carried out on paediatric HIV at Rahima Moosa Mother and Child Hospital.

## HIV Genotyping Unit

Head: Professor Maria Papathanasopoulos

Routine resistance testing is currently not mandated for individual patient management in South Africa's routine clinical guidelines. However, the use of resistance testing for individuals and for programme surveillance is extremely important. For individual patients, resistance testing is important to aid in appropriate antiretroviral (ARV) treatment change decisions. At the surveillance level, it is important to monitor the prevalence of ARV drug resistance at transmission and prior to ARV initiation to ensure that first-line regimens are appropriate and expected to be effective. In South Africa where the epidemic is largely HIV-1 subtype C, recognising the

emergence of drug resistance patterns after first- and second-line treatments is vital in ensuring the design of appropriate ARV regimens.

The resistance testing facilities within the NHLS are currently only in research capacities. A recent gap analysis indicated that a large amount of infrastructure and training would be necessary to reach the required level. Currently, resistance testing is performed at five NHLS academic centres. The viral pol gene is routinely sequenced to identify mutations that confer resistance to the three ARV drug classes currently prescribed as part of the South African comprehensive HIV management plan.

The resistance data have provided clinicians with valuable knowledge on HIV-1 drug resistance and facilitates patient management. These data have resulted in an increase in the understanding of drug resistance patterns that emerge in HIV-1 subtype C-infected adults and children and the implications of treatment switches at different viral parameters. The surveillance of second-line drug resistance has also been performed.

## Research Diagnostic Group

This research and development group's focus is the design, development and evaluation of new TB and HIV molecular diagnostics and translational research for new assay implementation to the NHLS. Funding for most of the group's activities is from USAID collaborations. Three areas investigated in 2010 were:

### HIV diagnostics

- Evaluation of the new Abbott RNA/DNA EID PCR assay for use on plasma and dried blood spots (DBS). Residual specimen was tested on this assay and compared to the reference technology (Roche Taqman v1). The Abbott assay also requires two DBS, but preliminary results show good assay sensitivity using one DBS.
- Determining the precision of DBS for measuring HIV viral load in adults and paediatrics. HIV viral load testing is measured on patient plasma. A study was performed to determine the precision of using DBS in place of plasma. Intra- and inter-variability was measured on DBS prepared from the same patients compared to their plasma viral load. The Abbott Real Time HIV-1 and the

Roche CAP/CTM V2 assays were both tested.

- The development of a pre-qualification panel for the verification of newly implemented HIV viral load platforms. In response to increasing ARV treatment, the NHLS increased the number of HIV viral load testing laboratories to 17, with the two selected testing platforms (Roche CAP/CTM V2 and Abbott Real Time HIV-1) replacing the NucliSENS HIV-1 assay (bioMerieux). Verification of these new platforms was performed with a verification panel developed using HIV positive and negative human plasma. This programme successfully verified all instruments, and identified some sites and instruments with errors.

### Point-of-care (POC) diagnostics

This project investigates the role of POC testing for HIV/TB diagnosis and monitoring.

- The first multiple POC implementation site at Helen Joseph Themba Lethu clinic was established; POC instruments were selected according to the current ARV treatment guidelines and placed (haemoglobin, CD4, lactate, ALT and creatinine); training material was developed and a POC nurse trained; and laboratory verification of the instruments and nurse-operated POC vs routine laboratory was assessed. Consent was obtained from 160 patients at the first urban site and nurse-operated POC testing was compared to routine laboratory testing.
- One of the hurdles of multiple POC testing has been identified as connectivity for quality data management. This is being investigated with relevant software (connectivity) vendors, instrument manufacturers and IT (laboratory information system - LIS) interface specialists. An 'architects' plan of all aspects of data connectivity has been developed to incorporate the LIS, hospital information system and instrument connectivity.
- EQA is another hurdle for POC quality testing, and existing and new EQA programmes are being investigated for HIV testing platforms. The CD4 and Hb current NHLS programme and materials were found suitable for POC nurse-operated testing; however, chemistry analytes will need some modification from wet to dry chemistry testing formats for use of the current material and programme.

## Tuberculosis (TB)

The second main focus area of the NPP is TB, and has been coordinated together with the National TB Reference Laboratory at the NICD. The main objectives include the implementation of an assay within the NHLS to ensure rapid diagnosis of TB. For this purpose, the GeneXpert system was chosen. To facilitate and assess the feasibility of rapid national implementation of the GeneXpert to NHLS laboratory sites across nine provinces, the NPP Unit assisted with the following developments:

- Training: 54 laboratory technicians received training on the Xpert MTB/RIF assay based on developed training material.
- Verification: a novel programme for verification specific to the Xpert MTB/RIF assay (based on dried culture spots [DCS]) was developed and successfully implemented at all 25 NHLS sites where the GeneXpert systems (n=30) were placed. This first phase of implementation showed the DCS were suitable for this programme and all 286 modules were verified fit for clinical use. Stability of the DCS and design for use in an EQA programme is on-going

Rapid diagnosis of TB using the Xpert MTB/RIF assay was endorsed in December 2010 by the WHO as the initial test used to diagnose TB. This assay was validated on 311 participants (70% HIV-positive) sputa and compared to existing technologies.

A second phase in the GeneXpert implementation involves introduction of the Xpert MTB/RIF assay at primary healthcare clinics to ensure a smooth transition from laboratory testing to POC testing. Several aspects to this project are:

- Clinic site readiness assessments: four clinics in the Motlosana sub district region and 14 clinics in Region F of Johannesburg, have been evaluated to assess the availability of clinic resources. Two GX clinics at Helen Joseph Hospital and Witkoppen were established and GX implemented and verified using the DCS programme developed by the group.
- Training: ~21 clinic POC nurses were trained on the Xpert MTB/RIF assay. Further training is underway and on-site test witnessing will commence once sites are fully established.
- Information technology solutions for GX implementation: A custom Microsoft windows form application is being developed to assist in clinic data management and capturing of results for the GeneXpert system. A second application development is being investigated to automate the sending of results and error codes for monitoring and surveillance to central locations from clinic sites that currently are not connected to the NHLS LIS reporting infrastructure.



Minister of Health: Aaron Motsoaledi preparing a sputum sample using GeneXpert in KZN on World TB day.

# Regional Laboratory Services



## Regional Laboratory Services: Central Region



### Executive Manager

*Mr Siphon Mahlati*

The Central Region encompasses the greater part of Gauteng (except Pretoria West), Free State and Northern Cape provinces. The region has three tertiary laboratories with links to and relations with the universities of the Witwatersrand and Free State.

### Diagnostic services

#### New tests

New tests were developed by the laboratory at Charlotte Maxeke Johannesburg Academic Hospital during the year to enhance capacity for clinicians to diagnose and manage patients.

These include:

- Semi-quantitative ketones used to measure ketones in whole blood rather than in serum or plasma;
- Fluorescence in situ hybridisation for diagnosing cell carcinoma of the bladder, synovial carcinoma and rhabdomyosarcoma;
- Microarray molecular testing method for diagnosing chronic lymphocytic leukaemia

using ASNP6 and A250k resolutions;

- Genetic sequencing test for diagnosing gastro-intestinal stromal tumour; and
- An automated syphilis method for diagnosing syphilis.

#### CD4 test volumes

The total number of CD4 specimens processed in the region during the reporting year was 1,048,940, 10% more than the previous year. This increase is attributed to the launch early in 2010 by the national Minister of Health of the HIV Counselling and Testing (HCT) programme. The provincial picture shows that Gauteng, Free State and Northern Cape provinces had a 14%, 9% and 10% increase, respectively, in CD4 specimens processed. The turnaround time for Gauteng province increased from 24 to 28 hours which is a concern, and plans to improve this inefficiency have been developed. In the Free State and Northern Cape CD4 processing turnaround times decreased from 36 to 32 and 60 to 42 hours, respectively. The developed plan is also addressing improvement in these two provinces.

#### Viral load performance

The total specimens processed for viral load during the reporting year is 383,670 which is an overall 4% decrease compared to the previous year. The decrease is only observed in Gauteng province with 10%, while the Free State and Northern Cape showed a 20% and 1% increase, respectively. The test processing turnaround time for Gauteng and Free State provinces improved by 50%, from six to three days, and 10 to five days, respectively, while in the Northern Cape a decrease from 12 to seven days was recorded.

#### HIV polymerase chain reaction (PCR) performance for neonates

The total number of specimens processed on HIV PCR for neonates during the reporting period was 84,922 which is a 12% increase on the previous year. This shows a gradual improvement in the coverage of neonates born to HIV-positive mothers. The turnaround time for these tests improved from six to four days in the

Free State, seven to three days in both Gauteng and Northern Cape. This achievement in Northern Cape is appreciated as the province is vast and sparsely populated making the cost of transportation of specimens very high.

## Cervical screening

The total number of cases processed during the reporting period was 20,591 which is 15% more than the previous year. The province that showed the highest increase is Gauteng with 19% followed by Northern Cape with 4%, while Free State had a concerning decrease of 3%. All the provinces in the region have failed to achieve their set targets for the cervical screening programme. These specimens are processed in two laboratories only, one in Bloemfontein and the other in Johannesburg. The turnaround time for the laboratory in Bloemfontein deteriorated from 10 to 12 days for Free State samples and from 11 to 14 days for Northern Cape samples, while the Gauteng province improved from 29 to 14 days.

The rate at which inadequate and unsuitable smears are taken by health facilities is a matter of concern as this continues despite the efforts the NHLS has made to ensure that clinic nurses and clinicians are properly trained. The major problem is the high turnover of staff in these health facilities.

## Tuberculosis performance

The total number of TB samples processed during the reporting year was 1,152,077 which is an increase of 9% over the previous year. The province that showed the highest increase is the Northern Cape with 12%, followed by the Free State with 11% and Gauteng with 8%.

## Service delivery

### Specimen transportation

All health facilities in the region are now 100% covered on a daily basis except in instances, particularly in the far Northern Cape, where there is no need to visit the facility daily, specific courier collection days were suggested.

Transportation of specimens has been restructured so that results can be delivered to the health facility within 24 hours. This strategy has improved turnaround times significantly with a positive impact on patient management and care.

## Turnaround time for results

Turnaround times have significantly improved, particularly on priority programme tests. The turnaround time for these tests is influenced by type of testing platforms used where the platform can only accommodate a particular number of samples per batch. The turnaround time for TB tests in the Free State has improved from 21 hours to 15 hours, in Gauteng from 14 to 12 hours and in the Northern Cape from 27 to 16 hours. The improved performances took place against the back-drop of a workload increase. Credit goes to the staff who worked tirelessly to ensure that the NHLS delivers on these priority targets.

## Staff and training

The region inducted 60 student medical technologists, 40% of whom passed their examinations. Student medical technicians had an 80% pass rate. All students who passed were absorbed into the system. The region has the highest number of pathology registrars.

## Quality assurance and accreditation

All tertiary laboratories are accredited. The regional laboratories have demonstrated a significant improvement in functional audit assessments where systems in the laboratories are confirmed, or found not to be of good standard.

## New laboratory

The NHLS has moved into the laboratory facility of the new hospital in Vryburg in the North West. Laboratory services will be expanded so that the entire Ruth Mompoti district benefits.

## Regional Laboratory Services: Coastal Region



### Executive Manager

*Mr Patrick Lucwaba*

The Coastal Region encompasses the Western and Eastern Cape provinces. The region has three tertiary laboratories with links to and relations with the universities of Cape Town, Stellenbosch and Walter Sisulu.

### Diagnostic services

#### New tests

The following new molecular based tests have been introduced by various divisions in the academic hospitals:

- Short tandem repeat analysis to monitor bone marrow engraftment following allogeneic stem cell transplantation;
- FLT3 D835/839 point mutation detection for prognostication of acute myeloid leukaemia;
- A polymerase chain reaction facility to aid in the early diagnosis of tuberculosis (TB) was completed. This facility now significantly reduces the time to confirm a diagnosis of TB infection, and to screen for resistance to first line agents. The facility is also used to validate

commercial molecular assays and to design and optimise in-house assays for possible implementation into routine diagnostic services during 2011;

- The specialist molecular diagnostic laboratory added gene sequencing for an additional four genes, namely the androgen receptor, 5-alpha reductase, thymidine kinase 2 (TK2) and glutathione synthetase. In addition, a high throughput/low cost molecular method was developed for screening for high prevalence mutations in both the glutaryl CoA dehydrogenase and galactose-1-phosphate uridyl transferase genes using dried blood spots.

### Comprehensive Care, Management and Treatment Programme

CD4 test volumes continued to increase due to the antiretroviral (ARV) roll-out. The numbers of HIV viral load and HIV PCR requests declined slightly (by approximately 5% each); however, genotypic HIV resistance tests were done, which offset the test decline.

### Tuberculosis

Apart from primary research initiated by members of staff, the diagnostic laboratories provide a service to others engaged in clinical research. During the course of 2010/ 2011, the TB laboratory ran 30 trials, 12 of which commenced during this period. In the course of the trials, the TB laboratory has developed expertise in a range of different laboratory techniques. The GeneXpert test was performed for a number of trials, evaluating its performance in a variety of settings including paediatric TB and screening for TB. A pilot project to implement the GeneXpert was coordinated in the Eastern Cape, supported by the national Department of Health (DoH via the Eastern Cape DoH), with four machines having been placed in laboratories. Further roll-out resulted in an additional three machines allocated to the Western Cape. In some TB laboratories, the Hain *MTBDRplus* assay continues to be used for rapid identification of positive cultures and for genotypic drug susceptibility testing with significantly improved turnaround times.

For differentiation of members of the *Mycobacterium tuberculosis* complex (specifically *M. bovis* BCG), the Hain assay has been adopted, rather than the in-house multiplex PCR. The advantage of the Hain assay is that it is a standardised commercial test.

## Cervical screening

Cervical cytology smears had a steady year-on-year increase of between 2-5%. The Eastern Cape showed a concerning decline of cervical smears, while the Western Cape showed an upsurge, contributing significantly to the increase in workload. Cytology is both a screening and diagnostic service and it is critical that quality is maintained. All cytology laboratories subscribe to the external quality assurance programme of the Royal College of Pathologists of Australia. Most of the laboratories achieved between 85-100% in the programme. In view of the large number of inadequate cervical smears received by the laboratories, training of nurses and clinicians has been undertaken. An alternative smear-taking technique, i.e. liquid-based cytology, is in the process of evaluation and preliminary results show a marked improvement in the adequacy rates at Tygerberg Hospital where the pilot is taking place.

## Other tests

The 2010 influenza season was relatively mild, with fewer respiratory samples being tested as part of the national Viral Watch programme.

Almost 10,000 serum specimens were tested as part of the HIV and syphilis annual antenatal survey.

To respond to the measles epidemic in the region, a diagnostic measles PCR was set up to assist in the diagnosis of complicated cases. Nine cases of sub-acute measles encephalitis were identified, with all confirmed cases identified in HIV-infected individuals with low CD4 counts.

An in-house PCR assay was set up to diagnose parechovirus, a picornavirus recently recognised as an important cause of disease in young infants. A wide range of infant samples was tested to determine its prevalence in our population. Parechovirus was most commonly detected in infant respiratory samples. It

was the most common viral isolate found in infants with sudden infant death syndrome (SIDS), detected in four of 24 cases in the past year. SIDS infants are routinely screened for common respiratory viruses and enteroviruses. These findings suggest that parechovirus could be a significant infant pathogen. An in-house multiplex PCR assay to detect both enteroviruses and parechoviruses is being validated. This will be made available as a routine diagnostic test in the near future.

## Service delivery

Turnaround time has been a strong focal point over the last financial year and a special effort has been made to shorten the turnaround times for key diagnostic tests such as HIV viral load and HIV PCR results through restructuring and multi-task training. Currently, 94.92% of HIV viral load samples are resulted within 96 hours and 98.37% for HIV PCR in the same time. Efforts to improve further are ongoing. The quest of shortening facility-to-facility turnaround time necessitated increasing the capacity of the network of courier services, among others. Couriers now reach all facilities for collection of specimens and delivery of results on a daily basis. As a result, remarkable improvements in turnaround times for the priority programmes have been noted.

## Staff and training

To assist in the provision of phlebotomy services, more student phlebotomy technicians have been appointed. Lectures for the students continued in both the Eastern and Western Cape with the assistance of the pathologists who are providing these as part of their outreach programme. As technical competence impacts on improved turnaround times, several in-house practical courses in TB microscopy, differential counting, anti-microbial susceptibility testing, parasitology and mycology were presented.

During the period under review, 37 laboratory assistants graduated, with a pass rate of 90%; 34 medical technicians passed the HPCSA Board exams in October 2010 and were deployed in needy institutions throughout the region, while 25 medical technologists passed the HPCSA Board exams in March and were placed in grossly under-resourced laboratories.

## Quality assurance and accreditation

The number of SANAS-accredited laboratories in the region now stands at 25. These are mainly in the academic centres, all disciplines at Groote Schuur and Tygerberg hospitals, and in the large regional laboratories such as Greenpoint, Port Elizabeth and East London. As preparation for further accreditation roll outs, introductory and advanced courses on quality management and auditing systems were presented to more than 100 staff members.

## Laboratory upgrades

In the Western Cape, the new anatomical pathology laboratory at Groote Schuur Hospital was completed in July 2010. The new facility provides high quality, efficient

diagnostic services in a safe laboratory environment. Karl Bremer Hospital laboratory was rehabilitated into a modern state-of-the-art facility, by the DoH as part of their Revitalisation and Rehabilitation programme. The Helderberg laboratory was relocated to a more spacious and refurbished facility.

A mobile laboratory has been donated by German Fraunhofer in a partnership between the Western Cape DoH, NHLS and the University of Stellenbosch. This mobile laboratory is filling a gap by rendering laboratory services in the Caledon district.

In the Eastern Cape, St Lucy's Hospital laboratory was re-built as part of the hospital revitalisation programme of this province. In Matatiele, a new Parkhome mobile laboratory with more space and modern facilities was purchased and commissioned.



## Regional Laboratory Services: KwaZulu-Natal Region



### Executive Manager

*Ms Nelly Mkhize*

The KwaZulu-Natal region has two tertiary laboratory complexes with links to and relations with the University of KwaZulu-Natal.

### Diagnostic services

During the reporting period, the region performed a total of 27,053,352 tests, an increase of 9% over the previous financial year's test volumes. A new TB microscopy laboratory was opened at KwaMsane clinic in Umkhanyakude district.

New technology with high throughput capabilities was acquired for CD4 and viral load testing. This has enabled the region to manage the increasing workload without impacting on staff numbers. Viral load testing was introduced at Hlabisa, Madadeni and Addington laboratories, increasing testing sites to a total of six laboratories compared to three during the previous financial year. The region has sufficient capacity to cater for expansion of the Comprehensive Care, Management and Treatment Programme services

### Service delivery

The region boasts a number of accomplishments during the reporting period. These achievements contributed to the improvements noted in the turnaround times across the region. These included the following:

- The implementation of a new courier service from clinics to laboratories in August 2010. This resulted in an achievement of 100% daily coverage for all clinics in the province.
- The implementation of TrakCare Lab laboratory information system (LIS) was completed for all laboratories including Inkosi Albert Luthuli Central Hospital.
- A total of 381 SMS printers were installed at clinics across the province to facilitate delivery of TB microscopy, CD4 and HIV PCR results.
- The TB GeneXpert Infinity 48 analyser was installed and unveiled at Prince Mshiyeni laboratory by the Minister of Health on World TB Day on 24 March 2011. Two GeneXpert 4 instruments were installed at KwaMashu and Tongaat clinics. This new technology significantly improves turnaround time for detection of TB to two hours.

- A specimen tracking project aimed at tracking the collection of specimens and delivery of results back to the clinics was rolled out to all clinics in the KwaZulu-Natal. This will enable the region to monitor total clinic-to-clinic turnaround times, identify gaps and action required improvements. The system will be fully functional in June 2011.
- Messenger and phlebotomy services were introduced at regional laboratories and large district laboratories.
- Significant progress was noted on the planning of the Core Laboratory Project. A proposal has been tabled to senior management for consideration and presentation for Board approval.

Customer satisfaction remained a top priority for the region. The results of the annual customer satisfaction survey for the 2010/11 financial year yielded 61% - an improvement of 10% from the previous reporting period.

### Staff and training

A shortage of technical skills had a significant impact on the region's ability to achieve the desired turnaround times in cervical screening. Implementation of the liquid-based cytology pilot is at an advanced stage and it is anticipated that this will address future shortages of cytotechnologists, as it is considered to enable faster screening compared to the conventional method.

The pass rate of intern medical technologists improved from 79% the previous year to 81% in 2010/11. Medical

technicians' pass rate was 69% while that of student laboratory assistants was 83%.

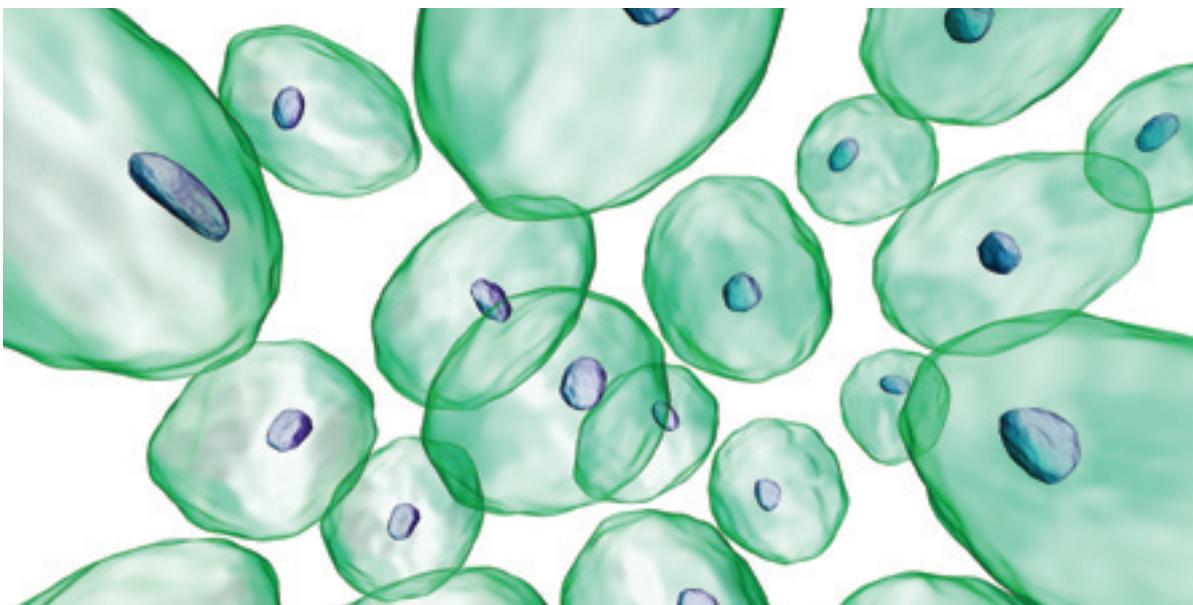
### Accreditation

The region performed poorly with regard to accreditation of laboratories within the region. This was as a result of workflow processes that were reconfigured during the implementation of TrakCare Lab LIS. Laboratories had to adapt to the new environment and review policies to be aligned to the automated process. The accreditation schedule was revised and new targets established. By year end, the nine laboratories at Inkosi Albert Luthuli Central Hospital and King Edward Hospital were in various phases of preparing for SANAS accreditation with 90% progress in the Virology Department.

### New laboratories and laboratory upgrading

The challenges of space constraints were addressed through acquisition of mobile laboratories (Parkhomes) and upgrading of existing facilities. Mobile laboratories were procured and installed at Montebello, St Appolinaris, Taylor Bequest, Benedictine, Church of Scotland and Niemeyer.

Upgrades and renovations were completed for the following laboratories: Edendale, St Mary's, Eshowe, Emmaus, Ladysmith, Ekhombe, Stanger, King Edward and Vryheid.



## Regional Laboratory Services: Northern Region



### Executive Manager

*Mr Jone Mofokeng*

The Northern Region encompasses Limpopo, Mpumalanga and North West provinces as well as the Pretoria West area of northern Gauteng. The region has two tertiary laboratories with links to and relations with the universities of Pretoria and Limpopo.

### Diagnostic services

#### National Priority Programmes

The region showed growth in CD4 and HIV PCR test volumes. This could be partially attributed to the HIV Counselling and Testing campaign launched by the national Department of Health. CD4 and HIV PCR volumes increased by 10% and 8%, respectively, as compared to the previous financial year. Cervical cancer screening tests have increased by 11%.

However, the viral load and TB microscopy tests decreased by 11% and 4%, respectively, as compared to the previous financial year. The decrease in viral load testing is attributed to change in testing protocols by the Department of Health. A viral load test is now required only once a year instead of twice as per previous protocol. The decrease in TB microscopy

tests could be attributed to the introduction of TB PCR (line probe assay [LPA]) testing. One sputum specimen instead of two is needed for LPA testing. LPA testing was introduced in August 2010 in the Dr George Mukhari microbiology laboratory and has improved the reporting of TB drug sensitivity testing (DST) from an average of 78 days to just under seven days. Ermelo laboratory became the first non-academic laboratory in the NHLS to introduce TB PCR testing. This introduction also improved the TB DST in Ermelo laboratory.

The region participated in a national Department of Health initiative to install GeneXpert instruments and implement decentralised TB PCR testing. The test helps to detect multidrug-resistant cases early and initiate treatment immediately. Tshepong laboratory in North West received one of these instruments. In Limpopo, the instruments were installed in Giyani, Namakgale, CN Phatudi and Tzaneen laboratories. In Mpumalanga, the instruments were installed in Ermelo, Evander and Standerton laboratories.

The viral load testing platform was changed and awarded to two suppliers, Roche and Abbott Diagnostics. The new platforms are more automated

and improve on quality and turnaround time. CD4 testing instruments were also upgraded to more automated instruments.

A Roche pre-analytical system, as part of automation, was installed in Nelspruit laboratory. The archive capability of this instrument has improved the in-lab specimen tracking, resulting in quicker responses to queries.

## Service delivery

The region continued concentrating mainly on national priority/vertical programmes as well as primary healthcare to improve NHLS service to the Department of Health. Daily collection from the clinics was maintained at 99.6%. North West, Mpumalanga and Gauteng provinces' clinics (100%) were visited daily for specimen collection and delivery of results. Ninety eight percent of Limpopo clinics were visited daily.

The region began increasing the frequency of collection to some clinics with a high volume of work to twice a day and Saturday collections in all provinces: in Mpumalanga 22 clinics and in North West 32 clinics are serviced twice a day and collections are carried out at 48 clinics on Saturdays.

The region, through the executive manager, business and laboratory managers, participated and interacted with the clients at all levels. In these forums, statistics and information was shared. The region also availed pathologists from the academic centres for outreach programmes to interact with clinicians in rural areas.

The cytology coordinator conducted training to nurses in all the provinces on specimen collection to improve the quality of smears and reduce the inadequacy rates.

The region appointed a field epidemiologist who has collaborated with provincial authorities to investigate and report on a number of outbreaks including food-borne illness among funeral attendees in Vhembe district, Limpopo. The epidemiologist works as an extended arm of the NICD.

As a result of the interactions and interventions, clients have shown confidence as indicated in the Customer Satisfaction Index, which showed an improvement from 62.5% to 67.9%. All the provinces showed improvement with Limpopo being the most improved at 70%.

## Staff and training

The staff complement grew from 1,262 to 1,298 (3%) during this financial year. Besides resignations and transfers the region gained 36 more staff. The staff gained comprises mainly student technologists and technicians, as well as registrars.

The region qualified 41 technologists, 25 technicians and five pathologists during the 2010/2011 financial year and almost all were retained within NHLS. Although the percentage pass rate has not improved very much, the region managed to qualify 10 more technologists than the previous year.

In an effort to improve the student medical technology pass rate, the region took a strategic decision to centralise training. Tshwane Academic Division and Dr George Mukhari as academic centres were identified as the training sites. After successful completion of their training, the students will be placed in the regional laboratories.

## Accreditation

Both academic institutions - Tshwane Academic Division and Dr George Mukhari Hospital - maintained their full accreditation by SANAS. Polokwane laboratory maintained its SANAS accreditation in the biochemistry and haematology departments.

## New and upgraded laboratories

George Stegman laboratory in North West was closed and relocated to a new hospital as Moses Kotane laboratory. Two mobile laboratories were placed at Groblersdal and Mokopane, respectively, to address the space challenges at those sites. Nelspruit laboratory was renovated through the hospital revitalisation plan.



# Group Annual Financial Statements for the year ended 31 March 2011

## General Information

<b>Country of incorporation and domicile</b>	South Africa
<b>Registered office</b>	1 Modderfontein Road Rietfontein Sandringham Johannesburg 2000
<b>Postal address</b>	Private Bag X 8 Johannesburg 2131
<b>Bankers</b>	First National Bank Ltd Nedbank Ltd
<b>Independent Auditors</b>	Gobodo Incorporated Chartered Accountants (S.A.)
<b>Internal Auditors</b>	Deloitte & Touche
<b>Attorneys Bowman</b>	Bowman Gilfillan Attorneys Cliffedekker Hofmeyr Eversheds
<b>Website</b>	<a href="http://www.nhls.ac.za">www.nhls.ac.za</a>
<b>Company practice number</b>	PR5200296



# Group Annual Financial Statements for the year ended 31 March 2011

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The following supplementary information does not form part of the group annual financial statements and is unaudited:

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# Group Annual Financial Statements

## for the year ended 31 March 2011

### Statement of responsibility and approval of the financial statements

The Accounting Authority is required by the Public Finance Management Act (Act 1 of 1999)(as amended by Act No.29 of 1999)(PFMA), to maintain adequate accounting records and is responsible for the content and integrity of the economic entity's consolidated annual financial statements and related financial information included in this report. It is the responsibility of the Accounting Authority to ensure that the economic entity's consolidated annual financial statements fairly present the state of affairs of the entity as at the end of the financial year and the results of its operations and cash flows for the period then ended. The external auditors are engaged to express an independent opinion on the economic entity's annual financial statements and was given unrestricted access to all financial records and related data.

The economic entity's annual financial statements have been prepared in accordance with Statements of Generally Recognised Accounting Practice (GRAP) as issued by the Accounting Standards Board and Statements of South African Generally Accepted Accounting Practice (SA GAAP) where statements of GRAP are not yet effective. The economic entity's annual financial statements have been prepared using the accrual basis of accounting.

The economic entity's consolidated annual financial statements are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgements and estimates.

The Board members acknowledge that they are ultimately responsible for the system of internal financial control established by the economic entity and place considerable importance on maintaining a strong control environment. To enable the members to meet these responsibilities, the accounting authority sets standards for internal control aimed at reducing the risk of error or deficit in a cost effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk. These controls are monitored throughout the economic entity and all employees are required to maintain the highest ethical standards in ensuring the economic entity's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the economic entity is on identifying, assessing, managing and monitoring all known forms of risk across the economic entity. While operating risk cannot be fully eliminated, the economic entity endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The Board members are of the opinion, based on the information and explanations given by management and by the entity's internal and external auditors, that the system of internal control provides reasonable assurance that the financial records may be relied on for the preparation of the economic entity's consolidated annual financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatement or deficit.

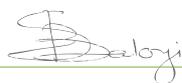
The Board members have reviewed the economic entity's cash flow forecast for the year to 31 March 2012 and, in the light of this review and the current financial position, they are satisfied that the economic entity has or has access to adequate resources to continue in operational existence for the foreseeable future.

## Group Annual Financial Statements for the year ended 31 March 2011

### Approval of Annual Financial Statements

The external auditors are responsible for independently reviewing and reporting on the economic entity's consolidated annual financial statements. The economic entity's annual financial statements have been examined by the economic entity's external auditors and their report is presented on page 74.

The economic entity's consolidated annual financial statements set out on pages 77 to 139, which have been prepared on the going concern basis, were approved by the Accounting Authority in terms of section 51(1)(f) of the PFMA on 31 July 2011 and were signed on its behalf by:



**Sesi Baloyi**

Chairperson



**Sagie Pillay**

Chief Executive Officer

# Group Annual Financial Statements for the year ended 31 March 2011

## Audit & Risk Committee Report

We are pleased to present our report for the financial year ended 31 March 2011.

### Audit & Risk Committee members and attendance

The Audit and Risk Committee (hereafter referred to as the Committee) consists of the members listed hereunder and should meet 4 times per annum as per its approved terms of reference. During the current year 4 meetings were scheduled and held. The Committee confirms that it discharged its responsibilities in terms of the National Health Laboratory Service (hereafter referred to as NHLS) Audit and Risk Committee Charter.

Name of member	Scheduled meetings	Number of meetings attended
Ronald Moyo (Chairperson)	4	4
Malcolm Brown	4	4
John Coates*	4	4
Andre Venter*	4	3
Mariaan Malherbe	4	3
Goolam Manack	4	3
Nozuko Yokwana*	4	1
Vincent Dlamini**	4	1
Litha Matiwane**	4	2

\* Member resigned / retired

\*\* Member newly appointed. For dates refer to Accounting Authority report.

### Audit and Risk Committee responsibility

We report that we have adopted appropriate formal terms of reference in our charter in line with the requirements of section 55(1)(a) of the PFMA and Treasury Regulation 27.1. We further report that we have conducted our affairs in compliance with this charter.

### The effectiveness of internal control

We have reviewed various reports prepared by the internal and external auditors, on the adequacy and effectiveness of internal control systems as well as on the annual financial statements. The Committee is satisfied that internal control systems and governance practices have been put in place.

However, certain deficiencies were noted in the adherence thereto with specific reference to General notice 1111 of 2010, issued in Government Gazette 33872 of 15 December 2010. The Committee has satisfied itself that management is taking appropriate steps to remedy these deficiencies. Furthermore, the Committee is not aware of any material losses that occurred as a result of the noted deficiencies.

## Group Annual Financial Statements for the year ended 31 March 2011

We are satisfied with the content and the quality of in year management and monthly/quarterly reports which were submitted in terms of the PFMA and the Division of Revenue Act.

The responsibility for risk management resides with management at all levels. Risk management is embedded throughout the organisation, from members of the Board to all employees. The approach followed by NHLS is to ensure that all significant risks are identified and managed.

NHLS have a dedicated Risk Officer to co-ordinate the implementation of its risk management philosophy and strategy as approved by the Board. The Board continues to discharge its responsibility through its Audit and Risk Committee and ensures that risk management is a standing item for discussion at each scheduled Board meeting.

### Evaluation of Economic entity annual financial statements

The Committee has:

- Reviewed and discussed the audited group annual financial statements to be included in the annual report, with the external auditors and the Accounting Officer;
- Reviewed the external auditors' management letter and management's response thereto;
- Reviewed changes in accounting policies and practices;
- Reviewed the entities compliance with legal and regulatory provisions;
- Reviewed significant adjustments resulting from the audit.

We concur with and accept the external auditors' report on the economic entity annual financial statements, and are of the opinion that the audited economic entity annual financial statements should be accepted.

### Internal audit

We are satisfied that the internal audit function is operating effectively and that it has addressed the risks pertinent to the economic entity and its audits.

### Conclusion

The Committee agrees that the adoption of the going concern premise is appropriate in preparing the annual financial statements for the 2011 period provided that the non-payment of provincial debt in respect of services rendered is addressed. The Committee has therefore recommended the adoption of the consolidated economic entity annual financial statements by the NHLS Accounting Authority at their meeting held on 21 July 2011.



**Chairperson of the Audit & Risk Committee**

31 March 2011

# Group Annual Financial Statements for the year ended 31 March 2011

## Independent Auditor's Report to the Executive Authority of the Department of Health on the National Health Laboratory Service

### Report on the Consolidated Financial Statements

#### Introduction

We have audited the accompanying consolidated and separate financial statements of the National Health Laboratory Service, which comprise the consolidated and separate statement of financial position as at 31 March 2011, the consolidated and separate statement of financial performance, statement of changes in net assets and cash flow statement for the year then ended, a summary of significant accounting policies and other explanatory information, and the Accounting Authority's report as set out on pages 77 to 139.

#### Accounting Authority's responsibility for the consolidated financial statements

The Accounting Authority is responsible for the preparation and fair presentation of these consolidated and separate financial statements in accordance with Generally Recognised Accounting Practice, the requirements of the Public Finance Management Act of South Africa and Companies Act of South Africa, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

Our responsibility is to express an opinion on these consolidated and separate financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated and separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated and separate financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated and separate financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated and separate financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

# Group Annual Financial Statements for the year ended 31 March 2011

## Opinion

In our opinion, the consolidated and separate financial statements present fairly, in all material respects, the financial position of the National Health Laboratory Service and its subsidiaries as at 31 March 2011, and their financial performance and cash flows for the year then ended in accordance with Generally Recognised Accounting Practice, South African Statements of Generally Accepted Accounting Practices, the requirements of the Public Finance Management Act of South Africa and Companies Act of South Africa.

## Additional matters

I draw attention to the matters below. My opinion is not modified in respect of these matters.

## Unaudited supplementary schedules

The supplementary information set out on pages 136 to 137 does not form part of the financial statements and is presented as additional information. I have not audited these schedules and, accordingly, I do not express an opinion thereon.

## Report on Other Legal and Regulatory Requirements

In terms of General notice 1111 of 2010, issued in Government Gazette 33872 of 15 December 2010, we include below our findings on the annual performance report as set out on pages 12 to 15 and material non-compliance with laws and regulations applicable to the National Health Laboratory Service.

## Predetermined objectives

### Usefulness of information

- The Framework for the Preparation of Strategic and Annual Plans 5.3.4 Strategic outcomes oriented goals stipulates: "A strategic outcomes oriented goal should ideally be written as a statement of intent that is specific, measurable, achievable, relevant and time-bound (SMART)" Our review of the objectives, measures, and targets on the Annual and Strategic Plans in relation to the SMART principle, highlighted various issues where the indicators were not well defined, not time bound and not measurable.

## Compliance with laws and regulations

### Treasury Regulations

#### Non-adherence to legislation

- Contrary to the requirements of Treasury Regulations 8.2.3, payments due to creditors were not made within 30 days from receipt of invoice.
- The Accounting Authority did not submit the proposed strategic plan to the executive authority for approval at least six months before the start of the financial year of the designated department, or another time period as agreed to between the executive authority and the public entity in contravention with the requirements of Treasury Regulations 30.1.1.

## Group Annual Financial Statements for the year ended 31 March 2011

- The Accounting Authority did not establish procedures for quarterly reporting to the executive authority in order to facilitate effective performance monitoring, evaluation and corrective action as required by Treasury Regulations 30.2.1.

### National Health Laboratory Service Act No. 37 of 2000

- Non-adherence to legislation  
As indicated in note 8 of the Accounting Authority's report the entity did not have a fully constituted board of directors as a result of certain vacant positions stipulated in section 7 of the NHLS Act No. 37 of 2000.

## Internal Control

In terms of General notice 1111 of 2010, issued in Government Gazette 33872 of 15 December 2010, we considered internal control relevant to our audit, but not for the purpose of expressing an opinion on the effectiveness of internal control. The matters reported below are limited to the significant deficiencies that resulted in the basis for opinion, the findings on the annual performance report and the findings on compliance with laws and regulations included in this report.

### Leadership

#### Oversight responsibility regarding reporting and compliance

- The Accounting Authority does not exercise oversight responsibility over reporting and compliance with sections 8.2.3, 30.1.1 and 30.2.1 of the National Treasury regulations relating the timeframe for payment of creditors, timeframes for submission of the strategic plan to the executive authority for approval and the establishment of procedures for quarterly reporting to the executive authority respectively.
- Actions are not taken to address risks relating to the achievement of complete and accurate performance reporting.

#### Financial and performance management

- Pertinent information is not identified and captured in a form and time frame to support performance reporting.
- The financial statements and performance information were subject to material amendments resulting from the audit.

### Governance

- Corrective action has not been taken in a timely manner to resolve internal control deficiencies.

*Gobodo Incorporated*

**Gobodo Incorporated**

Director: N. Moodley

Registered auditor

31 July 2011, Johannesburg

# Group Annual Financial Statements for the year ended 31 March 2011

## Report of the Accounting Authority

The Accounting Authority (Board) submits their report for the year ended 31 March 2011.

### 1. Statement of Commitment

The Accounting Authority is committed to business integrity, transparency and professionalism in all its activities. As part of this commitment, the Accounting Authority supports the highest standards of corporate governance and the ongoing development of best practice.

### 2. Review of activities

#### Business and operations

The NHLS, was established on 1 October 2001 in terms of the National Health Laboratory Service Act 37, 2000, and provides the following services:

1. Cost effective and efficient health laboratory services to:
  - I All public sector health care providers;
  - II Any other government institution inside and outside the Republic that may require such services;
  - III Any private health care provider that requests such services;
2. Supporting health research; and
3. Training for health science education.

NHLS was established to assume all the operations and businesses of the various state-owned laboratories into a single public entity.

#### Financial Results

The operating results and state of affairs of the entity are fully set out in the attached economic entity annual financial statements and do not in our opinion require any further comment.

During the past financial year the NHLS has put in place cost-containment measures to counter the affects of the local and international recessions and the burden of diseases. At the same time customer service has been the focal point of the NHLS' strategy to deliver a professional service and to maximise health-care delivery to the nation.

### 3. Going Concern

The economic entity consolidated annual financial statements have been prepared on the basis of accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations, and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business. This specifically assumes that the debt owed by all provinces will be settled timeously.

# Group Annual Financial Statements for the year ended 31 March 2011

## 4. 2010 FIFA Soccer World Cup

The economic entity incurred no expenditure in respect of the 2010 FIFA Soccer World Cup.

## 5. Subsequent events

The Accounting Authority is not aware of any matter or circumstance arising since the end of the financial year, not otherwise dealt with in the report, or group annual financial statements, that would affect the operations of the economic entity or the results of those operations significantly .

## 6. Change in Accounting policies

There has been a change in accounting policy relating to Land and Buildings during the prior year. The full impact of the change has been detailed in note 33.1.

## 7. Stated Capital

There were no changes in the authorised or issued share capital of the economic entity during the year under review.

## 8. Borrowing limitations

In terms of the NHLS rules, the Board members may exercise all the powers of the economic entity to borrow money, in accordance with the PFMA, as they consider appropriate.

## 9. Non-compliance with legal and regulatory requirements

### General notice 1111 of 2010, issued in Government Gazette 33872 of 15 December 2010

Appropriate measures are currently being taken to ensure that the objectives, measures and targets on the Annual and Strategic Plans are well defined, time-bound and measurable.

### NHLS Act No.37 of 2000

At the date of this report, the ownership of land and buildings has not been transferred in to the name of the NHLS as required by the NHLS Act. Currently the Accounting Authority has taken all appropriate measures to ensure the transfer process is effected by the Department of Public Works.

In respect of position vacancies at board-level, only the Minister of Health can appoint members. Vacancies are in the process of being filled.

# Group Annual Financial Statements for the year ended 31 March 2011

## Treasury Regulations

Treasury regulation 8.2.3 stipulates that payments due to creditors should be paid within 30 days from receipt of invoice. Efforts to comply with this regulation have been hampered by poor debt collections brought about by the NHLS' customers inability to honour their debts. The NHLS continues to engage with its customers to ensure that it has the ability to meet its own financial obligations.

In respect of Treasury regulation 30.1.1 which requires the Accounting Authority to submit a strategic plan to the executive authority for approval at least 6 months before the start of the financial year, management have already instituted corrective measures to ensure compliance.

The Accounting Authority has taken measures to ensure adherence to Treasury regulation 30.2.1 ensuring quarterly reporting to the Executive Authority is made which will facilitate performance reporting, evaluation and corrective action.

## 10. Accounting Authority

The Board is appointed by the Minister of Health. It is noted at the date of the report, the Board is not fully constituted in terms of Section 7 of the NHLS Act which stipulates that the Board comprise 20 member representatives. In terms of Section 9 of the NHLS Act, the Minister of Health has appointed a chairperson and vice-chairperson. During the current financial year, the 12 representatives of the Board constitute a quorum as stipulated in terms of section 11 of the NHLS Act.

Presently, 10 vacancies exist namely, the Representative for Organised Labour, the Representative for the Department of Science and Technology, the Representative for the National Department of Health, the Representative for Western Cape Province, the Representative for the Council for Higher Education: Universities of Technology, the Representative for the Free State Province, the Representative for the Northern Cape Province, the Representative for the Gauteng Province, the Representative for the North-West Province and the Representative for Community Development.

## Group Annual Financial Statements for the year ended 31 March 2011

The members of the entity during the year and to the date of this report are as follows:

Name	Representing	Date of appointment/ re-appointment	Date of resignation /retirement
Sesi Baloyi	Chairperson representing the Minister of Health	June 2008	
Ralph Mgijima	Vice-Chairperson representing the Minister of Health	June 2008	
Sagie Pillay	Chief Executive Officer	December 2008	
Andre Venter	National Department of Health	January 2008	January 2011
John Coates	Western Cape Province	January 2008	January 2011
Adriaan Sturm	Council for Higher Education: Universities	December 2008	
Nanette Smith	Council for Higher Education: Universities of Technology	August 2007	August 2010
Sylvia Khokho	Free State Province	January 2008	January 2011
Jonathan Mallet	Northern Cape Province	January 2008	January 2011
Nokuphila Mazamisa	Gauteng Province	August 2007	August 2010
Jake Ntjana	North-West Province	July 2007	July 2010
Sibongile Shezi	KwaZulu-Natal Province	July 2008	
Nozuko Yokwana	Public Nomination: Community Development	January 2008	January 2011
Antonette Richardson	South African Local Government Association	August 2009	
Mninawa L Matiwane	Eastern Cape Province	November 2009	
Thokozani Mhlongo	Mpumalanga Province	July 2009	
Yogan Pillay	National Department of Health	June 2009	
Ronald Moyo	Public Nomination: Finance	December 2009	
Mariaan Malherbe	Limpopo Province	December 2009	
Gregory Hussey	Public Nomination: Research	December 2009	

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 11. Member and executive managers emoluments - R'000s

Economic Entity								
	Salary fee	Bonus Payments	Retirements contribs	Medical Contribs	Expense Allowance	Other	Total 2011	Total 2010
<b>Non executive members</b>								
Ms Baloyi	178	-	-	-	-	2	180	275
G Hussey	92	-	-	-	-	1	93	43
R Moyo	110	-	-	-	-	4	114	214
	380	-	-	-	-	7	387	532
<b>Executive Members</b>								
J Robertson		-	-	-	-	-	-	471
S Pillay	1,626	94	143	-	-	11	1,874	1,672
	1,626	94	143	-	-	11	1,874	2,143
<b>Executive Managers</b>								
J Mofokeng	890	37	80	25	-	41	1,073	992
M Saffer (SAVP Director)	403		34	-	-		437	394
S Mahlati	1,146	57	109	-	96	8	1,416	1,319
J Van Heerden	314	-	-	-	-	-	314	-
P Lucwaba	919	33	106	-	11	8	1,077	901
K Reddy	563	-	53	32	-	-	648	-
S Michas	800	55	79	37	58	-	1,029	899
M Kistnasamy	1,074	88	114	34	108	36	1,526	1,114
D Erriah	1,557	44	-	-	-	8	1,611	1,521
N Ndebele	-	-	-	-	2	-	-	750
M Lecoge	792	20	73	21	11	-	924	566
N Mkhize	766	63	91	31	91	24	1,066	1,101
B Schoub	1,161	78	26	23	-	216	1,504	1,395
	10,385	475	765	210	449	341	12,625	10,952
<b>Total member emoluments</b>	<b>12,391</b>	<b>569</b>	<b>908</b>	<b>210</b>	<b>449</b>	<b>359</b>	<b>14,886</b>	<b>13,656</b>

# Group Annual Financial Statements for the year ended 31 March 2011

## 12. Corporate governance

### Introduction

The NHLS ensures that its processes and practices are reviewed on an ongoing basis to ensure, compliance with legal obligations, use of funds in an economic, efficient and effective manner and adherence to good corporate governance practices. Processes and practices are characterised by reporting on economic, environmental and social responsibilities. Such reporting is underpinned by the principles of openness, integrity and accountability and is an inclusive approach that recognises the importance of all stakeholders with respect to the viability and sustainability of the NHLS.

Corporate governance is concerned with structures and processes for decision making, accountability, control and behaviour beginning at the top level of the organisation. Corporate governance sets the tone for behaviour down to the lowest levels.

The NHLS in all material respects, complies with the requirements of the National Health Laboratory Service Act, 37 of 2000 (NHLS Act), the NHLS rules as aligned with recommended corporate governance practices and the PFMA.

### Role and Function of the Accounting Authority

The Board is the Accounting Authority of the NHLS in terms of the NHLS Act and PFMA.

The Board is scheduled to meet on a quarterly basis and is responsible for providing strategic direction and leadership, ensuring good corporate governance and ethics, determining policy, agreeing on performance criteria and delegating the detailed planning and implementation of policy to the Executive Management Committee (EXCO).

The Board evaluates and monitors management's compliance with policy and achievements against objectives. A structured approach is followed for delegation, reporting and accountability, which includes reliance on various Board committees. The chairperson guides and monitors the input and contribution of the Board members.

The Board has unlimited access to professional advice on matters concerning the affairs of the Economic entity, at the Economic Entity's expense. The Board has approved a Code of Corporate Practice and Conduct which includes the terms of reference which provides guidance to the Board members in discharging their duties and responsibilities.

The Board evaluates its effectiveness on an annual basis and formulates plans to mitigate any shortcomings identified by the evaluation process.

### Chairperson and Chief Executive

The Chairperson is a non-executive and independent director (as recommended by good corporate governance practices).

The roles of Chairperson and Chief Executive are separate, with responsibilities divided between them, so that no individual has unfettered powers of discretion.

# Group Annual Financial Statements for the year ended 31 March 2011

## Remuneration and Human Resources Committee

In terms of the NHLS Act, the Remuneration and Human Resources Committee (RHRC) is a committee of the Board which serves to assist it with the performance of its functions and exercising of its powers. The committee reports on employment equity, employee turnover, skills development and labour relations.

As part of the continued professional development program, the Board invites corporate governance experts as recommended by the Institute of Directors from time to time to present topical matters and latest developments in corporate governance practices.

In terms of good corporate governance practices, the RHRC has met on 5 separate occasions during the financial year.

### RHRC Member Attendance

Member	Scheduled Meetings	Meetings Attended	Date Retired
Sylvia Khoko	5	2	January 2011
Gregory Hussey	5	5	
Nanette Smith	5	2	August 2010
Sagie Pillay	5	5	
Sesi Baloyi	5	2	
Ralph Mjijima	5	2	
Sibongile Shezi	5	4	
Thokozani Mhlongo	5	2	
Mpho Lecoge	5	3	
Ronald Moyo	5	2	

## The Executive Management Committee

In terms of the NHLS Act, The Accounting Authority has appointed an Executive Management Committee (EXCO) which consists of -

- a the Chief Executive Officer, who acts as chairperson; and
- b Regional Executive Managers and Executive Managers from Support Services

EXCO is responsible for the management of the NHLS in accordance with the policy of the NHLS and assists with performance of the Accounting Authority's functions and the exercise of its powers.

In terms of good corporate governance practices, EXCO has met on 10 separate occasions during the financial year.

## Group Annual Financial Statements for the year ended 31 March 2011

### EXCO Member Attendance

Member	Scheduled Meetings	Meetings Attended	Newly Appointed	Date Retired
Sagie Pillay (chairperson)	10	9		
Devendra Erriah	10	10		
Sipho Mahlali	10	9		
Patrick Lucwaba	10	10		
Jone Mofokeng	10	10		
Nelly Mkhize	10	9		
Barry Schoub	10	6		August 2010
Mpho Lecoge	10	7		
Barry Kistnasamy	10	8		
Stelios Michas	10	9		
Nkululeko Ndebele	10	8		December 2010
Kaamini Reddy	10	7	May 2010	
Johan van Heerden	10	3	January 2011	

### The Finance Committee

The Finance Committee (FINCO) assists the Accounting Authority in fulfilling its oversight responsibilities on an ongoing basis for matters relating to the financial practices and condition of the Economic entity by reviewing the Economic entity's financial policies and procedures; keeping informed of the Economic entity's financial conditions, requirements for funds, and access to liquidity; considering and advising the Accounting Authority concerning the Economic entity's sources and uses of funds.

In terms of good corporate governance practices, FINCO has met on 6 separate occasions during the financial year.

### Finance Committee Member Attendance

Member	Scheduled Meetings	Meetings Attended	Date Retired
Andre Venter (chairperson)	6	5	January 2011
John Coates	6	6	January 2011
Mariaan Malherbe	6	5	
Jake Njana	6	3	July 2010
Nozuko Yokwana	6	0	January 2011
Ronald Moyo	6	5	

## Group Annual Financial Statements for the year ended 31 March 2011

### The Audit and Risk Committee

In keeping with Treasury Regulation 27 of the PFMA, the Board appointed an Audit and Risk Committee to assist in the discharge of its duties by reviewing and reporting on the governance responsibilities of the Board and the NHLS. The terms of reference of the Audit and Risk Committee, its duties and functions, its composition and its modus operandi have been approved by the Board.

In terms of good corporate governance practices, the Audit and Risk Committee has met on 4 separate occasions during the financial year.

### Audit and Risk Committee Attendance

Member	Scheduled Meetings	Meetings Attended	Newly Appointed	Date Retired
Ronald Moyo (chairperson)	4	4		
Malcolm Brown	4	4		
John Coates	4	4		January 2011
Andre Venter	4	3		January 2011
Mariaan Malherbe	4	3		
Goolam Manack	4	3		
Nozuko Yokwana	4	1		January 2011
Vincent Dlamini	4	1	January 2011	
Litha Matiwane	4	2		

### The National Academic and Pathology Committee

The National Academic and Pathology Committee (NAPC) has met on two separate occasions during the financial year.

The functions of the committee shall be to facilitate by formulating policy with regard to:

- the conduct of basic research in association or partnership with any tertiary educational institution;
- co-operation with persons and institutions undertaking basic research in the Republic, and in other countries, by the exchange of scientific knowledge and the provision of access to the resources and specimens available to the Service;
- the participation in joint research operations with departments of State, universities, universities of technology, colleges, museums, scientific institutions and other persons;
- co-operation with educational authorities and scientific or technical societies or industrial institutions representing employers and employees, respectively, for the promotion of the instruction and training of pathologists, technologists, technicians, scientists, researchers, technical experts and other supporting personnel in universities, universities of technology, and colleges; and
- any other matter as may be referred to the committee from time to time by the Board.

## Group Annual Financial Statements for the year ended 31 March 2011

As some of its duties, the committee shall monitor and manage the agreements entered into between the Service and each tertiary education institution, including:

- the development of policies and guidelines to determine the numbers of registrars for each discipline and the distribution of the registrar posts between the laboratories associated with each university health science faculty;
- the development of policies and guidelines to determine the numbers of technologist training posts for each discipline and the distribution of the posts between the laboratories identified for this purpose;
- proposing guidelines relating to part-time, honorary and guest appointment of employees of the Service by tertiary education institutions;
- monitor the guidelines for consultant appointments of personnel of tertiary education institutions in the Service as determined by the agreement between the Service and the universities;
- ensuring that the process of continuing professional development programmes provided by tertiary education institutions in the Service is used by Service employees to comply with Career Programme Development requirements;
- reviewing and managing arrangements for research being undertaken by tertiary education institutions in the laboratories of the Service;
- advising the executive management on matters relating to indemnity for employees of the Service or a tertiary education institution working between the facilities of both partners;
- advising the executive management committee on matters relating to discipline of personnel of the Service or a tertiary education institution working between the facilities of both partners;
- advising the executive management committee on financial matters, such as subsidies, bursaries and payment for academic related services;
- monitoring, and evaluating and managing service level agreements and performance measures;
- advising, monitoring and evaluating the resolution of disputes if they should arise;
- ensuring the integrity of the process of managing the partnerships;
- ensuring that professional ethics are adhered to; and
- ensuring that the Service complies with the requirements of the Health Professionals Council in respect of registration requirements, ethics and conduct.

# Group Annual Financial Statements for the year ended 31 March 2011

## NAPC Member Attendance

Member	Representing	Scheduled Meetings	Meetings Attended
Gregory Hussey (chairperson)	NHLS Board	2	0
Nanette Smith	NHLS Board	2	1
Sagie Pillay	Chief Executive Officer: NHLS	2	1
Kerrin Begg	Acting QA, R&D and University Relations Executive Officer: NHLS	2	2
Gert van Zyl	Free State University	2	1
Gonda Perez	Cape Town University	2	1
Herman Joubert	Limpopo University	2	2
Jos Hille	Western Cape University	2	1
Adriaan Sturm	KwaZulu-Natal University	2	2
Johann Schneider	Stellenbosch University	2	2
Ronnie Anderson	Pretoria University	2	2
Ahmed Wadee	Witwatersrand University	2	2
Andrew Stepien	Walter Sisulu University for Technology and Science	2	2
Jenny Hind	Johannesburg University	2	2
Johan Esterhuyse	Cape Peninsula University of Technology	2	1
Linda de Jager	Central University of Technology Free State	2	1
Pavitra Pillay	Durban University of Technology	2	2
Gretchen Tiedt	Tshwane University of Technology	2	2
Carol Motale	Vaal University of Technology	2	1
Kevan Hunt	Mangosotho Technikon	2	1
Raj Naidoo	Nelson Mandela Metropolitan University	2	1

## Attendance at Board meetings

The Accounting Authority has met on 7 separate occasions during the financial year. The Accounting Authority schedules to meet at least 4 times per annum. Non-executive directors have access to all members of management of the entity.

# Group Annual Financial Statements for the year ended 31 March 2011

## Member Attendance

Member	Scheduled Meetings	Meetings Attended	Date Retired
Sesi Baloyi	7	6	
Ralf Mgijima	7	4	
Sagie Pillay	7	6	
Andre Venter	7	2	January 2011
John Coates	7	4	January 2011
Adriaan Sturm	7	1	
Nanette Smith	7	3	August 2010
Sylvia Khokho	7	3	January 2011
Jonathan Mallet	7	0	January 2011
Nokuphila Mazamisa	7	1	August 2010
Jake Ntjana	7	2	July 2010
Sibongile Shezi	7	4	
Nozuko Yokwana	7	1	January 2011
Antonette Richardson	7	0	
Mninawa L Matiwane	7	4	
Thokozani Mhlongo	7	4	
Yogan Pillay	7	1	
Ronald Moyo	7	5	
Mariaan Malherbe	7	3	
Gregory Hussey	7	5	

## Internal audit

The entity has outsourced its internal audit function to Deloitte & Touche and Indyebo Consulting.

## 13. Health, safety and environment

The Health and Safety Policy and the Occupational Health and Safety Act, 1993, continue to remain the guiding principles for the achievement of the NHLS' safety vision.

## 14. Transformation

The NHLS remains firm in its support of the country's Broad-based Black Economic Empowerment (B-BBEE) initiative as embraced by the South African Government. Tenderers and companies dealing with the Economic Entity should have a workable plan aimed at empowering previously disadvantaged communities. The NHLS will achieve this without compromising the standards of the deliverables from its partners in business. The NHLS remains firm in its support of the country's Broad-based Black Economic Empowerment (B-BBEE) initiative as embraced by the South

## Group Annual Financial Statements for the year ended 31 March 2011

African Government. Tenderers and companies dealing with the Economic Entity should have a workable plan aimed at empowering previously disadvantaged communities. The NHLS will achieve this without compromising the standards of the deliverables from its partners in business.

### 15. Independent Auditors

Gobodo Incorporated was formally re-appointed as auditors during the period under review in consultation with the Auditor-General.

Gobodo Incorporated are available to continue in office in accordance with section 25 of the Public Audit Act, 2004 (Act 25 of 2004), and section 23 of the NHLS Act.

### 16. Subsidiary

	2011	2010	2011	2010
South African Vaccine Producers	%	%	Rand	Rand
	100	100	10,000	10,000

South African Vaccine Producers Proprietary Limited (SAVP) is a wholly owned subsidiary of the NHLS. The nature of the subsidiary's business is to produce anti-venom. NHLS acquired SAVP, which was a wholly owned subsidiary of the South African Institute of Medical Research (SAIMR) on its date of incorporation. Details of the controlling entity's interest in this subsidiary are set out in note 17 of the economic entity's annual financial statements. The commercial viability of the subsidiary has improved as there is a possibility of profits in the foreseeable future. It continues to operate as it fulfills a strategic role as the only producer of anti-venom in South Africa.

### 17. Contract Laboratory Service

Contract Laboratory Service (CLS) was incorporated with the intention of forming a joint venture between NHLS and Witwatersrand (WITS) University. The NHLS currently provides its facilities for use by CLS. All transactions with CLS are conducted on an arms-length basis. At the date of this report, consensus between NHLS and CLS has been reached to terminate any further efforts to form a joint venture agreement. In this regard, there is no financial impact to NHLS.

### 18. Risk Management

The responsibility for risk management resides with management at all levels. Risk management is embedded throughout the organisation, from members of the Board to all employees. The approach followed by NHLS is to ensure that all significant risks are identified and managed.

NHLS has a dedicated Risk Officer to co-ordinate the implementation of its risk management philosophy and strategy as approved by the Board. The Board continues to discharge its responsibility through its Audit and Risk Committee and ensures that Risk Management is a standing item for discussion at each scheduled Board meeting.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Statement of Financial Position

	Note(s)	Economic entity		Controlling entity	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>Assets</b>					
<b>Current Assets</b>					
Inventories	2	72,901	69,445	72,525	69,423
Trade and other receivables	3	1,582,391	1,242,204	1,581,049	1,241,284
Cash and cash equivalents	4	177,421	260,630	176,872	259,792
		<b>1,832,713</b>	<b>1,572,279</b>	<b>1,830,446</b>	<b>1,570,499</b>
<b>Non-Current Assets</b>					
Property, plant and equipment	5	476,560	451,392	475,514	450,453
Intangible assets	6	30,136	7,357	30,133	7,354
		<b>506,696</b>	<b>458,749</b>	<b>505,647</b>	<b>457,807</b>
<b>Total Assets</b>		<b>2,339,409</b>	<b>2,031,028</b>	<b>2,336,093</b>	<b>2,028,306</b>
<b>Liabilities</b>					
<b>Current Liabilities</b>					
Finance lease obligation	7	2,390	2,425	2,390	2,425
Trade and other payables	8	346,846	340,721	346,284	340,313
VAT payable	9	15,982	19,682	15,887	19,554
Deferred income	10	46,588	73,679	46,588	73,679
Provisions	11	164,598	125,024	164,598	125,024
		<b>576,404</b>	<b>561,531</b>	<b>575,747</b>	<b>560,995</b>
<b>Non-Current Liabilities</b>					
Finance lease obligation	7	1,272	3,725	1,272	3,725
Retirement benefit obligation	12	471,027	422,839	471,027	422,839
Deferred income	10	37,309	39,444	37,309	39,444
		<b>509,608</b>	<b>466,008</b>	<b>509,608</b>	<b>466,008</b>
<b>Total Liabilities</b>		<b>1,086,012</b>	<b>1,027,539</b>	<b>1,085,355</b>	<b>1,027,003</b>
<b>Net Assets</b>		<b>1,253,397</b>	<b>1,003,489</b>	<b>1,250,738</b>	<b>1,001,303</b>
<b>Net Assets</b>					
Stated Capital Reserves	13	332	332	332	332
Capital Replacement Reserve	15	8,000	8,000	8,000	8,000
General Reserve	16	34,505	34,505	31,206	31,206
Accumulated surplus		1,210,560	960,652	1,211,200	961,765
<b>Total Net Assets</b>		<b>1,253,397</b>	<b>1,003,489</b>	<b>1,250,738</b>	<b>1,001,303</b>
<b>Total Net Assets</b>		<b>1,253,397</b>	<b>1,003,489</b>	<b>1,250,738</b>	<b>1,001,303</b>

## Group Annual Financial Statements for the year ended 31 March 2011

### Statement of Financial Performance

	Note(s)	Economic entity		Controlling entity	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
Revenue	20	3,446,125	3,049,497	3,436,112	3,039,598
Cost of sales		(2,367,643)	(2,163,395)	(2,359,716)	(2,155,802)
<b>Gross surplus</b>		<b>1,078,482</b>	<b>886,102</b>	<b>1,076,396</b>	<b>883,796</b>
Other revenue	21	202,520	237,180	202,517	237,042
Operating expenses		(1,035,902)	(938,179)	(1,032,778)	(935,722)
<b>Operating surplus</b>	<b>22</b>	<b>245,100</b>	<b>185,103</b>	<b>246,135</b>	<b>185,116</b>
Investment revenue	24	18,824	22,032	18,824	22,032
Interest paid	25	190	(964)	190	(660)
<b>Surplus for the year</b>		<b>264,114</b>	<b>206,171</b>	<b>265,149</b>	<b>206,488</b>

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Statement of Changes in Net Assets

	Stated Capital R'000	Capital Replacement R'000	General reserve R'000	Total reserves R'000	Accumulated surplus R'000	Total net assets R'000
<b>Economic entity</b>						
<b>Balance at 1 April 2009</b>	<b>332</b>	<b>8,000</b>	<b>34,505</b>	<b>42,505</b>	<b>751,010</b>	<b>793,847</b>
Changes in net assets						
Prior period error adjustment	-	-	-	-	172	172
Adjustment correcting investment difference in SAVP at 31 March 2003	-	-	-	-	3,299	3,299
Net income (losses) recognised directly in net assets	-	-	-	-	3,471	3,471
Surplus for the year	-	-	-	-	206,171	206,171
<b>Total recognised income and expenses for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>209,642</b>	<b>209,642</b>
<b>Total changes</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>209,642</b>	<b>209,642</b>
<b>Balance at 1 April 2010</b>	<b>332</b>	<b>8,000</b>	<b>34,505</b>	<b>42,505</b>	<b>960,652</b>	<b>1,003,489</b>
Changes in net assets						
Reversal of prior period revaluation adjustment	-	-	-	-	(15,714)	(15,714)
Reversal of prior year adjustments	-	-	-	-	1,508	1,508
Net income (losses) recognised directly in net assets	-	-	-	-	(14,206)	(14,206)
Surplus for the year	-	-	-	-	264,114	264,114
<b>Total recognised income and expenses for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>249,908</b>	<b>249,908</b>
<b>Total changes</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>249,908</b>	<b>249,908</b>
<b>Balance at 31 March 2011</b>	<b>332</b>	<b>8,000</b>	<b>34,505</b>	<b>42,505</b>	<b>1,210,560</b>	<b>1,253,397</b>
Note(s)	13	15	16			

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Statement of Changes in Net Assets

	Stated Capital R'000	Capital Replacement R'000	General reserve R'000	Total reserves R'000	Accumulated surplus R'000	Total net assets R'000
<b>Controlling entity</b>						
<b>Balance at 01 April 2009</b>	<b>332</b>	<b>8,000</b>	<b>31,206</b>	<b>39,206</b>	<b>751,718</b>	<b>791,256</b>
Changes in net assets						
Prior period error adjustment	-	-	-	-	<b>260</b>	<b>260</b>
Adjustment correcting investment difference in SAVP at 31 March	-	-	-	-	3,299	3,299
Net income (losses) recognised directly in net assets	-	-	-	-	3,559	3,559
Surplus for the year	-	-	-	-	206,488	206,488
<b>Total recognised income and expenses for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>210,047</b>	<b>210,047</b>
<b>Total changes</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>210,047</b>	<b>210,047</b>
<b>Balance at 1 April 2010</b>	<b>332</b>	<b>8,000</b>	<b>31,206</b>	<b>39,206</b>	<b>961,765</b>	<b>1,001,303</b>
Changes in net assets						
Reversal of prior period revaluation adjustments	-	-	-	-	<b>(15,714)</b>	<b>(15,714)</b>
Net income (losses) recognised directly in net assets	-	-	-	-	(15,714)	(15,714)
Surplus for the year	-	-	-	-	265,149	265,149
<b>Total recognised income and expenses for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>249,435</b>	<b>249,435</b>
<b>Total changes</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>249,435</b>	<b>249,435</b>
<b>Balance at 31 March 2011</b>	<b>332</b>	<b>8,000</b>	<b>31,206</b>	<b>39,206</b>	<b>1,211,200</b>	<b>1,250,738</b>
Notes(s)	13	15	16			

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Cash Flow Statement

	Note(s)	Economic entity		Controlling entity	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>Cash flows from operating activities</b>					
<b>Receipts</b>					
Sale of goods and services		3,446,125	3,049,497	3,436,112	3,039,598
Interest income		18,824	22,032	18,824	22,032
		<b>3,464,949</b>	<b>3,071,529</b>	<b>3,454,936</b>	<b>3,061,630</b>
<b>Payments</b>					
Employee costs		(1,775,498)	(1,430,647)	(1,756,083)	1,424,235
Suppliers		(1,661,768)	(1,303,345)	1,671,417	(1,300,810)
Interest paid		547	(409)	547	(105)
		<b>(3,436,719)</b>	<b>(2,734,401)</b>	<b>(3,426,953)</b>	<b>(2,725,150)</b>
<b>Net cash flows from operating activities</b>	<b>27</b>	<b>28,230</b>	<b>337,128</b>	<b>27,983</b>	<b>336,480</b>
<b>Cash flows from investing activities</b>					
Purchase of property, plant and equipment	5	(94,076)	(211,604)	(93,567)	(210,879)
Proceeds from sale of property, plant and	5	10,681	5,721	10,708	5,079
Purchase of other intangible assets	6	(27,962)	(8,281)	(27,962)	(8,281)
Sale of intangible assets	6	2,763	855	2,763	855
<b>Net cash flows from investing activities</b>		<b>(108,594)</b>	<b>(213,309)</b>	<b>(108,058)</b>	<b>(213,226)</b>
<b>Cash flows from financing activities</b>					
Finance lease advances / (payments)		(2,845)	(2,767)	(2,845)	(2,767)
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>(83,209)</b>	<b>121,052</b>	<b>(82,920)</b>	<b>120,487</b>
Cash and cash equivalents at the beginning of the year		260,630	139,578	259,792	139,305
<b>Cash and cash equivalents at the end of the year</b>	<b>4</b>	<b>177,421</b>	<b>260,630</b>	<b>176,872</b>	<b>259,792</b>

# Group Annual Financial Statements for the year ended 31 March 2011

## Accounting Policies

### 1. Presentation of the Economic Entity Financial Statements

The economic entity annual financial statements have been prepared in accordance with Statements of Generally Recognised Accounting Practice (GRAP) as issued by the Accounting Standards Board and Statements of South African Generally Accepted Accounting Practice (SA GAAP) where statements of GRAP are not yet effective. The economic entity annual financial statements have been prepared using the accrual basis of accounting.

The economic entity financial statements have been prepared on the basis of accounting policies applicable to a going concern. This basis assumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent liabilities and commitments will occur in the ordinary course of business.

The economic entity financial statements have been prepared on the historical cost basis. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

### Standard and Interpretations of GRAP

- GRAP 1: Presentation of financial statements
- GRAP 2: Cash flow statements
- GRAP 3: Accounting policies, changes in accounting estimates and errors
- GRAP 4: The Effects of changes in Foreign Exchange Rates
- GRAP 5: Borrowing costs
- GRAP 6: Consolidated and Separate Financial Statements
- GRAP 7: Investments in Associates
- GRAP 8: Investment in Joint Ventures
- GRAP 9: Revenue from Exchange Transactions
- GRAP 10: Financial Reporting in Hyperinflationary Economies
- GRAP 11: Construction contracts
- GRAP 12: Inventories
- GRAP 13: Leases
- GRAP 14: Events after the reporting date
- GRAP 16: Investment Property
- GRAP 17: Property, Plant and Equipment
- GRAP 19: Provisions, Contingent Liabilities and Contingent Assets
- GRAP 100: Non-current Assets held for Sale and Discontinued Operations
- GRAP 101: Agriculture
- GRAP 102: Intangible Assets
- iGRAP 1: Applying the Probability Test on Initial Recognition of Exchange Revenue

Currently the recognition and measurement principles in the above GRAP and GAAP Statements do not differ or result in material differences in items presented and disclosed in the economic entity annual financial statements. The implementation of GRAP 1, 2 and 3 has resulted in the following changes in the presentation of the economic entity annual financial statements:

# Group Annual Financial Statements for the year ended 31 March 2011

## 1. Terminology differences:

### Standard of GRAP

Statement of financial performance  
Statement of financial position  
Statement of changes in net assets  
Net assets  
Surplus/deficit  
Accumulated surplus/deficit  
Contributions from owners  
Distributions to owners

### Replaced Statement of SA GAAP

Income statement  
Balance sheet  
Statement of changes in equity  
Equity  
Profit/loss  
Retained earnings  
Share capital  
Dividends

## 2. The cash flow statement can only be prepared in accordance with the direct method.

## 3. Specific information has been presented separately on the statement of financial position such as:

- I Receivables from non-exchange transactions, including taxes and transfers;
- II Taxes and transfers payable; and
- III Trade and other payables from non-exchange transactions.

## 4. Amount and nature of any restrictions on cash balances is required to be disclosed.

## 5. At the date of authorisation of the consolidated economic entity annual financial statements, the following GRAP standards and interpretations were in issue but not yet effective:

Stmnt No	Standard or Interpretation name
GRAP 18	Segment reporting
GRAP 23	Revenue from Non-Exchange Transactions
GRAP 24	Presentation of Budget Information
GRAP 25	Employee Benefits
GRAP 26	Impairment of Cash Generating Assets
GRAP 103	Heritage Assets
GRAP 104	Financial Instruments
GRAP 105	Transfers of Functions Between Entities Under Common Control
GRAP 106	Transfer of Functions Between Entities Not Under Common Control
GRAP 107	Mergers
iGRAP 2	Changes in Existing Decommissioning Restoration and Similar Liabilities
iGRAP 3	Determining whether an Arrangement Contains a Lease
iGRAP 4	Rights to Interests Arising from Decommissioning, Restoration and Environmental Rehabilitation Funds
iGRAP 5	Applying the Restatement Approach under the Standard of GRAP on Financial Reporting in Hyperinflationary Economies
iGRAP 6	Loyalty Programmes
iGRAP 7	The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction
iGRAP 8	Agreements for the Construction of Assets from Exchange Transactions
iGRAP 9	Distribution of Non-cash Assets to Owners
iGRAP	10 Assets Received from Customers
iGRAP 11	Consolidation - Special Purpose Entities
iGRAP 12	Jointly Controlled Entities - Non-Monetary Contributions by Venturers
iGRAP 13	Operating Leases - Incentives
iGRAP 14	Evaluating the Substance of Transactions Involving the Legal Form of a Lease
iGRAP 15	Revenue - Barter Transactions Involving Advertising Services

Management is still in the process of assessing the impact of these standards and interpretations on the operations of NHL. The standards and interpretations where applicable will be adopted in the year they become effective.

# Group Annual Financial Statements

## for the year ended 31 March 2011

These accounting policies are consistent with the previous period.

### 1.1 Significant judgements and sources of estimation uncertainty

In preparing the group annual financial statements, management is required to make estimates and assumptions that affect the amounts represented in the group annual financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the group annual financial statements. Significant judgements include:

#### **Trade and other receivables**

The economic entity assesses its trade receivables for impairment at the end of each reporting period. NHLS policy dictates that private debt and not public sector debt is impaired.

The impairment for trade receivables is calculated on a portfolio basis and adjusted for national and industry-specific economic conditions and other indicators present at the reporting date that correlate with defaults on the portfolio. Detailed disclosure appears in Note 3 to the Statement of Financial Position.

#### **Allowance for slow moving, damaged and obsolete stock**

An allowance to write stock down to the lower of cost or net realisable value is made. Management makes estimates of the selling price and direct cost to sell on certain inventory items. The write down is included in the inventory note 2 to the Statement of Financial Position.

#### **Provisions**

Provisions were raised and management determined an estimate based on the information available. Additional disclosure of these estimates of provisions are included in note 11 - Provisions.

#### **Post retirement benefits**

The present value of the post retirement obligation depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) include the discount rate. Any changes in these assumptions will impact on the carrying amount of post retirement obligations.

The economic entity determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the economic entity considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability.

Other key assumptions for pension obligations are based on current market conditions. Additional information is disclosed in Note 12.

#### **Allowance for doubtful debts**

On debtors an impairment loss is recognised in surplus and deficit when there is objective evidence that it is impaired. The impairment is measured as the difference between the debtors carrying amount and the present value of estimated future cash flows discounted at the effective interest rate, computed at initial recognition. Detailed disclosure appears in Note 3 to the Statement of Financial Position.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 1.2 Property, plant and equipment

#### Initial Recognition

Property, plant and equipment is initially measured at cost.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

Where an asset is acquired at no cost, or for a nominal cost, its cost is its fair value as at date of acquisition.

Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or monetary assets, or a combination of monetary and non-monetary assets, the asset acquired is initially measured at fair value (the cost). If the acquired item's fair value was not determinable, it's deemed cost is the carrying amount of the asset(s) given up.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. If a replacement cost is recognised in the carrying amount of an item of property, plant and equipment, the carrying amount of the replaced part is derecognised.

The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located is also included in the cost of property, plant and equipment, where the entity is obligated to incur such expenditure, and where the obligation arises as a result of acquiring the asset or using it for purposes other than the production of inventories.

Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Major inspection costs which are a condition of continuing use of an item of property, plant and equipment and which meet the recognition criteria above are included as a replacement in the cost of the item of property, plant and equipment. Any remaining inspection costs from the previous inspection are derecognised.

Property, plant and equipment are depreciated on the straight line basis over their expected useful lives to their estimated residual value.

# Group Annual Financial Statements

## for the year ended 31 March 2011

The useful lives of items of property, plant and equipment have been assessed as follows:

Item	Average useful life
Buildings	5%
Mobile Units	6.67% - 10%
Plant and machinery	20%
Furniture and fixtures	10-16.67%
Motor vehicles	20%
Office equipment	10 - 33.33%
IT equipment	20 - 33.33%
Assets less than R2 500	100%
Grant Assets	100%
Laboratory equipment	10 - 25%

The residual value, and the useful life and depreciation method of each asset are reviewed at the end of each reporting date. If the expectations differ from previous estimates, the change is accounted for as a change in accounting estimate.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

The depreciation charge for each period is recognised in surplus or deficit unless it is included in the carrying amount of another asset.

### Derecognition

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in surplus or deficit when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

Assets which the economic entity holds for rentals to others and subsequently routinely sell as part of the ordinary course of activities, are transferred to inventories when the rentals end and the assets are available-for-sale. These assets are not accounted for as non-current assets held for sale. Proceeds from sales of these assets are recognised as revenue. All cash flows on these assets are included in cash flows from operating activities in the cash flow statement.

## 1.3 Intangible assets

### Initial recognition

An asset is identified as an intangible asset when it:

- is capable of being separated or divided from an entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, assets or liability; or
- arises from contractual rights or other legal rights, regardless whether those rights are transferable or separate from the economic entity or from other rights and obligations.

An intangible asset is recognised when:

- it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the economic entity; and
- the cost or fair value of the asset can be measured reliably.

## Group Annual Financial Statements for the year ended 31 March 2011

Intangible assets are initially recognised at cost.

An intangible asset acquired at no or nominal cost, the cost shall be its fair value as at the date of acquisition.

Expenditure on research (or on the research phase of an internal project) is recognised as an expense when it is incurred.

An intangible asset arising from development (or from the development phase of an internal project) is recognised when:

- it is technically feasible to complete the asset so that it will be available for use or sale.
- there is an intention to complete and use or sell it.
- there is an ability to use or sell it.
- it will generate probable future economic benefits or service potential.
- there are available technical, financial and other resources to complete the development and to use or sell the asset.
- the expenditure attributable to the asset during its development can be measured reliably.

Intangible assets are carried at cost less any accumulated amortisation and any impairment losses.

An intangible asset is regarded as having an indefinite useful life when, based on all relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows or service potential. Amortisation is not provided for these intangible assets, but they are tested for impairment annually and whenever there is an indication that the asset may be impaired. For all other intangible assets amortisation is provided on a straight line basis over their useful life.

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date.

Reassessing the useful life of an intangible asset with a finite useful life after it was classified as indefinite is an indicator that the asset may be impaired. As a result the asset is tested for impairment and the remaining carrying amount is amortised over its useful life.

Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance are not recognised as intangible assets.

Amortisation is provided to write down the intangible assets, on a straight line basis, to their residual values as follows:

Item	Percentage
Patents, trademarks and other rights	5%
Computer software	5%
Licences	0%

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 1.4 Investments

#### **Economic entity group annual financial statements**

The economic entity group annual financial statements include those of the controlling entity and its controlled entities. The revenue and expenses of the controlled entities are included from the effective date of acquisition.

On acquisition the economic entity recognises the controlled entity's identifiable assets, liabilities and contingent liabilities at fair value, except for assets classified as held-for-sale, which are recognised at fair value less costs to sell.

#### **Controlling entity group annual financial statements**

In the entity's separate group annual financial statements, investments in investments are carried at cost less any accumulated impairment.

The cost of an investment in controlled entity is the aggregate of:

- the fair value, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the entity; plus
- any costs directly attributable to the purchase of the controlled entity.

An adjustment to the cost of a business combination contingent on future events is included in the cost of the combination if the adjustment is probable and can be measured reliably.

### 1.5 Financial instruments

#### **Classification**

Classification depends on the purpose for which the financial instruments were obtained / incurred and takes place at initial recognition. Classification is re-assessed on an annual basis, except for derivatives and financial assets designated as at fair value through surplus or deficit, which shall not be classified out of the fair value through surplus or deficit category.

#### **Initial recognition and measurement**

Financial instruments are recognised initially when the economic entity becomes a party to the contractual provisions of the instruments.

The economic entity classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Financial instruments are measured initially at fair value, except for equity investments for which a fair value is not determinable, which are measured at cost and are classified as available-for-sale financial assets.

For financial instruments which are not at fair value through surplus or deficit, transaction costs are included in the initial measurement of the instrument.

Regular way purchases of financial assets are accounted for at trade date.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### **Subsequent measurement**

Financial instruments at fair value through surplus or deficit are subsequently measured at fair value, with gains and losses arising from changes in fair value being included in surplus or deficit for the period.

Loans and receivables are subsequently measured at amortised cost, using the effective interest method, less accumulated impairment losses.

Held-to-maturity investments are subsequently measured at amortised cost, using the effective interest method, less accumulated impairment losses.

Regular way purchases of financial assets are accounted for at trade date.

### **Impairment of financial assets**

At each end of the reporting period the economic entity assesses all financial assets, other than those at fair value through surplus or deficit, to determine whether there is objective evidence that a financial asset or group of financial assets has been impaired.

For amounts due to the economic entity, significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default of payments are all considered indicators of impairment.

Impairment losses are recognised in surplus or deficit.

Impairment losses are reversed when an increase in the financial asset's recoverable amount can be related objectively to an event occurring after the impairment was recognised, subject to the restriction that the carrying amount of the financial asset at the date that the impairment is reversed shall not exceed what the carrying amount would have been had the impairment not been recognised.

Where financial assets are impaired through use of an allowance account, the amount of the loss is recognised in surplus or deficit within operating expenses. When such assets are written off, the write off is made against the relevant allowance account. Subsequent recoveries of amounts previously written off are credited against operating expenses.

### **Loans to (from) economic entities**

These include loans to and from controlling entities, follow controlled entities, controlled entities, joint ventures and associates and are recognised initially at fair value plus direct transaction costs.

Loans to economic entities are classified as loans and receivables.

Loans from economic entities are classified as financial liabilities measured at amortised cost.

### **Trade and other receivables**

Trade receivables are measured at initial recognition at fair value, and are subsequently measured at amortised cost using the effective interest rate method. Appropriate allowances for estimated irrecoverable amounts are recognised in surplus or deficit when there is objective evidence that the asset is impaired. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments (more than 30 days overdue) are considered indicators that the trade receivable is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

## Group Annual Financial Statements for the year ended 31 March 2011

The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the deficit is recognised in surplus or deficit within operating expenses. When a trade receivable is uncollectible, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited against operating expenses in surplus or deficit.

Trade and other receivables are classified as loans and receivables.

### **Trade and other payables**

Trade payables are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method.

### **Cash and cash equivalents**

Cash and cash equivalents comprise cash on hand and demand deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These are initially and subsequently recorded at fair value.

## 1.6 Leases

A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership.

### **Finance leases - lessee**

Finance leases are recognised as assets and liabilities in the statement of financial position at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation.

The discount rate used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease.

Minimum lease payments are apportioned between the finance charge and reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate on the remaining balance of the liability.

Any contingent rents are expensed in the period in which they are incurred.

### **Operating leases - lessee**

Operating lease payments are recognised as an expense on a straight-line basis over the lease term. The difference between the amounts recognised as an expense and the contractual payments are recognised as an operating lease asset or liability.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 1.7 Inventories

Inventories are measured at the lower of cost and current replacement cost where they are held for;

- distribution at no charge or for a nominal charge; or
- consumption in the production process of goods to be distributed at no charge or for a nominal charge.

Net realisable value is the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.

Current replacement cost is the cost the economic entity incurs to acquire the asset on the reporting date.

The cost of inventories comprises of all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects is assigned using specific identification of the individual costs.

The cost of inventories is assigned using the weighted average cost formula. The same cost formula is used for all inventories having a similar nature and use to the economic entity.

When inventories are consumed, the carrying amounts of those inventories are recognised as an expense in the period in which the related revenue is recognised. If there is no related revenue, the expenses are recognised when the goods are distributed, or related services are rendered. The amount of any write-down of inventories to net realisable value and all losses of inventories are recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realisable value, are recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs. All expired inventory is written off as identified upon expiry. Consumables charged out to laboratories but not used by year-end are not brought to count as inventories but are expensed in the statement of financial performance.

### 1.8 Stated Capital

An equity instrument is any contract that evidences a residual interest in the assets of an economic entity after deducting all of its liabilities.

### 1.9 Employee benefits

#### Short-term employee benefits

The cost of short-term employee benefits, (those payable within 12 months after the service is rendered, such as paid vacation leave and sick leave, bonuses, and non-monetary benefits such as medical care), are recognised in the period in which the service is rendered and are not discounted.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs.

The expected cost of surplus sharing and bonus payments is recognised as an expense when there is a legal or constructive obligation to make such payments as a result of past performance.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Defined benefit plans

For defined benefit plans the cost of providing the benefits is determined using the projected credit method.

Actuarial valuations are conducted on an annual basis by independent actuaries separately for each plan.

Consideration is given to any event that could impact the funds up to end of the reporting period where the interim valuation is performed at an earlier date.

Past service costs are recognised immediately to the extent that the benefits are already vested, and are otherwise amortised on a straight line basis over the average period until the amended benefits become vested.

Gains or losses on the curtailment or settlement of a defined benefit plan is recognised when the economic entity is demonstrably committed to curtailment or settlement.

When it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, the right to reimbursement is recognised as a separate asset. The asset is measured at fair value. In all other respects, the asset is treated in the same way as plan assets. In surplus or deficit, the expense relating to a defined benefit plan is presented as the net of the amount recognised for a reimbursement.

The amount recognised in the statement of financial position represents the present value of the defined benefit obligation as adjusted for unrecognised actuarial gains and losses and unrecognised past service costs.

Any asset is limited to unrecognised actuarial losses and past service costs, plus the present value of available refunds and reduction in future contributions to the plan.

### Other post retirement obligations

The economic entity provides post-retirement health care benefits, housing subsidies and gratuities upon retirement to some retirees.

The entitlement to post-retirement health care benefits is based on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment. Independent qualified actuaries carry out valuations of these obligations. The economic entity also provides a gratuity and housing subsidy on retirement to certain employees. An annual charge to income is made to cover both these liabilities.

## 1.10 Provisions and contingencies

### Provisions are recognised when:

- the economic entity has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount of a provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date.

## Group Annual Financial Statements for the year ended 31 March 2011

Where the effect of time value of money is material, the amount of a provision is the present value of the expenditures expected to be required to settle the obligation.

The discount rate is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement is recognised when, and only when, it is virtually certain that reimbursement will be received if the economic entity settles the obligation. The reimbursement is treated as a separate asset. The amount recognised for the reimbursement does not exceed the amount of the provision.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Provisions are reversed if it is no longer probable that an outflow of resources embodying economic benefits or service potential will be required, to settle the obligation.

Where discounting is used, the carrying amount of a provision increases in each period to reflect the passage of time. This increase is recognised as an interest expense.

A provision is used only for expenditures for which the provision was originally recognised.

Provisions are not recognised for future operating deficits.

If an entity has a contract that is onerous, the present obligation (net of recoveries) under the contract is recognised and measured as a provision.

A constructive obligation to restructure arises only when an entity:

- has a detailed formal plan for the restructuring, identifying at least:
  - the activity/operating unit or part of a activity/operating unit concerned;
  - the principal locations affected;
  - the location, function, and approximate number of employees who will be compensated for services being terminated;
  - the expenditures that will be undertaken; and
  - when the plan will be implemented; and
- has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

A restructuring provision includes only the direct expenditures arising from the restructuring, which are those that are both:

- necessarily entailed by the restructuring; and
- not associated with the ongoing activities of the economic entity

Contingent assets and contingent liabilities are not recognised. Contingencies are disclosed in note 29.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 1.11 Revenue

Revenue is the gross inflow of economic benefits or service potential during the reporting period when those inflows result in an increase in net assets, other than increases relating to contributions from owners.

An exchange transaction is one in which the municipality receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, services or use of assets) to the other party in exchange.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

#### Sale of goods

Revenue from the sale of goods is recognised when all the following conditions have been satisfied:

- the economic entity has transferred to the purchaser the significant risks and rewards of ownership of the goods;
- the economic entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the economic entity; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

#### Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised by reference to the stage of completion of the transaction at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the economic entity;
- the stage of completion of the transaction at the reporting date can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When services are performed by an indeterminate number of acts over a specified time frame, revenue is recognised on a straight line basis over the specified time frame unless there is evidence that some other method better represents the stage of completion. When a specific act is much more significant than any other acts, the recognition of revenue is postponed until the significant act is executed.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognised only to the extent of the expenses recognised that are recoverable.

Service revenue is recognised by reference to the stage of completion of the transaction at the reporting date. Stage of completion is determined by the proportion that costs incurred to date bear to the total estimated costs of the transaction.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Interest and royalties

Revenue arising from the use by others of entity assets yielding interest and royalties is recognised when:

- It is probable that the economic benefits or service potential associated with the transaction will flow to the entity, and
- The amount of the revenue can be measured reliably.

Interest is recognised, in surplus or deficit, using the effective interest rate method.

Interest income is accrued on a time-proportion basis, taking in to account the principal outstanding and the effective interest rate over the period to maturity. Interest is also received for designated, specific research purposes from contracts, grants and donations. In all cases such income is recognised in the statement of financial performance in the financial period in which the company becomes entitled to the use of such funds

Royalties are recognised as they are earned in accordance with the substance of the relevant agreements.

Service fees included in the price of the product are recognised as revenue over the period during which the service is performed.

### 1.12 Borrowing costs

It is inappropriate to capitalise borrowing costs when, and only when, there is clear evidence that it is difficult to link the borrowing requirements of an entity directly to the nature of the expenditure to be funded i.e. capital or current.

Borrowing costs are recognised as an expense in the period in which they are incurred.

### 1.13 Fruitless and wasteful expenditure

Fruitless expenditure means expenditure which was made in vain and would have been avoided had reasonable care been exercised.

All expenditure relating to fruitless and wasteful expenditure is recognised as an expense in the statement of financial performance in the year that the expenditure was incurred. The expenditure is classified in accordance with the nature of the expense, and where recovered, it is subsequently accounted for as revenue in the statement of financial performance.

### 1.14 Irregular expenditure

Irregular expenditure as defined in section 1 of the PFMA is expenditure other than unauthorised expenditure, incurred in contravention of or that is not in accordance with a requirement of any applicable legislation, including:

- this Act; or
- the State Tender Board Act, 1968 (Act No. 86 of 1968), or any regulations made in terms of the Act; or
- any provincial legislation providing for procurement procedures in that provincial government.

## Group Annual Financial Statements for the year ended 31 March 2011

National Treasury practice note no. 4 of 2008/2009 which was issued in terms of sections 76(1) to 76(4) of the PFMA requires the following (effective from 1 April 2008):

- Irregular expenditure that was incurred and identified during the current financial and which was condoned before year end and/or before finalisation of the financial statements must also be recorded appropriately in the irregular expenditure register. In such an instance, no further action is also required with the exception of updating the note to the financial statements.
- Irregular expenditure that was incurred and identified during the current financial year and for which condonement is being awaited at year end must be recorded in the irregular expenditure register. No further action is required with the exception of updating the note to the financial statements.
- Where irregular expenditure was incurred in the previous financial year and is only condoned in the following financial year, the register and the disclosure note to the financial statements must be updated with the amount condoned.
- Irregular expenditure that was incurred and identified during the current financial year and which was not condoned by the National Treasury or the relevant authority must be recorded appropriately in the irregular expenditure register. If liability for the irregular expenditure can be attributed to a person, a debt account must be created if such a person is liable in law. Immediate steps must thereafter be taken to recover the amount from the person concerned. If recovery is not possible, the accounting officer or accounting authority may write off the amount as debt impairment and disclose such in the relevant note to the financial statements. The irregular expenditure register must also be updated accordingly. If the irregular expenditure has not been condoned and no person is liable in law, the expenditure related thereto must remain against the relevant programme/expenditure item, be disclosed as such in the note to the financial statements and updated accordingly in the irregular expenditure register.

### 1.15 Research and development expenditure

Research costs are charged against operating surplus as incurred. Development costs are recognised as an expense in the period in which they are incurred unless the following criteria are met:

- The product or process is clearly defined and the costs attributable to the process or product can be separately identified and measured reliably;
- The technical feasibility of the product or process can be demonstrated;
- The existence of a market or, if to be used internally rather than sold, its usefulness to the economic entity can be demonstrated;
- Adequate resources exist, or their availability can be demonstrated, to complete the project and then market or use the product or process; and
- The asset must be separately identifiable.

Where development costs are deferred, they are written off on a straight-line basis over the life of the process or product, subject to a maximum of five years. The amortization begins from the commencement of the commercial production of the product or use of the process to which they relate.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 1.16 Sundry Income

#### Teaching Income

Teaching Income is recognised upon receipt of funds. This policy decision is attributable to the uncertainty associated with the flow of economic benefits arising from teaching-related transactions to the entity. The management decision taken complies with the requirements of the statement on revenue recognition.

#### Recovery of funds allocated from the National Department of Health (NDOH) to NHLS

The NHLS recovers the budgeted allocation of funds due to the National Institute for Communicable Diseases (NICD) and the National Institute for Occupational Health (NIOH) on a monthly basis as stipulated in the agreement between NHLS and the NDOH.

#### Miscellaneous sales

Miscellaneous sales are generated when the NHLS recovers funds for rental lease agreements and other charges which need to be recovered from the use of its own facilities such as those used by Contract Laboratory Services.

### 1.17 Related Parties

Parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial and operating decisions or if the related party entity and another entity are subject to common control. Related parties include:

- Entities that directly, or indirectly through one or more intermediaries, control, or are controlled by the reporting entity; and
- Key management personnel, and close members of the family of key management personnel.

A related party transaction is a transfer of resources, services or obligations between a reporting entity and a related party, regardless of whether a price is charged. Related party transactions exclude transactions with any other entity that is a related party solely because of its economic dependence on the reporting entity.

Related party transactions and outstanding balances or commitments owing between the reporting entity and related parties are disclosed in note 29 to the financial statements. Remuneration of key management personnel is disclosed in note 8 of the Report of the Accounting Authority.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Notes to the Group Annual Financial Statements

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>2. Inventories</b>				
Finished goods	386	105	-	-
Consumable stores	74,611	71,436	74,621	71,519
	74,997	71,541	74,621	71,519
Inventories (write-downs)	(2,096)	(2,096)	(2,096)	(2,096)
	<b>72,901</b>	<b>69,445</b>	<b>72,525</b>	<b>69,423</b>

In the current year, the write-down of inventory relates to provision for Tami Flu stock due to expire in July 2011. No Tami flu stock was issued during the year and therefore the provision from prior year remains unchanged.

<b>3. Trade and other receivables</b>				
Trade debtors	1,785,965	1,327,544	1,784,623	1,326,624
Prepayments	604	527	604	527
Prepayments of re-agents on leased assets	-	4,760	-	4,760
Less: Effect of discounting of debtors	(38,892)	(18,185)	(38,892)	(18,185)
Less: Provision for doubtful debts	(93,471)	(53,422)	(93,471)	(53,422)
Less: Provision for credit notes	(32,432)	(3,520)	(32,432)	(3,520)
Less: Provision for debtors interest	(39,383)	(15,500)	(39,383)	(15,500)
	<b>1,582,391</b>	<b>1,242,204</b>	<b>1,581,049</b>	<b>1,241,284</b>

#### Fair value of other receivables from non-exchange transactions

The Accounting Authority considers that the carrying amount of trade and other receivables approximates to their fair value. The present valuing of debtors was calculated using the government bond rate of 7.70% on all debtor accounts greater than 60 days.

The NHLS raises provisions on doubtful debts relating to private debtors ( Medical Aid debtors and individual patients who are covered by Medical Aid). No doubtful debt provisions are raised in respect of government-related debtors in accordance with the PFMA.

#### Other receivables from non-exchange transactions past due but not impaired

Trade and other receivables which are less than 3 months past due are not considered to be impaired. At 31 March 2011, R532,533m (2010: R576,645m) were past due but not impaired.

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>3. Trade and other receivables (continued)</b>				
The ageing of amounts past due but not impaired is as follows:				
1 Month past due	174,644	193,600	174,644	193,600
2 Month past due	195,977	276,795	195,977	276,795
3 Month past due	1612,912	106,250	161,912	106,250
	<b>532,533</b>	<b>576,645</b>	<b>532,533</b>	<b>576,645</b>
Split as follows:				
Private debt (Medical Aid & Private setor)	10,560	15,364	10,560	15,364
Government	521,973	561,281	521,973	561,281
	<b>532,533</b>	<b>576,645</b>	<b>532,533</b>	<b>576,645</b>
<b>Reconciliation of provision for impairment of trade and other receivables</b>				
Opening balance	53,422	36,532	53,422	36,532
Provision for impairment	129,234	47,285	129,234	47,285
Amounts written off as uncollectible	(13,582)	(997)	(13,582)	(997)
Unused amounts reversed	(75,603)	(29,398)	(70,748)	(29,398)
	<b>93,471</b>	<b>53,422</b>	<b>98,326</b>	<b>53,422</b>
<b>4. Cash and cash equivalents</b>				
Cash and cash equivalents consist of :				
Cash on hand	278	293	259	282
Bank balances	40,983	14,209	40,453	13,382
Short-term deposits	136,160	246,128	136,160	246,128
	<b>177,421</b>	<b>260,630</b>	<b>176,872</b>	<b>259,792</b>

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity			Controlling entity		
	2011 R'000	2010 R'000		2011 R'000	2010 R'000	
<b>5. Property, plant and equipment</b>						
<b>Economic entity</b>	<b>2011</b>			<b>2010</b>		
	<b>Cost</b>	<b>Accumulated depreciation</b>	<b>Carrying value</b>	<b>Cost</b>	<b>Accumulated depreciation</b>	<b>Carrying value</b>
Land	3,208	-	3,208	38,508	-	38,508
Buildings	107,416	(28,564)	78,852	148,090	(91,518)	56,572
Plant and machinery	5,605	(1,128)	4,477	1,191	(626)	565
Furniture and Fixtures	12,184	(6,676)	5,508	15,192	(8,422)	6,770
Motor vehicles	8,045	(6,926)	1,119	4,483	(3,917)	566
Office equipment	31,402	(16,787)	14,615	32,974	(15,650)	17,324
Computer equipment	86,126	(63,484)	22,642	137,637	(78,999)	58,638
Leased vehicles	10,321	(5,041)	5,280	14,523	(6,934)	7,589
Owned buildings	107,085	(18,610)	88,475	26,998	(3,959)	23,039
Capital work in progress	89,609	-	89,609	44,908	-	44,908
Labratory equipment	343,896	(197,723)	146,173	338,005	(153,303)	184,702
Mobile Units	26,977	(10,375)	16,602	21,027	(8,816)	12,211
<b>Total</b>	<b>831,874</b>	<b>(355,314)</b>	<b>476,560</b>	<b>823,536</b>	<b>(372,144)</b>	<b>451,392</b>
<b>Controlling entity</b>	<b>2011</b>			<b>2010</b>		
	<b>Cost</b>	<b>Accumulated depreciation</b>	<b>Carrying value</b>	<b>Cost</b>	<b>Accumulated depreciation</b>	<b>Carrying value</b>
Land	3,208	-	3,208	38,508	-	38,508
Buildings	107,416	(28,564)	78,852	148,090	(91,518)	56,572
Plant and machinery	5,605	(1,128)	4,477	1,191	(626)	565
Furniture and Fixtures	12,142	(6,664)	5,478	15,149	(8,415)	6,734
Motor vehicles	8,045	(6,926)	1,119	4,483	(3,917)	566
Office equipment	31,320	(16,756)	14,564	32,898	(15,613)	17,285
Computer equipment	85,935	(63,410)	22,525	137,461	(78,886)	58,575
Leased vehicles	10,321	(5,041)	5,280	14,523	(6,934)	7,589
Owned buildings	107,085	(18,610)	88,475	26,998	(3,959)	23,039
Capital work in progress	89,641	-	89,641	44,930	-	44,930
Labratory equipment	342,070	(197,777)	145,293	335,530	(151,651)	183,879
Mobile units	26,977	(10,375)	16,602	21,027	(8,816)	12,211
<b>Total</b>	<b>829,765</b>	<b>(354,251)</b>	<b>475,514</b>	<b>820,788</b>	<b>(370,335)</b>	<b>450,453</b>

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 5. Property, plant and equipment (continued)

Figures in Rand thousand

#### Reconciliation of property, plant and equipment - Economic entity - 2011

	Opening balance	Additions	Disposals	Reclass	Revaluations	Other changes movements	Depreciation	Total
Land	38,508	-	-	-	(37,954)	2,654	(10,294)	3,208
Buildings	56,572	15,341	(573)	(32,631)	(5,455)	55,892	(579)	78,852
Plant and machinery	565	3,192	(10)	1,309	-	-	(2,254)	4,477
Furniture and Fixtures	6,770	1,422	(886)	31	-	425	(308)	5,508
Motor vehicles	566	18	(60)	903	-	-	(6,657)	1,119
Office equipment	17,324	5,693	(1,865)	120	-	-	(19,271)	14,615
Computer equipment	58,638	6,440	(23,297)	64	-	68	(1,793)	22,642
Leased vehicles	7,589	469	(82)	(903)	-	-	(3,224)	5,280
Owned buildings	23,039	10,141	(1)	31,110	(332)	27,742	-	88,475
Capital work in progress	44,908	-	-	-	-	44,701	(84,264)	89,609
Laboratory equipment	184,702	43,693	(4,878)	(3)	-	6,923	(1,580)	146,173
Mobile units	12,211	7,667	(1,696)	-	-	-	-	16,602
	<b>451,392</b>	<b>94,076</b>	<b>(33,348)</b>	<b>-</b>	<b>(43,741)</b>	<b>138,405</b>	<b>(130,224)</b>	<b>476,560</b>

#### Revaluation

In the financial year ended 31 March 2010, management decided to change the accounting policy of revaluing land and buildings to a cost basis of accounting. The market value of land and buildings for the period under review is R167,3m (2007: R189,1m). Revaluations were performed by independent valuer, Reapele Property Valuation Services. The opening balance of buildings has been adjusted to cater for the effect of the revaluation adjustments relating to prior periods.

In the financial year ended 31 March 2011, the reversal of revaluation entries were processed through the fixed assets module for both land and buildings categories, as audited adjustments to revaluation were only processed in the General Ledger in the prior year. Therefore disclosure under the revaluations column was necessary.

#### Leased Assets

All leased motor vehicles with a carrying value of R5,280m have been pledged as security for the finance lease liability with a present value of R3,662m. The terms and conditions of the liability are detailed in note 7.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 5. Property, plant and equipment (continued)

#### Other changes / movements

Other changes / movements in the reconciliation of property, plant and equipment relating solely to the reversal of manual general ledger journal entries are disclosed as follows:

- For the land category, the reversal of the manual entry correcting the revaluations through General Ledger;
- For the buildings and owned buildings categories, the reversal of the manual entry correcting the revaluations through General Ledger;
- For the furniture and fixtures categories, the reversal of audit adjustments which affected prior year entries;
- For the computer equipment category, the reversal of audit adjustments which affected prior year entries; and
- For the mobile units category, the reversal of the manual entry correcting the revaluations through General Ledger;

In each of the above instances, it should be noted that reversals of manual journal entries were done only once the revaluations had been processed through the fixed assets module.

The recording of Capital-Work-in-Progress under Other changes/movements is the only exception to the above.

*Figures in Rand thousand*

<b>Reconciliation of property, plant and equipment - Economic entity - 2011</b>									
	<b>Opening balance</b>	<b>Additions</b>	<b>Disposals</b>	<b>Reclass</b>	<b>Revaluations</b>	<b>Other changes movements</b>	<b>Depreciation</b>	<b>Impairment reversal</b>	<b>Total</b>
Land	41,162	-	-	-	(2,654)	-	-	-	38,508
Buildings	37,893	68,900	(2,825)	(75)	110,791	(103,819)	(54,293)	-	56,572
Plant and machinery	661	78	(6)	-	-	-	(162)	(6)	565
Furniture and Fixtures	4,656	6,058	(620)	-	-	(748)	(2,576)	-	6,770
Motor vehicles	1,372	674	-	-	-	(197)	(922)	(361)	566
Office equipment	18,391	5,585	(981)	-	-	(1,348)	(4,118)	(205)	17,324
Computer equipment	51,508	39,908	(1,207)	81	-	(29)	(30,313)	(1,310)	58,638
Leased motor vehicles	10,552	254	(499)	-	-	(439)	(2,164)	(115)	7,589
Owned buildings	-	-	-	-	(27,742)	51,009	(228)	-	23,039
Capital work in progress	33,582	14,497	-	-	-	(3,171)	-	-	44,908
Laboratory equipment	192,782	75,168	(7,908)	-	-	(1,360)	(73,980)	-	184,702
Mobile units	-	482	-	-	-	12,344	(615)	-	12,211
	<b>392,559</b>	<b>211,604</b>	<b>(14,046)</b>	<b>6</b>	<b>80,395</b>	<b>(47,758)</b>	<b>(169,371)</b>	<b>(1,997)</b>	<b>451,392</b>

# Group Annual Financial Statements

## for the year ended 31 March 2011

### 5. Property, plant and equipment (continued)

Figures in Rand thousand

#### Reconciliation of property, plant and equipment - Controlling entity - 2011

	Opening balance	Additions	Disposals	Reclass	Revaluations	Other changes, movements	Depreciation	Total
Land	38,508	-	-	-	(37,954)	2,654	-	3,208
Buildings	56,572	15,341	(573)	(32,631)	(5,455)	55,892	(10,294)	78,852
Plant and machinery	565	3,192	(10)	1,309	-	-	(-579)	4,477
Furniture and fixtures	6,734	1,422	(886)	31	-	425	(2,248)	5,478
Motor Vehicles	566	18	(60)	903	-	-	(308)	1,119
Office equipment	17,285	5,669	(1,859)	120	-	-	(6,651)	14,564
Computer equipment	58,575	6,338	(23,291)	64	-	68	(19,229)	22,525
Leased Vehicles	7,589	469	(82)	(903)	-	-	(1,793)	5,280
Owned buildings	23,039	10,141	(1)	31,110	(332)	27,742	(3,224)	88,475
Capital work in progress	44,930	-	-	-	-	44,711	-	89,641
Laboratory equipment	183,879	43,310	(4,860)	-3	-	6,923	(83,956)	145,293
Mobile Units	12,211	7,667	(1,696)	-	-	-	(1,580)	16,602
	<b>450,453</b>	<b>93,567</b>	<b>(33,318)</b>	<b>-</b>	<b>(43,741)</b>	<b>138,415</b>	<b>(129,862)</b>	<b>475,514</b>

#### Revaluation

In the financial year ended 31 March 2010, management decided to change the accounting policy of revaluing land and buildings to a cost basis of accounting. The market value of land and buildings for the period under review is R167,3m (2007: R189,1m). Revaluations were performed by independent valuer, Reapele Property Valuation Services. The opening balance of buildings has been adjusted to cater for the effect of the revaluation adjustments relating to prior periods.

In the financial year ended 31 March 2011, the reversal of revaluation entries were processed through the fixed assets module for both land and buildings categories, as audited adjustments to revaluation were only processed in the General Ledger in the prior year. Therefore disclosure under the revaluations column was necessary.

#### Leased Assets

All leased motor vehicles with a carrying value of R5,280m have been pledged as security for the finance lease liability with a present value of R3,662m. The terms and conditions of the liability are detailed in note 7.

# Group Annual Financial Statements for the year ended 31 March 2011

## 5. Property, plant and equipment (continued)

### Other changes / movements

Other changes / movements in the reconciliation of property, plant and equipment relating solely to the reversal of manual general ledger journal entries are disclosed as follows:

- For the land category, the reversal of the manual entry correcting the revaluations through General Ledger;
- For the buildings and owned buildings categories, the reversal of the manual entry correcting the revaluations through General Ledger;
- For the furniture and fixtures categories, the reversal of audit adjustments which affected prior year entries;
- For the computer equipment category, the reversal of audit adjustments which affected prior year entries; and
- For the Mobile units category, the reversal of the manual entry correcting the revaluations through General Ledger;

In each of the above instances, it should be noted that reversals of manual journal entries were done only once the revaluations had been processed through the fixed assets module.

The recording of Capital-Work-in-Progress under Other changes/movements is the only exception to the above.

Figures in Rand thousand

Reconciliation of property, plant and equipment - Controlling entity - 2010									
	Opening balance	Additions	Disposals	Reclass	Revaluations	Other changes movements	Depreciation	Impairment reversal	Total
Land	41,162	-	-	-	(2,654)	-	-	-	38,508
Buildings	37,893	68,900	(2,832)	(75)	110,798	(103,819)	(54,293)	-	56,572
Plant and machinery	661	78	(6)	-	-	-	(162)	(6)	565
Furniture and fixtures	4,648	6,010	(596)	(10)	-	(749)	(2,569)	-	6,734
Motor vehicles	1,372	674	-	-	-	(197)	(922)	(361)	566
Office equipment	18,357	5,571	(980)	-	-	(1,349)	(4,109)	(205)	17,285
IT equipment	51,439	39,857	(1,195)	81	-	(2)	(30,295)	(1,310)	58,575
Leased motor vehicles	10,552	254	(499)	-	-	(439)	(2,164)	(115)	7,589
Owned buildings	-	-	-	-	(27,742)	51,009	(228)	-	23,039
Capital work in progress	33,485	14,616	-	-	-	(3,171)	-	-	44,930
Laboratory equipment	191,578	74,437	(7,299)	-	-	(1,247)	(73,590)	-	183,879
Mobile Units	-	482	-	-	-	12,344	(615)	-	12,211
	<b>391,147</b>	<b>210,879</b>	<b>(13,407)</b>	<b>(4)</b>	<b>80,402</b>	<b>(47,620)</b>	<b>(168,947)</b>	<b>(1,997)</b>	<b>450,453</b>

## Group Annual Financial Statements for the year ended 31 March 2011

### 6. Intangible assets

Figures in Rand thousand

Economic entity	2011			2010		
	Cost	Accumulated amortisation	Carrying value	Cost	Accumulated amortisation	Carrying value
Patents, trademarks and other rights	60	(9)	51	60	(9)	51
Computer software	33,431	(3,346)	30,085	10,790	(3,484)	7,306
<b>Total</b>	<b>33,491</b>	<b>(3,355)</b>	<b>30,136</b>	<b>10,850</b>	<b>(3,493)</b>	<b>7,357</b>

Controlling entity	2011			2010		
	Cost	Accumulated amortisation	Carrying value	Cost	Accumulated amortisation	Carrying value
Patents, trademarks and other rights	60	(9)	51	60	(9)	51
Computer software	33,397	(3,315)	30,082	10,756	(3,453)	7,303
<b>Total</b>	<b>33,457</b>	<b>(3,324)</b>	<b>30,133</b>	<b>10,816</b>	<b>(3,462)</b>	<b>7,354</b>

#### Reconciliation of intangible assets - Economic entity - 2011

	Opening balance	Additions	Disposals	Amortisation	Total
Patents, trademarks and other rights	51	-	-	-	51
Computer software	7,306	27,962	(2,763)	(2,420)	30,085
	<b>7,357</b>	<b>27,962</b>	<b>(2,763)</b>	<b>(2,420)</b>	<b>30,136</b>

#### Reconciliation of intangible assets - Economic entity - 2010

	Opening balance	Additions	Disposals	Amortisation	Impairment reversal	Total
Patents, trademarks and other rights	54	-	-	(3)	-	51
Computer software	1,683	8,281	(855)	(1,609)	(194)	7,306
	<b>1,737</b>	<b>8,281</b>	<b>(855)</b>	<b>(1,612)</b>	<b>(194)</b>	<b>7,357</b>

#### Reconciliation of intangible assets - Controlling entity - 2011

	Opening balance	Additions	Disposals	Other changes movements	Amortisation	Total
Patents, trademarks and other rights	51	-	-	3	(3)	51
Computer software	7,303	27,962	(2,763)	-	(2,420)	30,082
	<b>7,354</b>	<b>27,962</b>	<b>(2,763)</b>	<b>3</b>	<b>(2,423)</b>	<b>30,133</b>

	Opening balance	Additions	Disposals	Other changes movements	Impairment reversal	Total
Patents, trademarks and other rights	54	-	-	(3)	-	51
Computer software	1,677	8,281	(855)	(1,606)	(194)	7,303
	<b>1,731</b>	<b>8,281</b>	<b>(855)</b>	<b>(1,609)</b>	<b>(194)</b>	<b>7,354</b>

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>7. Finance lease obligation</b>				
<b>Minimum lease payments due</b>				
within one year	2,390	2,799	2,390	2,799
in second to fifth year inclusive	1,507	3,999	1,507	3,999
	<b>3,897</b>	<b>6,798</b>	<b>3,897</b>	<b>6,798</b>
less: future finance charges	(235)	(648)	(235)	(648)
<b>Present value of minimum lease payments</b>	<b>3,662</b>	<b>6,150</b>	<b>3,662</b>	<b>6,150</b>
<b>Present value of minimum lease payments due</b>				
within one year	2,390	2,425	2,390	2,425
in second to fifth year inclusive	1,272	3,725	1,272	3,725
	<b>3,662</b>	<b>6,150</b>	<b>3,662</b>	<b>6,150</b>
Non-current liabilities	1,272	3,725	1,272	3,725
Current liabilities	2,390	2,425	2,390	2,425
	<b>3,662</b>	<b>6,150</b>	<b>3,662</b>	<b>6,150</b>

It is economic entity's policy to lease out certain motor vehicles under finance leases.

The average lease term was 3-5 years and the average effective borrowing rate was 6% (2010: 7%).

Interest rates are linked to prime at the contract date. All leases have fixed repayments and no arrangements have been entered into for contingent rent.

The economic entity's obligations under finance leases are secured by the lessor's charge over the leased assets with a carrying value of R5,280m. Refer to note 5.

<b>8. Trade and other payables</b>				
Trade payables	185,744	206,875	185,607	206,979
Expense and service accruals	130,904	111,724	130,582	111,400
Goods received accruals	12,655	16,115	12,655	16,114
Accrued audit fees	2,326	1,505	2,223	1,318
Other payables	15,217	4,502	15,217	4,502
	<b>346,846</b>	<b>340,721</b>	<b>346,284</b>	<b>340,313</b>

The Accounting Authority consider that the carrying amount of trade and other payables approximates their fair value. Trade payables are non-interest bearing and are normally settled on 30-day payment terms.

<b>9. VAT payable</b>				
VAT Payable	15,982	19,682	15,887	19,554

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>10. Deferred income</b>				
<b>Movement during the year</b>				
Balance at the beginning of the year	113,123	74,437	113,123	74,437
Additions during the year	67,507	174,773	67,507	174,773
Income recognition during the year	(96,733)	(136,087)	(96,733)	(136,087)
<b>Closing balance</b>	<b>83,897</b>	<b>113,123</b>	<b>83,897</b>	<b>113,123</b>
Non-current liabilities	37,309	39,444	37,309	39,444
Current liabilities	46,588	73,679	46,588	73,679
	<b>83,897</b>	<b>113,123</b>	<b>83,897</b>	<b>113,123</b>

The Economic entity can only apply accounting controls after the initial entry of the grant has been processed in the accounting records. This is due to the nature of the research grant income.

### 11. Provisions

Reconciliation of provisions - Economic entity - 2011	Opening Balance	Additions	Utilised During the year	Total
Student bursary provision	-	2,382	-	2,382
Leave Pay Provision	108,563	162,936	(162,183)	109,316
Staff Salary Award Provision	6,365	25,000	(6,365)	25,000
Bonus Provision	10,096	22,362	(23,069)	9,389
KZN DoH Provision	-	18,511	-	18,511
	<b>125,024</b>	<b>231,191</b>	<b>(191,617)</b>	<b>164,598</b>
<b>Reconciliation of provisions - Economic entity - 2010</b>				
Leave pay provision	101,493	229,504	(222,434)	108,563
Salary back-pay provision	-	6,365	-	6,365
Bonus provision	10,829	29,823	(30,556)	10,096
	<b>112,322</b>	<b>265,692</b>	<b>(252,990)</b>	<b>125,024</b>
<b>Reconciliation of provisions - Controlling entity - 2011</b>				
Student bursary provision	-	2,382	-	2,382
Leave Pay Provision	108,563	162,936	(162,183)	109,316
Staff Salary Award Provision	6,365	25,000	(6,365)	25,000
Bonus Provision	10,096	22,362	(23,069)	9,389
KZN DoH Provision	-	18,511	-	18,511
	<b>125,024</b>	<b>231,191</b>	<b>(191,617)</b>	<b>164,598</b>

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>Reconciliation of provisions - Controlling entity - 2010</b>				
Leave pay provision	101,493	229,504	(222,434.)	108,563
Salary back-pay provision	-	6,365	-	6,365
Bonus provision	10,829	29,823	(30,556)	10,096
	<b>112,322</b>	<b>265,692</b>	<b>(252,990)</b>	<b>125,024</b>

The leave pay provision relates to vesting leave pay to which employees may become entitled upon leaving the employment of the economic entity. The provision arises as employees render a service that increases their entitlement to future compensated leave and is calculated based on an employee's total cost of employment. The provision is utilised when employees become entitled to and are paid for the accumulated leave pay or utilise compensated leave due to them.

The bonus provision relates to employees who are on the cost to company package and elect to structure part of their package as a 13th cheque. The provision is utilised when employees become entitled to and are paid for their services to the entity. The bonus payable is determined by applying a specific formula based on the employees' total cost to company.

A student bursary provision is being held as the NHLS is in the process of awarding bursaries to students and are currently finalising the registration of UNISA students.

The staff award provision of R25m has been created to reward NHLS staff/departments who have contributed sustained and exceptional work efforts and who have brought recognition to the NHLS.

The KZN DoH Provision relates to utilities and maintenance fees owing to the KZN DoH for the Inkosi Albert Luthuli Hospital complex.

### 12. Retirement benefits

#### Post-retirement Medical Aid Plan

##### Carrying value

Present value of the defined benefit obligation wholly unfunded	(471,027)	(422,839)	(471,027)	(422,839)
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The economic entity operates a post-retirement medical aid benefit scheme. The liability was valued by independent actuaries at 31 March 2011 using the projected unit credit method, based on the current contribution structure. The next actuarial valuation will be performed on 31 March 2012.

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>12. Retirement benefits (continued)</b>				
<b>Movements for the year</b>				
Opening balance	422,839	399,474	422,839	399,474
Interest cost	40,017	34,283	40,017	34,283
Service cost	19,990	16,814	19,990	16,814
Benefits paid	9,967	(8,942)	9,967	(8,942)
Actuarial gain/(loss)	3,839	(6,127)	3,839	(6,127)
New entrants turning age 40	-	21,206	-	21,206
"New actives included in valuation (older than 40)"	-	3,815	-	3,815
New continuation members	5,765	3,604	5,765	3,604
"Change due to removal of the Rand cap amount"	-	33,863	-	33,863
"Change due to Essential Saver max on pensioners"	-	(35,726)	-	(35,726)
"Change due to GEPP members at 67% to R1014 max	-	(39,425)	-	(39,425)
Change NRA to 65 for all	(31,390)	-	(31,390)	-
	<b>471,027</b>	<b>422,839</b>	<b>471,027</b>	<b>422,839</b>

### The principal actuarial assumptions used for accounting purposes were:

• Discount rate - pre - retirement	9.25%
• Discount rate - post - retirement	9.25%
• Healthcare inflation rate	8.25%

### Retirement age

• Ex-state employees	65 years
• Ex-SAIMR employees	63 years
• Ex-University of Pretoria employees	65 years

### Net expense recognised in the statement of financial performance

Current service cost	19,990	16,814	19,990	16,814
Interest cost	40,017	34,283	40,017	34,283
Actuarial (losses) / gains	3,839	(6,127)	3,839	(6,127)
	<b>63,846</b>	<b>44,970</b>	<b>63,846</b>	<b>44,970</b>

### Sensitivity analysis

The impact of a 1% decrease / (increase) in the medical inflation rate will impact the present value of the liabilities as follows:

Decrease/(increase)	1% Decrease	1% Increase
Accrued Liability	22.00 %	(17.70)%
Vested Liability	10.20 %	(8.90)%

## Group Annual Financial Statements for the year ended 31 March 2011

In order to provide an updated value at 31 March 2011, the actuaries have updated the assumptions and methodology as follows:

- The benchmark option is the Discoverer Essential Saver option (including 100% savings) and the contribution rates effective 1 January 2011 have been used (an increase of 8% over the 2010 contribution rates);
- NHLS pays Discovery 100% of the contribution amount for each person (active and continuation members) who receives a subsidy from NHLS and are covered on Discovery Health). This is irrespective of which option they are on. Through a manual process NHLS recovers the difference between the subsidy and the total contribution paid to Discovery from each continuation member. The main results assume 0% recovery, consistent with the previous valuation;
- The interest rate has been reduced to 8.00% from 8.25% at the previous valuation, thus retaining the same gap between the interest and inflation assumptions; and
- All other assumptions have remained the same.

### Prior period liabilities

	2006 R'000	2007 R'000	2008 R'000	2009 R'000
Economic entity	256,313	346,143	356,929	399,474
Controlling entity	256,313	346,143	356,929	399,474

	2011 R'000	2010 R'000	2011 R'000	2010 R'000
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### 13. Stated Capital

#### Authorised

332 000 Ordinary shares at par value of R1 each	332	332	332	332
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#### Issued

332 000 Ordinary shares at par value of R1 each	332	332	332	332
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### 14. Revaluation reserve

The revaluation reserve arose on the revaluation of land and buildings to the depreciated replacement cost. During the prior financial year, management changed the accounting policy on the revaluation of land and buildings which resulted in the reversal of the revaluation reserve. Subsequently, the revaluation reserve is no longer in use.

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000

### 15. Capital Replacement Reserve

The capital replacement reserve was created as a result of the establishment of the NHLS, which assumed control over state-owned laboratories on incorporation. This reserve is non-distributable.

Capital replacement reserve	8,000	8,000	8,000	8,000
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### 16. General Reserve

The general reserve was created as a result of the establishment of the NHLS, which assumed control over state-owned laboratories on incorporation. This reserve is non-distributable.

General reserve	34,505	34,505	31,206	31,206
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### 17. Capital Adequacy of the Economic Entity

The economic entity is an operating entity which requires ongoing capital to meet the financing requirements to purchase equipment in line with both technological advances and replacement of assets which have reached their useful life. In addition, the trend for state health care institutions to delay payment of invoices for services rendered to them, beyond reasonable periods of time requires an ongoing increase in working capital commitments.

<b>The following is the capital requirement for the 2012 financial year:</b>	<i>R'000</i>
Purchase of new and replacement equipment	(231,200)
Other capital requirements	(240,195)
<b>Growth in working capital requirements</b>	<b>(48,327)</b>
Total cash requirements	(519,722)
Less: cash available at 31 March 2011	177,421
Less: budgeted cash flow from trading during the 2012 year	237,171
<b>Capital required to meet obligations for the 2012 financial year</b>	<b>(105,130)</b>

The economic entity will be in a position to meet its capital obligations which it requires to operate during the 2012 financial year provided that its customers settle their outstanding debts timeously. Failure to do so will severely hamper its ability to operate effectively.

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>18. Investments</b>				
<b>South African Vaccine Producers (Pty) Limited</b>				
Percentage holding			100%	100%
Carrying amount			10	10
Impairment			(10)	(10)
			-	-

### Elevation Biotech (Pty) Limited

Percentage holding			0%	15%
Carrying amount			-	-

The Controlling entity acquired a 15 % interest in Elevation Biotech (Pty) Limited in 2005. During the current financial year, Elevation Biotech (Pty) Limited was liquidated.

### 19. Loan to group company

#### Controlled entities

South African Vaccine Producers (Pty) Ltd			35,778	34,174
Impairment of loans to controlled entities	-	-	(35,778)	(34,174)
	-	-	-	-

The Controlling entity has subordinated its rights to claim payments of debts of R35,778m (2010: R34,174m) owing to it by South African Vaccine Producers (Pty) Limited until the assets of the subsidiary, fairly valued, exceeds its liabilities. The report of the Accounting Authority contains further details of the subsidiary.

#### Loans to economic entities impaired

As of 31 March 2011, loans to economic entities of R 35,778m (2010: R 34,174m) were impaired and provided for the amount of the provision was R 35,778m as of 31 March 2011 (2010: R 34,174m).

The ageing of these loans is as follows:

1 to 12 months	-	-	93	398
Over 12 months	-	-	35,685	33,776
	-	-	35,778	34,174

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>20. Revenue</b>				
Sale of goods	10,013	9,899	-	-
Rendering of services	3,370,295	2,980,522	3,370,295	2,980,522
Notional interest component included in revenue	65,817	59,076	65,817	59,076
	<b>3,446,125</b>	<b>3,049,497</b>	<b>3,436,112</b>	<b>3,039,598</b>

The amount included in revenue arising from exchanges of goods or services are as follows:

Sale of goods	10,013	9,899	-	-
Rendering of services	3,370,295	2,980,522	3,370,295	2,980,522
Notional interest component included in revenue	65,817	59,076	65,817	59,076
	<b>3,446,125</b>	<b>3,049,497</b>	<b>3,436,112</b>	<b>3,039,598</b>

### 21. Other revenue

Grants Income Recognised	96,733	136,087	96,733	136,087
Royalties received	179	136	179	136
Rental income - related party	2,026	-	2,026	-
Discount received	3,746	3,833	3,743	3,831
Debt impairment recovered	491	3,180	491	3,047
Training rebate	-	21	-	21
Teaching income	22,015	20,241	22,015	20,241
Other income	9,128	6,804	9,128	6,804
Surplus on disposal of assets	-	3	-	-
Recovery of NDOH transfers and subsidies	68,202	66,875	68,202	66,875
	<b>202,520</b>	<b>237,180</b>	<b>202,517</b>	<b>237,042</b>

### 22. Operating surplus

Operating surplus for the year is stated after accounting for the following:

#### Operating lease charges

##### Premises

• Contractual amounts Equipment	2,558	2,339	2,551	2,339
• Contractual amounts	27,121	19,621	26,979	19,539
	<b>29,679</b>	<b>21,960</b>	<b>29,530</b>	<b>21,878</b>

Deficit on sale of property, plant and equipment	(22,667)	(8,328)	(22,610)	(8,328)
Amortisation on intangible assets	2,420	1,519	2,420	1,516
Depreciation on property, plant and equipment*	66,369	141,949	66,005	141,495
Employee costs	1,762,497	1,430,647	1,755,575	1,424,235

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>23. Debt impairment</b>				
Debt impairment	20,914	(3,787)	20,914	(3,787)
Contributions to debt impairment provision	41,562	28,074	41,655	28,472
Debt impairment written off	14,098	8,729	14,098	8,729
	<b>76,574</b>	<b>33,016</b>	<b>76,667</b>	<b>33,414</b>

Debt impairment consists of the present valuing of debtors which has led to a movement of debt impairment of R20.9m.

Contributions to debt impairment provision consists of Provision for doubtful debt and provision for the loss in the subsidiary company, SAVP.

Debt impairment written off consists of stale medical aid claims due to late billing of R519k as well as write offs due to lab errors, debt that is uneconomical to pursue, death of patients, uncontactable patients and debt which falls over the prescribed period which amounted to R13,5m.

### 24. Investment revenue

#### Interest revenue

Bank	18,824	22,031	18,824	22,031
Corporate Credit Card	-	1	-	1
	<b>18,824</b>	<b>22,032</b>	<b>18,824</b>	<b>22,032</b>

The amount included in Investment revenue arising from exchange transactions amounted to R 18,824m.

The amount included in Investment revenue arising from non-exchange transactions amounted to nil.

### 25. Interest paid

Finance leases	357	555	357	555
Other interest paid	(547)	409	(547)	105
	<b>(190)</b>	<b>964</b>	<b>(190)</b>	<b>660</b>

### 26. Auditors' remuneration

Audit Fees - current year	3,399	5,906	3,226	5,552
Fees for other services	424	100	424	100
Expenses	-	138	-	132
	<b>3,823</b>	<b>6,144</b>	<b>3,650</b>	<b>5,784</b>

## Group Annual Financial Statements for the year ended 31 March 2011

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>27. Cash generated from operations</b>				
Surplus	264,114	206,171	265,149	206,488
<b>Adjustments for:</b>				
Depreciation and amortisation	68,789	143,468	68,425	143,011
Deficit on sale of assets and liabilities	22,667	8,325	22,610	8,328
Finance costs - Finance leases	357	555	357	555
Debt impairment	76,574	33,016	76,667	33,414
Movements in retirement benefit assets and liabilities	(48,188)	(23,365)	(48,188)	(23,365)
Movements in provisions	39,574	12,702	39,574	12,702
Net effect of other changes/movements fixed in assets	3,096	-	1,092	-
Reversal of SAVP prior year adjustment	125	-	-	-
Reversal of manual revaluation adjustment	(15,714)	-	(15,714)	-
Effect of change in accounting revaluation policy - adjustments	-	47,120	-	47,120
General Ledger depreciation adjustments	63,856	140	63,862	137
<b>Changes in working capital:</b>				
Inventories	(3,456)	47,450	(3,102)	47,225
Trade and other receivables	(340,187)	(175,937)	(339,765)	(176,573)
Consumer debtors	(76,574)	(33,016)	(76,667)	(33,414)
Trade and other payables	6,123	12,165	6,576	12,612
VAT	(3,700)	19,648	(3,667)	19,554
Deferred income	(29,226)	38,686	(29,226)	38,686
	<b>28,230</b>	<b>337,128</b>	<b>27,983</b>	<b>336,480</b>

### 28. Commitments

#### Authorised capital expenditure

Capital expenditure contracted for after the reporting date but not yet incurred is as follows:

• Property, plant and equipment	240,195	235,319	240,195	235,319
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This committed expenditure relates to property and will be financed by available bank facilities, retained surpluses, existing cash resources and funds internally generated.

#### Operating leases - as lessee expense

Minimum lease payments due

• within one year	14,445	17,678	14,445	17,678
• in second to fifth year inclusive	29,004	17,586	29,004	17,586
	<b>43,449</b>	<b>35,264</b>	<b>43,449</b>	<b>35,264</b>

## Group Annual Financial Statements for the year ended 31 March 2011

Operating lease payments represent rentals payable by the economic entity for certain of its office properties. Leases are negotiated for an average term of seven years and rentals are fixed for an average of three years. No contingent rent is payable.

### 29. Contingencies

Litigation is in process against the entity relating to a claim for damages by (a) Ms H Crewe-Brown who alleges that the entity is responsible for the incorrect treatment of her pension funds and is seeking damages of R 2,764,000. The economic entity's lawyers consider the likelihood of the action against the entity being successful as unlikely.

Litigation is in process against the entity relating to a civil claim based on contract by (b) Add Value Transportation. The matter has been referred to arbitration. Add Value Transportation is seeking damages of R 3,500,000.

During March 2008, the entity received correspondence from the South African Revenue Service (SARS) claiming against the entity immediate payment of the amount listed in (d) below. The outstanding amount arose out of the PAYE issue for the tax period ended on August 2002, whereby NHLS is said to have underpaid PAYE against the IRP 5 reconciliation. This arose out of taking over of the Free State Province Employees during this period. NHLS is of the view that this obligation rests with the Free State Department of Health as it arose before NHLS took over the said employees. SARS' response is awaited in this regard.

The intention of the NHLS is to defend all other cases and the legal opinion is of the view that the NHLS is in a favourable legal position to succeed.

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>Claims lodged for damages:</b>				
a) H Crewe-Brown	2,764	2,764	2,764	2,764
b) Add Value Transportation	1,350	1,350	1,350	1,350
c) Legal fees on ex-employee cases	8,670	7,950	8,670	7,950
d) Dispute with SARS (PAYE)	32,489	32,489	32,489	32,489
e) PAWUSA	54	54	54	54
f) Psychem	111	311	111	311
g) Nashua Mobile	120	-	120	-
	<b>45,558</b>	<b>44,918</b>	<b>45,558</b>	<b>44,918</b>

## Group Annual Financial Statements for the year ended 31 March 2011

### 30. Related parties

Relationships	Designation	Representative of
<b>Non-executive Board Members</b>		
Sesi Baloyi	Chairperson	Minister of Health
Ralph Mjijima	Vice Chairperson	Minister of Health
Andre Venter*		National Department of Health
Yogan Pillay		National Department of Health
John Coates*		Western Cape Province
Nanette Smith*		Council for Higher Education: Universities of Technology
Adriaan Sturm		Council for Higher Education - Universities
Jonathan Mallet*		Northern Cape Province
Mariaan Malherbe		Limpopo Province
Mninawa Matiwane		Eastern Cape Province
Gregory Hussey		Public Nomination: Research
Sylvia Khokho*		Free State Province
Sibongile Shezi		KZN Province
Nokuphila Mazamisa*		Gauteng Province
Jake Ntjana*		North West Province
Ronald Moyo		Public Nomination: Finance
Nozuko Yokwana*		Public Nomination: Community Development
Antonette Richardson		South African Local Government Association
Thokozani Mhlongo		Mpumalanga Province
<b>Executive Board Members</b>		
Sagie Pillay	Chief Executive Officer	NHLS

\* denotes the retirement of non-executive Board member during the financial year ended 31 March 2011.

Sales to related parties' transactions relates to the provision of pathology, research and teaching services. Purchases from related parties are as a result of goods and services purchased in the ordinary course of business.

## Group Annual Financial Statements for the year ended 31 March 2011

### 30. Related parties (continued) (Figures expressed in thousand rands)

Accounts Receivable	Economic Entity 2011		Controlling Entity 2011		Economic Entity 2010		Controlling Entity 2010	
	Owed	Sales	Owed	Sales	Owed	Sales	Owed	Sales
Western Cape	43,021	363,694	43,021	363,694	64,215	380,874	64,215	380,874
Eastern cape	52,518	362,681	52,518	362,681	229,126	398,355	229,126	398,355
Northern Cape	29,691	68,427	29,691	68,427	25,583	46,750	25,583	46,750
Gauteng	655,487	896,029	655,487	896,029	433,049	835,062	433,049	835,062
North west	26,264	193,839	26,264	193,839	56,591	192,177	56,591	192,177
Limpopo	29,891	185,390	29,891	185,390	32,289	189,026	32,289	189,026
Mpumalanga	38,958	191,293	38,958	191,293	106,025	351,542	106,025	351,542
Free state	7,348	174,241	7,348	174,241	27,785	230,647	27,785	230,647
Kwazulu Natal	679,705	737,566	679,705	737,566	43,560	452,364	43,560	452,364
<b>Total</b>	<b>1,562,883</b>	<b>3,173,160</b>	<b>1,562,883</b>	<b>3,173,160</b>	<b>1,018,223</b>	<b>3,076,797</b>	<b>1,018,223</b>	<b>3,076,797</b>
<b>By Segment</b>								
Hospitals	1,217,796	2,149,778	1,217,796	2,149,778	518,652	1,852,851	518,652	1,852,851
Health Clinics	116,085	310,436	116,085	310,436	152,175	537,022	152,175	537,022
Correctional Services	10,455	11,515	10,455	11,515	8,212	26,065	8,212	26,065
Anti-Retrovirals Programmes	159,761	612,855	159,761	612,855	308,762	623,141	308,762	623,141
Universities	1,381	1,028	1,381	1,028	333	2,766	333	2,766
Defence	5,977	6,489	5,977	6,489	19,656	34,952	19,656	34,952
Municipalities	47,251	66,853	47,251	66,853	10,433	-	10,433	-
Other Public Entities	4,177	14,206	4,177	14,206	-	-	-	-
<b>Total</b>	<b>1,562,883</b>	<b>3,173,160</b>	<b>1,562,883</b>	<b>3,173,160</b>	<b>1,018,223</b>	<b>3,076,797</b>	<b>1,018,223</b>	<b>3,076,797</b>

## Group Annual Financial Statements for the year ended 31 March 2011

### 30. Related parties (continued) (Figures expressed in thousand rands)

Accounts Payable	Economic Entity 2011		Controlling Entity 2011		Economic Entity 2010		Controlling Entity 2010	
	Owed	Sales	Owed	Sales	Owed	Sales	Owed	Sales
Western Cape	6,355	15,547	6,355	15,547	3,942	58,545	3,942	58,545
Eastern Cape	2,057	2,941	2,057	2,941	1,013	13,435	1,013	13,435
Gauteng	88,847	99,611	88,847	99,611	30,968	695,292	30,968	695,292
North West	734	802	734	802	1,310	12,828	1,310	12,828
Limpopo	380	414	380	414	18	1,457	18	1,457
Mpumalanga	27	38	27	38	13	215	13	215
KZN	435	597	435	597	-	-	-	-
<b>Total</b>	<b>98,835</b>	<b>119,950</b>	<b>98,835</b>	<b>119,950</b>	<b>37,264</b>	<b>781,772</b>	<b>37,264</b>	<b>781,772</b>
<b>By Segment</b>								
Hospitals	1,441	2,177	1,441	2,177	2,062	11,630	2,062	11,630
Universities	21,629	37,571	21,629	37,571	13,980	99,831	13,980	99,831
Municipalities	9,532	10,824	9,532	10,824	387	12,675	387	12,675
National Public Entities	66,183	69,316	66,183	69,316	2,333	369,055	2,333	369,055
Provincial Public Entities	50	62	50	62	-	31,359	-	31,359
Other Public Entities	-	-	-	-	18,502	185,874	18,502	185,874
Contract Laboratory Services	-	-	-	-	-	71,348	-	71,348
<b>Total</b>	<b>98,835</b>	<b>119,950</b>	<b>98,835</b>	<b>119,950</b>	<b>37,264</b>	<b>781,772</b>	<b>37,264</b>	<b>781,772</b>

# Group Annual Financial Statements for the year ended 31 March 2011

## 31. Risk management

### Financial risk management

The economic entity's activities expose it to a variety of financial risks: liquidity risk, interest rate risk and credit risk.

### Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and the availability of funding through an adequate amount of committed credit facilities. Due to the dynamic nature of the underlying businesses, economic entity treasury maintains flexibility in funding by maintaining availability under committed short-term investments. At year end the investment in short-term deposits amounted to R177m.

The economic entity's risk to liquidity is a result of the funds available to cover future commitments. The economic entity manages liquidity risk through an ongoing review of future commitments and credit facilities.

The table below analyses the economic entity's financial liabilities into relevant maturity groupings based on the remaining period at the statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

<b>Economic entity</b>	<i>R'000</i>	<i>R'000</i>
<b>At 31 March 2011</b>	<b>Less than 1 year</b>	<b>Between 2 and 5 years</b>
Finance lease obligations	2,390	2,799
Trade and other payables	347,904	-
VAT Payable	15,954	-
<b>At 31 March 2010</b>	<b>Less than 1 year</b>	<b>Between 2 and 5 years</b>
Finance lease obligations	2,799	3,999
Trade and other payables	340,670	-
VAT Payable	19,682	-

### Interest rate risk

The economic entity's interest rate risk arising from short-term investments and finance leases is minimal in view of the immaterial amounts involved.

### Fair value

At 31 March 2011, the carrying amounts of cash, accounts receivable, accounts payable and accrued expenses approximated their fair values due to the short-term maturities of these assets and liabilities. The carrying amount of financial assets and financial liabilities approximate their fair values.

### Credit risk

Credit risk is managed on a group basis.

Credit risk consists mainly of cash deposits, cash equivalents and trade debtors. The entity only deposits cash with major banks with high quality credit standing and limits exposure to any one counter-party to the exception of government departments.

## Group Annual Financial Statements for the year ended 31 March 2011

Concentrations of credit risk with respect to trade receivables are limited due to the majority of receivables being owned by losses is inherent in the economic entity's trade receivables. Trade receivables are interest-bearing and are generally on 30 day payment terms. All interest on overdue debt has been provided for in full due to various communications received from the relevant government departments indicating they will not be in a position to honour the the additional interest owed to NHL.

Financial assets exposed to credit risk at year end were as follows:

	Economic entity		Controlling entity	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>Financial instrument</b>				
Trade Receivables	1,589,227	1,242,153	1,587,885	1,241,233

### 32. Change in estimate

#### Property, plant and equipment

During the course of the previous financial year, management undertook to review the useful lives of new and existing assets. In addition to the revision of the useful lives of asset categories, new asset categories were established where it was deemed appropriate. The categories attracted separate useful lives. It was noted that on review of the useful lives of assets, the accounting policy was not consistently applied. The application of the useful life of an asset was done on a case-by-case basis. This was subsequently corrected across all asset categories which resulted in notable adjustments being made to both the net book values of both laboratory and computer equipment.

A category, Mobile Units, was created to account separately for Mobile Labs and Mobile homes. Previously these were accounted for under Buildings and depreciated over 20 years. These units are placed in areas where there is no infrastructure and as a result the useful lives of these units are less than that expected for permanent structures in areas with the necessary infrastructure. Mobile Labs will depreciate over 10 years and mobile homes over 15 years. This represents a 100% increase in the depreciation of mobile labs and a 75% increase in the depreciation of mobile homes.

The following laboratory equipment sub-categories have had their useful lives decreased from 5 years to 4 years:

- Analytical lab equipment, centrifuges, electrical equipment, lab benches, medical equipment, photographic equipment, safety cabinets, water systems and refrigeration equipment.

The following computer equipment sub-categories have had their useful lives decreased from 5 years to 3 years:

- PC Notebooks, peripheral hardware, printers and copiers.

# Group Annual Financial Statements for the year ended 31 March 2011

## 33. Changes in Comparatives

Comparative figures have been restated to account for the following:

### 33.1 Change in accounting policy

During the financial year ended 31 March 2010, the economic entity changed its accounting policy with respect to the treatment of the revaluation of land and buildings from the revaluation basis to the cost basis of accounting. However, management also undertook to disclose, as a note to the financial statements, the fair value of NHLs property. The note disclosure allows management to keep a regular record of the true value of property in the Economic entity annual financial statements.

The decision to voluntarily change policy was taken after a thorough review and assessment of the state of affairs around the various historic accounting challenges that arose from the revaluation of land and buildings at NHLs. As a result of this review and assessment, concerted efforts have been made to simplify methods of accounting for fixed assets to eliminate the legacy issues of the past.

	2010 R'000s	2009 R'000s	01/04/09 R'000s
Decrease in revaluation reserve	-	-	135,170
Decrease in property, plant and equipment due to reversal of revaluation reserve	-	-	(153,929)
Effect on Total Net Assets	-	-	(18,759)
Adjustment against accumulated surplus at beginning of 2009			18,759
Adjustment against accumulated surplus for 2009	-	7,837	-
Effect on Total Net Assets	-	7,837	18,759

### 34. Actual operating expenditure versus budgeted operating expenditure

Refer to Appendix E (1) for the comparison of actual operating expenditure versus budgeted expenditure.

### 35. Actual capital expenditure versus budgeted capital expenditure

Refer to Appendix E (2) for the comparison of actual capital expenditure versus budgeted expenditure.

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Detailed Statement of Financial Performance

	Note(s)	Economic entity		Controlling entity	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
<b>Revenue</b>					
Sale of goods		10,013	9,899	-	-
Rendering of services		3,370,295	2,980,522	3,370,295	2,980,522
Notional interest component included in revenue		65,817	59,076	65,817	59,076
	<b>20</b>	<b>3,446,125</b>	<b>3,049,497</b>	<b>3,436,112</b>	<b>3,039,598</b>
<b>Cost of sales</b>					
Opening stock		(71,541)	(116,895)	(71,519)	(116,648)
Purchases		(3,456)	45,354	(3,102)	45,129
Cost of manufactured goods		(2,367,643)	(2,163,395)	(2,359,716)	(2,155,802)
Closing stock		74,997	71,541	74,621	71,519
		<b>(2,367,643)</b>	<b>(2,163,395)</b>	<b>(2,359,716)</b>	<b>(2,155,802)</b>
<b>Gross surplus</b>		<b>1,078,482</b>	<b>886,102</b>	<b>1,076,396</b>	<b>883,796</b>
<b>Other income</b>					
Grant income recognised		96,733	136,087	96,733	136,087
Royalties received		179	136	179	136
Rental income		2,026	-	2,026	-
Discount received		3,746	3,833	3,743	3,831
Recoveries		491	3,201	491	3,068
Teaching Income		22,015	20,241	22,015	20,241
Other income		9,128	6,804	9,128	6,804
Interest received	24	18,824	22,032	18,824	22,032
Surplus on disposal of assets		-	3	-	-
NDOH transfers and subsidies received		68,202	66,875	68,202	66,875
		<b>221,344</b>	<b>259,212</b>	<b>221,341</b>	<b>259,074</b>
<b>Expenses (Refer to page 67)</b>		<b>(1,035,902)</b>	<b>(938,179)</b>	<b>(1,032,778)</b>	<b>(935,722)</b>
<b>Operating surplus</b>	<b>22</b>	<b>263,924</b>	<b>207,135</b>	<b>264,959</b>	<b>207,148</b>
Interest paid	25	190	(964)	190	(660)
<b>Surplus for the year</b>		<b>264,114</b>	<b>206,171</b>	<b>265,149</b>	<b>206,488</b>

# Group Annual Financial Statements

## for the year ended 31 March 2011

### Detailed Statement of Financial Performance

Operating Expenses	Note(s)	Economic entity		Controlling entity	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
Advertising		5,235	4,295	5,225	4,284
Rates and taxes		109	(152)	109	(152)
Auditors remuneration	26	3,823	6,144	3,650	5,784
Bad debts		76,574	33,016	76,667	33,414
Bank charges		1,023	930	1,009	890
Cleaning		13,617	13,225	13,468	13,343
Computer expenses		11,818	12,261	11,811	12,254
Legal expenses		2,651	2,237	2,644	2,233
Consulting and professional fees		18,470	57,589	18,407	57,589
Project Management expenses		4,835	2,115	4,835	2,115
Training expenses		4,294	22	4,294	22
Software development expenses		16,117	558	16,117	558
Internal Audit Fees		5,605	2,863	5,605	2,863
Consumables		4,615	4,898	4,570	4,848
Debt collection		524	317	524	317
Delivery expenses		866	2,688	866	2,687
Discount allowed		8,188	24,198	8,188	24,198
Entertainment		1,064	336	1,059	336
Fines and penalties		38	18	38	18
Insurance		2,804	1,920	2,804	1,920
Conferences and seminars		879	1,415	836	1,398
Lease rentals on operating lease		25,208	14,077	25,066	14,032
Promotions and sponsorships		669	-	669	-
Medical expenses		80	9	80	9
Motor vehicle expenses		454	474	454	474
Packaging		8,497	11,418	8,371	11,235
Petrol and oil		8,078	8,630	8,077	8,630
Postage		3,843	4,178	3,801	4,178
Printing and stationery		32,304	30,975	32,275	30,907
Promotions		730	2,454	730	2,454
Repairs and maintenance		35,790	11,285	35,755	11,279
Security		5,127	4,956	5,127	4,956
Software expenses		33,960	24,502	33,960	24,491
Staff welfare		5,352	5,738	5,346	5,706
Subscriptions		4,416	6,991	4,386	6,982
Telephone and fax		42,762	34,495	42,569	34,356
Training		29	80	29	80
Travel - local		27,880	28,430	27,880	28,418
Travel - overseas		878	574	878	574
Assets expensed		1,607	854	1,590	847
Utilities		12,181	11,370	12,181	11,370
Research Trust		3	-	3	-
Archiving and Storage		818	888	818	888
Other expenses		351	984	351	984
Employee costs		510,280	412,128	508,621	410,614
Depreciation, amortisation and impairments		68,789	143,468	68,425	143,011
Loss on disposal of assets		22,667	8,328	22,610	8,328
		<b>1,035,902</b>	<b>938,179</b>	<b>1,032,778</b>	<b>935,722</b>

## Group Annual Financial Statements for the year ended 31 March 2011

### Appendix E:(1) Actual vs Budget (Revenue and Expenditure)

Controlling Entity	2011			2010		
	Actual	Budget	Variance (Under)/ Over	Actual	Budget	Variance (Under)/ Over
	R'000	R'000	%	R'000	R'000	%
<b>Test revenue</b>	<b>3,436,112</b>	<b>3,467,464</b>	<b>(1)</b>	<b>3,035,293</b>	<b>3,137,700</b>	<b>(3)</b>
Direct materials	883,003	837,534	5	921,545	883,291	4
<b>Net added value</b>	<b>2,553,109</b>	<b>2,629,930</b>	<b>(3)</b>	<b>2,113,748</b>	<b>2,254,409</b>	<b>(6)</b>
Direct labour	1,048,766	1,184,811	(11)	861,395	862,241	(0)
Training labour	198,188	181,489	9	153,362	172,674	(11)
Other direct overheads	223,814	232,809	(4)	220,705	107,303	106
<b>Gross margin</b>	<b>1,082,341</b>	<b>1,030,821</b>	<b>5</b>	<b>878,286</b>	<b>1,112,191</b>	<b>(21)</b>
Other operating income	<b>200,491</b>	<b>105,769</b>	<b>90</b>	<b>236,604</b>	<b>112,244</b>	<b>111</b>
Referral fees income(expense)	-	10,969	(100)	-	-	-
Indirect labour	450,703	435,167	4	379,132	423,800	(11)
Depreciation	56,930	72,823	(22)	135,046	72,836	85
Other indirect overheads	451,253	465,468	(3)	409,673	506,840	(19)
<b>Operating surplus/(deficit)</b>	<b>323,946</b>	<b>174,101</b>	<b>86</b>	<b>191,039</b>	<b>220,959</b>	<b>(14)</b>
Non-operating income	2,206	980	107	-	-	-
Non-operating expense	80,086	71,452	12	-	-	-
<b>Net surplus/(deficit) before financing</b>	<b>245,886</b>	<b>103,629</b>	<b>137</b>	<b>191,039</b>	<b>220,959</b>	<b>(14)</b>
Interest received/(paid)	19,263	11,877	62	21,737	42,000	(48)
<b>Net surplus/(deficit)</b>	<b>265,149</b>	<b>115,506</b>	<b>130</b>	<b>212,776</b>	<b>262,959</b>	<b>(19)</b>

## Group Annual Financial Statements for the year ended 31 March 2011

### Appendix E:(2) Actual vs Budget (Acquisition of Property, Plant and Equipment)

Controlling Entity	2011			2010		
	Actual	Budget	Variance	Actual	Budget	Variance
Asset Category	R'000	R'000	%	R'000	R'000	%
Computer Equipment*	34,300	155,031	(78)	39,908	50,288	(21)
Computer Software*	-	-	-	8,281	51,457	(84)
Furniture & Fittings*	4,614	11,060	(58)	6,058	9,435	(36)
Laboratory Equipment	43,310	74,528	(42)	89,665	91,528	(2)
Land & Buildings	33,149	119,993	(72)	69,382	65,210	6
Motor Vehicles	487	-	100	928	175	430
Office Equipment	5,669	4,388	29	5,585	5,232	7
Plant & Equipment*	-	-	-	78	2,571	(97)
Patents	-	-	-	-	-	-
<b>Grand Total</b>	<b>121,529</b>	<b>365,000</b>	<b>(67)</b>	<b>219,885</b>	<b>275,895</b>	<b>(20)</b>

\*Actual and Budgeted figures for Computer Software and Computer Equipment have been combined

\*Actual and Budgeted figures for Furniture and Fittings and Plant & Equipment have been combined



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