



Western Cape
Government

Health



Annual Report 2011
Tygerberg Hospital

Tygerberg Hospital Annual Report 2011

Vision

Quality health for all.

Mission

To provide equitable access to health in partnership with the relevant stakeholders within a balanced and well managed health system.

Values

The overarching values identified by the Provincial Government of the Western Cape are:

- Caring • Competence • Accountability
- Integrity • Responsiveness

The core values that will be reflected in the way in which the vision and mission are achieved are:

- Integrity • Public accountability • Innovation
- Openness and transparency
- Commitment to high quality service
- Respect for people • Excellence

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FOREWORD

Message from Professor Craig Househam

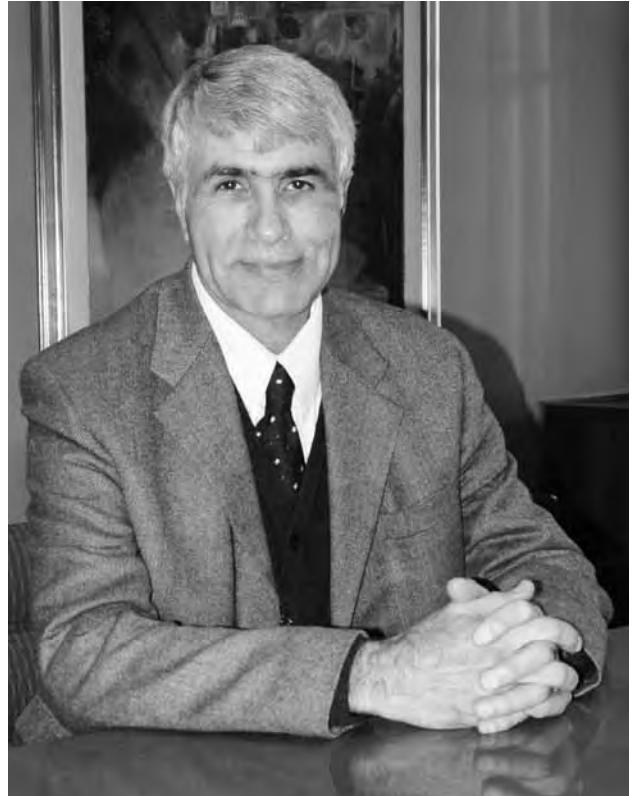
Head of Western Cape Health

Tygerberg Hospital has a special and important place in the health services of the Western Cape. It is the largest hospital in the province, with 1310 operational beds, and it is closely associated with the Faculty of Health Sciences of Stellenbosch University. While the hospital is old in terms of the normal life span of a hospital and in urgent need of refurbishment or replacement, the staff continued to deliver essential health services to a wide spectrum of patients. On my visits to Tygerberg Hospital the innovation and commitment of health workers despite the fact that conditions in the hospital itself are not always optimal, has impressed me.

I was privileged last year to experience the great spirit among hospital staff at the annual CEO Ball held at the hospital. It was a very enjoyable evening that demonstrated that, apart from professional skills, many employees have remarkable talent on the dance floor!

During 2011 the first steps were taken in the long process to modernise and probably replace Tygerberg Hospital. The appointment of a project manager for the redevelopment of the Tygerberg premises marked the beginning of what will ultimately constitute a hospital revitalisation project costing several billion rand. Those who have seen the new Khayelitsha Hospital will realise what a difference a modern and purpose-built hospital makes to the working conditions, efficiency and, indeed, enjoyment of staff. I trust that when this project eventually comes to fruition the “new” Tygerberg Hospital will carry the proud tradition of the current hospital forward well into the future.

Meanwhile I acknowledge the good work done by staff in all sections of Tygerberg Hospital during the past year, admitting over 60 000 patients and seeing over 300 000 people in the outpatient departments of the hospital. In particular, the hospital should be acknowledged for the support given to the core of the new Khayelitsha Hospital, which it hosted for several years and continue to support as the referral hospital for this new hospital. My sincere thanks to Dr Dimitri Erasmus and his management team, who have continued to strive to improve health service delivery, for their hard work and commitment.



Message from Dr Beth Engelbrecht

Deputy Director General: Secondary, Tertiary and Emergency Care (DOH)

The year 2010 marked the end of the Comprehensive Service Plan. It has come and gone and the new service-plan horizon of 2020 has emerged. The focus for the future is on patient-centred care, increasing health outcomes, and having a values-based service and organisation. These are critical elements to improve the quality of care and are invaluable for the Department and the hospital to achieve national core standards certification.

The multilateral agreement (MLA) between the Western Cape Government and the four higher-education institutions (HEIs) progressed well, with all parties committed to find sufficient common ground to conclude the MLA in 2012. This will form the firm basis to revise the range of current agreements with the HEIs with regard to their access to the service platform for clinical teaching, clinical training and research, and for the joint staff system.

An understanding of the new horizon is an important filter to look at a year gone by. The opening of Khayelitsha District Hospital early in 2012 majorly affected the patient profile at TBH. Preparatory joint planning in the metro East Geographic Service Area (GSA) across district services and TBH ensured a service and referral system that kept the focus on the patient and managing the impact on TBH.

Service reengineering in the hospital improved the labour ward service, and the addition of emergency physicians in the emergency centre significantly strengthened the emergency care service. The hospital consistently operated 10 Paediatric ICU beds, and commissioned 4 additional neonatal high-care beds.

Theatre, radiology and critical-care bottlenecks remain a challenge. Steps have been taken in response. Five operating theatre practitioners have enrolled for the two-year training program, and the MRI and CT service ran extended hours.

The donated PET-CT was officially commissioned at the end of the financial year, marking a significant milestone in the nuclear medicine service.

Hospital-acquired infections are a challenge to both staff and patients in any hospital setting. The hospital continued to focus on complying with the Best Care Always bundles, such as preventing ventilator-associated pneumonia and surgical-site infections.

The project manager for the rebuilding of TBH was appointed and he commenced the planning that will continue over the next few years. Strategic decisions would be required. The design must be modern, the emergency centre needs to be spacious, and the general specialist beds should be organized in such a way that the whole Metro East is optimally supported.

TBH is a majestic service with solid foundations in its clinical staff as well as its management and HEI partners. The district health services in its drainage area(s) are systematically being strengthened. With a future unfolding towards 2020 it embodies all the necessary elements to launch towards the future, which would culminate in a new Tygerberg Hospital.



Message from Dr Dimitri Erasmus

Chief Director: Tygerberg Hospital

Tygerberg Hospital continues to play a central role in the delivery of specialised and highly specialised health services in the Western Cape and remains an institution of academic excellence through its partnership with the Faculty of Health Sciences of Stellenbosch University.

This annual report reflects the activities and achievements of 2011. The hospital has experienced quite a busy year with just over 61 000 admissions and 315 000 outpatient headcounts.

The total expenditure for the 2011/12 financial year amounted to R1 754 982.

The key achievements in 2011 were:

- the appointment of Dr Ludwig Martin as Project Officer for the development of the hospital revitalisation project
- the appointment of Dr Neshaad Schrueder as the Head of General Medicine
- the commissioning of four additional neonatal high-care beds
- the implementation of extended scanning hours for CT and MRI scanning
- the commissioning of the new cardiac catheterisation theatre and cardiac echocardiography suite scanner
- key equipment purchases including a mammography machine, a neuro-navigation system for neurosurgery and a reverse osmosis water treatment system for renal dialysis
- the social highlights, namely the Open Day, the end-of-year staff function, and the CEO ball.

During this period the following key staff members retired:

- Mr Desmond Matthews: Deputy Director Engineering Services
- Ms Conelle Ford: Head of Pharmacy
- Dr Richard Muller: Manager Medical Services
- Prof. Shaheen Mehtar : Specialist in Infection Prevention and Control

Their contribution to Tygerberg Hospital is greatly appreciated and I wish them well in their retirement.

Finally, I wish to thank all the staff for their hard work and commitment which has culminated in the many achievements and activities as reflected in this annual report.



FINANCE

Financial Overview of Tygerberg Hospital in 2011/12

Director: Mr Touflek Salie

Tygerberg Hospital is the single biggest health facility in the Western Cape. Its funding is secured from the National Tertiary Services Grant (NTSG), the Health Professional Development Training Grant (HPDTG) and a portion from the Provincial Equitable Share. A smaller allocation is derived from the Medium Term Strategy Grant.



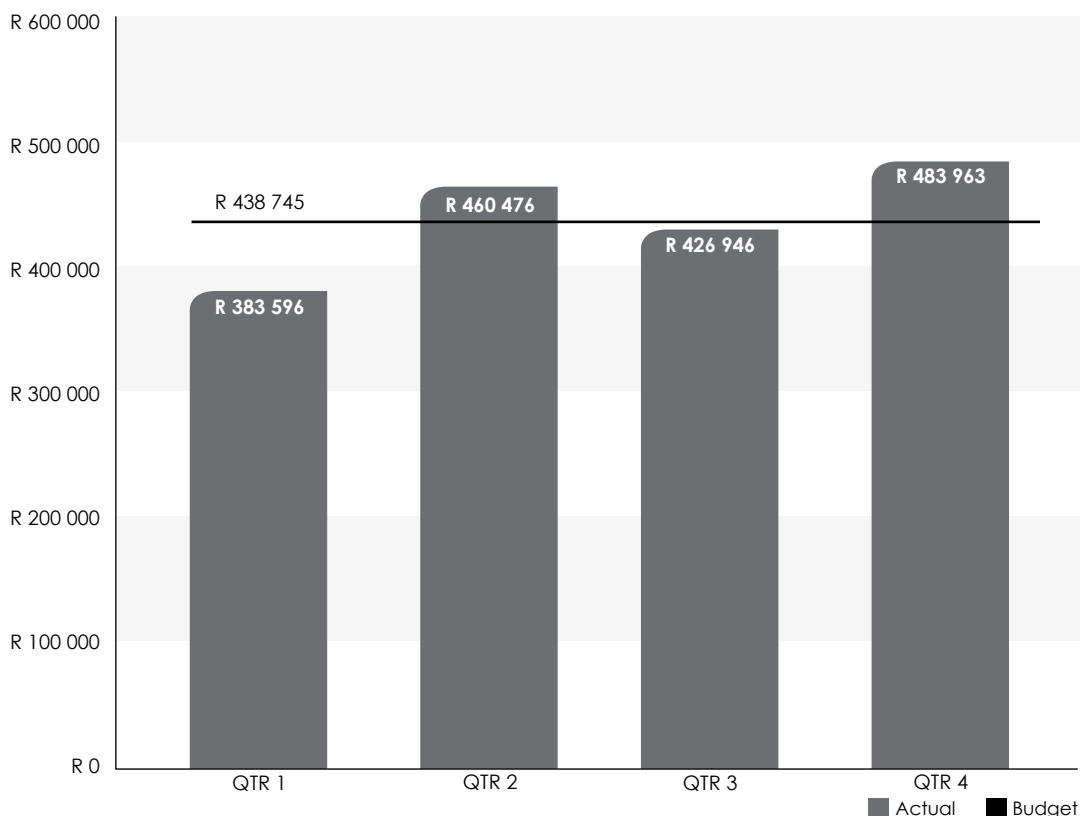
An overview of the hospital's annual financial results: 2011/12.

	BUDGET	ACTUAL	VARIANCE	%
Expenditure	R1 756,1 m.	R1 755,0 m.	R1,1 m.	0,06%
Revenue	R92,0 m.	R102,0 m.	R10,0 m.	10,8%

The results achieved show that the hospital succeeded in providing ever-demanding patient care (specialist and generalist), professional training and medical research with the limited financial resources. The actual expenditure was slightly, R1,1 million (m.), below the budget, which is less than a full percentage point. The reason for this is early book closure in the finance department. However, continuous patient-load pressures and the burden of unfavourable economic factors (international and local), relating to currency exchange rates, interest rates, energy/oil price increases and the high health inflation will constitute future challenges.

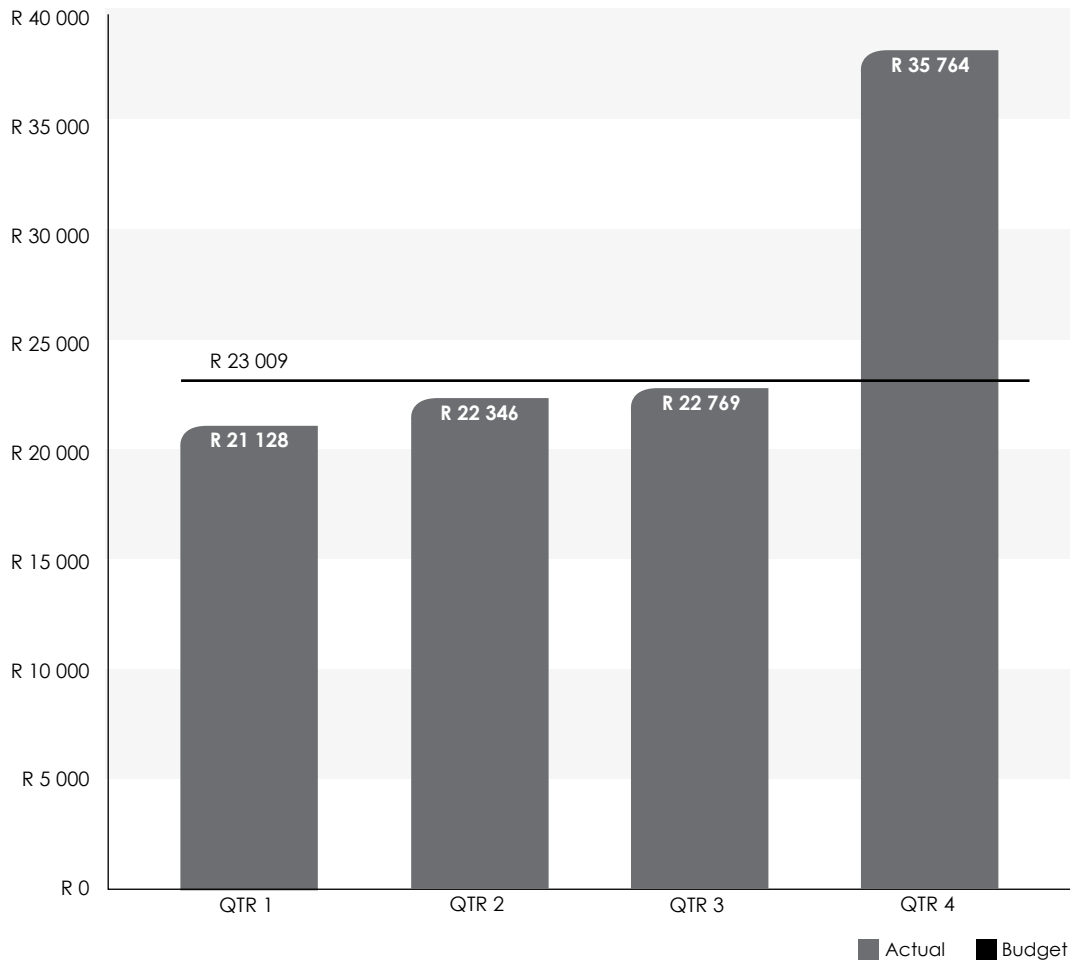
The graphic display of the quarterly spent, indicates an escalation in the second and fourth quarter, caused by backdated remuneration, capital-equipment deliveries and forward settlement of identified accounts.

Tygerberg Hospital 2011/2012 Total Expenditure Overview



The main revenue inflows come from the Road Accident Fund (RAF), Medical Aid Schemes, state departments and individual patients. The graphic trends of revenue inflows escalated majorly in the last quarter due to the cash inflows from the RAF, resulting in an overrecovery of R10,0 m. (10,9%) against the target for 2011/12.

Tygerberg Hospital 2011/2012 Total Revenue Overview



A summary in explanation of the expenditure results follow.

1. Staffing and personnel expenditure

PERSONNEL EXPENDITURE	BUDGET	ACTUAL	VARIANCE	%
Persal staff	R1 170,9 m.	R1 174,4 m.	R3,5 m.	-0,3%
Joint staff	R43,2 m.	R44,3 m.	R1,1 m.	-2,6%
Agency staff	R16,9 m.	R18,7 m.	R1,8m.	-10,9%
Total	R1 231,0 m.	R1 237,5 m.	R6,5 m.	-0,5%

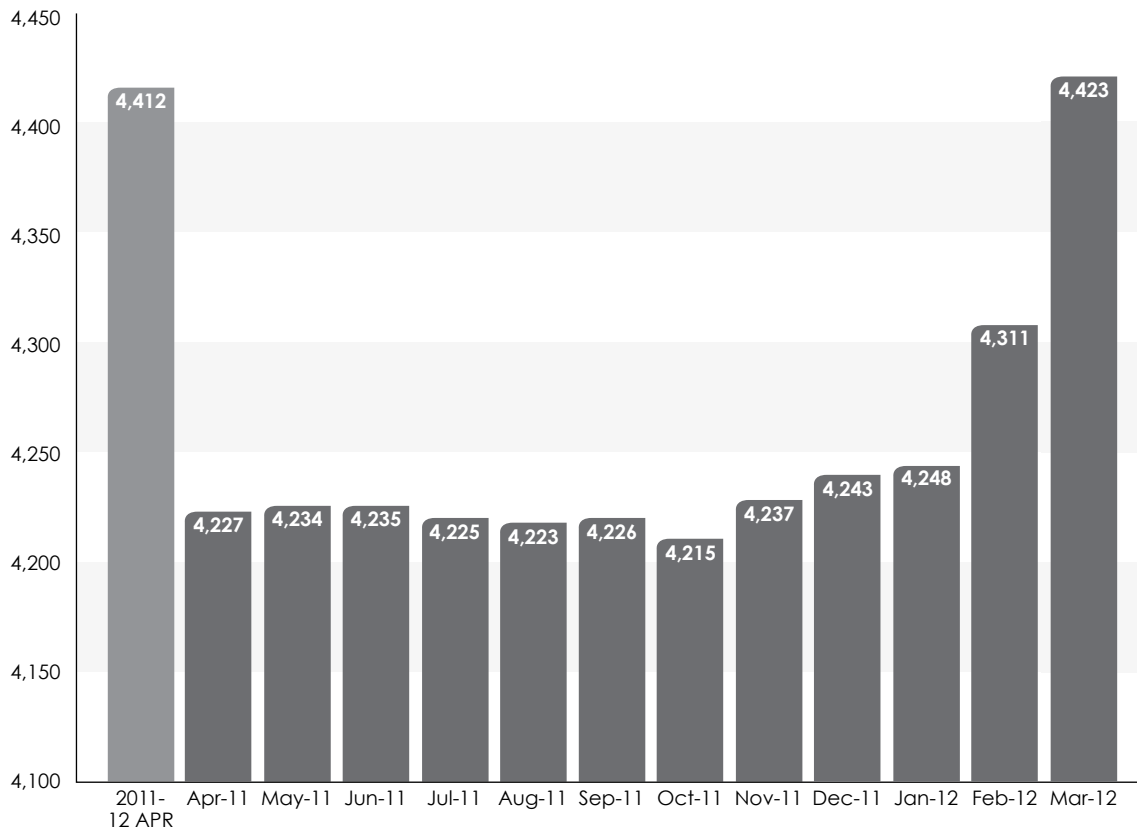
The number of hospital staff, 4 252 at year-end March 2012, increased by 22 (0,5%) since April 2011, mainly in the Nursing and Medical post categories. However, this is still 3,7% below the Approved Post List (APL).

The general Improved Conditions of Service adjustments to the salary of staff was welcomed by all staff.

The need to utilise a substantial amount of nursing-agency staff during the year was due to the national shortage. The strategic position is rather to appoint full-time nursing equivalents.

A new multilateral joint agreement with the universities and technicians has been concluded.

Tygerberg Hospital 2011/2012 Staffing Trends



2. Goods and services (excludes agency cost):

	BUDGET	ACTUAL	VARIANCE	%
Goods and services	R489,3 m.	R482,2 m.	R7,1 m.	1,5%

The underspend on goods and services should be viewed in the context of the overspend on personnel costs.

Major spending patterns

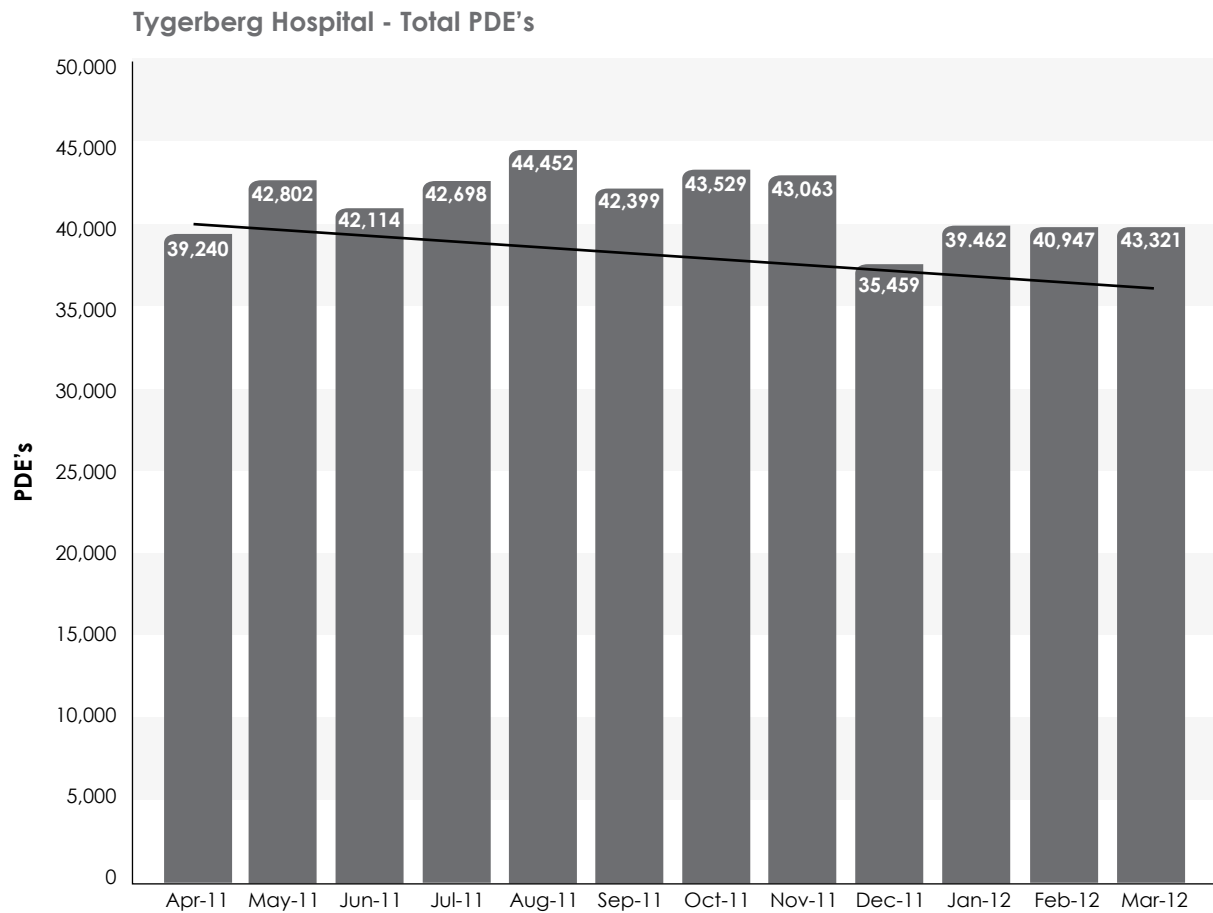
	ACTUAL SPENT IN 2010/11	ACTUAL SPENT 2011/12
Laboratory services	R71,7 m.	R66,0 m.
Blood and blood products	R43,3 m.	R50,9 m.
Pharmaceuticals	R65,8 m.	R63,1 m.
Engineering and service maintenance	R36,0 m.	R35,0 m.
Medical/surgical consumables	R145,4 m.	R148,5 m.
Steam, gas and energy	R46,7 m.	R46,7 m.
Support services	R26,5 m.	R26,5 m.

Patient activities in comparison with the previous financial year:

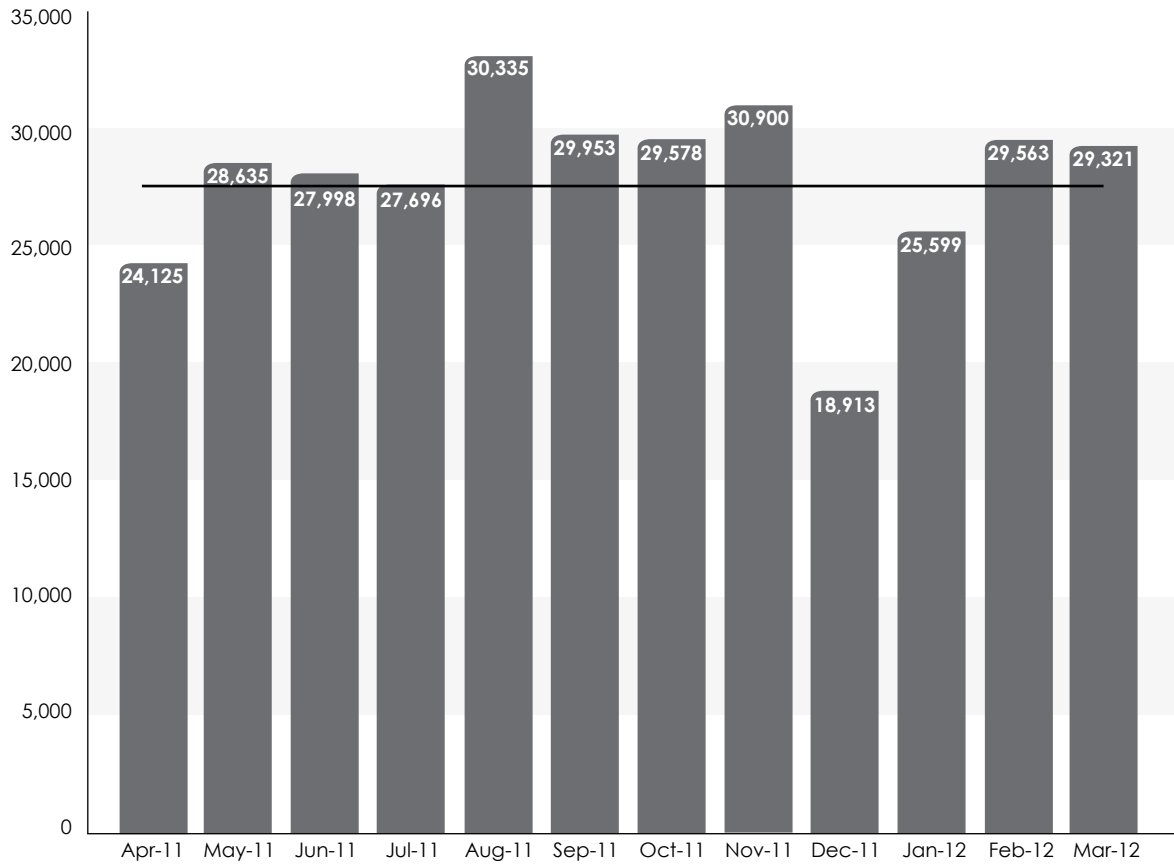
	2010/11	2011/12
Patient day equivalents (PDEs)	512 160	499 486
Admission	60 637	61 740
Patient days	375 475	375 622
Outpatient headcount	317 300	315 264

Cost per PDE

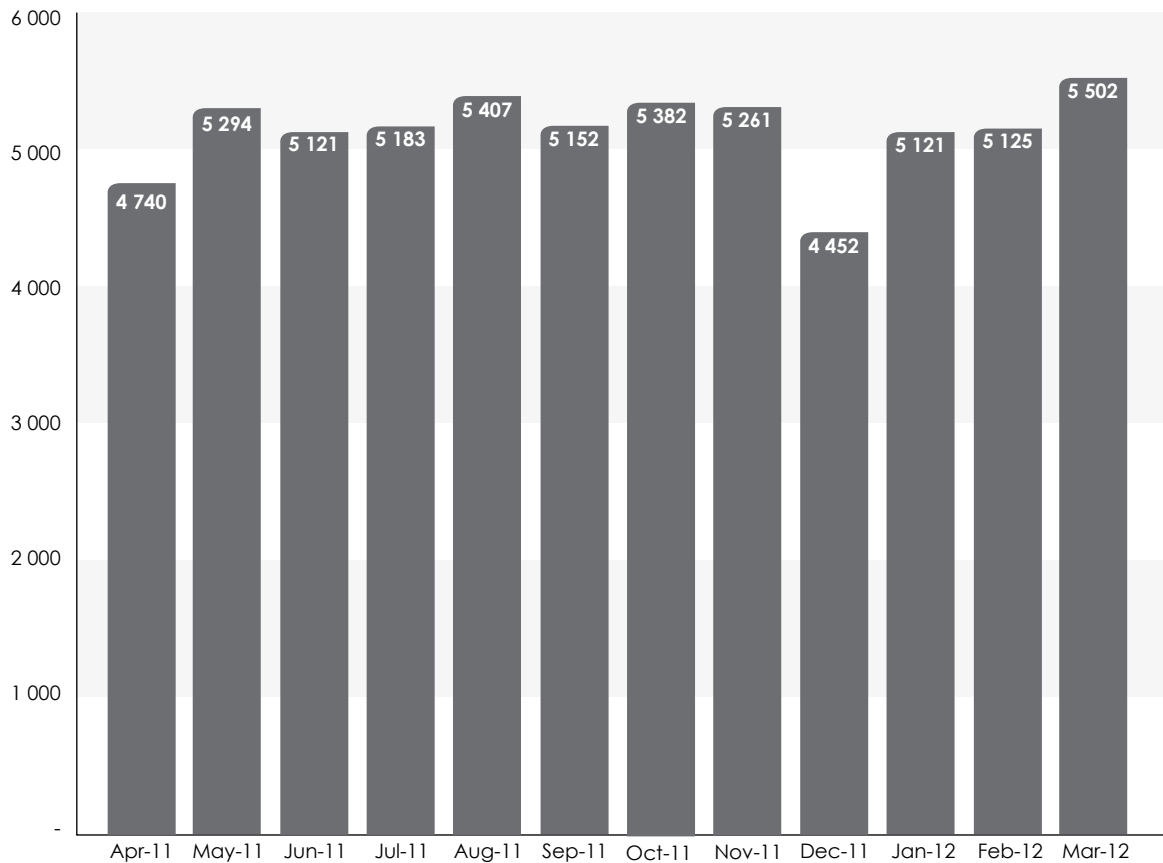
- Total cost per PDE R 3 537
- Laboratory R 133
- Pharmaceuticals R 127
- Blood R 103
- Medical supplies R 88
- Surgical supplies R 190



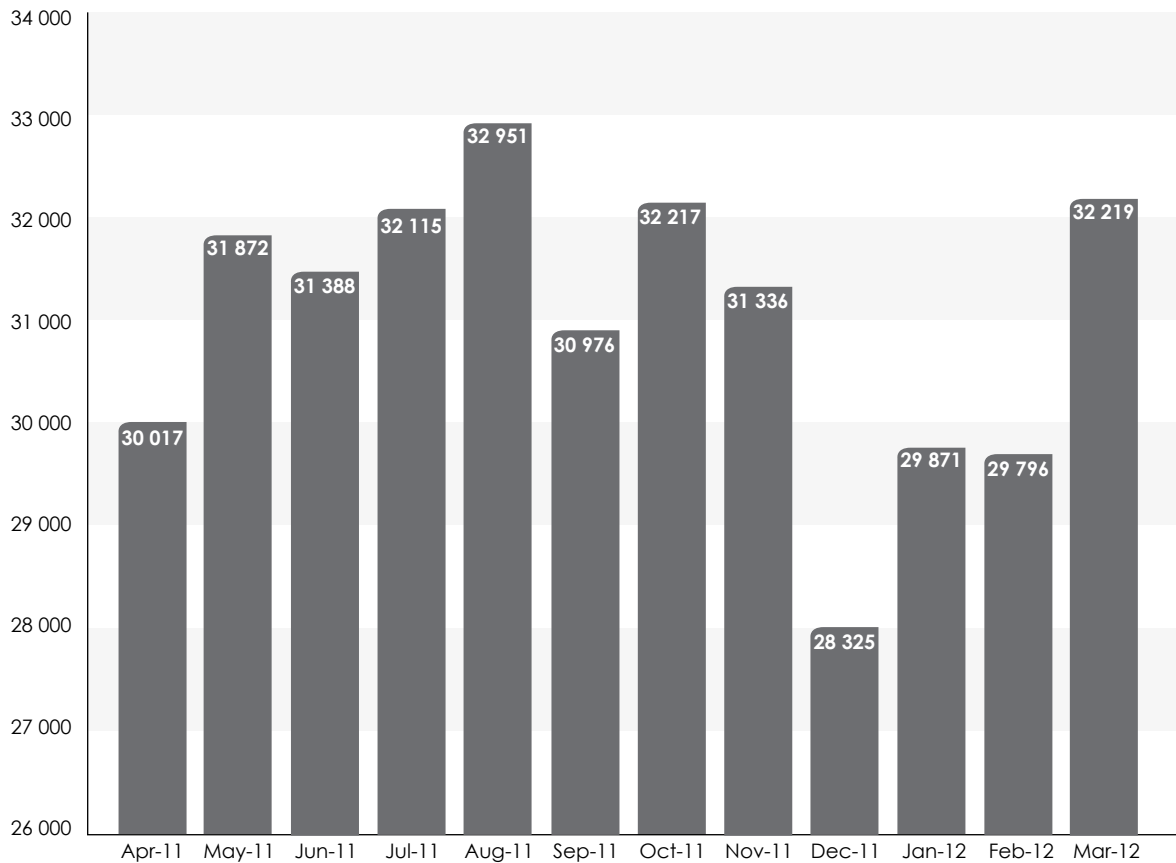
Tygerberg Hospital - OPD Headcounts



Tygerberg Hospital - Admission Trends



Tygerberg Hospital - Inpatient Days Trends



3. Capital equipment:

In addition to the capital equipment funding in the budget, Tygerberg Hospital benefited from hospital-board funding and donations such as a PET/CT scanner.

Own capital funds **R33,6 m.**

The main items prioritised for capital equipment:

- Medical and Allied equipment R27,2 m.
- Computer hardware R3,2 m.
- Domestic equipment and furniture R1,2 m.

Total Modernisation of Tertiary Services Grant **R35,7 m.**

The MTS Grant funds continued to be used primarily for the modernisation of the Radiological Imaging Technology in the tertiary institutions. Tygerberg Hospital obtained R13,555 m. from the acquisition of scopes and stakes, maintenance of the Hermes system, IT hardware for PACS/RIS, PET/CT scanner accessories and the continuing roll-out of the Open Text ECM system.

Directorate of Finance

Salient features during the year:

- Three additional staff members joined the Finance team: Assistant Director Assets, Administration Officer Assets, and a procurement clerk.
- The department achieved an unqualified audit for 2011/12, with a certificate from the Auditor-General for significant improvement in the audit findings. Areas of concern were compliance at all times to legislative prescripts and regulations.
- The department created a devolved control unit and appointed staff to execute pre-audits in hospitals to ascertain compliance to all legislative regulations. This had a positive effect.
- Training was provided to nine (9) interns from the respective universities and technicians.
- The entire Khayelitsha Hospital hub at Tygerberg Hospital has moved to the new Khayelitsha Hospital.

Vision

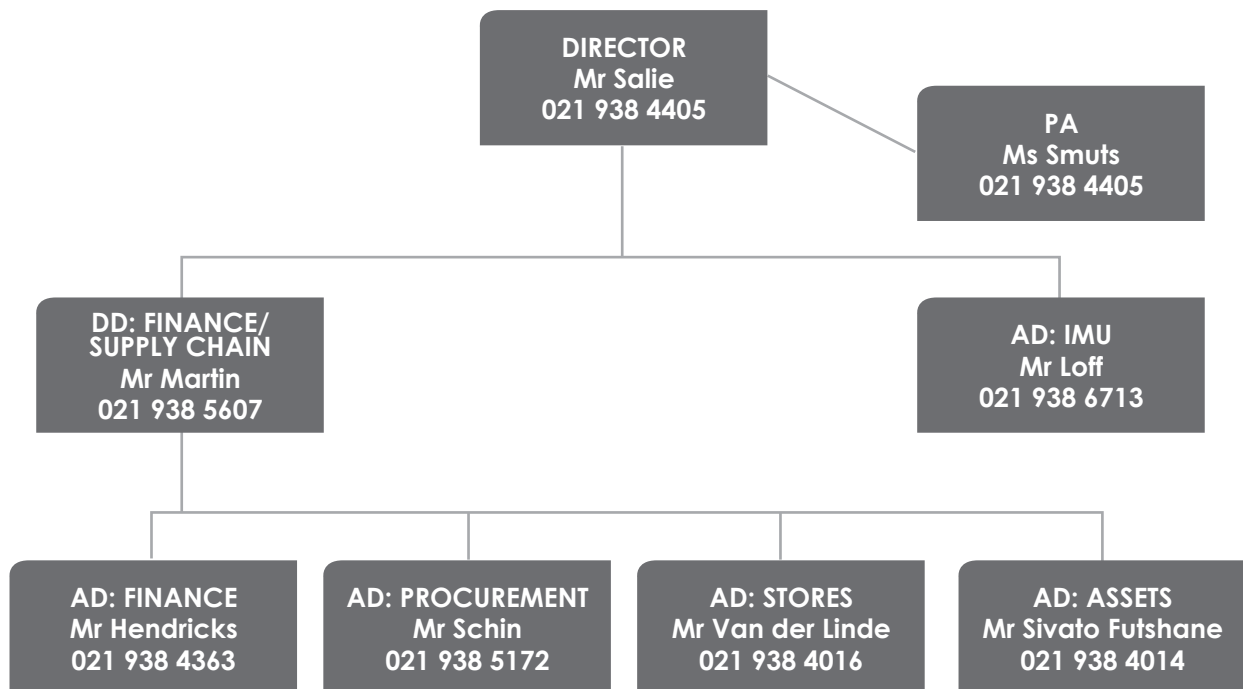
To become the benchmark against which other finance departments can measure themselves.

Mission

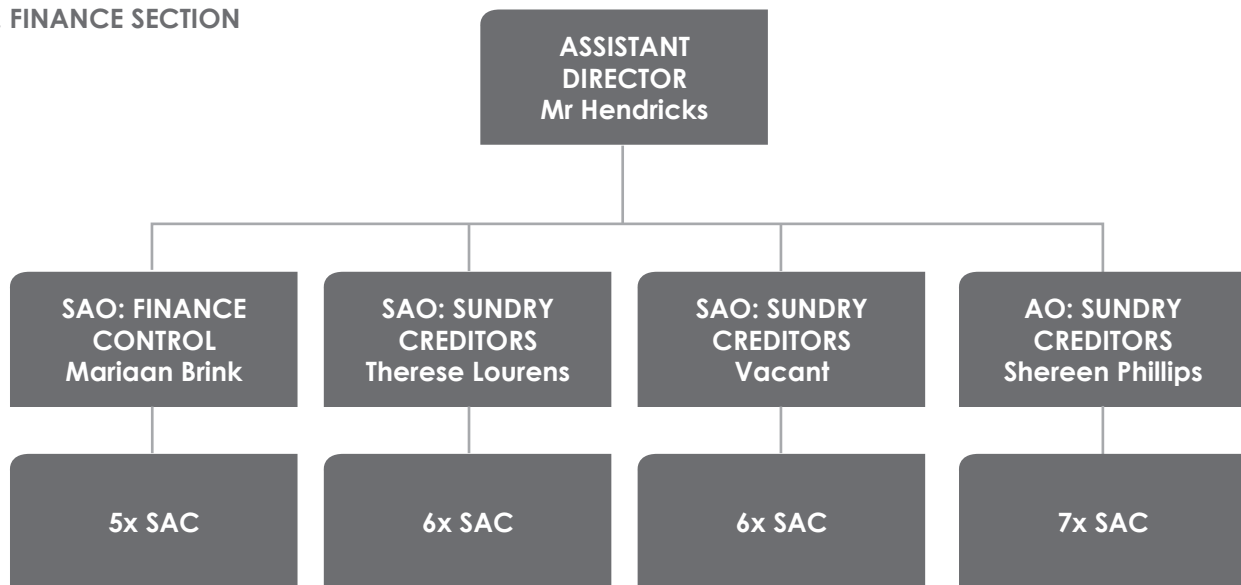
To continuously strive towards world-class best practices in finance, supply-chain and information management (core competencies):

- To uphold and adhere to the highest ethical standards, of integrity, honesty, transparency, and respect.
- To comply at all times to legislative requirements and regulatory prescripts and instructions.
- To apply strict internal controls and budgetary constraint measures.
- To aspire to efficiency and effectiveness in streamlining the procurement and finance processes within optimal time cycles.
- To enhance relationships, teamwork and cohesiveness to achieve goals.
- To provide management and operational information of quality to empower managers to take the correct courses of action.

Organisational Structure



1. FINANCE SECTION



The Finance Department is increasingly challenged by the various treasury compliance requirements arising from the Auditor-General's audit findings.

It places further responsibilities on the department to meet its obligations to its suppliers and to ensure that it carries out its duties efficiently and effectively without prejudice to the suppliers. The department is increasingly being challenged to avoid a backlog of payments and to ensure that suppliers are paid within 30 days.

The main challenge in this subdirectorate is to avoid the possible build-up of the workload, backlogs, not meeting due dates and the late processing of suppliers' accounts. These challenges were well contained thanks to capacity-building and the dedication of staff in maintaining an effective work standard.

When the Chief Financial Officer requested Tygerberg Hospital to make payments in March 2012 to achieve the projected savings for the Department, the dedicated staff in the Sundry Creditors section managed to put payments worth R26 m. through for March 2012.

Sundry Creditors made payment of 52 634 invoices in the 2011/12 financial year.

The target set to reduce staff debt by 40% was achieved. There were 328 cases, with a monetary value of R1 589 789. Only 143 cases remained by the end of March 2012, which reflects a clearance rate of 56%.

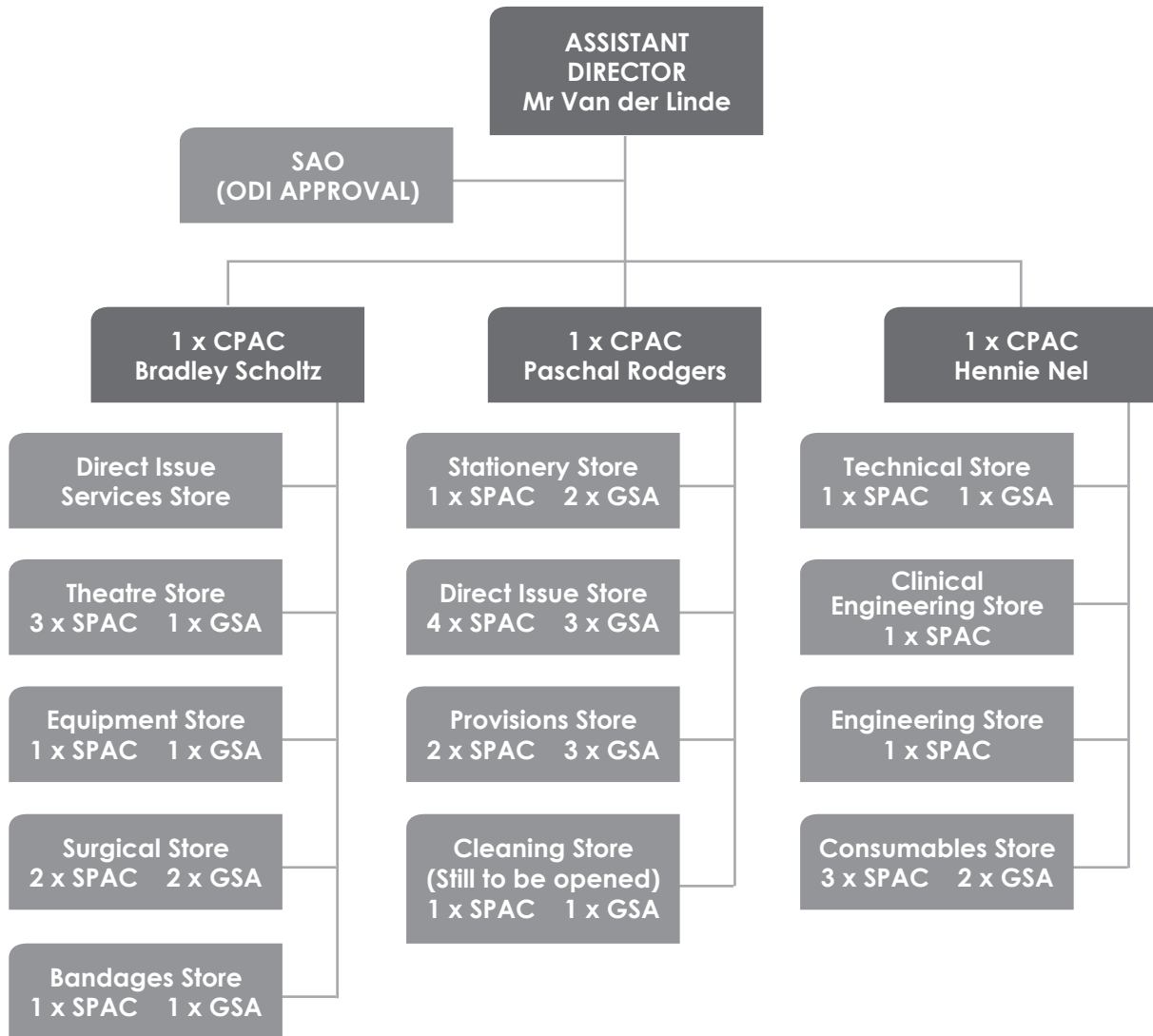
Assets and Liabilities accounts

- From the beginning of the year, a monetary value of R535 736 was reduced by 78% to R118 452 at year-end in March 2012.

The unit met its monthly reporting requirements in respect of, among other things, the status of the Assets and Liabilities accounts, in-year monitoring reports, and budget loading onto BAS.

Year-end outstanding accruals was R26 m., compared to the previous financial year's R52,2 m. The amount was significantly reduced, by 50,2%. A monthly accrual meeting is in place to follow up on outstanding payments.

2. SUPPLY-CHAIN MANAGEMENT: STOCKHOLDING STORES



The ten stockholding stores, namely Provisioning, Surgical, Bandages, Disposable, Technical and Clinical Engineering, Stationery, Engineering, CSSD and Theatre Stores including the two kitchen stores handled purchase orders to the value of R62 m. The non-stockholding warehouses placed purchase orders to the value of R416 m. The stockholding value at end March 2012 amounted to R15 m.

We successfully achieved the stores' purpose of rendering a support service to Hospital Management and other disciplines with regard to stores administration.

Two successful stock-takes were performed, mid-year and at year-end, with minimal stock variations, and perpetual stock-takes were conducted by the four managers in the different stores. A monthly commitment meeting is established to report back on outstanding orders.

For the first time a physical count of all items at the Engineering/Maintenance stores has been done and put into stock.

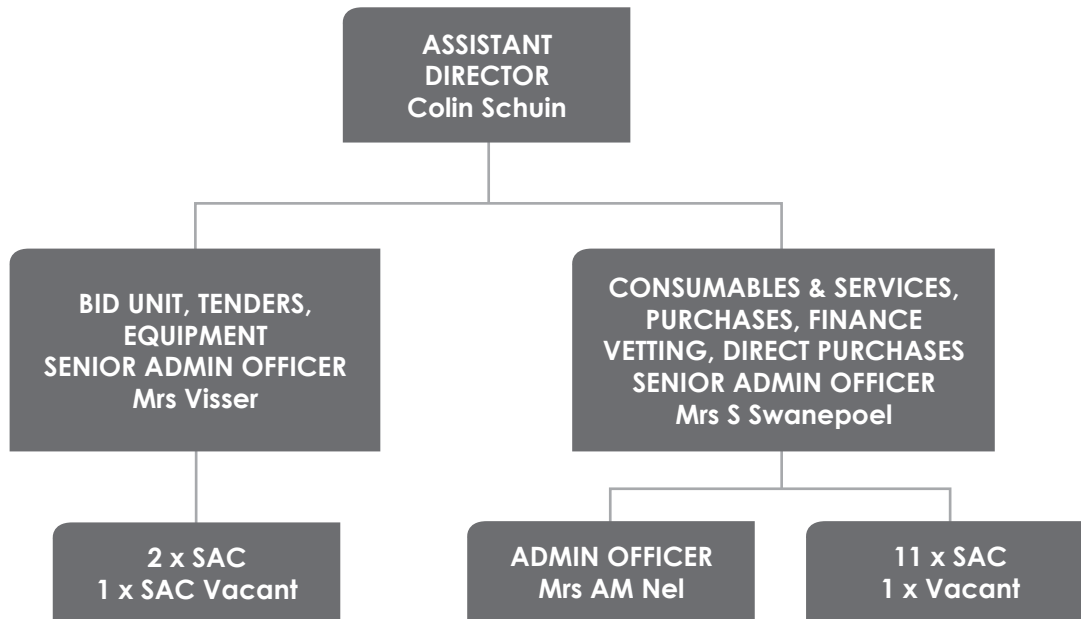
Storage space in the Main Stores is always a big problem and we successfully obtained a secure accommodation in Protea Court at lower ground for all our bulk stock.

For the well-being of the stores personnel, floor tiles with a low noise level were laid, at a cost of R65 000.

The installation of heavy-duty shelves, at a cost of R205 000, has doubled the potential packing space. This has instilled a sense of pride among the staff and boosted morale.

One of three General Stores Assistants successfully completed his grade 12 through ABET.

3. SUPPLY-CHAIN MANAGEMENT: PROCUREMENT



Equipment purchases

Funds made available for capital equipment totalled R33,549 m. plus a further R5 m. for current equipment. A total of 31 bids (above R500 000) to the value of R28 107 504,55 were awarded in the 2011/12 financial year. For equipment items between R100 000 and R500 000 a total of 38 "small" bids were invited and ordered to a value of R9 473 028.

Large capital equipment that was purchased in the 2011/12 financial year were:

1x digital mammography unit at a cost of R4,391 m.

1x neuro-navigation system for Neurosurgery at a cost of R1,938 m.

1x digital pulmonary-function-analysis system at a cost of R1,156 m.

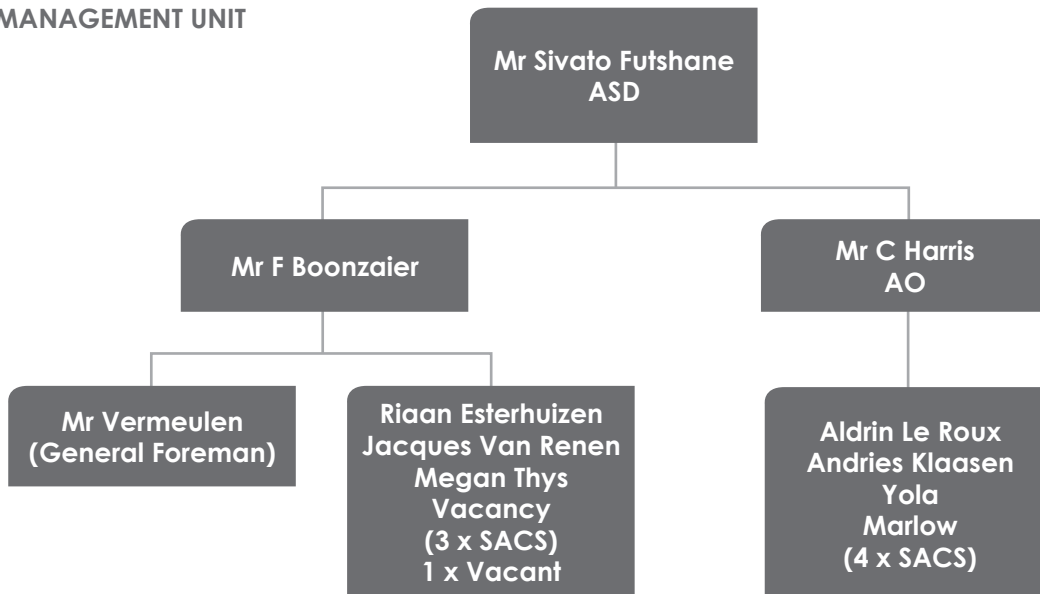
Purchases with Medium-Term Strategy (MTS) grant funds:

Gastroenterology equipment	R 2 287 580
Mobile C-arm for Urology	R 983 830
PACS computer equipment	R 1 085 264
PET-CT additional lab equipment and furniture Lab & Furniture	R 3 785 598
	<hr/>
	R 8 142 272

Goods and Services Purchases

A total of 28 643 orders placed in 2011/12.

4. ASSET MANAGEMENT UNIT



For the major part of the financial year, the unit lacked the necessary capacity in respect of an Assistant Director and Accounting Officer. These two positions were only filled in May 2012 and March 2012 respectively.

The unit consisted of a Senior Administrative Officer, eight Clerks and a Senior General Foreman. Despite these challenges, the unit successfully completed the annual asset count and ensured the safe disposal of obsolete and broken assets to the value of R17 m. The value of obsolete assets which were sold was R190 000.

The unit, under the guidance of the Finance Directorate, successfully concluded the opening balance reconciliation for both major and minor assets.

Major assets:	9 403	R402 m.
Minor assets:	59 558	R69,5 m.

The process of distributing asset inventories to the user departments was started. The purpose of the lists are to make users accountable for the assets in their areas.

The inventory will help to ensure the optimal use of existing assets by regular physical verifications which enable their safeguarding and maintenance.

5. INFORMATION MANAGEMENT UNIT

The Information Management Unit consists out of three components, namely Financial Cost Centres, IT Hardware and Patient Statistics. Its primary function is to manage the information and data of the official systems at Tygerberg Hospital and to assist with the planning and roll-out of computer hardware and software. It works closely with Patient Administration to ensure quality patient data. Patient data are reported at the Functional Business Unit (FBU) meetings, monitoring-and-evaluation forums and for the NTSG.

The Hardware component managed to get the Internet Café up and running again. A total of 450 desktops and 200 printers were purchased to address the DITCOM backlog.

Implementation of cost-centre-reporting (CCR) training was done by the Cost Centre component, and a number of end-users were trained during the 2011/12 financial year. This resulted in the transitioning from the manual to the electronic system for many users. Training will be an ongoing process throughout the new financial year.

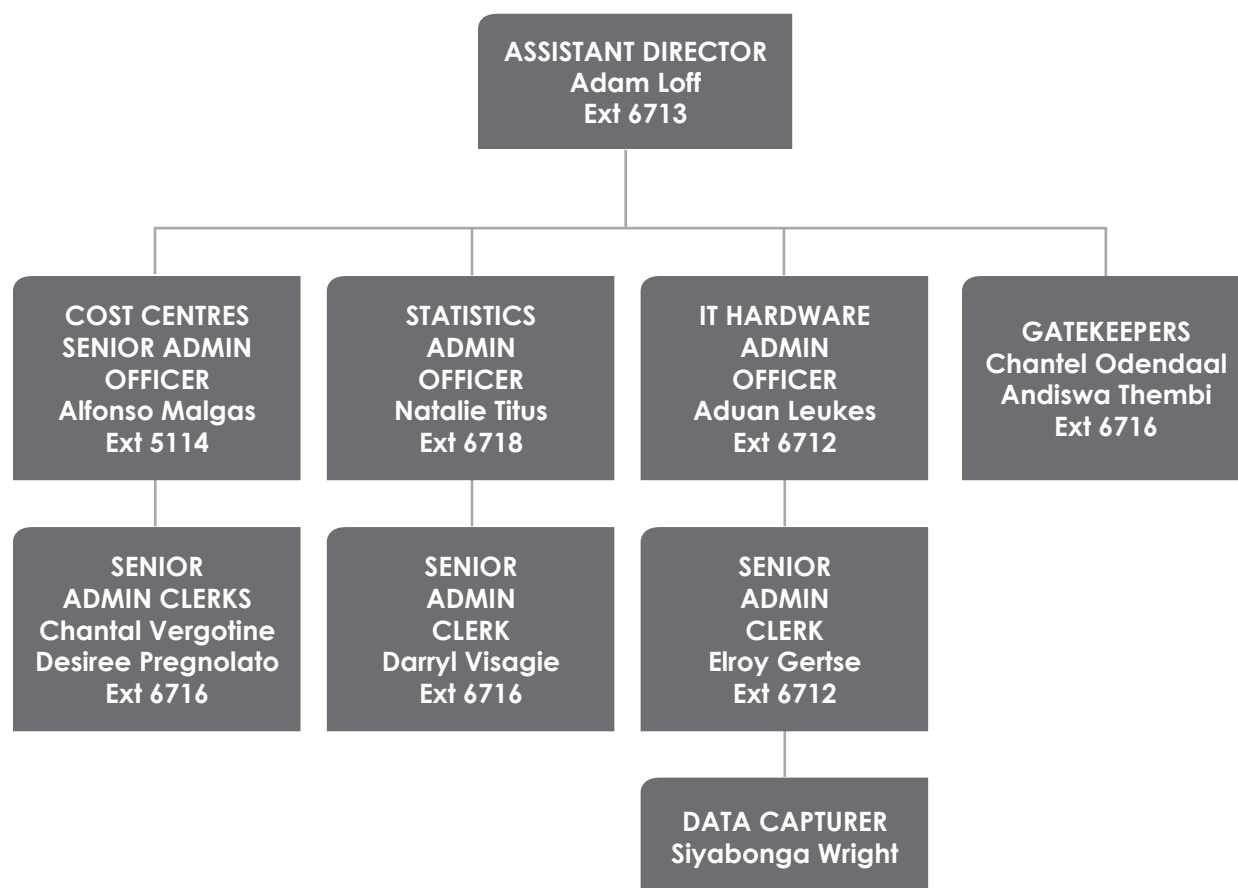
The Gatekeepers played a pivotal role with the implementation of the FBUs by means of analysing, interpreting, summarising and presenting complex financial and business-related issues in a manner which is both understandable and properly supported to FBU management.

The Patient Statistics component has successfully assisted and implemented the use of the Theatre Module on CLINICOM. The new module will assist Theatre Management with reporting on the correct number of operations done in the theatre complex, as well as on the new theatre related elements for provincial and national statistics.

The unit's biggest asset is its staff members, who are young, dynamic and dedicated in providing a service to Tygerberg Hospital.

The unit's staff complement comprises the following:

INFORMATION MANAGEMENT UNIT STRUCTURE



2012/13: the way forward

The Department of Health received the biggest slice, R14,632 billion (36,69%), of the Western Cape Government's budget for 2012/13.

The budget allocation for Tygerberg Hospital improved by 7,4% to R1 885,2 m. in the 2012/13 financial year.

CATEGORY	2011/12 BUDGET	2012/13 BUDGET	INCREASE	%
Compensation to employees	1 214,1	1 330,3	116,2	9,6%
Goods and services	506,3	530,7	24,4	4,8%
Transfers	2,1	3,2	1,1	14,4%
Capital equipment	33,6	21,0	-12,6	-37,3%
	1 756,1	1 885,2	129,1	7,35%

The personnel budget: 4 415 APL posts were approved, at a 96,1% filling rate

Goods and services: nominal increase of 4,8%

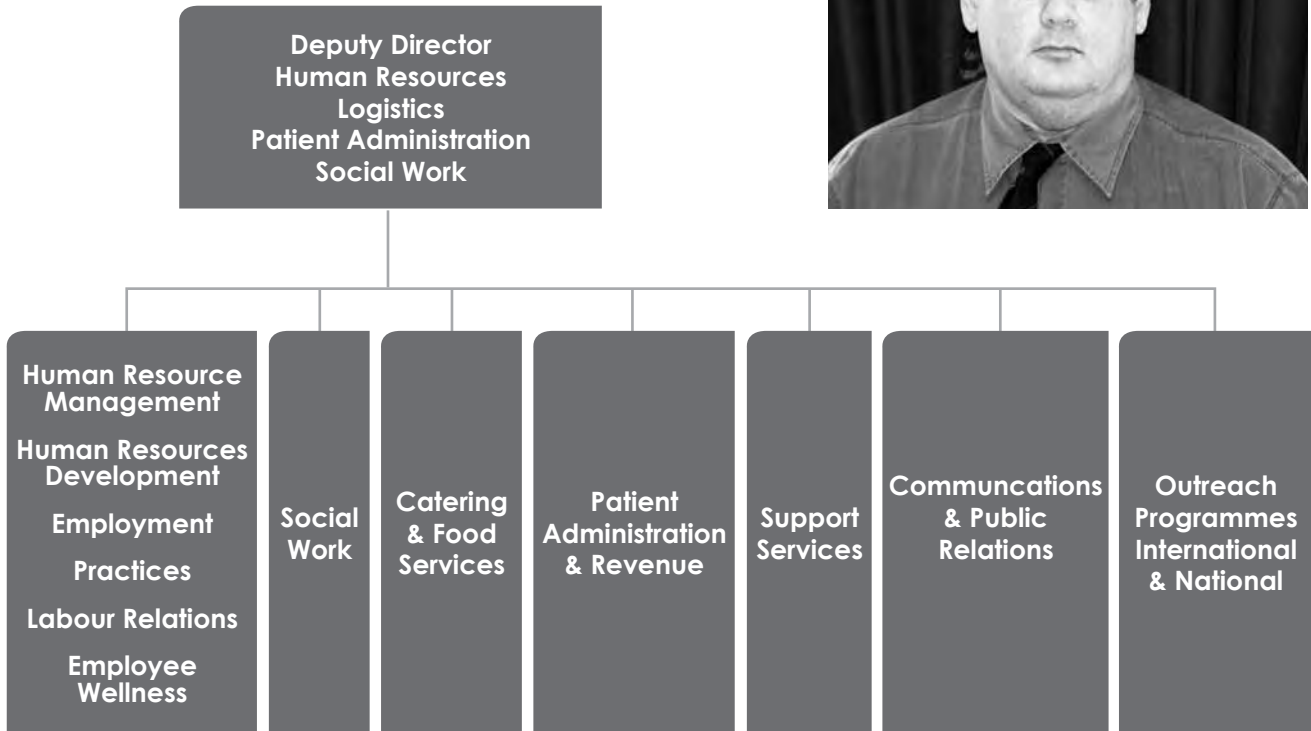
Capital equipment: re-allocation

Tygerberg Hospital possibly had to open 74 additional beds designated for Khayelitsha referrals due to the opening of the new hospital.

ADMINISTRATION

Deputy Director: Mr Phillip Wolfaardt

The following diagram reflects the areas forming part of the subdirectorate.



Below the activities of this department are listed.

Human Resources Management**Assistant Director: Mr EC Steyn**

The establishment of Human Resource Management was suitably filled during the year.

POST	FILLED	VACANT	TOTAL
Assistant Director	1	0	1
Chief Admin Officer	4	0	4
Chief Admin Clerk	2	0	2
Admin Officer	4	0	4
Senior Admin Clerk	24	3	27
Total	35	3	38

The statistics for personnel turnover at Tygerberg Hospital and the Oral Health Centre are listed below:

Tygerberg Hospital

TYPE	ADMINISTRATION	PROFESSIONAL	TECHNICAL	NURSING	GENERAL
Resignations	5	33	6	41	7
Dismissals	0	0	1	3	14
Ill health	0	0	2	3	3
Retirement at 65	5	6	2	5	7
Early retirement	3	3	2	3	20
Deceased	0	0	2	2	11
Transfers out	19	5	3	27	3
Contract expiry	21	52	3	18	15
Totals	53	99	21	102	80
Transfers in/Appointments	57	104	24	134	104
Difference	+4	+5	+3	+32	+24

The statistics for personnel turnover at Tygerberg Hospital and the Oral Health Centre are listed below:

Oral Health Centre

TYPE	ADMINISTRATION	PROFESSIONAL	TECHNICAL	NURSING	GENERAL
Resignations	0	1	0	0	1
Dismissals	0	0	0	0	0
Ill health	0	0	0	0	0
Retirement at 65	0	0	1	0	0
Early retirement	0	0	0	0	2
Deceased	0	0	0	0	0
Transfers out	3	0	0	0	0
Contract expiry	0	1	0	0	0
Total	3	2	1	0	3
Transfers in/Appointments	2	1	1	0	4
Difference	-1	-1	0	0	+1

The post situation at Tygerberg Hospital and the Oral Health Centre is as follows:

INSTITUTION	FILLED	VACANT	SESSION
Tygerberg Hospital	4157	291	60
Oral Health Office	194	6	22

Policy and procedure on incapacity leave and ill-health retirement in the public service (PILIR)

A statistical overview of the PILIR cases in the 2010/12 cycle for the period 1 January 2011 to 31 December 2011 at Tygerberg Hospital and the Oral Health Centre follows:

Total cases		659	
<i>Declined by Soma</i>		<i>Outstanding cases</i>	
Short-period incapacity	225	Short-period incapacity	73
Long-period incapacity	3	Long-period incapacity	8
Ill-health retirement	5	Ill-health retirement	2
Total	233	Total	83
<i>Approved by Soma</i>		<i>Deviations</i>	
Short-period incapacity	280	Short-period incapacity	20
Long-period incapacity	50	Long-period incapacity	2
Ill-health retirement	13	Ill-health retirement	1
Total	343	Total	23

TBH Employment Equity (EE) statistics, 15 February 2011

Permanent – Race and gender

CATEGORY	TARGET	CURRENT EE	GAP
African male	603	134	469
African female	530	460	61
Coloured male	1046	501	545
Coloured female	908	2123	-1215
Indian male	23	7	16
Indian female	11	25	-14
White male	385	186	199
White female	309	359	-50

TBH EE statistics, 15 February 2011

Non-permanent – Race and gender

CATEGORY	TARGET	CURRENT EE	GAP
African male	67	14	53
African female	59	24	35
Coloured male	115	39	76
Coloured female	100	81	19
Indian male	3	17	-14
Indian female	1	25	-24
White male	43	102	59
White female	34	110	-76

TBH EE statistics, 15 November 2011**Permanent – Race and gender**

CATEGORY	TARGET	CURRENT EE	GAP
African male	606	138	468
African female	533	502	31
Coloured male	1050	500	550
Coloured female	912	2104	-1192
Indian male	23	8	15
Indian female	11	27	-16
White male	387	184	203
White female	310	362	-52

TBH EE statistics, 15 November 2011**Non-permanent – Race and gender**

CATEGORY	TARGET	CURRENT EE	GAP
African male	63	12	51
African female	56	22	34
Coloured male	110	34	76
Coloured female	95	73	22
Indian male	2	18	-16
Indian female	1	25	-24
White male	40	101	-61
White female	32	103	-71

Oral Health Care EE statistics, January 2011**Permanent – Race and gender**

CATEGORY	TARGET	CURRENT EE	GAP
African male	23	3	20
African female	20	13	7
Coloured male	39	29	10
Coloured female	34	63	-29
Indian male	1	2	-1
Indian female	0	1	-1
White male	15	11	4
White female	12	22	-10

Oral Health Care EE statistics, January 2011

Non-permanent – Race and gender

CATEGORY	TARGET	CURRENT EE	GAP
African male	7	5	2
African female	6	3	3
Coloured male	12	10	2
Coloured female	11	19	-8
Indian male	0	2	-2
Indian female	0	0	0
White male	5	4	1
White female	4	1	3

Oral Health Care EE statistics, February 2011

Permanent – Race and gender

CATEGORY	TARGET	CURRENT EE	GAP
African male	23	3	20
African female	20	12	8
Coloured male	40	28	12
Coloured female	35	64	-29
Indian male	1	2	-1
Indian female	0	2	-2
White male	15	12	3
White female	12	22	-10

Oral Health Care EE statistics, February 2011

Non-Permanent – Race and gender

CATEGORY	TARGET	CURRENT EE	GAP
African male	4	6	-2
African female	3	2	1
Coloured male	7	6	1
Coloured female	6	2	4
Indian male	0	2	-2
Indian female	0	0	0
White male	3	4	-1
White female	2	2	0

Human Resource Management: Employment Practises

Assistant Director: Ms B Houston

The establishment of Human Resource Management was suitably filled during the year.

RANK	FILLED	VACANT	TOTAL	COMMENTS
Assistant Director	1	0	1	1x contract appointment in Admin Clerk post which will be filled permanently in April 2012.
Senior Admin	3	0	3	
Admin Officer	1	0	1	
Admin Clerk	6	0	6	
Total	10	1	11	

Recruitment and selection statistics

Total posts advertised	137
Total appointments made	624
Total interview meetings	176
Temporary/contract	333
Permanent/probation	291

Establishment Control

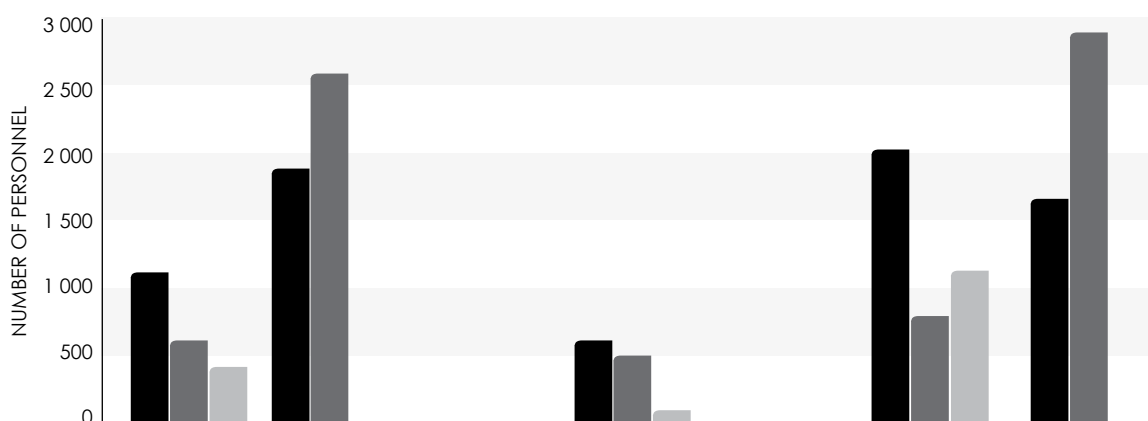
The Approved Post List (APL) as on 1 April 2011 is listed on the pages which follow.

SUBGROUP AND SALARY LEVEL (SL)	COST PER POST (R'000)	2011/12 APPROVED NUMBER OF POSTS	SUBGROUP	COST PER POST (R'000)	2011/12 APPROVED NUMBER OF POSTS
Management SL 9-10	301	18	Scientists Technical SL 7-8	213	2
Management SL 11-12	648	12	Scientists Technical SL 9-10	318	7
Management SMS	817	2	Scientists Technical SL 11-12	466	7
Medical Interns	366	86	Scientists Technical SL 13	712	2
Medical Officer Comm Serv	628	1	Admin SL 1-5	127	287
Medical Officer Grade 1	628	48	Admin SL 6	168	203
Medical Officer Grade 2	628	16	Admin SL 7-8	215	65
Medical Officer Grade 3	628	26	Scientists Technical SL 3-6	194	
Medical Specialist Grade 1	942	65	Secretaries SL 3-7	172	3
Medical Specialist Grade 2	942	16	Stores Admin SL 2-6	134	5
Medical Specialist Grade 3	942	38	Stores Admin SL 7	199	3
Medical Sub-Specialist Grade 1	942	15	Artisans SL 5-10	194	21
Medical Sub-Specialist Grade 2	942	9	Engineers SL 3-6	100	1
Medical Sub-Specialist Grade 3	942	7	Engineers SL 7-8	208	12
Pharmacology SL 11-12	777	1	Engineers SL 9-10	296	8
Registrar	647	212	Engineers SL 11-12	444	1
Registrar Snr	942	3	Handymen SL 3-4	112	20
Nurses: Prof Gen	219	352	ASOs SL 3-7	140	29
Nurses: Prof Spec	308	380	Domestic SL 1-2	84	171
Nurses: Staff	153	356	Domestic SL 3-6	99	272
Nursing Assistants	128	740	Domestic SL 7-8	236	1
Clinical Psychologist SL 6	152	4	Domestic SL 9-10	244	1
Clinical Psychologist SL 9-12	346	4	Drivers SL 2-6	110	11
Dieticians SL 6-8	207	16	Food Service SL 1-2	84	57
Occupational Therapy SL 3-6	163	7	Food Service SL 3-6	103	64
Occupational Therapy SL 7-8	214	11	Food Service SL 7-8	191	7
Occupational Therapy SL 9-10	322	1	Food Service SL 9	279	1
Optometrist SL 6-8	188	1	General workers SL 1-2	87	20
Pharmacy SL 9-12	306	29	General workers SL 3-5	99	37
Physiotherapists SL 4-6	162	1	Grounds SL 1-2	69	3
Physiotherapists SL 7-8	212	18	Messengers SL 1-2	87	11
Physiotherapists SL 9-10	344	1	Messengers SL 3-4	91	11
Radiographers SL 3-6	163	11	Operators SL 2	86	2
Radiographers SL 7-8	229	92	Operators SL 3-6	120	81
Radiographers SL 9-11	323	3	Porters SL 1-2	83	76
Social workers SL 6-8	117	3	Porters SL 3-4	96	50
Social workers SL 9-10	273	18	Security SL 3-6	117	27
Speech Therapy SL 6-8	190	12	Security SL 7-8	199	1
Clinical Technologist SL 3-6	89	5	Telephone Exchange SL 3-6	134	17
Clinical Technologist SL 7-8	230	21	Telephone Exchange SL 7	204	1
Clinical Technologist SL 9-10	313	16	Tradesmen SL 1-3	85	32
Medical Technologist SL 7-8	226	11	Typists SL 3-6	161	45
Medical Technologist SL 9-10	306	2	Grand Total		4 364

Posts approved in addition to the APL

SUBGROUP AND SALARY LEVEL (SL) OR GRADE (G)	COST PER POST (R'000)	2011/12 APPROVED NUMBER OF POSTS
Management SL 9-10	328	2
Medical Clin Head	1,398	4
Medical Officer G1-3	721	8
Medical Specialist G1-3	989	4
Medical Sub-Specialist G1-3	1,125	2
Registrar	669	14
Registrar Snr	890	15
Nurses: Prof Gen	241	31
Nurses: Prof Spec	339	52
Nurses: Staff	166	52
Nursing Assistants	133	67
Dieticians G1-3	285	1
Pharmacy G1-3	465	3
Radiographers G1-3	292	5
Admin SL 1-6	164	7
Admin SL 7-8	238	2
Handymen SL 3-6	123	1
Domestic SL 1-6	105	10
Grand Total		280

Table 1: Permanent Personnel: Race / Gender / Disability

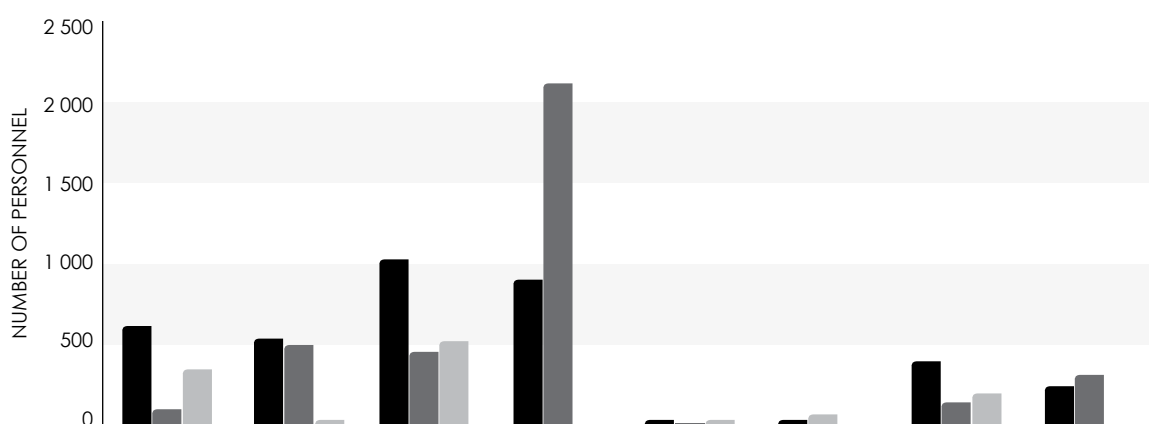


	AFRICAN	COLOURED	INDIAN	WHITE	PWD	MALE	FEMALE
TARGET	-1138.401	1962.496	34.497	697.606		2065.987	1767.013
CURRENT EE	640	2604	35	546	18	830	2995
GAP	498.401	-641.504	-0.503	151.606		1235.987	-1227.987

TABLE 1: PERMANENT PERSONNEL: RACE / GENDER / DISABILITY

	CATEGORIES	TARGET	CURRENT EE	GAP
Race	African	1138	640	498
	Coloured	1962	2604	-642
	Indian	34	35	-1
	White	698	546	152
Disability	PWD		18	
Gender	Male	2066	830	1236
	Female	1767	2995	-1228

Table 2: Permanent Personnel: Race and Gender

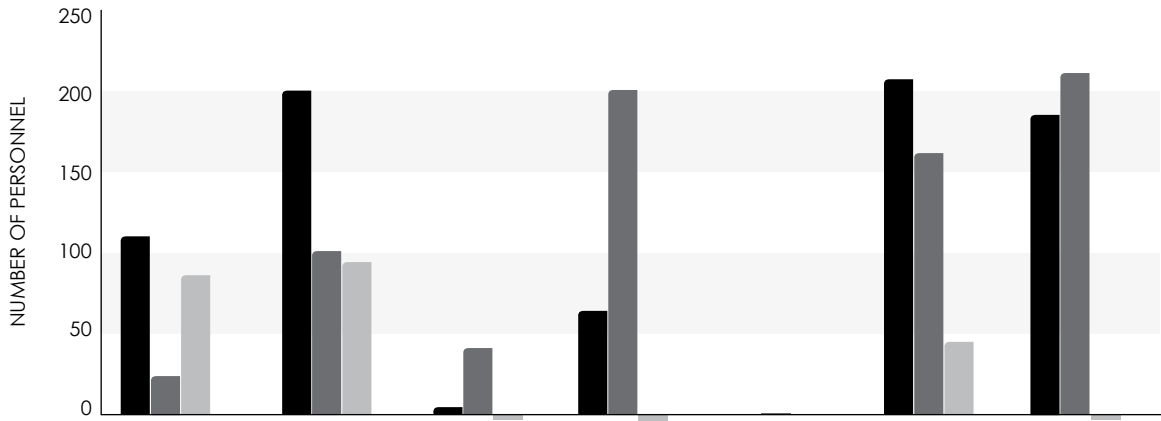


	AM	AF	CM	CF	IM	IF	WM	WF
TARGET	605.614	532.787	1050.242	912.254	22.998	11.499	387.133	310.473
CURRENT EE	138	502	500	2104	8	27	184	362
GAP	467.614	30.787	550.242	-1191.746	14.998	-15.501	203.133	-51.527

TABLE 2: PERMANENT PERSONNEL: RACE AND GENDER

	CATEGORIES	TARGET	CURRENT EE	GAP
Race and gender	African male	606	138	468
	African female	533	502	31
	Coloured male	1050	500	550
	Coloured female	912	2104	-1192
	Indian male	23	8	15
	Indian female	11	27	-16
	White male	387	184	203
	White female	310	362	-52

Table 3: Non-Permanent Personnel: Race / Gender / Disability

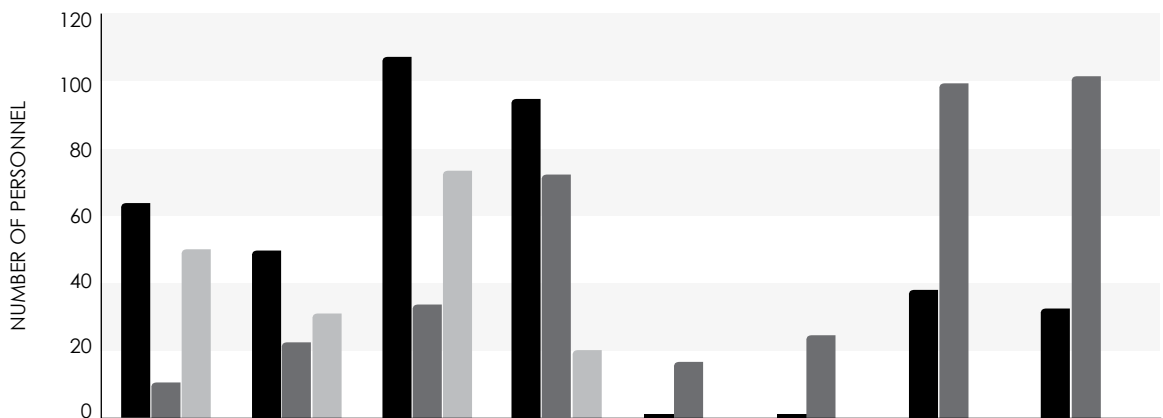


	AFRICAN	COLOURED	INDIAN	WHITE	PWD	MALE	FEMALE
TARGET	118.8	204.8	3.6	72.8		215.6	184.4
CURRENT EE	34	107	43	204	0	165	223
GAP	84.8	97.8	-39.4	-131.2		50.6	-38.6

TABLE 3: NON-PERMANENT PERSONNEL: RACE / GENDER / DISABILITY

	CATEGORIES	TARGET	CURRENT EE	GAP
Race	African	119	34	85
	Coloured	205	107	98
	Indian	4	43	-39
	White	73	204	-131
Disability	PWD		0	
Gender	Male	216	165	51
	Female	184	223	-39

Table 4: Non-Permanent Personnel: Race and Gender

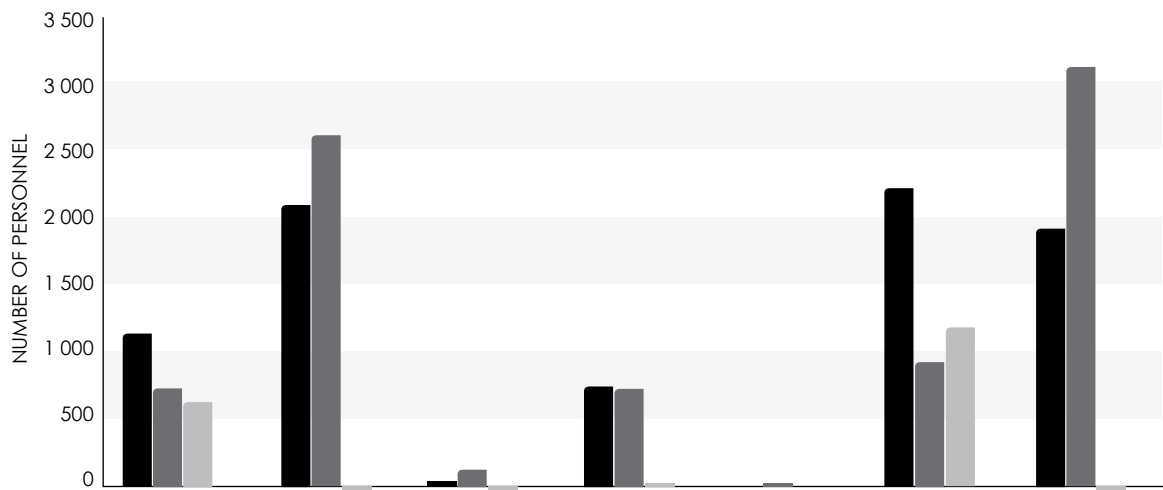


	AM	AF	CM	CF	IM	IF	WM	WF
TARGET	63.2	55.6	109.6	95.2	2.4	1.2	40.4	32.4
CURRENT EE	12	22	34	73	18	25	101	103
GAP	51.2	33.6	75.6	22.2	-15.6	-23.8	-60.6	-70.6

TABLE 4: NON-PERMANENT PERSONNEL: RACE AND GENDER

	CATEGORIES	TARGET	CURRENT EE	GAP
Race and gender	African male	63	12	51
	African female	56	22	34
	Coloured male	110	34	76
	Coloured female	95	73	22
	Indian male	2	18	-16
	Indian female	1	25	-24
	White male	40	101	-61
	White female	32	103	-71

Table 5: All Personnel: Race / Gender / Disability

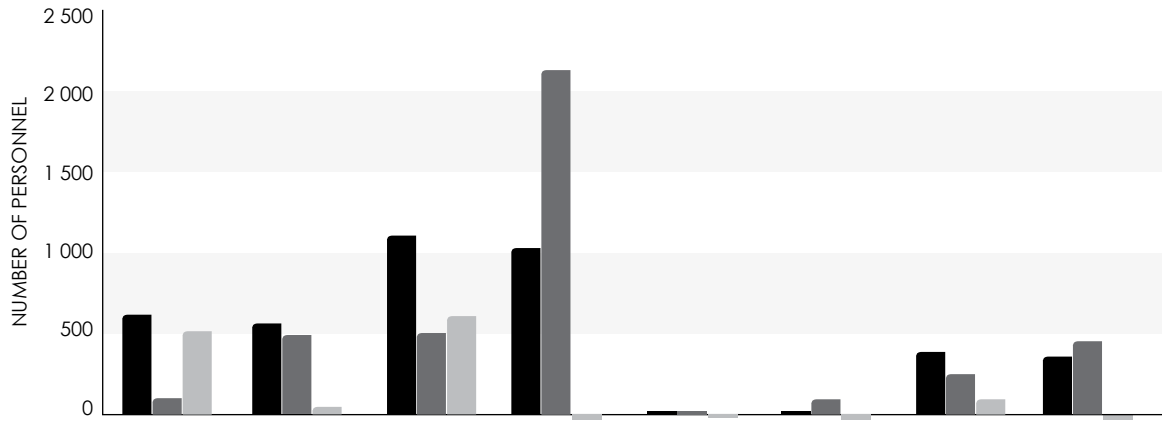


	AFRICAN	COLOURED	INDIAN	WHITE	PWD	MALE	FEMALE
TARGET	1257.201	2167.296	38.097	770.406		2281.587	1951.413
CURRENT EE	674	2711	78	750	18	995	3218
GAP	583.201	-543.704	-39.903	20.406		1286.587	-1266.587

TABLE 5: ALL PERSONNEL: RACE / GENDER / DISABILITY

	CATEGORIES	TARGET	CURRENT EE	GAP
Race	African	1257	674	583
	Coloured	2167	2711	-544
	Indian	38	78	-40
	White	770	750	20
Disability	PWD		18	
Gender	Male	2282	995	1287
	Female	1951	3218	-1267

Table 6: All Personnel: Race / Gender / Disability



	AM	AF	CM	CF	IM	IF	WM	WF
TARGET	668.814	588.387	1159.842	1007.454	25.398	12.699	427.533	342.873
CURRENT EE	150	524	534	2177	26	52	285	465
GAP	518.814	64.387	625.842	-1169.546	-0.602	-39.301	142.533	-122.127

TABLE 6: ALL PERSONNEL: RACE AND GENDER

	CATEGORIES	TARGET	CURRENT EE	GAP
Race and Gender	African male	669	150	519
	African female	588	524	64
	Coloured male	1160	534	626
	Coloured female	1007	2177	-1170
	Indian male	25	26	-1
	Indian female	13	52	-39
	White male	428	285	143
	White female	343	465	-122

Summary per salary level

SALARY LEVEL	PERFORMANCE IS BELOW FULLY EFFECTIVE (0% - 99%)	NUMBER OF EMPLOYEES WHO QUALIFY	TOTAL NUMBER OF EMPLOYEES IN INSTITUTION	PERCENTAGE EMPLOYEES WHO QUALIFY
Levels 1-2	5	56	356	15,73
Levels 3-5	7	370	1700	21,76
Levels 6-8	3	215	999	21,52
Levels 9-10	0	125	600	20,83
Levels 11-12	1	45	575	7,83
Total	16	811	4230	19,17

Summary per occupational cluster

OCCUPATIONAL CLUSTERS	PERFORMANCE IS BELOW FULLY EFFECTIVE (0% - 99%)	NUMBER OF EMPLOYEES WHO QUALIFY	TOTAL NUMBER OF EMPLOYEES IN INSTITUTION	PERCENTAGE EMPLOYEES WHO QUALIFY
Medical	1	44	582	7,56
Nursing	1	357	1809	19,73
Administration	13	358	1584	22,60
Social science	1	52	255	20,39
Total	16	811	4230	19,17
Total	16	811	4230	19,17

Representivity summary (race, gender, disability)

EQUITY	PERFORMANCE IS BELOW FULLY EFFECTIVE (0% - 99%)	NUMBER OF EMPLOYEES WHO QUALIFY	TOTAL NUMBER OF EMPLOYEES IN INSTITUTION	PERCENTAGE EMPLOYEES WHO QUALIFY
Coloured male	4	105	549	19,13
Coloured female	6	456	2199	20,74
White male	2	37	293	12,63
White female	1	75	495	15,15
African male	1	30	142	21,13
African female	2	103	455	22,64
Asian male	0	1	50	2,00
Asian female	0	4	47	8,51
Persons with disabilities	0	0	0	0,00
Total	16	811	4230	19,17

Labour Relations**Mr R Japhta****Informal Disciplinary Action**

Disciplinary action	MALE				FEMALE				TOTAL
	A	C	I	W	A	C	I	W	
Correctional counselling	0	1	0	0	0	0	0	1	2
Verbal warning	0	4	0	0	2	3	0	1	11
Written warning	7	13	0	0	6	19	0	2	46
Final written warning	9	15	0	2	3	21	0	0	50
Total	16	33	0	2	11	43	0	4	109

Informal Disciplinary Action

OUTCOMES OF DISCIPLINARY HEARINGS	NUMBER
Final written warning	3
Suspension without salary	4
Demotion	0
Dismissals	13
Not guilty	3
Cases withdrawn	1
Cases dismissed	0
Hearings pending	9
Total	33
Dismissal-appeal applications pending	2

Types of misconduct addressed at disciplinary hearings

TYPE OF MISCONDUCT	NUMBER	DEPARTMENT
Absent from work without reason or permission	17	Food Services, Nursing, Housekeeping, Clinical Engineering, Porter Services
Insubordination	1	Patient Administration
Negligence	1	Patient Administration
Assault or threatens to assault	1	Support Services
Falsification of sick certificates	5	CSSD, Typist, Medical & Ward Clerk
Unauthorised removal of state property	3	Stores, Food Services
Substance abuse	2	Security Services
Sexual harassment	3	Engineering Services, Porter Services
Total	33	

Grievances lodged

TYPE OF GRIEVANCE	NUMBER
SPMS grievances received	15
SPMS grievances resolved	6
PILIR grievances received	6
PILIR grievances resolved	5
OSD grievances received	31
OSD grievances resolved	28
Other grievances received (not related to SPMS, PILIR, or OSD)	44
Other grievances resolved (not related to SPMS, PILIR, or OSD)	29
Collective grievances received	3
Collective grievances resolved	2
Total received	99
Total resolved	70

Grievances pending

LEVEL	NUMBER
Pending at institution	14
Pending at head office	15
Pending at public commission	0
Total	29

Disputes

LEVEL	NUMBER
Disputes declared	7
Disputes dismissed	0
Disputes withdrawn	0
Disputes deadlocked	1
Agreements reached	0
Disputes finalised	1
Disputes pending	5

Training

Number of employees trained	1057
Percentage of employees trained	26,3

Precautionary suspensions

Number of employees suspended	3
Number of people whose suspension exceeded 60 days	0
Number of employees still on suspension by 31 December 2010	0

Comparisons with previous year

INFORMAL DISCIPLINE		
	2010	2011
Corrective counselling	4	2
Verbal warnings	2	11
Written warnings	69	46
Final written warnings	47	50

FORMAL DISCIPLINE		
	2010	2011
Written warnings	0	0
Final written warnings	5	3
Suspension without remuneration	20	4
Demotion	0	0
Dismissals	3	13
Not guilty	2	3
Cases withdrawn	4	1
Cases dismissed	1	0

GRIEVANCES		
	2010	2011
SPMS	13	15
OSD	0	31
Other grievances	37	44
PILIR	5	6

DISPUTES		
	2010	2011
Disputes declared	9	7
Disputes dismissed	1	0
Disputes withdrawn	1	0
Disputes deadlocked	1	1
Agreements reached	1	0
Disputes finalised	4	1
Disputes pending	5	5

TRAINING		
	2010	2011
Number of employees trained	923	1057
Percentage of employees trained	23	26.3
Establishment	4005	4055

Courses presented and attended

2010	2011
Absenteeism presentations	Absenteeism presentations
Disciplinary code and procedure	Disciplinary code and procedure
Presiding and investigating officers	Presiding and investigating officers
Informal disciplinary procedure	Informal disciplinary procedure
Grievance procedure	Grievance procedure
Introduction to labour law	Substance abuse
Annual labour law seminar	Annual labour law seminar
Induction	Labour relations induction
Massified induction	Sexual harassment
Sexual harassment	Disciplinary skills
PERSAL	Conciliation and Arbitration
PILIR	Fraud prevention
	Report writing

PRECAUTIONARY SUSPENSIONS		
	2010	2011
Employees suspended	4	3

Achievements

Training coverage increased from 23% to 26,3% of staff.

Information sessions for staff and supervisors resulted in a decrease of informal disciplinary action.

Human Resources Development (HRD)

Assistant Director: Ms J Johnson

Learnerships 2010/11

Diagnostic radiography

Eleven learners are currently on the programme. Four learners are in their final year and seven in their second year.

There were no new intakes for 2011/12.

Funding: Health and Welfare Seta

Pharmacy

Basic Pharmacist Assistants

Five employed (18.1) learners are busy with this course.

Funding: Khet'impilo training

Post Basic Pharmacist Assistants

Four unemployed (18.2) learners are busy with this course.

Funding: Expanded Public Works Programme (EPWP)

Bursaries

Fifty-two employees received part-time bursaries for 2011 with an estimated budget of R680 234,50. These beneficiaries are from the following categories: Nursing, Administration Support and Professional. These bursaries are funded by the Directorate of Human Resources Development (HRD).

Eighteen Administration Support and Professional bursary applications were received for 2012, of which twelve were approved. Nursing bursaries are still to be approved.

Adult Further Education and Training (Grade 12)

Sixty-two learners enrolled for Grade 12 classes.

Twenty-six staff members enrolled for classes in order to write exams in May/June 2012

Internship

Expanded Public Works Programme

Three Data Capturer interns are permanently employed and two did not renew their contracts, resulting in 17 interns being employed at the institution.

Higher Education and Further Education

Three Cape Peninsula University of Technology (CPUT) Human Resources Management students were offered an opportunity to do experiential training for

a period of three months, from April to June 2011. These students were given exposure to personnel and employment practices, labour relations and human resource development.

Generic interns

These students require an 18-month in-service internship in order to obtain their Diploma or Certificate. Fifteen students from Northlink College and CPUT were placed at the following departments: Engineering, Finance, and HRD. Seven students received permanent employment with Health, five student's contracts expired and three students are still completing their internship.

Training

Skills fund and the Provincial Training Institute

Despite challenges such as changes in the procurement processes and HRD's loss of staff due to transfers, the training statistics have shown significant improvement. The function is expanding and is embarking on new cost-effective programmes such as information sessions. Training includes in-house coordinated short courses, skills programmes, external and internal workshops, congresses and conferences and training provided by the Provincial Training Institute.

Expenditure:	R802 861,21
Total training interventions:	3 167
Total employees trained:	1784

Funding for the Improvement and Maintenance of Competencies for Health Professionals iMOCOMP

Funding was allocated from the Directorate: HRD as additional funding, to continuously improve the skills of health professionals to address the burden of disease.

Human Resources Development Committee

The Human Resource Development Policy and the Terms of Reference have been presented to stakeholders. Both documents are ready for adoption.

Staff Wellness Programme (EAP)

The hospital continues to look after its staff by means of services procured by Head Office through ICAS, an independent counselling and advisory organisation. Prevalent and common cases that were dealt with include relationship issues, legal issues, child and family care, stress, mental illness and financial management. The relationship between the internal EAP and ICAS continues to be viable.

Utilisation rates

Over the three quarters of 2011 (April to December) 136 cases were dealt with. Compared to the 227 cases handled for the same period in 2010, the utilisation of this service has decreased. It is recommended that managerial and referral services are encouraged and that more employee awareness sessions are held.

It is a trend that most of the cases deal with problems outside of the work context, such as relationship issues, which have topped the list of all cases handled from quarter to quarter in 2011. Organised per gender, the data shows that female staff, as in previous reporting periods, were more likely to request help for problems than male staff. There was an increase in mental illness requests, specifically for depression and anxiety disorders.

A group trauma debriefing took place after the suspension from duty of a staff member. This was done to enable employees to express their feelings and deal with problems surrounding the case, to restore functionality through normalisation.

A further breakdown of the utilisation rate per site in the table below illustrates that nurses had the highest number of cases and this bears a correlation with previous findings. Certain areas at nursing were identified to be high risk in terms of staff health and wellness.

Utilisation per site in 2011

SITE	Q 1 CASES	Q 2 CASES	Q 3 CASES	TOTAL
Clinical Nurses	19	14	15	48
Administrative	14	9	15	38
Support services	12	8	13	33
Clinical, other	7	1	9	17
Total	52	32	52	136

HR Connect

HR Connect focused on qualifications and skills within Health and staff members completed questionnaires.

The outcome of assessment will be available in 2012.

Challenges were:

- the loss of three of the department's five staff members through transfers
- non-adherence to processes and procedures such as funding requests, especially by senior staff
- not enough senior staff attended training
- non-attendance of to the Public Service Induction for salary level 6 – 12, specifically medical staff
- changes in the procurement process, with training targets not met as the result.

Achievements were:

- improved attendance and commitment by the HRD Committee members
- an increase in staff attending learning programmes
- strengthened inter-governmental relations with organizations as Government Employee Pension Fund and Government Employee Medical Scheme
- successful implementation of the internship program whereby interns were permanently employed
- despite the shortage of staff, HRD managed to continue with training.

ANNUAL EXPENDITURE REPORT 2011

TRAINING INTERVENTION	CREDIT- BEARING	NOT CREDIT-BEARING
24th Annual Labour Law Conference		11 165,87
3 bid committees		6 940,00
30th Conference on Priorities of Perinatal Care		2 420,50
50th SAAPMB ¹ and SARPA ² Congress		10 007,00
A practical lumbar rehabilitation workshop		200,00
A2B Faces of anxiety & ecosystem of change workshop		2 000,00
Advanced Cardio Life Support		5 000,00
Advanced CSSD course		12 000,00
Advanced Neonatal Life Support		39 750,00
Advanced Paediatric Life Support		15 750,00
Advanced Trauma Life Support		6 050,00
Applied Therapy of Hypertensive Cardiovascular Disease		2 700,00
Balance retraining		650,00
Basic ICU Course		4 300,00
Basic Life Support		26 250,00
Basic Sterilisation Course		12 000,00
Basic Wheelchair Seating Course		2 000,00
Bobath Course: Ataxia Workshop		750,00
Breastfeeding and Donor Milk in the Hospital		600,00
CAPS ³ training		500,00
Career guidance course	7 500,00	
Cerebral palsy workshop		2 100,00
Cervical rehabilitation		600,00
Clinical governance conference		13 296,08
Cognitive behaviour therapy workshop		7 000,00
Conciliation and arbitration		6 140,61
Conflict management		12 298,00
Continuing medical training		3 260,00
Creating a respectful workplace		21 375,00
Current ethical issues in clinical setting		700,00
Cystic Fibrosis Workshop		120,00
Detection and diagnosis of early breast cancer		30 813,65
Diabetes care for health professionals		8 950,00
Dry needling module 2		2 100,00
Effective communication		16 946,10
ENT conference		14 976,00
Estro IMRT ⁴ feedback course		13 523,93
Ethics		880,00
Evaluating cognitive & behavioural demands		250,00
First aid	8 540,00	
1st South African Nurses Conference		4 000,00
Functional capacity evaluations		9 000,00
Grade R CAPS training		500,00
Hands-on workshop in objective measurements		750,00

¹ South African Association of Physicists in Medicine and Biology² Southern African Radiation Protection Association (SARPA)³ National Curriculum and Assessment Policy Statement⁴ IMRT: Intensity-modulated radiation therapy

ANNUAL EXPENDITURE REPORT 2011		
TRAINING INTERVENTION	CREDIT- BEARING	NOT CREDIT-BEARING
Headache course		1 150,00
Health informatics in SA		2 150,00
Healthcare delivery in a resource-constrained environment conference		8 790,00
Hospital association of SA conference 2011		4 000,00
Innovative management in public sector		500,00
Intermediate course in decontamination & sterilisation		18 000,00
Intermediate seating course		1 250,00
Intra-uterine device		5 000,00
Investigation and report writing		6 822,90
Kitchen cleaner		26 000,00
Knee and ankle rehabilitation		600,00
Labour court proceedings workshop		13 765,80
Labour relations training		2 600,00
Lymphoedema workshop		250,00
Management of hospital of electrical zones		13 676,58
Managing with intent		3 328,50
Mentoring and coaching	3 306,00	
MS Adobe Photoshop level 1		12 000,00
MS Adobe Photoshop level 2		12 000,00
MS Excel 2007 level 1		11 200,00
MS Excel 2007 Level 2		10 800,00
MS Excel 2007 level 3		10 800,00
MS PowerPoint 2007 level 1		9 200,00
MS PowerPoint 2007 level 2		6 400,00
MS Word 2007 level 1		9 600,00
MS Word 2007 level 2		8 800,00
MS Word 2007 level 3		8 800,00
Multimodality detection and diagnosis of breast diseases		2 212,96
Musculoskeletal training		3 546,50
National Tertiary Services Grant		12 444,80
National speech therapy and audiology forum		2 677,50
Ndiyeva Audiology and Auditory-Verbal Conference		2 850,00
Neonatal cardiology for paediatrics		450,00
Neonatal CPR		150,00
Nursing Education Conference		12 842,90
Occupational Based Practice: Building on performance components and function		700,00
Optimal dry-needling		2 100,00
Paediatric and neonatal resuscitation		3 200,00
Paediatric life support		1 500,00
Pain management		1 800,00
Power pallet truck novice		1 686,00
Power pallet truck refresher		1 674,00

ANNUAL EXPENDITURE REPORT 2011

TRAINING INTERVENTION	CREDIT-BEARING	NOT CREDIT-BEARING
Practical strategies workshop		2 000,00
Project management	7 200,00	
Public Service Training Forum		7 093,00
Quality assurance workshop		15 000,00
Quality management	25 456,20	
Reflexology and bipolar mood disorder		200,00
Rehabilitation workshop		1 000,00
RSSA MDCT ⁵ essential course 2011		7 679,00
Seating workshop - wheelchairs and buggies		2 000,00
Sensitive Midwifery Symposium		450,00
Sexual-assault forensic pathology		2 400,00
Short course in undergraduate clinical supervision		4 500,00
Skills development facilitator	11,400,00	
SORSA ⁶ -RSSA 2011 Imaging Congress		9 443,00
South African Burns Society Conference		2 000,00
Stress and resilience management		24 568,80
Structural pest control		27 000,00
Subtle problems of movement & postural control – a neurodevelopmental therapy (NDT) approach		245,00
Tanya Bell lower quarter course		1 700,00
Teambuilding		7 137,00
The OHS Act 1993 and Electrical Safety Regulations and Standards		7 522,86
The Road Accident Fund and debt recovery in SA		100,00
The treatment of traumatic tendon and nerve-compression injuries		1 200,00
Time management		12 036,00
Treatment of traumatic nerve and tendon injuries		2 000,00
Women in management		2 900,00
Total	63 402,20	728 105,84
Grand total		791 508,04

⁵ RSSA MDCT: Radiology Society of South Africa: Multidetector CT Scanning

⁶ SORSA: Society of Radiographers of South Africa

LEARNERSHIPS

DIAGNOSTIC RADIOGRAPHY	HWSETA FUNDING	1% FUNDING
Class fees	93 500,00	
Uniform allowance	11 000,00	
Stipend	198 000,00	
1%		38 500,00
BASIC PHARMACIST ASSISTANT	HWSETA FUNDING	1% FUNDING
Allowance	68 400,00	
ENROLLED NURSE	HWSETA FUNDING	1% FUNDING
Allowance	10 000,00	
Total	370 900,00	38 500,00
Grand total		409 400,00

CATERING		
Feb / Mar 11	Biscuits	154,00
	Refreshments	1 191,30
	Provisions	79,32
Apr-11	Provisions	146,07
May-11	Refreshments	1 407,90
	Biscuits	466,40
	Provisions	437,79
Jun-11	Refreshments	1 028,85
	Biscuits	230,75
	Provisions	145,00
Jul-11	Refreshments	1 482,00
	Biscuits	230,95
	Provisions	128,90
Sep-11	Biscuits	376,40
	Refreshments	1 137,15
Nov-11	Biscuits	
	Refreshments	2 508,00
	Provisions	202,39
Total		11 353,17

INTERNSHIP	
Expanded Public Works Programme	528 300,00
National Diploma: Boiler making	9 000,00
National Diploma: Business Management	15 000,00
National Diploma: Financial Management	24 000,00
Diploma: Human Resource Management	13 500,00
National Diploma: Office Management and Technology	7 500,00
National Diploma: Public Management	37 500,00
Total	634 800,00

iMOCOMP FUNDING	
Neonatology Seminar	1 200,00
South African Burn Society Conference	9 230,00
National Kangaroo Mother Care Workshop	2 000,00
Total	12 430,00

International Outreach Programme

During this reporting period a number of programmes and initiatives were undertaken with regard to social responsibility.

Netherlands

Co-ordinated two visits by Dutch Health Managers, which amounts to 46 in total.

Student placement

Medical	4
Nurses	4

United Kingdom

National Health Service (NHS) – identified assistance in terms of community health partnership projects: Groote Schuur Hospital.

China

Coordinated the visit of a Chinese health manager.

Mozambique

Delegation: Assistance to Eastern Cape & Gauteng Hospital Board Tygerberg

Carel du Toit

Communications and Public Relations

Ms LC Pienaar

The Communications office continues to play a vital role in internal and external communication, including the following areas: media liaison, publications, marketing, public relations, special events, receipt of donations, special visits, local communities, international visitors and celebrities.

Special visitors

The office works in close collaboration with various departments to ensure the organising of local and international visits run smoothly. International visits, special visitors and celebrities included the following:

Ms Patricia de Lille	13 January & 10 December
Netherlands delegation	16 February
Mr Breyton Paulse	11 March
Minister Botha	4 March & 6 May
Taipei delegation	27 May
Locnville Twins	21 December

Special events

Open Day	11 March
World Kidney Day	11 March
International Nurses' Day	12 May
Mandela Day	18 July
Women's Day	5 August
TygerBear's Pink & Blue Campaign	12 August
Annual Spring Concert	9 September
TB Awareness Day	3 September
Opening of Lodging Facility	20 September
Staff Wellness Day	12 & 14 October
IPC Day	2 November
Hartman Lecture Awards	10 November
Annual Nurses' Pledge Ceremony	11 November
CEO Ball	12 November
Smile Week	16 November
Diabetes Open Day	17 November
Annual Children's Christmas Party	26 November

Patient Administration

Ms J Jooste

Medical Records

Ms M Xontana

STAFF COMPLEMENT	TOTAL
Senior Admin Officer	1
Chief Clerk	1
Chief Auxiliary Officer	1
Senior Clerks	58
Data Capturer, vacant post	2
Messengers	6

Highlights

Disposal of inactive folders and inactive deceased folders

As per Archive prescripts, the section destroyed two thousand inactive folders and three thousand inactive deceased folders that have reach the retention period of five years.

Merging of duplicate folders

The successful merging of hundreds of duplicate folders during the year. In September 2011, the HIS report reflected 105 duplicate folders, of which 83 folders were traced and successfully merged.

Reasons why duplicate folders are created

- Folders are kept in locked offices.
- Existing folders could not be found.

Actions

- The section requests a monthly report and merges duplicate folders immediately.
- Filing clerks identify duplicate folders while filing.
- Tracking folders by using the Clinicom transfer function.

Reasons why some patients have more than one patient number

- The patient attended different hospitals.
- Reception clerks cannot spell the patient's surname correctly.
- The patient gives a different name, e.g. the English name of a Xhosa person, to the name on the identity document (ID).

Actions

- During 2011 a number of these cases were identified and corrected.
- ID is imperative however still a challenge. On average 40% of patients do not present IDs on admission/attendance.

Reduction of patient waiting times

On a daily basis the time it takes a folder to reach its destination is monitored. The Chief Administrative Clerk performs regular spot checks at the folder-call area to monitor ad hoc requests of folders.

Reasons why folders might take longer to reach service points

- When there is a large number of walk-ins or ad hoc requests for folders
- The printer destination is incorrect – which happens for no apparent reason.
- Folders are outstanding, i.e. they were not returned to Medical Records within the prescribed period.
- The patient has more than one appointment on the same day.
- Folders are stored in different locations at Medical Records.

- Folders are being audited and are not available.
- Folders were not filed correctly.

Creating much-needed space – Destruction of X-rays

A large number of X-rays that reached the retention period of 5 years have been disposed of. This improves neatness of the environment and creates additional space.

Registers as per NARS

Deceased Register: certificate 15/1/4/3

Disposal Register: certificate 15/1/4/3

Report Book

Challenges

- The increase of thick folders – has an impact on the available space
- Inactive internal folders at X-block.
- A shortage of additional file stores in which to keep patient folders.

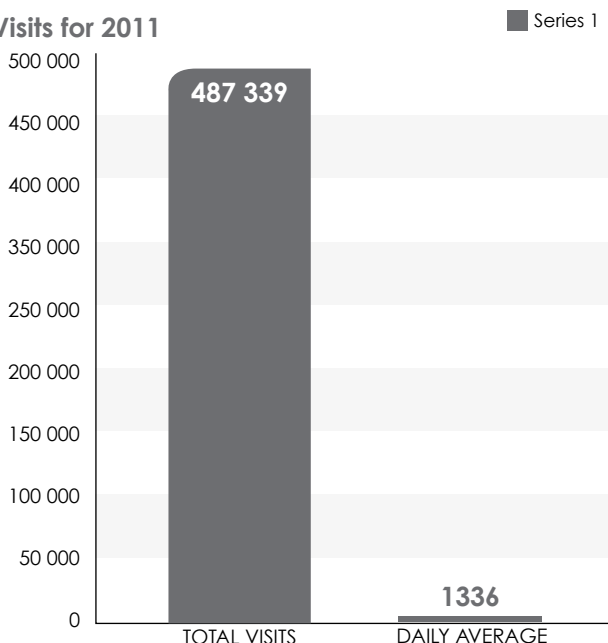
Patient Reception Services

Outpatients Department (OPD)

Mr R Mouton

DATE	SUBJECT	STAFF
June	CLINICOM	6
July	CLINICOM	10
Aug	Induction	14
Aug	System changes	All inclusive
Sept	Customer satisfaction	All inclusive
Oct	CLINICOM	2
Oct	Cashiers	3

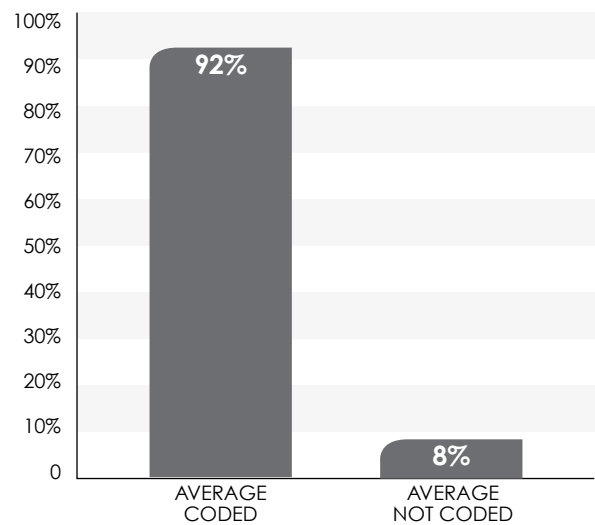
Visits for 2011



ICD10 Statistics

(ICD stands for International Classification of Disease)

MONTH	OPD ICD 10 CODING
Apr	92,3%
May	93,4%
Jun	92,5%
Jul	92,9%
Aug	92,6%
Sept	92,2%
Oct	93,6%
Nov	94,9%
Dec	91,7%



Medical scheme patient information is verified through an electronic data interface to ensure correct and prompt payment.

Cashier statistics

MONTH	INCOME
Apr	R 180 572,00
May	R 219 662,00
Jun	R 246 919,00
July	R 219 941,00
Aug	R 223 962,00
Sept	R 247 049,00
Oct	R 279 255,00
Nov	R 286 907,00
Dec	R 145 957,00

ID number strategies

Conduct weekly checks by staff and

Monthly reports are compiled by supervisors to Senior Administrative Officer and are summarised for the Assistant Director

Both patient and debtor IDs are checked on the:

Resources: Daily invoice tracking lists

Clinicom Note

Monitoring

- Compare source data with Clinicom data
- Compile and present statistics

Challenges

The debtor already as patient on system and does not accept ID in DT field (capture in note field).

Currently in communication Clinicom System Manager with regard to the above.

Waiting-time (call folder) strategy

Call Folder

- Random collection of folder slips for given date and time
- Capture data and Microsoft Excel
- Analyse and interpret data
- Present and report findings

Report folders requests that take longer than 30 min from Medical

Additional

- Checking of bookings and folders
- Case note tracking monitoring
- Walk-in stats monitoring

Waiting-time statistics

DATE	WITHIN 30 MIN	OVER 30 MIN
10/05/2011	81%	19
22/08/2011	12%	88% (call-folder machine faulty)
29/08/2011	27%	73% (call-folder machine faulty)

DATE	WITHIN 30 MIN	OVER 30 MIN
05/09/2011	81%	19%
12/09/2011	86%	14%
19/09/2011	84%	16%
28/09/2011	91%	9%
20/10/2011	92%	8%
30/11/2011	86%	14%

Waiting-time strategy (receptions vs clinics)

- Random checking of patients numbers receptions & clinics
- Focus: Calculate ratio of patients in clinics in relation to patients in reception waiting and calculate the ratio as a percentage figure
- Supervisors collect and provide data
- SA - record, summarise and calculate data
- Findings reported to/presented to ASD

Patient Reception Services

Emergency

Human resources

Senior Administrative Officer	43
Chief Administrative Clerks	4
Senior Administrative Clerks	1

Summary

Patient Reception: Emergency Services is a subdivision of Patient Administration and is responsible for administrative support to the 24-hour emergency-service sections of the hospital.

WAITING-TIME STATISTICS: RECEPTIONS VS CLINICS

DATE	TIME	NO. OF RECEPTIONS (RANDOM CHECKS)	PATIENTS AT RECEPTION	PATIENTS IN THE CLINIC	% IN CLINIC
21/09/2011	10:00	4	62	286	82%
22/09/2011	10:00	4	61	305	83%
19/10/2011	10:00	11	92	554	85%
26(27)/10/2011	10:00	11	45	557	92%
17/11/2011	10:00	6	17	217	92%
30/11/2011	10:00	11	148	699	82%

Responsibilities

We render an administrative support service to the following 24-hour emergency departments:

RADIOLOGY	TRAUMA RECEPTION	MATERNITY/ GYNAE EMERGENCY	ADMISSIONS	WARD F1
	PATIENT ENQUIRIES	WARD C1D	TRIAGE	

Highlights

The capturing of ICD10 codes on invoices have improved to more than 95%, as at the end of December. The capturing of ID numbers also showed some improvement.

Unrecorded attendances are kept up to date on a weekly basis.

Waiting times: The number of folder requests for emergency services from Medical Records:

WAITING TIME	MINUTES	GRAND TOTAL
<30 minutes	0 to 29	786
>30 minutes	30+	424
Total		1210

Inpatient Services

Ms B Williams

Staff Compliment

SERVICE AREAS	TOTAL
Private Ward (RGP)D4	1
Plastic Surgery/ Cosmetic Ward D3	1
Day Surgery	1
Other wards	37
Children's Hospital	10

2.1 Ward attenders

WARD NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
D1 Vascular Surgery	15	3	32	28	39	50	19	33	19	50	64	46
D7 Ophthalmology	39	26	31	39	43	40	41	44	33	38	31	56
G1 Neonatal Medicine	1	2	2	4	13	2	7	3	4	12	23	8
G4 Paediatric Surgery	16	11	6	14	12	8	11	14	19	12	29	6
G5 Ear, Nose & Throat	8	4	15	15	9	13	10	11	12	5	7	38
G9 Paed Internal Medicine	12	5	6	4	3	5	4	12	15	8	5	9
Grand Total	91	51	92	104	119	118	92	117	102	125	159	30

HUMAN RESOURCES	TOTAL
Senior Admin Officer	1
Chief Clerk	1
Ward Clerks	49
Interpreter	1
Vacant post	1

Challenges in 2011

1. Ward attenders in various wards.
2. After-hour patients in G Ground are not admitted on the system.
3. Foreign patients – without permits or permits expired.
4. ICD10 coding – coding by clinical staff remains a challenge.
5. Patients who died at home and the update of information on Clinicom.
6. Bed occupancy in wards with more than one level of care – identifying the patients.

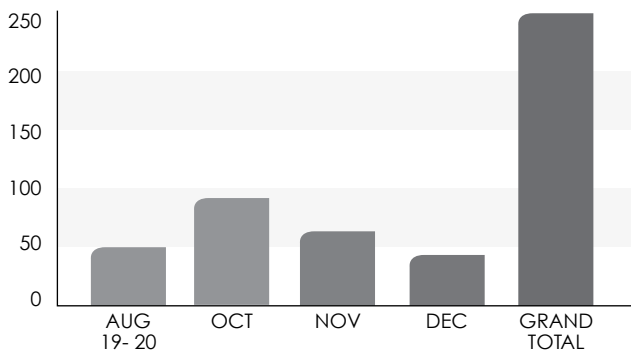
Patients are seen in wards for follow-up OPD visits. This practice creates numerous administrative challenges.

2.2 After-hour admissions to G Ground not recorded

Notwithstanding the after-hour service delivered by the shift personnel, the day clerk still discovers patients the next morning who were not admitted to the ward.

Recordkeeping was implemented since October 2011 and the result is as follows:

MONTH	TOTAL
19-20 August	48
October	93
November	62
December	47
Grand Total:	250



Procedure for patients who died at home or after-hours in G Ground

- Ensure all after-hour deaths are registered on the system in the Paediatric Emergency Ward – Nursing must contact the Shift Supervisor about these cases.
- Records and registers of patients who died at home are done at Admissions E1, Medical Legal and Gene Louw.
- Administrative staff must ensure information is forwarded to Medical Records in order to update patient records on Clinicom.

Highlights

• Equipment

The inpatient section received additional computers at E4 reception, upgrades of the computers in almost all of the wards as well as 25 Sato Printers that speed up the printing of stickers in wards. The section also received 35 heaters, 40 fans, 28 high-back chairs and 5 computer chairs.

• SMS Day Surgery

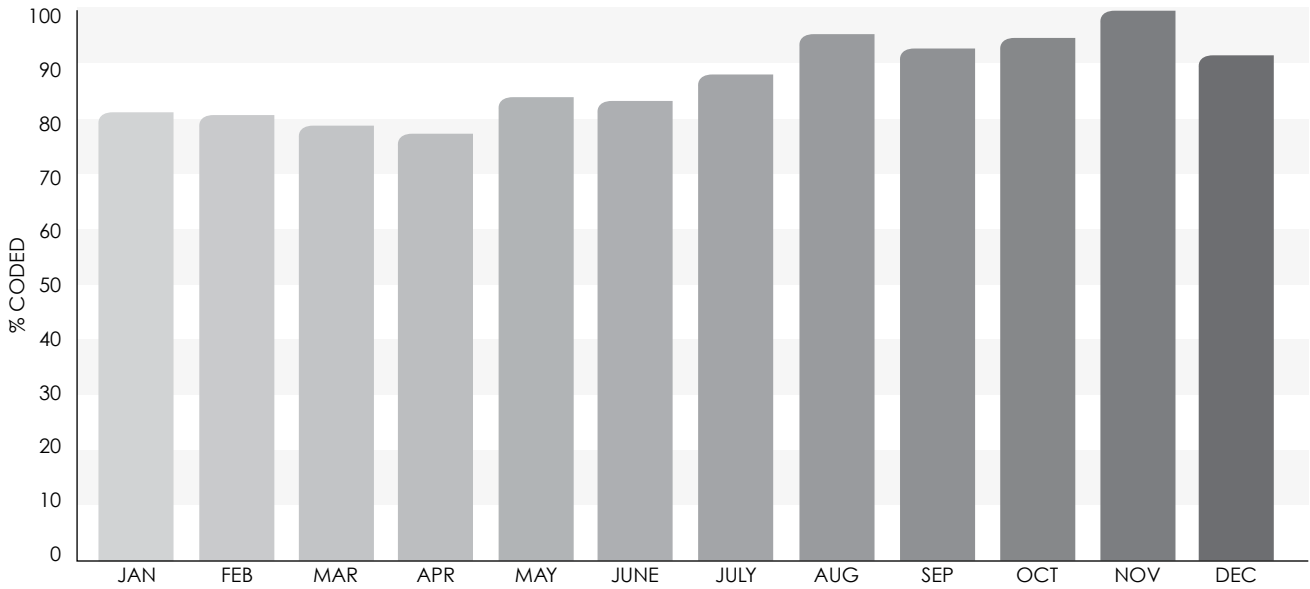
SMS equipment was operational during October 2011 and upgraded on 5 December 2011 to enable the Ward Clerk at Day Surgery to send messages to 20 different patients simultaneously.

• Quality checks where patients died in hospital

A total of 883 cases from March to August 2011 were investigated and all the cases were registered as deceased on the system.

ICD10: Percentage of inpatients coded

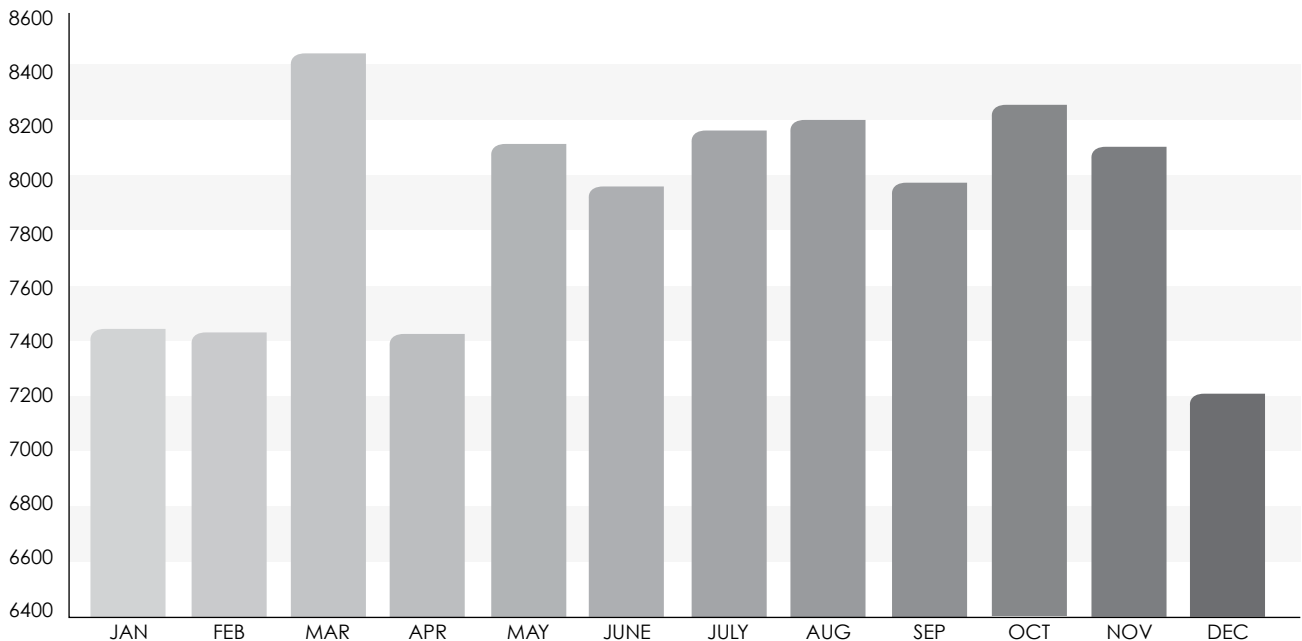
MONTH	% CODED	NUMBER OF WARDS 100% CODED
January	83,79	8
February	83,48	6
March	81,15	7
April	78,9	7
May	85,45	8
June	85,07	6
July	88,62	11
August	96,24	18
September	94,45	16
October	96,81	27
November	98,77	33
December	91,44	16



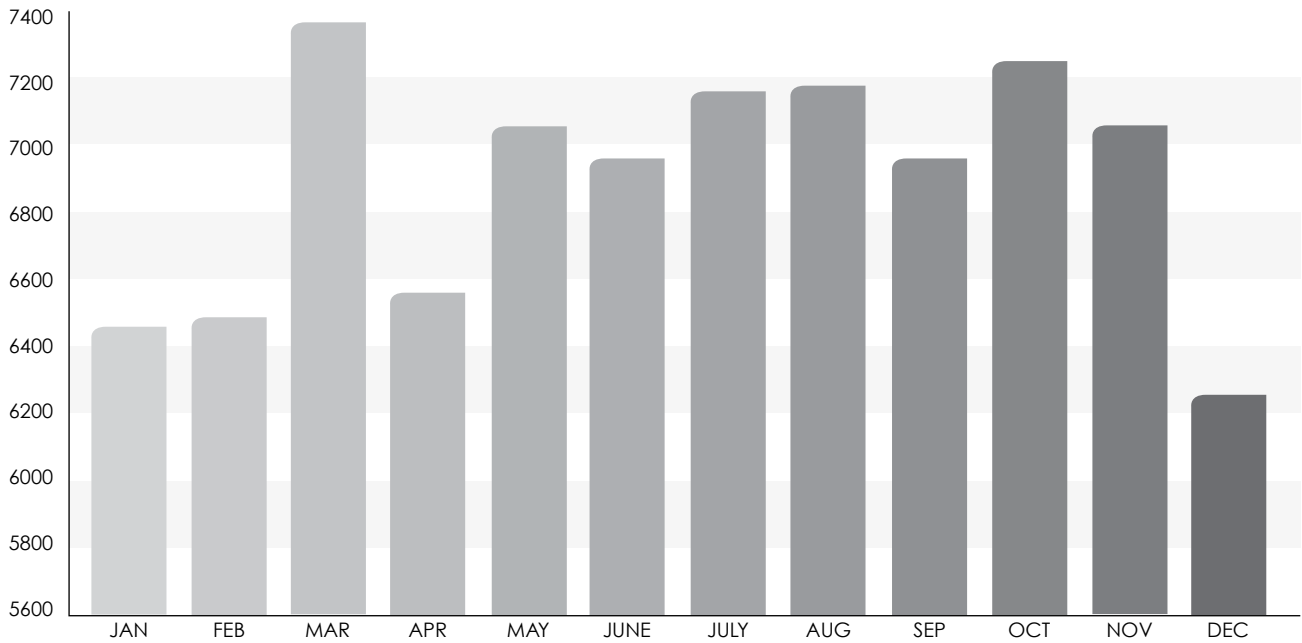
Admissions: totals with and without internal transfers in 2011

MONTH	ADMISSIONS	MONTH	ADMISSIONS AND INTERNAL TRANSFERS
January	6499	January	7522
February	6520	February	7498
March	7371	March	8513
April	6562	April	7486
May	7057	May	8097
June	6949	June	7950
July	7153	July	8163
August	7160	August	8211
September	6948	September	7952
October	7242	October	8260
November	7059	November	8076
December	6284	December	7211

Admissions and internal transfers



Admissions



Conclusion

- Our vision and mission is to consistently deliver a high standard of service to patients, the public and clinical departments.
- We maintain an 80% and higher inpatient ICD10 coding rate.
- We investigate mechanisms to ensure accurate selection of specialties during coding.
- We continually monitor for deceased patients.
- We monitor patient statistics continually.

Hospital Fees

Mr J Jordaan and Mr R James

Highlights

The reconciliation between BAS and HIS (billing) was successful for the Financial Year. Errors identified during this process were corrected.

Audits performed by the Auditor General gave no negative feedback.

Overtime duties were performed on 5240 cases without actions or suspensions on the system. Most of these cases identified are in the process of being handed over to the debt collectors.

Debtors with incorrect long-term invoices, were identified and the necessary credit given.

As from 1 July 2011 four clerks were identified to focus on the follow-up of outstanding payment of debtors without medical insurance. This task team was created to attend to the following on a monthly basis: returned mail, invoices for which payment is

outstanding for more than 120 days, and a schedule for contacting debtors telephonically. The invoices for which payment is outstanding for more than 120 days were scrutinised and all actions or suspensions were followed up. Invoices without actions or suspensions were subsequently written off and handed over to the debt collector for recovery.

SMS messages were also sent from this institution to debtors to inform them of outstanding debt.

A new version of the Account Receivable (AR) System was implemented during November 2011. This was implemented to ensure that the Clinicom system is compatible with the Account Receivable (AR) System. Amendments will now default from one system to the other.

A Debit/Credit card facility was introduced in January 2009. From implementation to date, the annual revenue generated by this facility is as follows:

YEAR	AMOUNT
2009	R227 809,13
2010	R747 692,63
2011	R818 633,09

The outstanding injury-on-duty documents for submission in respect of the Compensation for Occupational Injuries and Diseases Act (COIDA) were a problem because medical reports were not completed timeously. This resulted in a decrease of revenue received for injury-on-duty cases.

The matter was discussed and authorisation was given to appoint two Medical Practitioners to attend and complete these outstanding reports. Subsequently two Medical Practitioners were appointed for a two-month period to complete the outstanding reports.

A document scanner was obtained and the process to dispatch documents to Alexander Forbes has been speeded up.

On 11 July 2011 a meeting took place with members of the SAPS, and progress reports on outstanding balances were continuously received. Payments of these invoices increased as a result of this meeting.

Progress regarding deceased estate cases:

The outstanding balance of the "Late Estate" cases decreased dramatically because Road Accident and Injury on Duty cases were included by mistake in the Late Estate report.

Authorisation was requested and obtained from the Master of the High Court to access their website. The outstanding cases were investigated on the website and unsuccessful cases were submitted to be waived.

Medical aid follow-up section

The successful Electronic Data Interface (EDI) claims increased as follows:

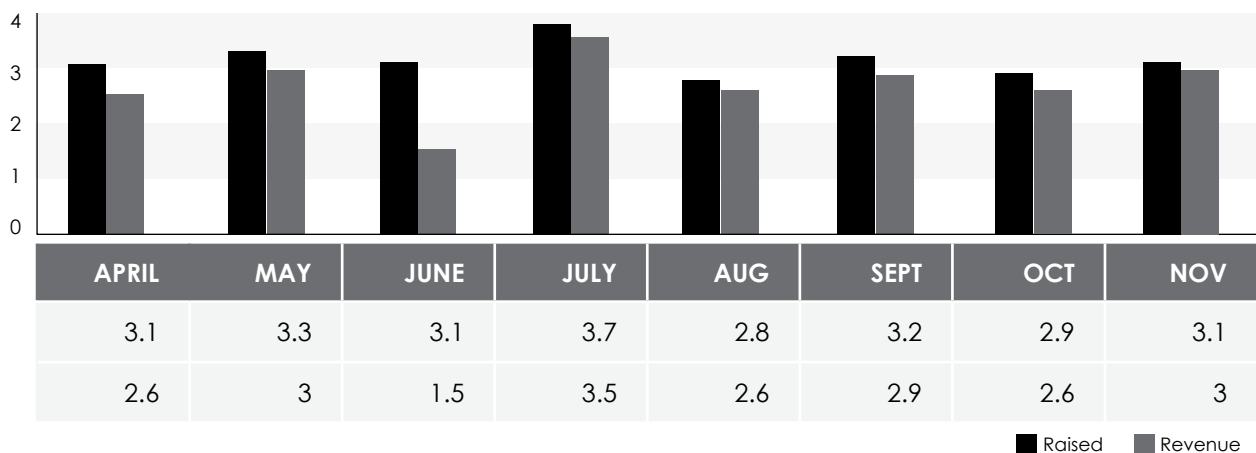
YEAR	INPATIENTS	OUTPATIENTS	ALL CASES	TOTAL GROSS	AVERAGE NUMBER OF DAYS TO CLOSE	AVERAGE CASES PER MONTH	AVERAGE VALUE PER MONTH
2011	1725	12093	13818	R33,380,041	24	1115	R3 524 911
2010	1648	8467	10115	R31,080,347	31	1055	R3 267 654
2009	1516	7890	9406	R29,563,617	31.92	941	R2 956 352
2008	1480	8492	9972	R32,071,093	29.38	831	R2 672 591

Electronic Data Interface Challenges

This institution is the forerunner in the total number of cases submitted through EDI to medical schemes. We have seen a decrease in the percentage of errors thanks to the efforts of many and the procedures which were put in place. These efforts include weekly

EDI meetings where rejection reports are scrutinised. Challenges were Medical Schemes that do not update their cardholder files at Medikredit, which resulted in an increase in the percentage of errors. The incorrect interface between Medikredit and HST resulted in invalid rejections.

Medical schemes - Top 5 Schemes



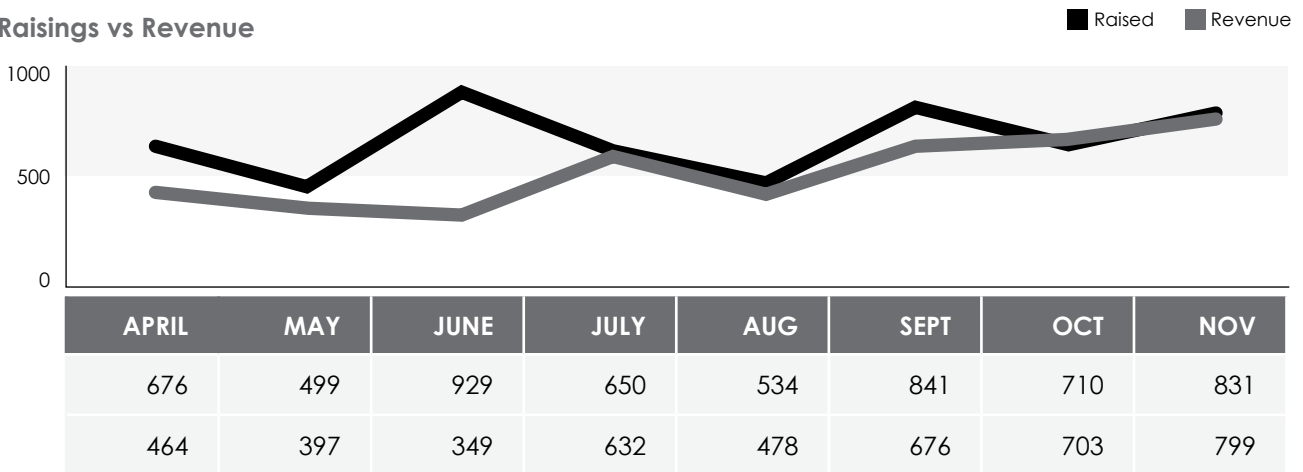
■ Raised ■ Revenue

Highlights

The credit balance has dropped from approximately R1,9 million to R327 000. The overall revenue generated for medical aids has been exceptionally

good. In December it was approximately R3 million above the set target by Head Office. Medical-scheme follow-ups also achieved a 100% in the clean audit project. GEMS revenue has improved.

Raisings vs Revenue



Challenges

Transmed rejected all adjustment letters for duplicate claims.

Samwumed – Cases which were rejected for maximum exhausted were investigated. Many of these cases were PMB cases. PMB letters were sent to Samwumed without any success.

Numerous problems were experienced with the GEMS call centre for Sapphire and Beryl members. Not only did it put an administrative burden on the Fees Department, but it also resulted in a decrease in revenue for the institution.

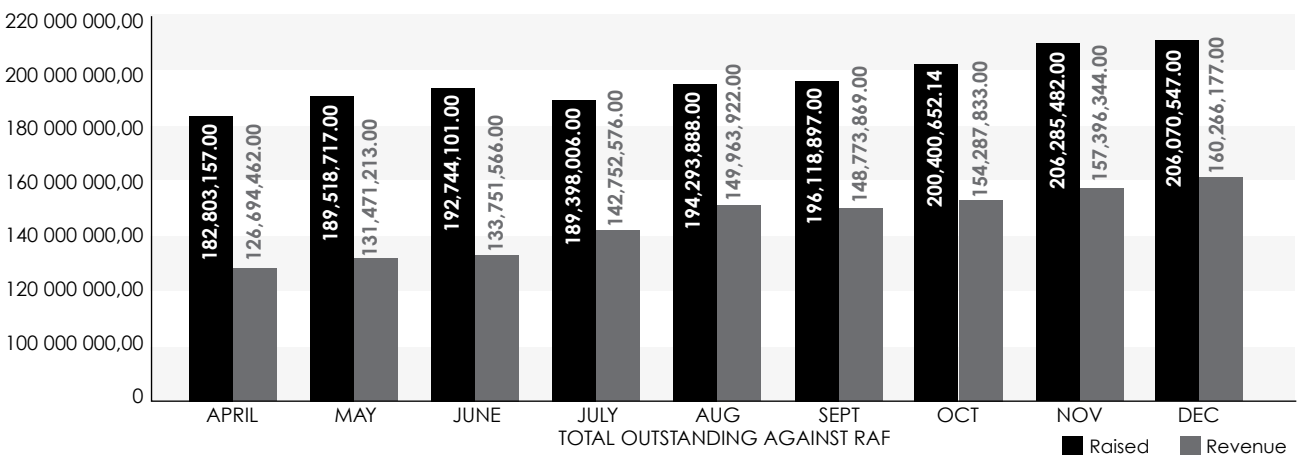
Challenges

Road Accident Fund remains the biggest contributor to the outstanding balance. An amount of R160 266 177 on 31 December 2011 reflects an outstanding balance on our system.

This represents 77,77% of the total outstanding balance. The total outstanding balance is R206 070 547,00.

A procedure was implemented to suspend Road Accident Fund (RAF) invoices in cases where prosthesis was issued and the invoices not received within 14 days after the service was rendered.

The outstanding balance compared to the total outstanding amount increased as follows:



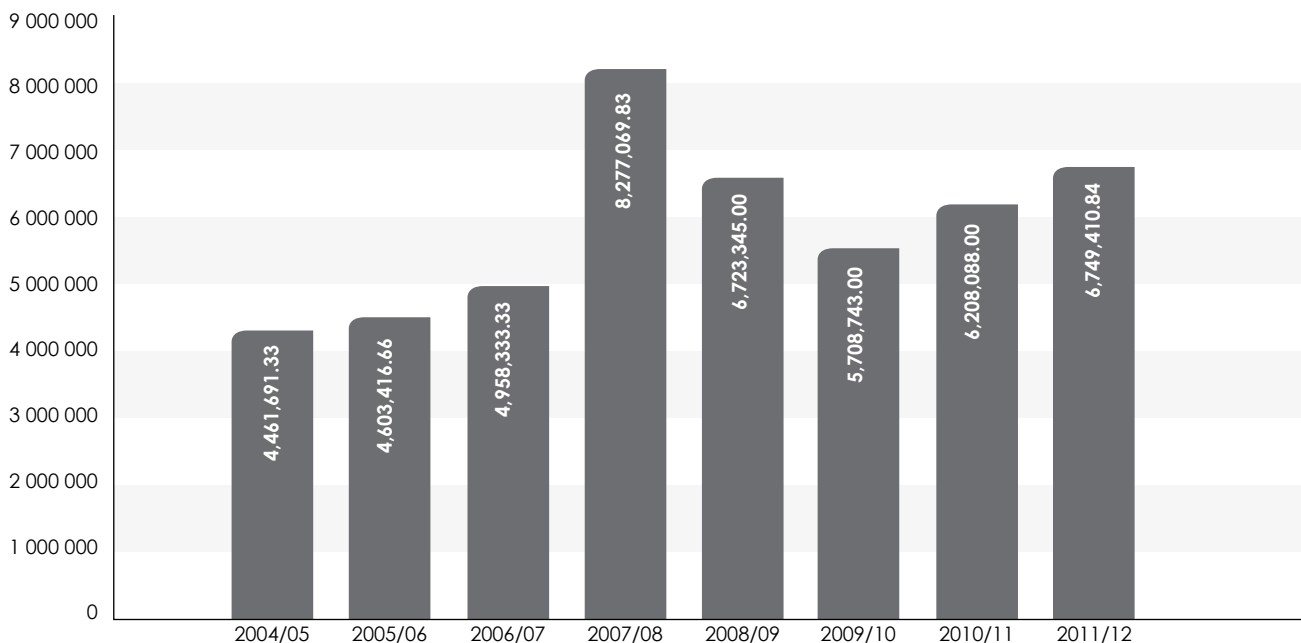
To date an amount of R10 502 936 was received from AFACT in respect of RAF claims for the current financial year. This is a decrease of R4 832 889 compared to the previous book year

Actual income vs target income 2011/12

	APRIL	MAY	JUNE	JULY	AUGUST
RAF:					
Income	R2 803 101	R2 859 435	R3 574 515	R4 485 612	R4 716 440
Target	R2 228 666	R4 457 333	R6 685 999	R8 914 666	R11 143 333
Government departments:					
Income	R220 394	R528 210	R1 442 240	R2 018 712	R2 401 141
Target	R333 333	R666 666	R999 999	R1 333 333	R1 666 666
Medical schemes:					
Income	R3 116 573	R5 859 918	R9 521 923	R13 400 828	R18 307 659
Target	R3 000 000	R6 000 000	R9 000 000	R12 000 000	R15 000 000
Other:					
Income	R1 151 651	R2 282 544	R4 717 741	R5 898 272	R7 580 672
Target	R1 263 500	R2 527 000	R3 790 500	R5 054 000	R6 317 500
Total:					
Income	R7 291 719	R11 473 773	R19 256 419	R25 803 494	R33 005 912
Target	R6 825 500	R13 651 000	R20 476 500	R27 302 000	R34 127 500

The average income per month in comparison with previous financial years:

2004/05	2005/06	2006/07	2007/08
R4 461 691,33	R4 603 416,66	R4 958 333,33	R8 277 069,83
2008/09	2009/10	2010/11	2011/ 12
R6 723 345,00	R5 708 743,00	R6 208 088,00	R6 749 410,84



	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
RAF:				
Income	R5 781 894	R6 248 012	R8 498 695	R10 502 936
Target	R13 371 999	R15 600 666	R17 829 333	R20 057 999
Government departments:				
Income	R2 959 597	R3 259 859	R3 607 161	R3 796 746
Target	R1 999 999	R2 333 333	R2 666 666	R2 999 999
Medical schemes:				
Income	R22 018 380	R26 443 072	R30 151 002	R33 377 406
Target	R18 000 000	R21 000 000	R24 000 000	R27 000 000
Other:				
Income	R9 040 411	R10 414 046	R11 698 384	R13 067 610
Target	R7 581 000	R8 844 500	R10 108 000	R11 371 500
Total:				
Income	R39 800 282	R46 364 989	R53 955 242	R60 744 698
Target	R40 953 000	R47 778 500	R54 604 000	R61 429 500

Case management

Measurable objectives

- pre-authorisation for all elective cases
- pre-authorisation challenges
- explaining PMBs and challenges
- NHLS short payments
- medical scheme patient statistics
- successes
- training
- disciplinary

Pre-authorisation

- medical scheme authorisation implies a good chance of receiving payment
- daily updates and checking of private-patient lists to ensure that all medical scheme patients have authorisation
- future admissions/attendances – confirmation clerks to confirm authorisation before admission
- effective communication with clinical departments regarding medical scheme authorisation/rejection – Orthopaedic Department (hip and knee replacements) implemented, Ophthalmology next.

Challenges

- Medical Schemes refuse to authorise outpatient services such as MRIs and CT scans, when these are performed on an inpatient basis without valid reasons.
- The above patients have to bear the cost without financial relief.
- Requests from medical schemes for motivational letters to extend length of stay are increasing. This places an extra burden on clinicians.

Prescribed minimum benefits (PMB)

- PMBs are the minimum, as opposed to the maximum, health-care benefits which must be covered by each medical scheme in South Africa. These benefits are prescribed by the Minister of Health, as mandated by the Medical Schemes Act, 1998 (Act 131 of 1998).

What is covered?

- any emergency medical condition
- 270 diseases called the diagnosis-and-treatment pairs, or DTPs, including cancer and hypertension
- 26 chronic conditions on the chronic diseases list or CDL, including diabetes, epilepsy and asthma

- medical schemes, especially the Primecure options, are reluctant to pay for all PMB conditions
- Case Management works closely with the Medical Scheme follow-up section to effect payment.

NAME OF MEDICAL SCHEME	TOTAL NUMBER OF INPATIENTS
Transmed	601
GEMS	159
Discovery	129
Pro Sano	21
POLMED	49
MOTO Health	25
Other (schemes)	677
GRAND TOTAL	1661

National Health Laboratory Services (NHLS) short payments

A meeting with NHLS and all the relevant parties was held. It was agreed that the department would furnish NHLS daily with all inpatient authorisation detail to ensure payment of their accounts.

When hip or knee replacement patients, among others, come for authorisation, they are requested by Case Management to contact their medical scheme regarding authorisation for NHLS. This is also stipulated on our estimation document.

Successes

- On 1 August 2011 the section started to capture inpatient ICD 10 codes in Clinicom.
- The EDI rejection list proves that there is a decrease in inpatient's ICD 10 coding rejections.
- Accurate PMB coding ensures that the hospital receives payment from medical schemes.
- Case Management is inundated with general as well as account queries. All queries were successfully resolved this year, which impacted positively on revenue generation.

Support Services

Mr AJM Harmse

This component renders a 24-hour in-house security service.

Human resources

Supervisor	1
Chief Security Officer	Vacant
Senior Security Officer	8
Security Officer	17

Statistics of reported incidents for 2011 are as follows:

Threatening behaviour	35
Assault/abuse	32
Use of weapons	0
Bomb threats	0
Theft/burglary	72
Disorderly behaviour	0
Damage to personal property	1
Electrical faults/water leaks	167
Motor vehicle accidents	34
Unruly visitors	412
Unruly patients	103
Runaway patients	206
Helicopter landings	134
Unlocked doors	121
Fires	12

Personnel management

Staff was nominated and received training in subjects related to their work objectives.

Courses were successfully completed, including ABET training in Business Development Programme, Human Resource Management, Basic Supervision, Investigating Officers, Health and Safety Officers. This provided an advantage to study further at CPUT.

A security course to enable staff to register as security service providers with the Private Security Industry Regulatory Authority (PSIRA).

Private security

Contract Manager	1
Site Managers	3
Armed Response	6
Driver	1
	1
Motorcyclist	61 day shift 48 night shift 59 split shift

Patient Transport

Patient transport is the function of Emergency Medical Services, or the Medical Emergency Transport and Rescue Organisation, and is managed by Healthnet. The office of patient transport is located in the H Corridor on the ground floor.

Entrance number 4 is now utilised as the new transit lounge and a total of 20 discharged patients can be accommodated in the area. Thanks to this waiting room, patients do not occupy hospital beds for longer than is necessary.

Constraints

Due to a lack of ambulance availability, patients are occasionally required to wait for transport after being discharged.

Due to the incorrect procedures followed by staff, patients that had to be transported to another hospital for treatment had to be rescheduled. This occurred sporadically, and has financial implications that have to be borne when a patient is discharged.

Local patients that utilise their own transport to the hospital and expect as a matter of convenience that the transport department (Healthnet) will take them home.

Service delivery

Human resources

Senior Administration Clerk	1
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Challenges

The waiting period and ambulance shortage have a detrimental effect on the transportation of patients and nursing staff who accompany infirm patients from other hospitals to Tygerberg Hospital.

Healthnet drivers are unwilling to transport discharged children not accompanied by an adult. As a result, beds are occupied for longer than they should be. In many of these cases the mothers are still in hospital.

Currently, only one Senior Administration Clerk is allocated to the department. This situation has become problematic in relation to annual and sick leave.

Porter services are required to assist in order to ensure service delivery.

External Cleaning Services

Mr R de Jager

Service provider

The rendering of a health-risk waste handling service is currently provided by Solid Waste Technologies, who effectively incinerates an average of 9,2 tonnes of medical waste per month.

Waste Mart is responsible for the removal of our domestic waste.

Financial constraints

Since Solid Waste Technologies's account section was assigned to Rand Trust, invoices are not forwarded timeously.

Service delivery

According to the Western Cape Health Care Waste Management Act, 2007 (Act 7 of 2007), as provided for in terms of section 6(2)(n), we need to be registered as a generator of waste within 180 days of the promulgation of the Draft Health Care Risk Waste Management Regulation, 2011.

This will be done when the Department of Environmental Affairs and Planning promulgates the act.

Personnel management

Positive

An average of 9,2 tonnes of medical waste was generated by this institution per month and successfully disposed of, and a disposal certificate received from the transporter, Solid Waste Technology.

Negative

One officer exhausted his sick leave and employed the Pillar Application.

Monitoring measures

A database was generated to monitor the movement of our health-care-risk waste from our storage facilities to the treatment facility.

General constraints

Segregation at ward level needs to be addressed urgently, because the Health Care Waste Risk still finds its way into our domestic waste, which could have a detrimental effect on the surrounding community.

Mortuary

Financial achievement

This department deemed it unnecessary to purchase any additional equipment, which reduced expenditure.

An amount of R21 000 was paid by the undertakers after strict control measures were implemented to monitor payments made by the undertakers for the completed B forms (cremation forms).

Personnel management

Positive

The Porter stationed at the mortuary who is familiar with the basic duties of the mortuary clerk is of great help when the clerk is on leave.

Meetings were held with the funeral contractor to address problems with regard to cremations.

Medics can be complimented for the effective and efficient completion of the new death certificates issued by the Department of Home Affairs, resulting in expedited funeral arrangements.

Negative

There is a delay in the completion of "B" and "D" forms, respectively for the cremation of paupers and the request of post mortems.

Pneumatic Tube System

Financial achievement

The department did not deem it necessary to purchase any additional equipment, which reduced its expenditure.

Financial constraints

The tube system is currently being serviced by a private technician who is responsible for any repairs.

Because there is only one technician to service the tube system, service delivery is hampered, e.g. when a blockage occurs in a tube containing specimen. It is furthermore not cost-effective to utilise a technician, because after-hour call-outs are expensive.

Service delivery

The department's focus is on promoting operational efficiency in patient care.

The department consists of only five operators to render a service to Tygerberg Hospital.

Personnel management

Positive

Information sessions were presented on the SPMS, the Batho Pele principles and first aid.

The department functioned without an immediate supervisor, but a chief porter has subsequently been appointed for this department, which enhanced service delivery immediately.

Negative

Due to the system's age and certain parts that are not available, tubes sporadically slip past their destination. This results in a variety of problems for the operator at ward level.

Hygiene

Tubes are regularly repaired and cleaned.

Porter Services

Mr R de Jager

Financial achievement

A total of 39 professional ward patient trolleys and 50 wheelchairs were purchased to replace the condemned trolleys and wheelchairs. The purchase of these trolleys and wheelchairs contributed positively towards enhancing service delivery, especially at the Department of Internal Medicine (CID).

Service delivery

The department was complimented for effective support provided during the Smile Week, during which 28 children received a smile.

Personnel management

Positive aspects

All vacancies in the department were filled.

Negative aspects

Approximately 16% of the porters exhausted their sick leave and employed the Pillar application.

Unauthorised and uncommunicated absenteeism increased from 24% to 29%, mainly due to the fact that staff's sick leave was exhausted.

Training

One officer completed an electrical course at CPUT and five porters registered to complete their Grade 12.

Another officer enrolled at UNISA to complete a bachelor's degree in social development.

A total of six officers completed a basic first-aid programme, and eight porters attended a workshop on customer care. Six officers attended a conflict-management course.

Monitoring measures

Because of the increase in absenteeism, a system

was implemented where staff have to complete a form upon return to work to explain their absenteeism. The dates of absence for three consecutive months were noted on the form. The supervisor used this tool to address patterned absenteeism and followed disciplinary steps. Since the implementation of the form, attendance increased to 100%.

Twice a month meetings were held with the supervisor to eradicate unauthorised absenteeism.

Telephone Exchange and Radio Room

Mr L van Renen

Telephone exchange

Tygerberg Hospital's telephone exchange has a Philips Electronics exchange that provides a 24-hour service.

The telephone exchange is manned by one Principal Telecommunications Operator and 17 Telecommunications Operators.

The telephone exchange consists of eight consoles, one of which is used at Doctors' Enquiries.

Six of the eight consoles manage approximately 4000 of the 12 000 incoming calls a day.

The outgoing calls amount to approximately 14 000, of which the telephone exchange handles approximately 7000.

This total includes approximately 5000 cell phone and trunk calls.

Radio room

The two Operators in the radio room handle approximately 4000 calls for transmission during the following working hours: 7:00 to 16:00.

The Operator that mans the console at Doctors' Enquiries handles approximately 1000 calls a day.

SMS communication system

Tygerberg Hospital's radio room also uses SMS's to contact doctors who have no beepers or whose beepers are faulty. SMS's are also used to send messages to personnel who have no beepers.

Approximately 100 SMS's are sent per day at a cost of approximately R5 500 per month.

The total amount of outgoing calls in the 2011 financial year was 4 408 644, at a cost of R3 284 006.29

Accommodation

Mr EC Steyn and Ms CB Johnson

Doctors' Quarters

	Rooms
Single rooms	40
One-bedroom apartments	36
Two-bedroom apartments	5

Protea Court

Protea Court consists of three towers and facilitates temporary and permanent housing for staff and students who work or study at Tygerberg Hospital.

There are 479 beds in total, and the rooms range from single to two-bedroom flats.

Protea Court houses 150 (41,8%) permanent tenants, of whom the majority are from the nursing department. The first floor in Tower 3 is allocated to CANSA (Cancer Association of South Africa), to assist in the recuperation of patients.

Two floors in Tower 3 (40 beds) are allocated to Emergency Services.

In 2011, 18 tenants moved in and 54 out of Protea Court.

Single rooms/beds (including suitcase rooms)	192
Double rooms	254 beds
One-bedroom apartment	6
Two-bedroom apartment	4 beds
Single room with sitting room	1

Reprographics

Mr W Adonis

Overview

The core function of the department is to ensure an efficient, high-volume production unit for printing and photocopying. Two Riso machines do all high-volume printing of forms which range in number between 1000 to more than 20000 for the stores, wards and clinics. Photocopies of manuals, memorandums, notices and forms are done on two high-volume Minolta Bizhub printers, models 920 and 1050. Copying of patient folders is handled with the utmost confidentiality. The department also provides other finishing work as requested, such as sorting and stapling, gluing, punching, cutting and laminating. The ID section handles the making of staff

identity cards for new appointees, or for changes in rank or surname. Lost and damaged cards are replaced at a cost. The department also prints for the NHLS, for which a charge is levied.

Human resources

Chief Clerk	1
Principal Operators	4
Typist	1

Outputs

ID photos taken	1 065
Photo copies	3 320 446
Copies printed	4 560 550
Laminating	2 500

Service delivery

At times the department is under pressure to handle high volumes of work when one or two officials are absent due to leave or illness. The staff of four operators and one supervisor apply their knowledge and experience to cover all production points during such times.

Sporadic breakages occur due to the age of the Riso printing machines. The unavailability of parts and the poor response time can result in disruption of the service for several hours up to days and a backlog of work. To ensure effective service delivery, urgent work is reprogrammed to the copiers for completion, to meet deadlines. This is not a cost-effective practice, especially when it is resorted to frequently.

The upgrading of the Riso machines is under consideration for leasing in 2012, this will contribute to a more cost-effective service to the institution.

Gardening Services

Financial Achievement

Three tractors were inoperative and in the process of being condemned, but were repaired instead at a reasonable price.

Personnel management

Two general assistants were appointed.

General

The pumping system of the swimming pools was repaired, but can unfortunately not be commissioned yet, because the swimming pools need to be upgraded.

We have attempted to address the problem with the escalating mole population on our premises, however much still needs to be done.

Transport

Mr A Zas

Overview

The main function of the component is to provide an effective and efficient motor transport service delivery.

The department has a capacity of 30 vehicles.

Human resources

Chief Clerk	1
Senior Clerk	1
Drivers	9

Service delivery

The requests for transport to various destinations occasionally places pressure on the component due to too few available drivers, reasons being illness and various types of leave.

Other impediments are vehicles which are booked at the government garages for mandatory services and any breakages on such vehicles.

The staff apply their knowledge and experience of the various transport destinations and the shortest yet safest routes to reach them to ensure excellent service delivery.

Pest Control

Mr E De Wee

Overview

The function of the Pest Control Department is to ensure that the hospital building (wards, basement, kitchen, administration) including exterior building (Protea Court, Disa Court, Doctors' Quarters, Carel Du Toit School, X-block, and Dental Faculty) is kept pest free.

Human resources

Chief Auxiliary Officer	1
Senior Auxiliary Officer	3

Service Delivery

The officers work on various programmes during the week, on a rotating basis.

The kitchens are fumigated on a weekly basis (Tuesdays and/or Thursdays, at night)

The officers also fumigate the basement (underneath the kitchen) on a regular basis to ensure a pest-free environment.

To ensure compliance with the Health and Safety Standards, one hundred tamper-resistant bait

stations were purchased and placed at strategic points to combat rodent activities in the institution

Registry

Mr L Potgieter

Registry

The Registry Department handles all incoming mail to Tygerberg Hospital.

Human resources

Chief Clerk	1
Senior Clerk	1

Service delivery

An average of 250 faxes is dispatched in a month, bearing in mind that various components use their own facsimile machines.

Archives

Filing in the Archives Department is done in accordance with the rules of the Department of Health. The system is continuously updated as and when required.

Messengers in the mail room

The messengers serve the entire Tygerberg Hospital Complex, and also handles the collection and delivery of documents to and from Head Office in Cape Town.

Human resources

Chief Messenger	1
Messengers	9 (7 at Tygerberg Hospital and 2 at the Gene Louw Building)

One of the hospital's messengers collects and delivers mail and documents daily to the following places:

Protea Court, Tygerberg Laundry, Forensic Services, Disa Court, Sarleh Dollie, SAPD Mortuary, Ravensmead Day Hospital, Emergency Medical Services

General

Staff are still using old and broken furniture because no new replacements were received.

Food Services

Ms NM Bekwa

Summary of activities

We provide meals to all inpatients, in accordance with the Food Services Policy.

Costing of meals and recipes as indicated in the policies. The average cost of a meal is R17,51.

A total of 1 200 patients (special diets and normal diets included) receive meals in a day.

A total of 1 297 790 meals were served in 2011.

A high level of hygiene is maintained and we adhere to all Food Services guidelines.

Human resources

Assistant Director	1
Food Services Manager	7
Principal Food Services Supervisor	3
Senior Supervisor	28
Food Services Aid level 1 and 2	85
Senior Administration Clerk	4
Pronto	8 per shift

Infrastructure development

A dishwasher will be installed in March 2012, and bains maries and lowerators were purchased to keep food warm. A total of 14 new food trolleys are in use and are of an acceptable standard.

Partnerships

We have local partnerships with the provincial hospitals of the Western Cape as well as of the Eastern Cape. We also work with the Integrated Nutrition Programme (INP) office and the colleges responsible for the development of our staff, such as Northlink College, the Institute for the Blind, and Unisa.

Achievements

For the 2012 Food Services audit we achieved 100% for menu implementation, purchasing and meal ordering, personnel management, and policy compliance. A range of between 83 and 85% was achieved for receiving and storage, preparation, and meal issuing.

There was furthermore a reduction in the number of cases referred to Labour Relations thanks to staff compliance.

Teaching and training

One Senior Administration Clerk is currently studying towards his diploma in Public Administration at CPUT.

Two Food Services Aids are currently registered for an undergraduate degree in Social Work.

Statistics of internal training is available from the Human Resources Development.

Highlights

As was already mentioned, the average meal cost per patient is currently R17,51. Costing is submitted on time to the INP office.

There were fewer cases of late-coming, and the general attendance of staff has improved.

Hygiene samples as well as food samples are sent to the NHLS weekly to ensure that we receive the outcome of a test before a dish is used – the prompt response from the laboratory is of great help.

Rotation of staff to different areas in the unit in order to gain exposure has proven to be successful.

Vacant posts were advertised and filled within time frames.

Monthly meetings with the main stores to ensure that stock from suppliers is not depleted. This has helped us to understand their vetting circumstances, with the consequence that orders are placed timeously, before vetting takes place.

Key control registers are in place to ensure that allocated employees open the stores and fridges.

These registers are checked daily by the Production Manager.

Improved response by top management on meal evaluation.

Social Work

Ms M de Jager

Summary

Our greatest challenge was to continue rendering a comprehensive and holistic social work service with emphasis on treatment, support, outreach, prevention, training and empowerment of children and women.

Among the milestones during the year were the following:

- A highly successful therapeutic outreach session for 50 mothers of traumatised children was held at the TygerBear Training Centre as part of the Pink

and Blue Child Awareness Campaign on 12 August 2011. A project focusing on building the self-image of mothers was also launched successfully during women's month.

- The high incidence of child trauma necessitated a special focus on prevention. The TygerBear Holding Hands awareness initiative was run voluntarily and after hours by Social Work staff at the Tyger Valley Shopping centre from 10 December 2011 and during the summer school holiday.
- Psychosocial services were rendered by the in-house Staff Support Unit to 210 new referrals of staff members which included 798 consultations. A number of 229 staff members were reached in the group sessions.
- Three vacant social work posts were filled in 2011.

Human resources

Social Work Manager	1
Social Work Supervisor	3
Social Workers Production	18
Clerk	2

Output

The Department of Social Work is responsible for the psychosocial well-being of the in- and outpatients of Tygerberg Hospital, Tygerberg Children's Hospital, the Gene Louw building for radiation oncology, the Carel du Toit Centre for Hearing Impaired Children, the TygerBear Social Work Unit for traumatised children and their families, as well as the internal employee assistance programme. Social workers render services in the form of individual therapeutic work with patients, group work with patients and families, and community outreach programmes, both in the hospital and the community. This amounted to 32 787 consultations with patients.

A large percentage of time goes into administration work generated by the discharge problems of patients, applications for social-security services and the protection of vulnerable children.

Networking with other health disciplines and teamwork within the hospital is essential for the rendering of effective social-work services. In this regard we hold weekly child-abuse team meetings, regular meetings about diabetic, renal, and oncology patients, and attend ward rounds and case discussion groups.

The impact of poverty, unemployment and the challenging socio-economic environment has

impacted on social-work services. When families already highly stressed by these factors are confronted with secondary crises caused by illness and trauma, more complex social-work interventions are needed.

The Department of Social Work also runs a Staff Support Unit which renders crisis-counselling services and group interventions to the staff of the Tygerberg Hospital Complex and runs development and awareness programmes. A report on the work of the Staff Support Unit can be found at the end of this report.

The department also took responsibility for the training and supervision of the social worker of the Khayelitsha District Hospital and was involved in the strategic planning of social-work services in the new hospital, the developing of social-work protocols and the establishment of an effective administrative system.

At the TygerBear Social Work Unit for Traumatized Children an additional 463 new referrals were received from the community. Most of these referrals were from social work agencies, the South African Police Service (SAPS), the courts in respect of sexual offences and day hospitals. More than 50% of the referrals were requests for therapeutic services for sexually abused children.

Group work programmes included:

- safety-awareness groups for children
- a support group for teenager survivors of sexual abuse
- parent-guidance groups for parents of traumatised children
- facilitation of a group for parents of autistic children with Department of Speech Therapy
- support groups for laryngectomy patients
- parent-guidance groups for Kangaroo mothers
- group work with burns patients.

Infrastructural development

The department still had major problems with the Clinicom system and the availability of computers. Five computers still need to be upgraded. A number of social workers were sent on computer training in MS Word, Excel and PowerPoint.

The compulsory storage of social-work folders for at least five years is problematic due to the lack of safe storage facilities within the Department of Social Work. This has been addressed without response.

The distance some social workers need to travel between their offices and wards and the ineffective lift system still impacts negatively on service delivery.

Community outreach programmes

- The Department of Social Work runs a 24-hour consultation service for professionals working with children.
- An extensive relief programme providing patients in need with transport, food, toiletries, blankets, and clothes.
- The Food for Thought programme provides for parents who sit with their children and do not have access to meals at Protea Court.
- Volunteers are trained and utilised for administrative work, assisting in awareness programmes, the comfort bear project, the sorting of toys and clothes, packing of food parcels and toiletries and other general tasks.
- Health-care professionals from the community attend the weekly child abuse team meeting on an ad hoc basis.
- The following topics were discussed at fortnightly child-abuse team meetings, apart from case discussions:
 - A resource centre is in operation at the TygerBear Unit and provides information on child abuse and clinical work with children for professionals and students working with children as well as information for parents and children visiting the unit.
 - The Department of Social Work assists the Down's Syndrome Association to run a weekly support service for parents of children with Down's syndrome or other developmental challenges.
 - Participation in Tygerberg Hospital's open day.
 - Regular liaison with the SAPS and the courts in respect of sexual offences.
 - The annual Survivor Celebration for child patients and their families.
 - Support group for child patients during Easter time.
 - Outreach to a group at a retirement centre regarding the role of the social worker in working with traumatised children.
 - Visitors from training institutions in Denmark were accommodated.
 - A highly successful therapeutic outreach session for 50 mothers of traumatised children was held at the TygerBear Training Centre as part of the Pink and Blue Child Awareness Campaign on 12 August 2011. A project focusing on building self-image with mothers was launched successfully during Women's Month.
- A care group for traumatised children and their

parents with a Spring Fever Theme was held on 2 September 2011 for children with the support of the International Hotel School.

- Learners of the Settlers High School were accommodated for their community outreach programme.
- A support workshop for 25 mothers of patients on the nutrition and psychosocial health programmes.
- A support workshop for 33 Kangaroo mothers on caring for oneself.
- Community outreach programmes over weekends at the following shopping malls: Parklands and Edgemoor.
- Liaison with Childhood Cancer Foundation (CHOC) regarding the needs of child oncology patients.
- From 3 to 5 October 2011 an "edutainment" programme was presented to learners of Elsie's River Aftercare Centre.
- Educational Parenting Workshop for patients newly referred to the TygerBear Unit.
- On 5 November 2011 the Pink and Blue Child Awareness Fun Walk was held.
- The high incidence of child trauma necessitated a special focus on prevention. The TygerBear Holding Hands awareness initiative was run voluntarily and after hours by Social Work staff at the Tyger Valley Shopping centre from 10 December 2011 and during the summer school holiday.
- Psychosocial services were rendered by the in-house Staff Support Unit to 210 new referrals of staff members which included 798 consultations. A number of 229 staff members were reached in the group sessions.
- The Department of Social Work and the TygerBear Unit received the following visitors:
 - nurses from the Department of Nursing of the University of the Free State
 - a social worker from New Zealand
 - a social worker from Gauteng
 - representatives from training institutions in Denmark.
- Assistance at the year-end functions for hospital staff.

Co-operation and partnerships

- The department networks with state departments such as the Department of Justice, Social

Development, Home Affairs, Labour, Police, Education, with the Clothing Industry Health Care Fund, and other institutions

- Liaison with the Hospice Association
- Membership of the South African Council for Social Service Professions (SACSSP)
- Membership of the South African Association for Social Workers in Private Practice (SAASWIPP)
- Membership of the South African Oncology-Social-Work Forum
- Membership of the Western Cape Play Therapy Association
- Membership of the Kidney Foundation
- Liaison with the South African Social Security Association (SASSA), regarding pensions
- Liaison with the Department of Education regarding community outreach projects in schools
- Liaison with CHOC regarding the needs of child oncology patients.

Achievements with regard to research activities

- Participation in a continuous study on home-based treatment of childhood neurotuberculosis
- Steyn, H. The Laryngectomy Patient's View of Social Work Support Services in a Hospital Setting. *Social Work*; 2010, 46(1).

Initiatives/achievements pertaining to the educational role

Undergraduate

- Social Work II, University of Cape Town (UCT) - 2 students
- MB ChB v, Stellenbosch University (SU) - 180 students
- Job shadowing students, Fairmont High School - 2 students

Postgraduate

- MDiac Play Therapy, UNISA
- BA Psychology, University of the Western Cape (UWC) - 2 students
- BA Hons Psychology, UWC - 1 student
- BA Hons Psychology, Unisa - 2 students
- B Psychology, University of the Free State - 1 student
- Masters in Clinical Psychology - 4 students

The following training was done

- Orientation of an Oncology nurse with regard to the role of the social worker in paediatric oncology
- Participation in Tygerberg Hospital's induction programme for new doctors

- The role of the social worker in child abuse.
- The new Children's Act
- The role of the social worker in the department of child psychiatry with reference to the Children's Act of 2005.
- MBChB V students for the module: Illness, Disease and the Family
- Parenting skills, presented to parents of traumatised children
- Training of Theology students, SU
- Training in trauma counselling
- Workshop for foster-care mothers of the provincial Department of Social Development
- The role of the social worker, presented to nurses in private practice
- Child protection, presented to students and social workers at the TygerBear Unit.
- Clay work as a medium in Gestalt play therapy.
- The laryngectomy patient's need for a support group in a hospital setting: A social work perspective, presented at the Oncology Forum
- Communication through puppets
- The role of the social worker in the Rheumatology Unit
- The role of the social worker in the selection criteria for dialysis patients
- See also the staff training done by the Staff Support Unit.

Staff development

The following staff development sessions were arranged and attended:

- Seminar on stress management
- The new Children's Act
- Attendance of the second International Paediatric Oncology Conference
- Early childhood development
- Bereavement counselling
- The Social Worker as a Mental Health Practitioner workshop presented by the Department of Social Work, at Stikland Hospital
- Communication through puppets
- Visit by Tygerberg Hospice
- Visit to Stikland Hospital regarding substance abuse.
- Clinical Supervision, presented by the Department of Social Work, UCT (2 social workers)
- Orientation of three new social workers
- Grief and bereavement

- Treatment of post-traumatic stress disorder in sexually abused children
- Somatic and sensory awareness in play therapy with traumatised children
- Diploma in Addiction is being attended by 1 social worker at SU.
- A number of social workers were sent on computer training in MS Word, Excel and PowerPoint.
- Workshop on the Department of Education's policies regarding drug abuse, sexual abuse and teenage pregnancy.
- Communication and conflict skills presented by ICAS
- Government Employees' Pension Fund, presented by ICAS
- Cognitive behaviour therapy and resilience
- Overview of therapeutic services in the schools
- Motivation and laughter therapy

Conclusion

Despite the many challenges faced in terms of poor socio-economic circumstances of our patients, the lack of resources in the community and internal structural challenges, we managed to render a comprehensive service to the patients, their families, the staff of Tygerberg Hospital and the surrounding communities.

Department of Social Work: Staff Support Unit



Introduction

The Staff Support Unit is a structure through which social services are rendered to employees and their immediate families. It is also a tool for the early identification of problems and early intervention. Furthermore it is a management tool for the management of employees with problematic behaviour.

Utilisation of services

The utilisation rate for the period was 14%. Individual services were rendered to 319 employees and a further 229 employees were reached through group work, presentations, and training. The total number of staff reached is 548 people. The utilisation rate went up from the previous year, mainly because of more people being reached through group work. It was especially the Department of Nursing Services who utilised the Staff Support Unit for talks on motivation, stress management, team building, etc. Many employees who were treated individually were seen more than once. The number of contacts with employees was 798.

Individual work

Services to individuals are summarised in Table 1. The staff support unit is open to all employees and their family members who need counselling services. A confidential short-term service is rendered and, where necessary, employees are referred to resources in the community for further assistance.

Less individual services were rendered than during the previous year. Although the number of clients treated remained almost constant, the number of attendances declined.

Table 1: Individual work: utilisation

Cases treated	319
Attendances	798
Number of new cases opened	210
Follow-up attendances	109
Interviews conducted	565
Correspondence	137
Consultations: Management	88
Consultation: Other	50
Telephonic counselling	43
Reports	39
Notes	389
Telephone calls	228

Client characteristics are summarised in the following tables.

More females utilised the services, but this reflects the distribution of gender in the hospital.

Table 2: Gender

GENDER	N	%
Female	241	76
Male	78	24
Total	319	100

Age distribution is summarised in Table 3.

Table 3: Age distribution

AGE	N	%
41 years to 50 years	128	40
31 years to 40 years	79	25
20 years to 30 years	47	15
51 years to 60 years	57	18
61 years to 65 years	5	1
<20 years	1	1*
Total	319	100

*Rounded

The majority of users were Afrikaans speaking, as indicated in Table 4.

Table 4: Language

LANGUAGE	N	%
Afrikaans	252	79
Xhosa	55	17
English	6	2
Other	6	2
Total	319	100

From Table 5 it can be seen that 47% of the employees who utilised the service, have been working in the hospital for over 10 years.

Table 5: Length of service

LENGTH OF SERVICE	N	%
> 10 years	149	47
2,1 to 5 years	43	13
5,1 to 10 years	21	7
1,1 to 2 years	49	15
< 1 year	37	12
Unknown	20	6
Total	319	100

General workers comprised 42% of the employees who used the service of the staff support unit.

Other users were nursing personnel, administrative staff and professional staff.

Table 6: Staff category

	N	%
General	136	42
Nursing	122	38
Administrative	53	17
Technical	7	2
Professional	1	1
Total	319	100

Formal referrals are done as part of the disciplinary process. Sixty-three employees were referred formally. Most employees (253) who used the services were informally referred. This is an indication that the staff support unit is accepted by employees. Many employees contact the unit on the advice of colleagues who have benefited from the service. Supervisors also make good use of the services, as can be seen in Table 7. This is an indication that the staff support unit is also accepted by the managers in the hospital. Marketing among family members, organised labour and the staff health clinic can be improved.

Table 7: Referrals to staff support unit

REFERRED BY:	N	%
Self	174	55
Supervisor, informal	76	24
Supervisor, formal	63	20
Family members	2	1
Other	4	1
Total	319	100*

*Rounded

The problems presented are described in Table 8. The most commonly presenting were family problems, employment related, and emotional problems.

Table 8: Problems presented

PROBLEM	N	%
Family problems	86	21
Employment related	75	18
Emotional problems	74	18
Problem behaviour: children	34	8
Alcohol problems	30	7
Marital problems	28	7
Financial problems	24	6
Drug abuse	23	6
Child care	10	2
Divorce	10	2
Child maintenance	9	2
Other	11	3
Total	414	100

Employees are referred to resources in the community for help, where necessary. Most referrals were to welfare organisations in the community and ICAS.

Table 9: Referrals to resources in the community

REFERRED TO:	N	%
Welfare organisations	15	18
ICAS	14	17
Rehabilitation clinics	8	10
Medical services	5	6
Legal services	13	16
TygerBear unit for traumatised children	6	7
Psychiatry TBH	10	12
Psychiatrist in private practice	6	7
Financial services	2	2
Psychologist in private practice	3	4
Total	82	100

One-hundred-and-seventy cases were successfully terminated.

Group work and presentations

A large number of employees were reached through group work and presentations. The topics that were addressed are given in Table 10.

Table 10: Group work and presentations

TOPIC	N
Trauma support	90
Attitudes in the workplace	48
Orientation on staff support unit	38
Team building	20
Motivation	14
Burnout	12
Stress management	7
Total	229

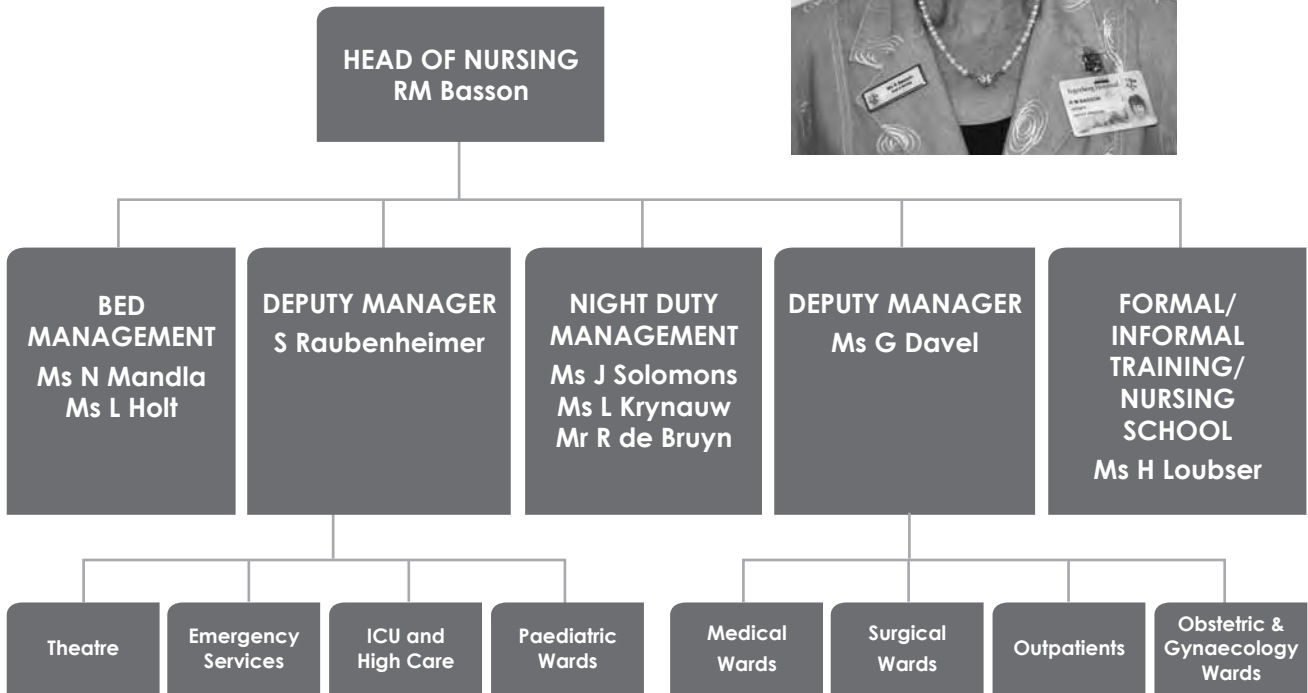
Conclusion

From the above report it is evident that the Staff Support Unit renders a comprehensive service to the employees of the hospital, which includes work with individuals, groups, and work at community level.

NURSING

Nursing Services

Head of Nursing: Ms RM Basson



SUMMARY

In order to maintain clinical services and to open additional services as needed, Nursing Services focused on the recruitment of qualified nurses (all categories) and the filling of vacant posts. This resulted in the number of appointments exceeding the number of nurses leaving the service due to resignation, transfer or retirement.

Nursing services consists of clinical and non-clinical modules:

Clinical modules

- ICU
- Surgery
- Paediatrics
- Theatre
- Medicine/Psychiatry/Oncology
- Trauma and Emergency Services
- Private Wards
- Obstetrics and Gynaecology
- Outpatients

Non-clinical modules

- CSSD
- Nursing School
- Support Services (Housekeeping)
- Nursing Informatics
- Crèche

POSTS (1 JANUARY 2011)	FILLED
Nursing Services Manager	1
Deputy Managers Nursing	2
Assistant Managers Nursing	11
Bed Managers	2
Professional Nurses	718
Staff Nurses	349
Nursing Assistants	790
Operators (CSSD)	64
Senior Housekeepers	40
Housekeepers	21
Household Aids	337

Resignations (2011)

Professional	30
Staff Nurses	8
Nursing Assistants	10

Appointments (2011)

Professional	129
Staff Nurses	33
Nursing Assistants	48

ACHIEVEMENTS

Nursing Services achieved, among other things, the following:

- the implementation and roll-out of Best Care Always Initiatives in intensive-care units
- the recruitment and appointment of nursing staff to open additional services due to changes in the drainage area
- clinical training of nurses placed by different nursing education institutions within clinical services

INTERNAL MEDICINE**1. Head of Module**

Ms S D Henry - Assistant Manager: Nursing

2. Services

- The Internal Medicine module consists of the units and wards of Internal Medicine, Psychiatry, and Oncology.
- The module includes four medical wards, one metabolic unit, one dermatology and one neurology ward.
- Psychiatry has two inpatient wards and two outpatient departments, namely Child Psychiatry and Adult Psychiatry.
- Oncology has two inpatient wards and five outpatient departments.

3. Number of beds

Internal Medicine	152 beds
Psychiatry	41 beds
Nursing Assistants	47 beds

4. Staff

Registered Professional Nurses	72
Registered Staff Nurses	42
Registered Assistant Nurses	87
Module Clerks	3
Housekeeping Supervisors	12
Household Aids	48

5. Highlights of the year

- The Hartman Award Ceremony took place in September 2011. The nurses who were awarded for clinical excellence were Registered Nurse N Windvogel, Staff Nurse Y Swartz, and Nursing Assistant M Lewies.
- Staff development took place among all categories of staff.
- One Registered Nurse completed her studies in advanced psychiatry at Stellenbosch University.
- Four Registered Nurses completed their studies in nursing administration.
- Wellness Awareness Open Day was held on 7 October 2011.
- The Psychiatric Open Day was held on 9 September 2011.
- The Oncology Open Day was held on 29 July 2011.
- A fair was held in October 2011.

OBSTETRICS AND GYNAECOLOGY**1. Head of Module**

Ms J R Sapto - Assistant Manager

2. Services

- C2A Labour ward
- C2A East – Antenatal, Postnatal and Special Care
- C2A High Care
- C2A Recovery room
- F2M Antenatal
- J2 Mothers and Babies
- J5 Mothers and Babies
- J4 Gynaecology
- FG Gynaecology and Oncology
- Breastfeeding Clinic
- Outpatients: High Risk Clinic, Teenage Clinic, Special Care, New Bookings, Diabetic Clinic, Foetal Evaluation and Sonar
- Family Planning Clinic

3. Staff

Assistant Manager Nursing	1
Professional Nurses	87
Enrolled Nurses	46
Nursing Assistants	86

4. **Number of beds** 187

5. **Average bed occupancy** 78,58%

6. Highlights of the year

- The hospital retained its MBFI status for the third time, thanks to the commitment of all the staff in complying with the Infant Feeding Policy.
- The appointment of the Professional Nurse for the prevention of mother-to-child HIV transmission (PMTCT) programme resulted in the improved compliance with the PMTCT Protocol.
- The re-allocation of beds in Obstetrics and Gynaecology improved the bed occupancy rate and care.
- The department participated in the hospital's Open Day. The public showed a great interest in Family Planning and Infant Feeding information.
- The weekly quality-assurance meeting with the Level 2 head has helped to acknowledge excellence and to address shortcomings.

7. Academic

- Four Professional Nurses successfully completed their Diploma in Advanced Midwifery and one Professional Nurse completed the Diploma in Intensive Care in 2011.
- Three Nursing Assistants successfully completed the bridging course to Staff Nurse.
- The Hartman Memorial Award Ceremony: Four Nurses were awarded for clinical excellence.
- One Professional Nurse was nominated for the provincial Cecilia Makiwane Award and represented the institution at the prestigious award ceremony.
- The highly effective education committee in the module covered 42 topics during the weekly modular in-service training and includes nursing as well as housekeeping staff.

8. Special donations

- Voluntary Aid assisted in the creation of a patient-friendly environment by sponsoring curtains for C2A and television sets for wards Ground and J4.

9. Special events

- Two successful team-building events were held.
- A successful programme was held on International Nurses' Day and International Midwifery Day in May 2011.
- The staff reached out to patients at the pharmacy and treated them to refreshments on Mandela Day.

SURGICAL

1. Head of Module

Mr R de Bruyn

2. Services

WARD	BEDS	SERVICE
Ward D1	22	Vascular Surgery – 15 beds,
		Abdominal surgery – 7 beds
Ward D2	31	Abdominal Surgery – 16 beds
		Head, Neck, and Breast – 8 beds
		Vascular Surgery – 7 beds
Ward D3	24	Plastic surgery
Ward D5	31	Head, Neck and Breast Surgery
Ward D6	31	Urology
Ward D7	31	Ophthalmology Surgery (speciality)
Ward G5	19	Ear, Nose, and Throat Surgery (2 paediatric beds)
Total:		189

3. **Number of beds** 189

4. Average bed occupancy

D1 = 93%	D2 = 62%
D3 = 73%	D5 = 76%
D6 = 70%	D7 = 67%
G5 = 78%	

5. Highlights of the year

The following officials received Hartman Clinical Excellence Awards:

- Professional Nurse Award: Professional Nurse W Goosen
- Enrolled Nurse Award: Staff Nurse T Fennie
- Nursing Assistant Awards: Nursing Assistants C Bull and C Oranje
- Ward D3 received the Infection Prevention and Control Award for cleanliness

The Smile Week outreach programme to children with a cleft lip or palate was held 14 to 18 November 2011. Through the Smile Foundation a wound-care workshop was also arranged, attended by nurses from Tygerberg Hospital and nurses from other hospitals.

EMERGENCY AND ORTHOPAEDICS

1. Head of Module

Ms Sophia Kleinsmith

2. Services

Emergency and Orthopaedics, Day Surgery, Private Ward

3. Number of beds:

- High Care: 10 Medical Emergency Ward F1
- ICU: 4 beds Resuscitation
- Private Ward: 28 beds
- Orthopaedic Wards: 123 beds
- Day Surgery Ward: 15 beds
- Trauma Ward: 30 beds
- Trauma Unit: 20 trolleys
- Surgical Emergency: 25 beds (Ward C1D)
- Medical Emergency Overnight: 16 beds

5. Average bed occupancy

• Resuscitation Unit	104%
• Surgical Emergency	181%
• Medical Emergency	81%
• Trauma Ward	76%
• Private Ward	71%
• A3 East Orthopaedic Ward	88%
• A3 West Orthopaedic Ward	91%
• F4 Orthopaedic Ward	63%
• J6 Orthopaedic Ward	82%

Total patients managed in:

• Trauma, Accident and Emergency	17 997
• Day Surgery Unit	2 089

6. Highlights of the year

Three Professional Nurses, three Enrolled Nurses and three Nursing Assistants in the module were nominated for the Hartman Awards for Clinical Excellence.

A staff team-building session was held at Ratanga Junction.

Security gates were installed in all orthopaedic wards.

NURSING SCHOOL

1. Staff

Head of Nursing School: Ms H Loubser	1
Lecturer PN-D2	2
Lecturer PN-D1	2
Lecturer Professional Nurse vacant post: 1 officer accepted a promotion	(1)
Clerk	2
Intern	1
Total	8

2. Training

2.1 Nurse Auxiliary R2176

At present no training is done in this programme at Tygerberg Hospital Nursing School.

2.1.2 Clinical Nurse Auxiliary training (R2176)

Sarepta Old Age Home

There was incidental clinical placement of 10 pupil nurse auxiliaries in Tygerberg Academic Hospital.

Accompaniment was done by personnel from Sarepta Old Age Home as the accredited nurse training institution.

The clinical placement of the learners was coordinated by the head of the nursing school, a function delegated to one of the lecturers.

Healthnicon

There was incidental clinical placement of 20 pupil nurse auxiliaries in Tygerberg Hospital.

Accompaniment was done by the Healthnicon as the accredited nurse training institution.

The clinical placement of the learners was coordinated by the head of the nursing school, a function delegated to one of the lecturers.

2. 1.3 Admission examination (R2175)

The South African Nursing Council (SANC) examinations were held according to schedule, three times during the year.

A total of four candidates were accommodated in the nursing school for theoretical and clinical preparation. The pass rate for 2011 was 100%.

3. Nurse Auxiliary to Staff Nurse (R2175)

3.1 Test for admission to programme

Of the 265 candidates who wrote the pre-admission test, 162 students (61%) passed.

3.2 Tygerberg Hospital Nursing School

Fifty-six pupil nurses started their training in 2011, and a total of 52 (98%) completed their training in 2011. One candidate needs to do a rewrite in May 2012.

Learners from Tygerberg Hospital, community health centres, Associated Psychiatric Hospitals and honorary learners were accommodated in the training programme. Theoretical and clinical training was managed by the nursing school.

4. Staff Nurse to Professional Nurse (R683)

4.1 Western Cape Rehabilitation Centre Nursing School

Eight first-year and seven second-year students were accompanied by Tygerberg Hospital Nursing School staff. The clinical coordination, accompaniment and administration was managed by one of the lecturers from Tygerberg Hospital Nursing School.

4.2 Healthnicon

Three learners in their second year were accommodated, to complete in 2012.

Accompaniment was done by personnel from Healthnicon as the accredited nurse training institution.

4.3 Groote Schuur Hospital

Two learners were accommodated in their second year, to complete in 2012. Learners were accommodated at Groote Schuur Hospital for the full two years.

4.4 Tygerberg Hospital Nursing School

The application documents for accreditation as a training provider was tabled at the South African Nursing Council (SANC).

Minor changes to the submission were needed, and the curriculum was resubmitted in November 2011.

5. Fourth-year training for Professional Nurse (R425)

In 2011 undergraduate student nurses from the Western Cape College of Nursing and the University of Western Cape were accommodated in the hospital.

The clinical placement of over 400 student nurses per month created learning opportunities in Tygerberg Hospital. Students were accommodated according to their learning needs and available opportunities.

6. Other students

6.1 NURSING STUDENTS

6.1.1 Diploma in Nursing Administration:

Eighteen post-basic Professional Nurse students were accommodated for clinical management during August 2011. They followed a scheduled programme.

6.1.2 Critical Care Nursing

One Professional Nurse in critical care from Stellenbosch University and nine from the Western Cape College of Nursing were accommodated in the hospital.

6.1.3 Diploma in Midwifery (R254)

Twelve students in the Diploma in Midwifery from Stellenbosch University and 10 from the Western Cape College of Nursing were accommodated.

6.1.4 Diploma in Advanced Midwifery and Neonatology

Twenty-seven students in this course were accommodated from Stellenbosch University.

6.1.5 Diploma in Advanced Psychiatry

One student in this course was accommodated from Stellenbosch University.

6.1.6 Diploma in Oncology Nursing

Two students from the Cape Peninsula University of Technology were accommodated in the Oncology Department.

6.1.7 Diploma in Palliative Care

Two students were accommodated for one day per student to shadow nurses for oncology and stoma care.

6.1.8 Diploma in Operating Room Nursing

Four students for the Diploma in Operating Room Nursing from the Western Cape College of Nursing were accommodated.

6.1.9 Diploma in Medical and Surgical Nursing: Trauma/Emergency

Six students from the Western Cape College of Nursing were accommodated in the emergency areas of Tygerberg Hospital.

6.1.10 Diploma in Child Care Nursing

Two students from the University of Cape Town were accommodated in the Paediatric Department.

6.1.11 Diploma in Nurse Education

Two students were accommodated for nurse education practicals in the Nursing School.

6.2 NON-NURSING STUDENTS

6.2.1 MTh students

Eight students were accommodated in emergency and cardiology units.

6.2.2 Radiography students

Forty-six radiography students from the Cape Peninsula University of Technology were accommodated for observation for four days – two days in the wards and two days in the operating theatre.

6.2.3 MBChB III

A hospital orientation lecture was presented to third-year medical students from Stellenbosch University.

6.2.4 B. Occupational therapy

Introduction to Nursing was presented to BOcc students from Stellenbosch University to familiarise the students with the hospital ward routine and nursing practise.

7. In-service training

7.1 Monthly generic in-service training was done. In total, 503 officers attended.

7.2 Clinical skills updates were held, attended by 75 Nurse Auxiliaries, 12 Staff Nurses and three Professional Nurses.

7.3 Over one hundred visitors attended the Nursing School stand at the hospital open day.

8. Induction

In 2011, 175 officers were accommodated in induction as coordinated by the nursing school.

9. Functions

9.1 The Hartman Memorial lecture was held on 21 September 2011 and Dr A Muller was the guest speaker.

9.2 A pledge service for staff nurses was held on 22 September 2011. Ms F Africa, Director of Nursing from Western Cape Government Health, was the guest.

10. Situational analysis

A situation analysis was conducted to accredit Tygerberg Hospital as a clinical facility for the following nursing-education institutions and courses:

Western Cape College of Nursing

Diploma in Advanced Midwifery and Neonatology (R212)

Diploma in Midwifery (R254)

Diploma in Orthopaedic Nursing

Medi Clinic

Diploma in Midwifery (R254)

University of the Western Cape

Diploma in Advanced Midwifery and Neonatology (R212)

Tygerberg Hospital Nursing School

Diploma in General Nursing according to R683

11. Community-service practitioners

Forty-seven community-service nurse practitioners started their community-service year in 2011. The officers were rotated on a clinical placement grid to expose them to different disciplines, such as general nursing, obstetrics, paediatrics, psychiatry, critical care and emergency services.

A self-assessment pilot study of clinical and managerial competency skills was performed. The outcome was that community-service practitioners need more mentoring, professional guidance and coaching to perceive themselves as competent.

12 Positive-attitude initiatives

ICAS held a session on compassion fatigue on 31 March 2011 to provide support to the staff in the nursing school.

An end-of-year supper was held as a teambuilding effort.

The suggestion box was fixed to the wall next to the library, but it is not yet in operation.

High Tea at the Mount Nelson Hotel was attended on 14 May 2011.

A formal tree-planting ceremony took place in November 2011. A fever-tree was planted on campus as a symbol of hope and to promote awareness about carbon footprinting. The tree is doing well.

The following outreaches were done:

- Coffee and muffins were supplied to the Telephone Exchange team in March 2011.
- Coffee and Easter buns were handed out to grounds and campus staff in April 2011.
- Coffee and muffins were distributed to the school learners in May 2011.
- A sweet-and-salt platter was given to Reprographic Services in June 2011.
- Our car guards and cleaning staff were treated with soup in July.
- Area managers were given surprise packets in August 2011.

13. Research

A client satisfaction survey was performed among learners in the nursing school. The outcome was positive and learners appear to be satisfied with the service that they receive in the nursing school.

14. Infrastructure

Due to a sewage flood on A Ground, the carpets in the head's office and the library were damaged. For nearly six months the head of the nursing school had to operate from another office and the clerk was also rerouted for the time. This inconvenience had a negative effect on smooth management and effective time management.

OUTPATIENT DEPARTMENT

1. Head of Module

Mara Majiedt, Assistant Nurse Manager,

2. Output:

The Outpatient Department provided services to 225 052 patients in 2011.

3. Summary of activities

The department consists of 23 service points.

The clinics have undergone some restructuring, with certain points now offering a combined service. The services offered are as follows:

THIRD FLOOR: Gynaecology Clinic

Services:

Theatre:

Termination of pregnancy (TOP) – 925
Minor surgical procedures – hysteroscopy
evacuations.

Pre- and post-TOP counselling.

Gynaecological services, including an oncology service and infertility services.

FOURTH FLOOR: X-Rays

From basic to more advanced diagnostic investigative procedures - sonars, Computerised Tomography (CT) scans, as well as Magnetic Resonance Imaging (MRI).

FIFTH FLOOR:

Breast Clinic

Mamma/Breast Clinic, Thyroid Clinic, Abdominal Oncology

Ear, Nose, And Throat (Ent) Clinic

Collateral Surgery

- Neurosurgery
- Abdominal Surgery
- Vascular Surgery
- Burns
- Paediatric Surgery
- Anorectal Repair / Dilation Clinic
- Plastic Surgery and Maxillofacial, Cleft Palate and Cleft Lip Repair
- Trauma Surgery

Stoma Care Clinic

A nurse-run service, and the only service offered on an inpatient and outpatient basis

SIXTH FLOOR:

Urology Clinic

- Prostate
- Circumcision
- Oncology
- Erectile Dysfunction
- Eshwell Theatre

ORTHOPAEDIC CLINIC

General and Trauma Orthopaedics

SPECIALISED CLINICS:

Paediatric Orthopaedics, Hand Surgery, Hand Clinic, Hip and Knee Clinic, Chiropody, Shoulder Clinic, Back Pathology and Foot Clinic

SEVENTH FLOOR:

Ophthalmology Clinic

Specialised Clinics:

- Diabetes
- Epilepsy
- Neurology
- Respiratory
- Rheumatology
- Lupus
- Nephrology
- Allergy

Gastroenterology and Hepatology

- Gastroscopies
- Colonoscopies
- Endoscopic Stenting
- Manometric Investigations
- Percutaneous Gastrostomies

EIGHTH FLOOR:

Internal Medicine

Cardiology, including ECG and Echo services

Dermatology

Infectious Diseases

Staff health, including Occupational Health Clinic

NINTH FLOOR:

Haematology – bone marrow biopsies

TENTH FLOOR:

Nuclear Medicine – various scans, thyroid bone, sentinel node scans, PET scan bookings, bone scans, milk scans, renograms

5. Highlights of the year

- The HIV Counselling and Testing campaign was concluded.
- The Oncology waiting room was painted by Tera Kok and a friend. Paintings were donated and new chairs were sponsored for the waiting room.
- In X-rays, the mammogram machine was replaced with a new machine.
- The Surgical Department started an outreach programme to Eerste River Hospital.
- Stoma clinic had an open day on 10 November 2012 which was very successful.
- The Breast Clinic received donations from the Pink Lady Apples organisation. The donations go towards paying for the transport of Breast Oncology patients to and from the hospital. The Pink Drive started in June 2011. The service is taken to the community in a large pink truck equipped with a mammogram machine. This initiative is to boost the attention given to women's health.
- The Hartman memorial lecture took place on 10 November 2011. Nurses were given awards for clinical excellence. The recipients were nominated by their peers.
- The Gastroenterology and Hepatology Unit received two endoscope washing machines. Construction is still in progress. Colonoscopy also received a light source and processor. The nursing staff of this unit also attended the annual

SAGES congress from 12 to 16 April 2011.

- Rheumatology Clinic: Room 701 was upgraded into an ultrasound room with donations by Abbott Laboratories. The nursing staff were actively involved in public awareness open days, for example Osteoarthritis Day (26 August 2012) and International Rheumatology Day (12 October 2012). Activities were held in the clinic and the main pharmacy waiting area.
- Occupational Health: Doctors, medical students, nursing students in that order account for the bulk of the splash and needle prick injuries. Respectively 133, 97 and 75 staff received the following immunisations: Hepatitis B, H.N. measles, and tetanus.
- Current adult research in progress at the Infectious Diseases Clinic:
 - An HPV study to determine the incidence of HPV, and also cervical cancer, in HIV-positive women.
 - A PMTCT study: Viral-load study before the start of ARV therapy and after labour.
 - A Hepatitis B study: Monitoring the incidence of Hepatitis B infections and HIV co-infection.
 - Nephrology study: Monitoring the incidence and the extent of renal disease in HIV-infected patients.
- Nuclear Medicine:
 - The completion of the new PET centre in the Gene Louw Building – the installation of a PET/CT camera.
 - Upgrading of the gamma camera on the 10th floor by the addition of a CT component.
- Unit for Infection Prevention and Control (UIPC):
 - Important visitors: Ms Salma Khamassi from the WHO visited the UIPC from 4 to 7 April 2011.
 - Dr E Kamuri and Ms Theresa Mwangi, from Kenyata Hospital in Kenya, also visited the unit in August 2011. They took back valuable information and surveillance protocols to adapt and implement in their hospital.
 - The IPC survival kit was launched and distributed in January 2011.
 - Availability of IPC policies on the I drive
 - Distribution of various information leaflets to the community.

6. Some important statistics

- 925 TOPs were performed, of which 477 were performed by a nursing sister and 222 by the doctor.
- X-rays: 1 773 sonars were taken, and 18 144 scans.
- At the nurse-run Stoma Clinic, a total of 8 164 patients were cared for by one Registered Nurse and two Enrolled Nurses.
- In respect of occupational health, splashes and needle pricks among doctors (113), medical students (97) and student nurses (75) accounted for the bulk of the 328 reported injuries.
- A reported 18 staff members contracted pulmonary tuberculosis while on duty.
- Infectious Diseases:
 - Total patient visits 18 218.
 - Transfers out: 384 adult and 67 paediatric patients.
 - The number of new HIV-positive patients recorded was 491.

THEATRE

1. Head of Module

Mr R E Visagie, Assistant Nurse Manager,

Overview of activities

- This unit renders a competent, safe, compassionate and ethical health service to hospitals and clinics in the drainage area.
- The unit operates on an average of 45 cases per day in the general theatres, and 35 cases per day in the emergency theatres.

Staff

Area Managers	2
Professional Nurses	87
Staff Nurses	35
Nursing Assistants	72
Admin Clerks	4
General Assistants	38
Housekeepers	4

Services

- 25 theatres for elective cases
- 1 catheterisation Laboratory
- 1 radiology theatre
- 4 emergency theatres
- 1 decontamination theatre for nuclear radiation

Comment on output

- 26 351 cases were done in 2011

Infrastructural development

The planning for the upgrade of the third-floor theatres, and staff rest rooms to uplift morale, are a priority.

Highlights of the year

- Hartman Awards were handed to:
 - Ms N Sam, Professional Nurse
 - Ms M Swartz, Staff Nurse
 - Ms F Skippers, Nursing Assistant.
- Strategic planning sessions were held in the module.
- The preparedness of the nuclear decontamination theatre was tested on 3 November 2011 in collaboration with Eskom.
- All three of the students in the new course Operating Room Practitioner, which started in February 2011, passed their first-year examination, with distinction for their practical.
- The second group, of five students, started in February 2012.

CSSD

Head of Module

Mr MR Schuller

Services are rendered to Tygerberg Hospital's theatres, wards and clinics.

Staff

CSSD Manager	1
Administrative Clerk	1
Principle Operators	7
Senior Housekeeper	1
Operators	49
General Stores Assistants	5
Linen Stores Assistants	5
Household Aids	6
Total	75

Equipment

Sterilisers x 10

Steris washer disinfectors:

1 x single-chamber, 2 x multichamber

Sterilisation outputs

Trays processed through sterilisation:

6 439 (2010) – 6 880 (2011) average per month

Ethylene Oxide (EO) sterilisation:

16 679 (2010) – 5 674 (2011) average per month

Training and development:

IPC Basic Sterilisation Course

Three operators passed, one did not.

IPC Intermediate Course

Two supervisors passed.

IPC Advanced Course

The results for two supervisors are awaited.

Highlights of the year

The reduction of items for EO sterilisation.

BIOMEDICAL SCIENCES

Department of Biomedical Sciences**Professor Paul D van Helden****Summary****The Division Molecular Biology and Human Genetics****Clinical services**

- one respiratory OPD clinic per week
- one bronchoscopy theatre session per week
- seven weeks per year on medical-ICU call duty, including ward round, consultation service (ward referrals), after-hours on-call and weekend ward rounds.

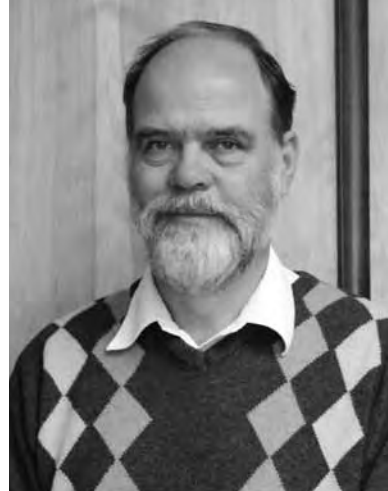
Clinical Genetics and Genetic Counselling services are shown in Table 1.

Table 1: Clinical Genetic and Genetic Counselling clinics

CLINIC	FREQUENCY
TBH prenatal counselling	2/week
TBH paediatric genetic	1/week
TBH haemophilia	1/ month
TBH neurogenetics	1/3rd month
TBH cancer counselling service	2/month
TBH cleft palate	2/month
Outreach to level 2 hospitals	regularly
Outreach to LSEN schools	regularly

Direct patient and community benefit

1. Cardiovascular (CV) diseases: Direct DNA-based testing is available for hypertrophic cardiomyopathy (HCM), long QT syndrome (LQTS) and progressive familial heart block type I (PFHBI). Information is also made available to Prevent Arrhythmic Cardiac Events (PACE) for patient-based and family-based advice and counselling. Information for the layperson is also made available for their website.
2. The treatment outcome of patients with extra drug-resistant TB (XDR-TB) often leads to a situation of treatment failure followed by death. In an attempt to improve the treatment outcome we have embarked on collaboration with Médecines Sans Frontières (MSF) to determine the resistance profile of patients who are therapeutically destitute. This information is used to tailor treatment options and to serve as motivation for the compassionate use of anti-TB drugs which are still in phase 2 and 3 trials.
3. We are supporting the National Health Laboratory Services (NHLS) with genotyping and assistance with diagnosis of problematic cases of TB and drug-resistant TB. We have been asked to assist in determining the underlying reason for the low specificity of the culture-based test for ethionamide.
4. We are supporting the NHLS in the training of BSc Honours students (Mr D Hart) and well as PhD students (Mr M Barnard).
5. We are working with NHLS to evaluate the new 'sensititre' plate method for drug-susceptibility testing and minimum inhibitory concentration (MIC) determination of both first and second-line anti-TB drugs.
6. We are collaborating with the NHLS to evaluate the performance of the Xpert MTB/RIF test in KwaZulu-Natal with the vision to control the observed increase in MDR-TB cases in one district municipality.



7. A policy brief was released in August 2011 documenting the strong association between mutations in the inhA promoter and resistance to isoniazid and ethionamide. In this brief we have made recommendations that this information should be included in the diagnostic report. In addition we have proposed guidelines for clinicians on how to treat patients according to routine MTBDRplus-genotyping results.
8. We have written a document for the national Department of Agriculture (at the Department's request), explaining the situation with diagnosis of unusual Mycobacteria in animal disease. This work has been continued and expanded and will appear as an explanatory document in the peer-reviewed literature in 2010.
9. We do specialised diagnostics for critical animal species for the National Zoological Gardens (NZG) and SANParks, and advise them accordingly.
10. The organisation FIND, supported by the Gates Foundation, regularly asks one of our staff members, Ms A Jordaan (Stellenbosch University), to travel to African countries to provide diagnostic training on their new commercial molecular-diagnostic assays.
11. The Clinical Genetic and Genetic Counselling service provides for care and prevention of birth defects and genetic disorders to the Tygerberg Hospital drainage area (Cape Town Metro East, and the Winelands, Overberg, and West Coast district of the Western Cape).

Laboratory work:

Polymerase chain reaction (PCR) – speciation of Mycobacterium-tuberculosis strains infecting study participants.

IS6110 DNA fingerprinting of Mycobacterium-tuberculosis strains infecting study participants.

Performance of Interferon gamma-release assay testing in the immunology lab for TBH patients – mainly paediatric-oncology patients.

Teaching

MBChB I: 8 lectures in immunology

MBChB II: 6 lectures in immunology

THE DIVISION OF ANATOMY AND HISTOLOGY

Teaching

First semester:

MBChB II

MMed

Speech Therapy III

Second semester:

Dentistry

Occupational Therapy II

Physiotherapy II

Speech Therapy III (Clinical Neurology)

Teaching hours per week = 5.

Test or exams set up, administered, marked, marks processed = 6 per semester.

Clinical work:

Genetic counselling.

Active at Mfuleni Clinic where she treats patients on a weekly basis for TB (2 days per week).

THE DIVISION OF MEDICAL PHYSIOLOGY

Teaching

The Division of Medical Physiology is predominantly responsible for teaching and training of undergraduate (MBChB, BChD, BSc Physiotherapy, Occupational Therapy, Dietetics) and postgraduate students (BScHon, MSc, PhD, MMed) at the Faculty of Health Sciences.

Research

The two main fields of research include the Cardiovascular Research Group and the Reproductive Physiology Research Group.

Clinical services

- one respiratory clinic per week
- one bronchoscopy theatre session per week
- eight weeks per year on medical-ICU call duty, including ward rounds, consultation service (ward referrals), after-hours on-call and weekend ward rounds
- active participation in training of clinical assistants.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor Principal Specialist	5	5
Specialist	4	3
Registrar (number only)	4	2
Medical Officer	2	2

POSTS (SESSIONAL)		
Specialists		
Part-time posts	2	2
Locum posts		
Full-time equivalents		
Number of beds (usable):		

**Outpatient visits, Speciality clinics,
Admissions, Theatre procedures:**

- specialist clinics (pulmonology): one clinic each week
- bronchoscopy theatre list: one afternoon and one full-day theatre list per week
- 56 days intensive care unit after-hour calls for each of two specialists

Clinical Genetics and Genetic Counselling:

- Two clinical genetics registrars have been appointed.
- Prof. Greetje de Jong and Prof. Denis Viljoen work in sessional posts
- A part-time genetic counselling and genetic-counselling intern were added to the staff complement.
- With the support and assistance of the Department of Obstetrics and Gynaecology a clinical-genetic area was opened in Tygerberg Hospital at the end of 2011. This includes two consultation rooms, and strengthens the profile of genetics as a clinical discipline.
- The NHLS laboratory at Tygerberg Hospital remains in an inadequate state, in large part because of the broader problems within the NHLS.

Table 2: Clinical Genetic and Genetic Counselling consultations 2011

CLINIC	FREQUENCY	PATIENTS SEEN
TBH assessment of stillborns	daily	742
TBH prenatal fetal anomaly counselling	1/week	824 total (724 first visit)
TBH prenatal Down Syndrome counselling	1/week	
TBH paediatric genetic	1/week	410 total (163 first visit)
TBH haemophilia	1/ month	12
TBH cancer genetic service	1/ month	40 breast cancer 14 colon cancer
TBH neurogenetic clinic	1/3 months (est. Aug 2011)	10 families
TBH cleft palate	2/month	60
Outreach to LSEN schools	Regular	170
Total		2 282

As can be seen, considerable numbers of patients from a wide range of life stages, and from all levels of care benefit from the clinical-genetic and genetic-counselling service.

The assessments of stillbirths allow for accurate assignment of cause of deaths, which has implications for obstetric and genetic management of future pregnancies.

The scope of the service has increased over the course of 2011 to include increasing numbers of adult patients (for cancers and neurogenetic disorders in particular) and increasing numbers of patients seen primarily by genetic counsellors rather than just by clinical geneticists.

Comment on output

Clinical Genetic and Genetic Counselling services are expanding and are increasingly using state-of-the-art genetic testing and counselling approaches to provide a cutting-edge service. This includes facilitating access to testing in the private sector or overseas where

testing is not available via the NHLS (this is particularly important given the parlous state of the NHLS).

An important priority for the clinical-genetic service is to prepare the clinical-genetic registrars for the FCMG part 1 exams – this process has commenced.

We performed Quantiferon tests for Tygerberg Hospital whenever requested, i.e. for Pediatric Oncology. This is a specialised test for TB infection that is not available through the state sector.

Community-outreach programmes

THE DIVISION MOLECULAR BIOLOGY AND HUMAN GENETICS

Outreach activities (to the wider public)

Report of Prof. V. Corfield's outreach activities in 2011:

Prof. Corfield has continued her involvement in outreach activities that engage the general public in greater awareness and appreciation of biomedical science. Since 1998 she has received support and encouragement for this work from different stakeholders and has actively encouraged the participation of others in these events. Many of these activities have been undertaken with "outreach" funding from the CMCB or with the Community Liaison Office/Research Translation Office of the MRC, previously with Ms Khalipha Ramahlape and more recently with Ms Benita Mayosi.

A highlight of 2011 has been the completion of phase 3 of the Wellcome Trust International Engagement (WTIE) grant awarded to Prof. Corfield (principal awardee) in partnership with the MTN Sciencentre, Cape Town. The first two phases of the project entitled Catalysing partnerships: the role of science centres as intermediaries between the public and scientists in engagement with biomedical sciences in South Africa brought science centres and scientists together to make biomedical-science issues more assessable to the general public. Regional workshops held in 2010 had brought together a mix of scientists from local tertiary and research institutions, and from science centres across the region (including science centres in rural areas). Several MRC employees as well as postgraduate students and staff from MRC centres or units in the Western Cape, KZN and Gauteng attended these workshops.

Consequently, a successful outcome of the project has been the planned "seeding effect" with independent development of existing and new public-engagement activities across the country. Thus, in 2011, the workshops The Trouble with TB, HIV

comes to the party, The DNA Detective, what's in your genes?, TIK's Tricks, Enzyme Antics and Basic Biotechnology, and exhibits The Trouble with TB and The Skin you're in (all developed originally by Prof. Corfield) have been presented occasionally by Prof. Corfield but generally by others at, inter alia, The Cape Town Science Centre, the Giyani Science Centre (Limpopo), the Gateway Science Centre and the science centres at the universities of Pretoria, Limpopo, KwaZulu-Natal and Zululand.

The final phase 3 of the project was completed in December 2011 with the production of a Handbook for South African Science Centre Communicators and a website containing an electronic version of the handbook and supporting material (<http://www.saastec.co.za/scibiologa.htm>) which has achieved the goal of empowering others to become involved in furthering public awareness and engagement in biomedicine, and in examining the ethical and societal issues raised by new technologies.

Another highlight of science-engagement activities in 2011 was Prof Corfield's participation at the 6th Annual Science Centre World Conference, held in Cape Town. She was invited to participate in two panel discussions. For the first one she presented a talk entitled Can 'Science and Society' be squeezed into a one-size-fits-all science centre experience? in which she examined the need to tailor activities for culturally or linguistically different target audiences. The title of the second contribution, Promoting women in science centres across cultures; the contribution of science centres, examined the ways in which science centres can change help change mindset and raise awareness among young girl learners about careers in science and technology. The two posters presented by Prof. Corfield outlined the role of South African Women in Science and Engineering (SAWISE) and the goals of the WTIE award and were entitled SAWISE: South African sisters in science and engineering network with science centres and Catalysing partnerships: can science centres bridge the gap and promote dialogue between scientists and the public in biomedicine?, respectively

An interesting spinoff of the WTIE workshops conducted in phase 2 has been the further development by Prof. Corfield in 2011 of the use of the Murder Mystery genre to engage the general public in the science underpinning DNA forensics and in the ethical issues that this technology raises. Prof. Corfield has written a number of 'whodunnit' scenarios which have been used in public engagement activities, viz., at

Scifest Africa 2011, the University of Limpopo Science Centre schools' programme and at the annual general meeting (AGM) of SAWISE, an organisation to strengthen the role of women in science and engineering.

During 2011, Prof. Corfield was involved in other activities that furthered public awareness of various aspects of science. One of these is the continued roll-out of the DNA Project, an organisation which seeks to raise awareness of the importance of DNA forensic evidence through many activities. During 2011, Prof. Corfield has presented lectures for the DNA Project to the University of the Third Age, the National Prosecuting Authority and to the company responsible for developing the project's advertising material. She has also been involved with a workshop, DNA CSI, which she has helped develop and has presented to the South African Police, neighbourhood-watch groups, rape and women's abuse centres and schools. Prof. Corfield has lead further training projects with the Public Understanding of Biotechnology programme (PUB), viz., facilitating and assessing the Basic Biotechnology programme of the University of Limpopo Science Centre and she has undertaken an assessment of media reports of biotechnology for the South African Association for Science and Technology Advancement (SAASTA).

In 2011, in response to the need to raise awareness of the range of health-related careers available to school learners, Prof. Corfield updated a presentation she had previously prepared entitled Careers in Health Care. She has presented this talk to Stellenbosch University's bridging programme and made it available to the MRC's Research Translation Office – who presented it at the Limpopo's 2011 Eding Science Festival. She also devised SAWISE's 'meet-a-female-scientist' event for school learners.

The oral presentations skills workshop previously developed by Prof. Corfield has also been updated and in 2011 was presented twice as part of Stellenbosch University's Research Capacity Development office's programme for lecturing staff and senior students and to the BSc Honours students of The Centre for Molecular and Cellular Biology (CMCB). In addition, a shorter version entitled "101 tips for a pitch perfect presentation" was given at an SAWISE workshop and at the Biannual Conference for Women in Engineering (Gauteng).

The Clinical Genetics and Genetic Counselling service:

The group has established close ties with the Foundation for Alcohol Related Research (FARR), an NGO which focuses on Fetal Alcohol Syndrome (FAS), a condition of great public health importance in the Western Cape. Dr Urban is a board member of FARR and we collaborate with FARR and others to research and highlight FAS. As part of its focus on disability, the Clinical Genetic and Genetic Counselling group continues to provide outreach services to schools for learners with special educational needs (LSEN schools).

The Division of Anatomy and Histology

The division hosted three orthopaedic surgeons from Belgium and the Netherlands that received training in orthoscopic shoulder surgery at the Cape Shoulder Clinic (Dr Joe de Beer) and did research (cadavers) on a variety of topics on shoulders, hips, knees, submitted for publication in 2012.

A total of 6 000 grade 11 and 12 learners from 120 schools from the Western Cape attended the Morphology Museum educational programme.

A total of 35 CPD-accredited cadaver-based surgical-retraining workshops were presented to orthopaedic surgeons and neurosurgeons sponsored by the most prominent manufacturers of surgical implants and equipment (Orthomed, Accumed, Medtronic, Zimmer, Werkomed, SA Biomedical, Southern Medical, Stryker, Ortho-Surgical Implants, Smith and Nephew, Johnson & Johnson, Earth Medical, Orthogate, Bloomberg Medical, Bicifix, Adcock-Ingram). This amounted to 200 surgeons (conservative estimate, probably more).

DIVISION OF MEDICAL PHYSIOLOGY

Community-outreach programmes

Prof. Hans Strijdom was involved with the launch of a community-outreach programme with colleagues from the Department of Family Medicine at the Etafeni Daycare Centre in Nyanga.

Various members of staff act as regional finals judges in the ESCOM Expo for Young Scientists. This competition aims to create awareness for sciences among all schoolchildren.

Several members of staff are involved in the mentor and/or tutor programme of the Faculty of Health Sciences.

Prof. Barbara Huisamen is also involved in the Women in Science career-development mentor programme.

Prof. Andreas Diacon is involved in the clinical-service component of the Department of Internal Medicine

at Tygerberg Hospital, where he makes a significant contribution to service delivery, as well as student teaching (both undergraduate and postgraduate). He also maintains and staffs research clinics at various health-care facilities and contributes to health care in study participants.

PARTNERSHIPS

National

The Division Molecular Biology and Human Genetics

IIDMM, UCT: collaboration on Gates Grand Challenge project

Lung Institute, UCT: collaboration on diagnostic and biomarker projects

K-RITH (KwaZulu-Natal): Dr Adrie Steyn, collaboration on biomarker and TB-immunology work

MRC Durban, Dr Alexander Pym, collaboration on capacity development grant

The Clinical Genetic and Genetic counselling:

Foundation for Alcohol Related Research (FARR): collaboration on research into epidemiology and prevention of FAS.

Centre for Health Policy, University of Witwatersrand: collaboration on research into epidemiology and the prevention of FAS.

At a service level, collaboration with the Groote School Clinical Genetic Service to provide health care to the Western Cape.

The Division of Anatomy and Histology

Collaborative work with Dr Helen Cox from MSF, Khayelitsha

The Division of Medical Physiology

The Heart Research Laboratory, under the guidance of Prof Amanda Lochner, maintains close ties with the Cape Heart Centre (Hatter institute, University of Cape Town), the Disease Signalling Group (Physiological Sciences, Stellenbosch University), School of Physiology (University of the Witwatersrand), Medical Biosciences (University of the Western Cape) and Cape Peninsula University of Technology.

The Reproductive Physiology Research Group, headed by Prof. Stefan du Plessis, actively collaborates with the research groups of Prof. Gerhard van der Horst (Medical Biosciences, University of the Western Cape) and Dr Guillaume Aboua (Cape Peninsula University of Technology).

Prof. Andreas Diacon, together with Dr Sven Friedrich, is creating a new research platform for TB diagnostics. Dr Diacon is also still involved with clinical research at the Department of Medicine.

Private sector

The Division Molecular Biology and Human Genetics

(Prof. Gerhard Walzl)

Dr Johan Theron, Panorama Medi-Clinic: sarcoidosis project

The Division of Medical Physiology

Prof. Barbara Huisamen forms part of a collaborative study with the SMME ConbrioBrands to substantiate claims about the over-the-counter anti-diabetic remedy Diavite. They are currently investigating the anti-hypertensive effects of this drug in a rat model of hypertension induced by a high-fat diet.

Prof. Andreas Diacon is investigating novel anti-tuberculosis agents and regimens in collaboration with drug manufacturers and international partners.

International

The Division Molecular Biology and Human Genetics

(Prof. Gerhard Walzl)

Max Planck Institute for Infection Biology, Berlin, Germany – Prof. Stefan Kaufmann, biomarker project

MRC, The Gambia – Dr Martin Ota, biomarker project

Case Western Reserve University, Cleveland, USA – Prof. Henry Boom, biomarker project

Leiden University, Netherlands – Prof. Tom Ottenhoff, biomarker project

Makarere University, Uganda – Prof. Harriet Mayanja, biomarker project

London School of Hygiene and Tropical Medicine, UK – Prof. Hazel Dockrell, biomarker project

Amhauer Hansen Institute, Addis Ababa, Ethiopia – Dr Abraham Aseffa, biomarker project

Ethiopian Health and Nutritional Research Institute, Addis Ababa – Dr Kabebe, biomarker project

Karonga prevention study, Malawi – Dr Mia Crampin, biomarker project

NIH, Maryland, USA – Dr Clifton Barry, biomarker project

University of Namibia – Dr M van de Vyver, biomarker project

The Division of Anatomy and Histology

Prof. Willie Vorster, University of Namibia, establishing a teaching platform in anatomy and supply of cadavers.

Exchange of academic and technical staff for capacity development and research.

The Division of Medical Physiology

Prof. A. Lochner is involved in a joint project with Prof. K. Ytrehus from the Department of Physiology, University of Tromso, Norway. The project is entitled The effects of melatonin on the ischaemic heart and it is sponsored by a joint research grant under the South African-Norway programme on research cooperation.

Prof. Stefan du Plessis collaborates extensively with Dr Ashok Agarwal, Director of the Reproductive Research Centre, Cleveland Clinic, Ohio, USA. He is also involved in joint projects with Dr Alex Varghese (India), as well as Drs Charles Kimwele and Kavoo Linge from the University of Nairobi, Kenya.

Prof. Stefan du Plessis participated as an international faculty member in the summer-intern programme of the Centre for Reproductive Research at Cleveland Clinic, Ohio, USA.

Prof. Andreas Diacon has continued and expanded his research activities into novel anti-tuberculosis agents and regimens in collaboration with drug manufacturers and international partners. The SU-based part of the enterprise has now grown to 13 members performing tests on sputum samples collected at various research locations in Cape Town such as Delft, Mfuleni, Brooklyn Chest Hospital and Intercare Hospital. Prof. Diacon is also still involved with clinical research at the Department of Medicine and is rendering clinical services.

The Division Molecular Biology and Human Genetics

Publications: peer-reviewed research papers:	63
Books:	1
Chapters in books:	3
Conference presentations:	25 (12 national, 13 international)
Conference posters:	41
PhD graduates:	4
MSc graduates:	3

The Division of Anatomy and Histology

Publications: peer-reviewed research papers:	7
Conference presentations:	8 (6 national, 2 international)
Conference posters:	12
PhD graduates:	1
Peer-reviewed manuscripts:	3, and 3 abstracts in conference proceedings

The Division of Medical Physiology

Publications: peer-reviewed research papers:	26
Chapters in books:	3
Conference presentations:	15
Conference posters:	14
PhD graduates:	1
MSc graduates:	1

TEACHING AND TRAINING (UNDERGRADUATE, POSTGRADUATE AND ELECTIVE STUDENTS).

Courses attended by staff or students in 2011:

- Ms L Vos and Ms N Steyn attended the Scientific Writing Skills Workshop on 16 and 17 May 2011 held at Tygerberg campus.
- Mr Paulin Essone Ndong attended a Conference Presentation Skills workshop that was held at Stellenbosch University by Prof. Elly Grossman on 14 and 15 July 2011.
- Ms Andrea Gutschmidt attended an advanced-flow cytometry course – FloCyt regional training programme held at UCT by FloCyt associates on 25 October 2011.
- Mardelle Schoeman and Chantelle Scott (genetic counsellor and genetic-counselling intern) attended a course on qualitative research.
- Dr Shantal Windvogel attended PREDAC; A Practical approach to teaching in the T-option; presentation techniques; the PREDAC mini-conference, and the Cape Higher Education Consortium's course on Assessment in Higher Education in 2011.
- Amanda Genis attended a training course in Proteomics that was offered by the Central Analytical Facility.
- Dr Edna Marais attended a workshop on Flexible Assessment and Webstudies- Future options for e-assessment, organised by the Centre for Teaching and Learning at Stellenbosch University.
- Stefanie Malan received a Novartis internship in drug discovery (1 July 2011 to 30 September 2011).

- Jomien Mouton attended the Wellcome Trust Advanced Course (protein interactions and networks), Genome Campus, Cambridge, UK.
- Jomien Mouton attended the Confocal Microscope Workshop on 29 September 2011, Department of Biology, University of Cape Town (Prof. Dirk Laing).
- Carin de Villiers, Nastassja Steyn and Jomien Mouton attended the Confocal Microscopy Workshop on 9 September 2011 at the Department of Human Biology, University of Cape Town.
- Ilse Uys attended the 6th Applied Genetics Workshop, Tygerberg, on 26 October 2011.
- Mr Keith Siame, Ms Anzaan Dippenaar, Ms Mae Newton-Foot and Ms Louise Vos attended a Proteomics workshop on Tygerberg campus presented by Dr Salome Smit in May 2011.
- Ms Mae Newton-Foot and Ms Nastassja Steyn attended a fluorescent microscopy course at CAF on main campus on 2 to 3 June 2011.
- Drs André Loxton and Daleen Kriel attended a conference presentation skills workshop at the Stellenbosch Institute for Advanced Study (STIAS), Stellenbosch University, on 24 May 2011.
- Prof. Rob Warren accessed an online Good Clinical Practise course in 2011.
- Ms Marisa Klopper attended the Basic Epidemiology course presented by Dr Jo Barnes at the South African Centre for Epidemiological Modelling and Analysis (SACEMA) in April 2011.
- Ms Michelle Daya attended the two-day workshop of the European Bioinformatics Institute (EBI) at UWC in March 2011.
- Ms Michelle Daya attended the 16th Summer Institute in Statistical Genetics, Seattle, Washington, USA in June 2011.
- Ms Nikki le Roux attended the EMBO practical course Computational Biology: Genomes, Cells and Systems held in Reykjavik, Iceland, from 6 to 13 August 2011.
- Ms Anzaan Dippenaar attended a course on High throughput sequencing in disease studies at the London School of Hygiene and Tropical Medicine (LSHTM) from 12 to 15 September 2011.
- Dr Bienyameen Baker attended an international workshop for postgraduate supervisors at Stellenbosch University in September 2011.
- Dr Janine Blankenberg attended the Grant-writing Workshop at Stellenbosch University on 24 August 2011.
- Dr Janine Blankenberg attended the Working with the Human Genome Sequence - Wellcome Trust course in Kenya from 31 October to 2 November 2011.
- Dr Janine Blankenberg attended the workshop Science Meets the Media at Stellenbosch University from 21 to 25 November 2011.

Research interns (MRC sponsored)

1. Ms NC Ngombane (research intern) registered for the third year of her MSc degree and graduated in 2011.
2. Ms P Seepe (research intern) registered for the first year of her PhD degree in 2011.

Career development of graduates

This is done by offering contract positions using grant funding and it is regarded as one of the most important activities in the CMCB. It is through activities such as these that South Africa can retain that capacity it has trained. In addition, it offers individuals the opportunity to utilise skills and gain experience.

The Division of Medical Physiology

TEACHING

Undergraduate teaching of:

MBChB first year, second year and third-year students
 BChD first year and second-year students
 Allied Health second-year students (BSc Physiotherapy, Occupational Therapy, Dietetics students)

Postgraduate teaching:

BScHon (MedSci)
 MMed students

Postgraduate-research training:

MSc students

The Division delivered 1 PhD student, 1 MSc student and 11 BSc Honours students during 2011.

Prof. Stefan du Plessis was appointed as external examiner to the School of Medicine at the University of Namibia.

Several members of staff act as external examiners and moderators to other universities (both national and international).

Proff. Hans Strijdom and Stefan du Plessis acts as internal examiners for MBChB IV and MBChB V elective portfolios.

Prof. Hans Strijdom serves on the MBChB Guidelines and Selection Committee as well as the Committee

for Postgraduate Training. He is also serving on the executive councils of both the Pharmaceutical Society of South Africa (PSSA) and the South African Society for Cardiovascular Research (SASCAR).

The Division of Anatomy and Histology

MBCb Year 1 to 5

BChD Year 1 and 2

Allied Health second-year students (BSc Physiotherapy, Occupational Therapy, Dietetics students)

Postgraduate teaching:

BSc Hon (MedSci)

MMed students

Retraining of specialists in latest surgical techniques in hip replacement, pelvis reconstruction, shoulder repair, stabilisation of vertebral column was presented to 200 surgeons per year sponsored by the foremost suppliers of surgical equipment and implants.

Postgraduate research training:

1 PhD, 2 MSc, 3 Honours students

Prof. B.J. Page is external examiner in Anatomy at the University of Namibia, Wits and the Walter Sisulu University, as well as chief examiner for Anatomy for MFOS SA College of Dentistry.

Dr Sanet Kotze is external examiner at UP's Faculty of Veterinary Science (Anatomy).

The Division Molecular Biology and Human Genetics

Technical Advances

- In all our projects we improve and advance technology, and try to make use of the latest technology. Thus, for example, our ability to do DNA sequencing and handle data is vastly improved. Some other examples are given below.
- We have two small robotic stations to assist with large-scale PCR assays to maximise labour efficiency.
- We have introduced whole genome amplification (WGA), so that we can make maximum use of minimal samples.
- We have developed a novel method for the detection of transrenal DNA for the diagnosis of TB.
- We developed a transport bottle or medium for the transport of fine-needle biopsy aspirates for the diagnosis of TB by either culture of the Xpert MTB/RIF assay.

- We have expanded our ability to do Immunology work and have new instrumentation which can measure over 30 cytokines in a single sample.
- We have one automated western blotting station that is able to perform time-consuming western blots usually done by students or technicians. This has greatly reduced the amount of man-hours spent on performing western blots.
- We have acquired a state-of-the-art Orbitrap system for proteomics work.
- We have initiated work in nanotechnology.
- We are the entity of choice for speciation diagnostics of non-tuberculous mycobacteria.
- We are the centre of choice for TB clinical trials.

Participation in health or science policy-development processes (eg. consultancies, workshops, public hearings etc.)

- Various members of the CMCB have been part of numerous workshops with the national Department of Health, Eastern and Western Cape Department of Health, Department of City Health and the NHLS regarding XDR-TB and a plan to address this problem.
- NC Gey van Pittius has contributed to Stellenbosch University's Policy in Respect of Exploitation of Intellectual Property.
- MRC policy brief entitled Current standard drug regimens facilitate the evolution of extensively drug-resistant tuberculosis: Recommendations for improvements was prepared in August 2011 and will hopefully be released soon.
- Guideline for the diagnosis of tuberculosis lymphadenitis by the Xpert MTB/RIF test have been developed and submitted to the Department of Health for approval.

Other research-capacity development activities

- Prof. Warren gave a talk in 2011 on TB to members of the SANDF at the Youngsfield Military Base.
- Prof. Warren presented two lectures in the MBCb module on Infections and Clinical Immunology in 2011. The title was Molecular Epidemiology of Drug Resistant TB in South Africa.
- There were numerous radio, TV and newspaper interviews locally and abroad. Owing to an extreme administrative burden and opportunistic interviews, no accurate records were kept.
- N du Plessis gave a presentation entitled Worms and Tuberculosis: Do co-infections shape

disease outcome? at the New Voices in Science colloquium on 2 December 2011.

- L Kleynhans gave a presentation, Injectable contraceptives: Good or bad?, At the New Voices in Science colloquium on 2 December 2011.
- The SUN-IRG organised a database, statistics and Excel-training workshop for the African-European Tuberculosis Consortium in Addis Ababa in October 2011 for African scientists.
- The SUN-IRG organised a capacity-development and networking meeting between EDCTP-funded TB, malaria and HIV-research networks in Addis Ababa during the EDCTP Forum in October 2011.

Knowledge brokerage

- Division members were involved in numerous public-awareness activities countrywide in 2011 e.g.:
- Prof. Warren gave a talk on TB to members of the SANDF at the Youngsfield Military Base.
- Prof. Warren presented two lectures in the MBChB module on Infections and Clinical Immunology in 2011. The title was Molecular Epidemiology of Drug Resistant TB in South Africa.
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- L Kleynhans gave a presentation, Injectable contraceptives: Good or bad?, at the New Voices in Science colloquium on 2 December 2011.

Awards and honours

1. N Carstens received the first prize for poster presentation at the Basic Sciences session at the 12th Annual Congress of the South African Heart Association in October 2011 in East London.
2. J Mouton won the first prize for the Basic Sciences session at the 55th Annual Academic Year Day of the Faculty of Health Sciences, Stellenbosch University, in August 2011.
3. J Mouton received the Rector's Award for General Service in 2011.
4. I Uys won the first prize for poster presentation (MSc category) at the MRC Research Conference 2011 on 19 and 20 October 2011.

5. N McGregor won the first prize for poster presentation (PhD category) at the MRC Research Conference 2011 on 19 and 20 October 2011.
6. Stefanie Malan received a three-month Novartis internship in drug discovery (1 July 2011 to 30 September 2011).
7. G Louw visited as a postdoctoral fellow at the Harvard School of Public Health and Partners Organisation Centre for Personalised Genetic Medicine in Cambridge, USA.
8. G Louw won the first prize in the infectious-disease session for a presentation by a young researcher younger than 35 years at the Academic Year Day in August 2011 at Stellenbosch University.
9. A number of scholarships awarded to attend the 8th International Conference on the Pathogenesis of Mycobacterial Infections in Stockholm, Sweden, from 30 June to 3 July 2011.
10. NC Gey van Pittius was elected as a member of the Academy of Science of South Africa (ASSAf).
11. K Siame won the Basic Sciences Best Poster prize at the 54th Academic Year Day of the Faculty of Health Sciences of Stellenbosch University with a poster presentation entitled Investigating the genome variation and evolution of Group 1 *M. tuberculosis* strains.
12. L Bloem won second place for the PhD-poster presentation category at the 4th MRC Medical Research Day on 15 October 2011.
13. EG Hoal obtained a B2 rating by the NRF (2011).
14. S Malan received the Novartis internship in drug discovery and clinical research in Basel, Switzerland, from 1 July 2011 to 30 September 2011.
15. N le Roex received the award to attend the computational biology course of the European Molecular Biology Organisation (EMBO) entitled Computational Biology: Genomes, Cells and Systems in Reykjavik, Iceland, from 6 to 13 August 2011.
16. L Ehlers received the award for the Best Poster Presentation in the category Basic Sciences for Effect of TB Treatment on Metabolic Hormone Profiles that was presented at the Annual Academic Year Day in Cape Town, South Africa, from 17 to 18 August 2011.
17. L Kleynhans – Medroxyprogesterone acetate alters cytokine expression in response to *Mycobacterium Bovis* BCG in vitro and in PBMCs of contraceptive users – was the poster winner at the Infectious Disease session at the Annual Academic Day, Faculty of Health Sciences, Stellenbosch University,

Cape Town, from 17 to 18 August 2011.

18. Blanckenberg received the DRD Travel Grant: Research Visit Abroad to attend a GEO-PD meeting in Chicago, USA, from 19 to 21 September 2011.
19. L Ehlers received the Harry Crossley Foundation Scholarship of R14 000 for Investigation of the underlying molecular mechanisms of immune modulation by the contraceptive Medroxyprogesterone acetate (MPA) on immune response to mycobacteria for 2010-2011.
20. M Salie (2011) Deutscher Akademischer Austausch Dienst-National Research Foundation (DAAD-NRF) Joint In-Country Scholarship.
21. M Salie (2011) Columbia University-Southern Africa Fogarty AIDS and TB Training and Research Programme.
22. M Salie (2011) Harry Crossley Foundation (project funding).
23. C Wagman (2011) National Research Foundation Scarce Skills Scholarship.
24. C Wagman (2011) Stellenbosch University Postgraduate Merit Bursary.
25. G Walzl was invited to the AERAS vaccine research workshop in Copenhagen in December 2011.
26. G Walzl was a workgroup member of Endpoints and Biomarker Working Groups of the Critical Path to New TB Drug Regimens and was tasked with producing a white paper on host biomarkers for TB-drug treatment in 2011.
27. G Walzl was a member of the core writing team of the International Roadmap for Tuberculosis Research, produced jointly by the Stop TB Partnership and the World Health Organisation (WHO) in 2011.

The Division of Medical Physiology

Awards and Honours

Hans Strijdom and Stefan du Plessis received the Stellenbosch University's Rector's Award for Excellence in Service Delivery in November 2011.

The Best 2010 Postgraduate Student at the Faculty of Health Sciences based on research was awarded to Llewelen Rapuling at a function held in August 2011.

Two of our postgraduate students were placed among the top three best oral presentations at the 39th PSSA with conference Margot Flint ultimately being appointed as the overall winner of the Wyndham competition. During the same conference two of our postgraduate students were

placed in the top three of the Johnny van der Walt poster competition with Amanda Genis taking the overall first place.

Retha Erwee received the prize for the best oral presentation by a basic scientist under the age of 35 in the Maternal and Women's Health category at the 55th Academic Year Day of the Faculty of Health Sciences, SU. Corli Westcott was the runner-up in the Basic Sciences section at the same meeting.

Prof. Stefan du Plessis received the Sijo Parekattil Award for Excellence in Reproductive Research from the Cleveland Clinic in Ohio, USA.

Amanda Lochner received a Gold Medal from the SA Academy of Science & Arts for her lifetime contribution to Cardiovascular research.

The Division of Anatomy and Histology

Prof. B.J. Page, Vusi April and Paul Pretorius received the SU Rector's Award for excellence in service delivery during November 2011.

CLINICAL PSYCHOLOGY

Clinical Psychology

Dr D Alexander



Summary

The Clinical Psychology Department provides a service to inpatients and outpatients through the Adult Psychiatry and Child and Family Psychiatry units. There is also a Medical Psychology unit which is situated in ALF and operates in close collaboration with the Liaison Psychiatry service but also provides a service to the general hospital. There are no administrative support staff attached to Medical Psychology and some administrative functions are diverted to staff in adult (JLG) and child psychiatry (JLG) respectively. The psychologist providing clinical services in the Adult Psychiatry unit is based in ward JLG, whilst the psychologist providing services in the Child and Family Psychiatry unit is based in FLG. The services provided by the Psychology Department include the assessment, diagnosis, treatment and referral of patients and their families to appropriate referral agents.

In addition to the clinical service delivery a major part of our work includes the clinical supervision of Intern Clinical Psychologists and Psychiatry Registrars and the teaching of medical students, Psychiatry registrars, nursing and allied health professions students and Clinical Psychology interns. Research activities are limited at present due to a reduced staff complement.

During 2011, a Child and Family Unit post continued to remain unfilled due to insufficient funding. The senior psychologist in the unit resigned in April 2011 whilst the new incumbent only commenced in September 2011. In the interim the position was filled by a psychologist on contract. Two contract workers provided 20 hours of service per week in two unfilled psychology intern posts.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Principal Psychologist	1	1
Senior Clinical Psychologist	4	3
Intern (Number Only)	5	3
Medical Officer		

POSTS (SESSIONAL – HOW MANY HOURS PER WEEK)

Specialists		
Part-time posts	0	2 (20 hours in intern post)
Locum posts		
Full-time equivalents		
Number of beds (usable):	N/A	

Output

CLINICAL PSYCHOLOGY SERVICES – STATISTICS

	OUTPATIENTS	INPATIENTS	OTHER
Patients	1218	322	
Consultations	1998	887.50	
Hours	3464	1590.75	
Other hours			4873.75

Psychometric Evaluations

	OUTPATIENTS	INPATIENTS
Patients	90	48
Hours	362	136.5

Comment on output

The three Clinical Psychology service units offer specialist services which are by their nature labour-intensive and time consuming. This inevitably has some impact on the psychology output in respect of patient numbers due to the nature of the service. Each patient consultation takes 1 to 1½ hours at a time and repeat sessions over a period of months may be required, depending on the patient's needs and circumstances. Over and above direct index patient contact, there is frequent contact with the family and other sources to gather information or to give treatment, to ensure a systemic approach to patient care. Psychometric and neuropsychological assessments can take from three to 10 hours to process. Despite the time and manpower challenges, these services are crucial to informing appropriate treatment and rehabilitation plans for the suitable placement and referral of patients and psycho-education of families

and the community. There are insufficient psychologists to deal with the huge demand despite making use of alternative therapy such as group therapy. Senior staff is also required to fulfil a variety of tasks, which impact on their time availability for direct patient contact.

Infrastructure development

Upgrading of the neuropsychological test material continues as does the replenishing of depleted record forms. This is an ongoing process as test material becomes outdated and new tests are continuously produced.

Community outreach programmes

Clinical Psychology interns were allocated to community clinics in the Bellville, Kraaifontein, Delft and Elsie's River areas where they worked 1 afternoon (3 hours) a week.

The following presentations were made outside of office hours:

1. "Keeping your brain healthy and fit" as part of Mental Health awareness week at Blaauwberg Netcare Hospital and Neurocognitive Sequelae of Substance Abuse to occupational therapists from private and other institutions
2. Psychology Workshops focusing on mental skills training to para-athletes in preparation for the World Championships in New Zealand and the Paralympics in 2012
3. "The use of Positive Psychology in the rehabilitation of patient's with head injuries" to private sector neuropsychologists at their monthly meeting.

Partnerships

University of the Western Cape – Teaching of Neuropsychology to the Clinical and Counselling Psychology Masters Students.

Achievements

1. External examiner for PhD thesis
2. Massey University, New Zealand – PhD examination
3. PhD thesis co-supervisor
4. Master's thesis co-supervisor
5. Attendance at primary practicum course in REBT (Albert Ellis Institute), Cape Town, March 2011
6. Research collaboration with LGH: submitting research proposal: "Validity and clinical utility of the Montreal Cognitive Assessment (MoCA) as an assessment of cognitive impairment in a South African population"
7. Registration for PhD in Psychiatry: "Neurocognition

and disordered thinking: It's association, temporal stability and treatment outcomes in first episode psychosis"

Teaching and Training

In addition to the Department of Psychology and Department of Psychiatry Academic Programmes, the teaching of psychology to the following undergraduate and postgraduate students is undertaken by our department: MBChB I, Foundation Phase, II, III, IV and V (middle rotation and late rotation); PAT AGB; BSc Dietetics III; M Physiotherapy; MMed (Psychiatry) Psychology 178 Part 1 and 2; and M Nursing.

Senior psychologists in our department also supervise the training of intern clinical psychologists and Psychiatry registrars.

Special achievements

Services were provided to the following committees:

Internal:

Stellenbosch University Health Sciences Faculty Board
Stellenbosch University Health Research Ethics Committee (HREC)
Postgraduate Committee (Department of Psychiatry)
MBChB Psychiatry Department Training Committee
Psychotherapy Committee

External:

Sascoc Medical and Anti-doping Commission (psychology representative)
Triathlon South Africa Executive Committee
International Triathlon Union Para-Triathlon Committee
Senior staff members were able to attend a workshop on effective teaching practices as well as workshop on treatment methods that are useful for the hospital setting.
We were also fortunate to attend a talk on Neurobiology and Psychotherapy by Lucy Biven at the Red Cross Hospital CFU.

An article on bipolar disorder was written for the Tygerberg Newsletter, Onder Ons, and a book review for a psychology journal of a newly published eating disorders text were written.

16th International Conference Association of Psychology and Psychiatry for Adults and Children, Greece

Title of presentations:

- Mind the gap: Enhancing sport performance
- Concussion in early adolescent rugby players: *Impact on cognitive and academic performance*

COMMUNITY HEALTH

**Division of Community Health:
Occupational Health Clinic and
Minor Ailment Clinic**

Dr Sydney Carstens

Summary

The Minor Ailment Clinic provides a consultation service (primary medical care) to employees that are on duty. This ensures that employees do not have to stay out of work for extended periods to see a medical practitioner.

The Occupational Health Clinic (OH Clinic) primarily sees employees of Tygerberg Hospital and the Provincial Government of the Western Cape (Health Department). There are however several agreements with other organisations, e.g. the National Health Laboratory Service (NHLS), which allows services (from the OH Clinic) to also be rendered to their employees.

The service rendered by the OH Clinic also involves the management of referrals of indigent patients from within the state sector that have been diagnosed with occupational diseases.

Services rendered by this clinic span the whole spectrum of Occupational Health including workplace-hazard identification and risk assessment, individual risk-based medical surveillance (e.g. blood lead levels in lead workers, preplacement medical evaluation of workers exposed to ionising radiation, e.g. the radiographers), managing workers with occupational diseases as well as those with chronic injuries which are occupation related (sonographers with carpal tunnel syndrome) –from acute management to evaluation of impaired function to establish appropriate work placement or adaptation of work activities. Input is also provided in other specialist outpatient clinics, e.g. the Dermatology Clinic.

All employees with needle-stick injuries or splash injuries (during office hours) will be seen at the clinic for counselling, serological evaluation and the provision of antiretroviral post-exposure prophylaxis (this service is rendered by the medical emergency ward F1 after hours). Further follow up of these employees will however be at the OH Clinic.



Resources

Principal Specialist/Head of Clinical Unit:

Dr SE Carstens, MB,ChB; MMed Comm Health; FCPHM (SA) Occ Med

Specialist: Dr WAJ Meintjes – MB,ChB (Pret), DOM (Stell); FCPHM(SA) Occ Med; MMed (Occ Med)

Registrars in Occupational Medicine:

Dr Z Essop (SANDF); Dr J Ayuk (Cameroon)

Senior medical officer: Dr L Joseph, BSc; MB,ChB

Occupational Health Nursing Practitioner:

Sr DM Arendse; Diploma in Nursing; B.Tech (Occupational Health); Diploma in Nursing Management

Registered Nurse Practitioner:

Sr JW Samuels, Diploma in Nursing.

Staff nurse: Ms Cornelius

Administrative support: Ms Damonse

Output

Minor Ailment Clinic visits: A total of 1 493 patients were seen at the Minor Ailments Clinic.

Occupational Health Clinic visits:

A total of 2 124 persons were seen at the OH Clinic. The consultations included preplacement medical examinations, fitness-for-work evaluations and disability management, management of occupational diseases and injuries (e.g. needle-stick injuries and occupational tuberculosis).

Comment

The OH Clinic has continued to see a gradual increase in referrals from other clinical disciplines as well as other public-health institutions in the Western Cape.

Faculty of Health Sciences

Infrastructure development

New diagnostic equipment was acquired, including new ear, nose and throat (ENT) sets.

Achievements

Presentations at international conferences

1. **Meintjes, WAJ.** *International harmonization of training and accreditation in diving and hyperbaric medicine.* 17th International Congress of Hyperbaric Medicine. Cape Town, 16 to 19 March 2011.
2. **Meintjes, WAJ.** *Occupational diving medicine.* 17th International Congress of Hyperbaric Medicine. Cape Town, 16 to 19 March 2011.
3. **Meintjes, WAJ.** *Occupational aspects of hyperbaric tunnelling.* 17th International Congress of Hyperbaric Medicine. Cape Town, 16 to 19 March 2011.

Teaching and Training

- There are two registrars in the MMed (Occupational Medicine) degree programme who are working in the clinic.
- Two Cape Peninsula University of Technology students, enrolled for a post-basic course in Occupational Health were assisted with clinical guidance. Likewise, two medical students from Holland were orientated regarding Occupational Health service provision at Tygerberg Hospital.
- During April 2011, Sr Arendse was one of the speakers at a workshop regarding injection safety held on the Tygerberg Campus of Stellenbosch University.
- The PEP protocol for staff members of Tygerberg Hospital was revised and implemented in November 2011.

The following student research projects were supervised by personnel in the department:

1. Vela, BK. 2011. *A cross-sectional study describing all divers seen at a private medical practice in Dubai, UAE.* [for the BScMedScHons (Underwater Medicine) degree].
2. Kharb, M. 2011. *A prospective evaluation of*

male fertility changes in saturation divers. [for the BScMedScHons (Underwater Medicine) degree].

3. Mandic, T. 2011. *A survey of antimalarial use and its effects in recreational divers.* [for the BScMedScHons (Underwater Medicine) degree].
4. Niewoudt, F. 2011. *A case study on the diving medical examination of a recreational diver with type 1 diabetes.* [for the BScMedScHons (Underwater Medicine) degree].

Special achievements

- Dr Carstens' term of office as Head of the Division of Community Health at Stellenbosch University was extended for another year (2011).
- Dr Meintjes has been elected as chairperson of the Health Research Ethics Committee.
- Dr Meintjes has been requested to serve on the Committee for Postgraduate Training of Stellenbosch University.

Division of Community Health:

Unit for Infection Prevention and Control (UIPC)

Head of Department: Dr Sydney Carstens

Summary

The Division of Community Health within the Department of Interdisciplinary Health, Faculty of Health Sciences, Stellenbosch University (SU), established the UIPC in 2004. In 2006 the unit became an academic unit which was sited at Tygerberg Hospital. The UIPC is the first academic unit of its kind in Africa. The unit is headed up by Prof. Shaheen Mehtar, a Medical Microbiologist with many years of experience working in the field of Infection Prevention and Control (IPC). Prof. Mehtar is ably assisted by four IPC Clinical Programme Coordinators (CPCs), one of whom has the Postgraduate Diploma in IPC, and the others completed a six-month Fundamentals of IPC short course.

The UIPC provides eight university-registered and accredited training courses in IPC and related subjects. The courses are coordinated by Sr Marina Aucamp who has extensive international experiences and qualifications in IPC. Apart from South Africa, the UIPC has extended its teaching and research programmes to Namibia, Swaziland and Zimbabwe.

The UIPC is leading and participating in several research programmes which are mainly related to TB/IPC and interventions suitable to low and middle

income countries, with emphasis on integrated health and community systems strengthening. The programmes are managed by Dr Frederick Marais who has international experience in integrated TB/HIV programme development, service provision and participatory approaches in the field of IPC.

Clinical service is provided by the IPC team and is based on the outcome of surveillance (in association with the Department of Microbiology) carried out at Tygerberg Hospital. In its short existence, the UIPC has been instrumental in setting up a cost-saving IPC programme, designed and supported a Sterile Service Department and engaged in a Burns Unit revitalisation programme. At provincial, national and international level the UIPC advises on IPC-related matters.

The UIPC focuses on, and advocates, integrated research, training and clinical service provision for health-care facilities (HCFs) and communities in IPC, including TB and blood-borne viruses.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor: Medical Specialist	1	Filled (TBH funded)
IPC Nurses: Clinical Programme Coordinators	4	Filled (TBH funded)
Administrative Officer (Database Administration)	1	Filled (TBH funded)
Senior Administration Clerk	1	Filled (TBH funded)
Senior Medical Officer	1	Filled (SU funded)
Training Co-ordinator	1	Filled (SU funded)
Administrative Officer	1	Filled (SU funded)

POSTS (PART-TIME)		
Senior Lecturer (50% FTE)	1	Filled (SU funded)
Training Administrator (50% FTE)	1	Filled (SU funded)

Output

Clinical service provision:

The UIPC is essentially a clinical support unit, providing a comprehensive IPC service across wards and medical specialities. The role of the UIPC is wide-reaching, including: interpretation of the daily pathogen report; frequent ward rounds with individual patient follow-up when indicated; consultation for and direction in the clinical management of patients; antibiotic stewardship; outbreak management and guidance in the management of new emerging infections; IPC risk assessments and identification of areas for IPC strengthening; instigation of IPC audits, surveillance and operational research, and interpretation of the data; policy and clinical guideline development; direct liaison with the Department of Microbiology, NHLS, Pharmacy, head of medical specialities at Tygerberg Hospital, and with Department of Health: Western Cape; and leading and serving on multiple IPC-related committees at local, provincial, national, and international level; and in-service and academic training. The scopes, roles and responsibilities of the medical and nursing specialists in IPC are in line with both the National Infection Prevention and Control Policy and Strategy (Department of Health, 2007) and the National Core Standards (Department of Health, 2011). One of the moves in 2011 has been the expansion of IPC into the community structures as part of the PGWC and SU visions. The UIPC data management formulates the daily pathogen report based on electronic data from the microbiology and immunology laboratory (NHLS). This report assists the UIPC clinical team in guiding and supervising the appropriate clinical management of individual patients; in monitoring outbreaks of infections in various wards; and in determining if control measures are effective in reducing HAIs (health-care associated infections). The UIPC contributes to a major reduction in HAI at TBH, resulting in considerable cost savings. In 2011, working in collaboration with the Central Data Warehouse (NHLS), the reporting system (for compilation of the daily pathogen report) has much improved and is much more accurate. This, too, reflects a reduction in HAI.

In 2011, there were no major outbreaks but an intensive study into MRSA on the orthopaedic platform required investigation into surgical procedures and sterile services which have now been corrected. The strains were typed on an 84% similarity. There was an in-depth investigation into *Pseudomonas aeruginosa*-highly antibiotic resistant in the Burns Unit from blood

cultures and resulted in 76% mortality. That is now controlled and part of surveillance.

The UIPC presented and participated in several IPC-related events at Tygerberg Hospital during 2011, including:

- Global Hand Hygiene Day as recommended by the World Health Organisation, which emphasised the role of hand hygiene in the prevention of HAI.
- Provincial IPC Day, an annual event since 2008, is a platform to discuss hot topics in IPC and is very well attended (150 delegates).

Source: All DPR data is stored on a SUN SQL Server and are available to qualified researchers for further analysis.

References:

Department of Health, 2007. *The National Infection Prevention and Control Policy & Strategy*. National Department of Health, Republic of South Africa.

Department of Health. 2011. *National Core Standards for Health Establishments in South Africa*. National Department of Health, Republic of South Africa.

Comment

The UIPC is a very small unit with a shortage of staff, particularly within research, training and data management. Despite the underfunding and lack of permanent staff the UIPC has performed exceptionally well within the given resources.

Infrastructure development

During 2011 the UIPC purchased a printer for the Training Coordinator and for the Senior Medical Officer, SURMEPI project

Community outreach programmes

A staff member represents the UIPC as member of community-based Cape Town NGOs TB/HIV Care Association and TADSA. In addition, the UIPC presented the fourth IPC Day (conference) at the Faculty of Health Sciences on 18 October 2011 for 180 attendees from 41 institutions, mainly in the Western Cape.

Partnerships

National:

Ongoing work with the Department of Health: Western Cape Government, the national Department of Health, and the Western Cape Provincial IPC Committee.

Ongoing work with the HSRC.

International:

The UIPC is the headquarters of the Infection Prevention and Control Africa Network (ICAN) which currently has 107 members from 10 African countries. Prof. Shaheen Mehtar is the founder and Chair of IPCAN. The expansion of education and training as well as joint projects is ongoing.

Program for Appropriate Technology in Health (PATH), Washington, DC: sponsored research

CDC/PEPFAR: sponsored research

URC/Namibia: sponsored training interventions

UC Berkeley, USA: establishing a collaborative Community-based/ Participatory Research and educational partnership.

University of Alberta, Canada: establishing a collaborative Community-based/ Participatory Research and educational partnership.

Hospital Infection Society offers bursaries for students to attend the Postgraduate Diploma in Infection Control course

Visits to several SADC countries (including Swaziland and Namibia) for IPC training and audits

Private sector:

Medi-Clinic: funding of IPC training coordinator post extended for a further two years until August 2014, and advisor to Medi-Clinic on IPC-related matters.

Service on council and committees:

WHO Task Leader: Task group on Decontamination and sterilisation

WHO core group member on Patient Safety Global Alliance

WHO Chair of subcommittee; Safety Injection Global Network

MRC Grants Committee

National Advisory Committee on Immunisation

National Advisory Committee on IPC

Provincial IPC Committee:

Working Party on Waste Management

WHO/ SIGN- Chair of meeting on Injection Safety

WHO/SIGN- Chair of Best Practices in Phlebotomy

TBH Infection Control Committee

Centre for Infectious Diseases- SUN

Chair Infection Prevention and Control Africa Network

Committee member: TB/HIV Care Organisation, Cape Town

Committee member: TADSA, Cape Town

Achievements

Projects:

The UIPC remains actively involved in education-related as well as operational (clinical) research. The 2011 training intervention projects included: strengthening TB-IPC in public health-care facilities in the Western Cape, strengthening TB-IPC in Swaziland, and the Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI). The SURMEPI programme's IPC component aims to develop IPC capacity of rural health-care workers, to redesign training in IPC for undergraduate medical students and to promote postgraduate training and research in IPC. It is a five-year project that will work closely with the SU Rural Clinical School in the Cape Winelands District.

Publications

Sissolak D, Marais F, and Mehtar S. 2011. *TB infection prevention and control experiences of South African nurses – a phenomenological study*. BMC Public Health, 11: 262.

Mehtar S, Marais F, and Aucamp M. 2011. *From policy to practice – education in infection prevention and control*. International Journal of Infection Control, doi: 10.3396/ijic.V7i2.016.11 (in press).

Presentations:

The UIPC presented several papers at local, national and international conferences.

Teaching and training

The UIPC delivered a range of IPC-related training courses at local, national and international level. The courses and student numbers included: Modules of the Postgraduate Diploma in Infection Control (n=4); Fundamentals of IPC (n=23); Introduction to IPC for Health-care Managers (n=19, TBH); Introduction to IPC for Healthcare Workers (n=54); Decontamination and Sterilisation: Basic (n=13), Intermediate (n=17), and Advanced SSD (n=5); Train-the-Trainer in IPC (n=11); TB-IPC for Laboratory Workers (n=19). The TBH in-service courses and attendees included: TB training for nursing staff (n=16), IPC training for first-year nursing students (n=300), IPC training for theatre science students (n=10), Principles for management of pulmonary TB patients (n=70), Hand hygiene (n=134), Measles training (n=55), IPC for general assistance/domestic staff (n=81), first-year Radiography students (CPUT

n=37), Post-basic trauma and critical care students (WCCN n=0), and Post-basic Nursing administration students (SUN and CPUT n=12).

The UIPC supervised a total of 6 Masters of Nursing degree students from Stellenbosch University.

FORENSIC MEDICINE

Division of Forensic Medicine**Professor Shabbir Ahmed Wadee****Summary**

From January 1 to 31 December 2011, 2 754 admissions were made to the Tygerberg Forensic Pathology Laboratory of the Forensic Pathology Services at the Tygerberg Academic Complex. Of these, 1 509 were deaths due to unnatural causes, 821 due to natural causes and 382 are still under investigation. All unnatural deaths, deaths under investigation and some natural deaths had formal and complete autopsies performed with the necessary special investigations and tests taken where appropriate. During the course of the autopsy, tissue was procured for histological analysis and processing, by the chief medical technologist in an in-house histology laboratory. Tissue was taken from 1 100 cases from the Tygerberg Forensic Pathology Services Facility or mortuary and 103 cases from referral centres (71 cases from Paarl, 5 cases from Stellenbosch, 10 cases from Worcester and 17 cases from George), comprising 1 203 cases in total. As a result, 16 748 blocks were processed from Tygerberg, 357 from Paarl, 50 from Stellenbosch, 109 from Worcester and 287 from George. A total of 15 893 Haematoxylin & Eosin (H&E) stains were performed from Tygerberg, 357 from Paarl, 50 from Stellenbosch, 109 from Worcester and 287 from George. A total of 234 special histological stains were performed when a more precise cause of death were required. In deaths, where injuries involved the brain, spinal cord and related areas, selected brains were formalin-fixed for at least three weeks and kept for a weekly formal brain cutting conference with Neuropathologists, Prof. Richard Hewlett and Dr Dan Zaharie. A total of 148 such cases were macroscopically examined at the brain-cutting meetings, and tissue was processed for histological examination, where necessary. Fourth-year medical students, elective medical students, radiography students, anatomical pathology registrars and other rotating registrars, and others were accommodated and trained at these meeting. In addition, a monthly postgraduate session with the Division of Neurosurgery was held, with input from the Head, Prof. B. Hartzenberg, and academic and clinical staff. During the course of 2011, 57 Death Investigation Dockets were received for second opinions. Some of these autopsies had been performed in the Division, whilst other dockets were referred for a second specialist opinion from outlying areas. Referrals were



made by the Directorate of Public Prosecution and also investigating officers from the South African Police Services. During the year, a total of 118 subpoenas were received by the professional medical staff to attend both the High and Regional Court. Professional staff was required to present expert medical evidence arising from autopsies performed at the Division. 416 Telephonic consultations were handled by Medical Personnel in the Division and 30 crime or death investigation scenes were attended.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Head of Clinical Department	1	1
Head of Clinical Unit	1	1
Senior Specialist	1	1
Registrar	6	6
Medical Officers	2	2
Chief Medical Technologist	1	1
Lab Assistant	1	1
Principal Typist	1	1
Administrative Officer	1	1
Senior Administration Clerk	1	1

POSTS (SESSIONAL – HOW MANY HOURS PER WEEK)		
POSTS	NUMBER	FILLED
Posts (sessional – how many hours per week)	3	4 hours p/w

Comment

With the increasing population of the area and the high rate of homicide and motor vehicle collisions, autopsy numbers continue to remain high. Autopsies are done for Paarl, Stellenbosch and Worcester Forensic Pathology Services when their medical personnel are on leave and if required.

As the number of autopsies and registrars in training increases, there is a concomitant increase in the volume of histology.

Infrastructure development

The training of the forensic officers is an ongoing process, including practical-skills transfer and information-technology training. This is undertaken by the senior specialists jointly with the Division of Forensic Medicine, Faculty of Health Science, University of Cape Town.

An advisory role was played by the Chief Specialist, Prof. Wadee, and the Principal Specialist, Dr Johan Dempers, and Senior Specialist, Dr Lene Burger, in the maintenance of the Tygerberg Forensic Pathology Facility or mortuary.

As a member of the National Forensic Pathology Services Academic Subcommittee, Prof. Wadee, the Divisional Head attended various scheduled meetings outside Cape Town and contributed to the revision of the national Code of Guidelines Forensic Pathology Practice in South Africa. This was in addition to the six monthly meetings of the National Forensic Pathology Services Committee, scheduled in Pretoria. These meetings were attended in co-operation with the National Forensic Pathology Service Directorate in the National Department of Health, the Heads of Forensic Medicine, from the Medical and Health Science Faculties nationally and relevant role players.

Community outreach programmes

Dr JJ Dempers undertook a Forensic Pathology Travelling Seminar to most cities around the country. The seminar was appreciated and well received.

Dr EH Burger gave a Death Notification Form completion talk to interns at Tygerberg Hospital. Similar talks were delivered in collaboration with the Medical Research Council at hospitals, public and private, in the Western Cape.

Partnerships

The Division is actively involved The PASS/Safe Passage Study on the Effects of Maternal Alcohol Consumption in Pregnancy and the Sudden Infant Death Syndrome and Stillbirths. This is in association with Anatomical Pathology, Neuropathology, Obstetrics and Gynaecology as well as Paediatrics at the Medical and Health Science Faculty, University of Stellenbosch, and Pathology and Neuropathology Departments at Harvard University in Boston, Psychiatry and Paediatrics Departments at Columbia University in New York, Pathology Departments of the Universities of North and South Dakota, North and South Dakota, USA.

Achievements

Four articles were accepted and published in reputable journals nationally and internationally.

Teaching and Training

Undergraduate:

During the year 2011, 114 MBChB IV and 65 MBChB V students were trained in the Forensic Medicine undergraduate module. The lectures for the two-week academic rotation for MBChB IV students were also revised and standardised. The undergraduate module involves tutoring small groups of approximately 10 to 12 students who spend two weeks in the Division, undergoing intensive group teaching. This was undertaken primarily by the academic professional staff and with assistance from the administrative personnel. Undergraduate students for the module were very positive in their feedback of the module, undertaken by the Division and the Faculty of Medicine and Health Science.

Postgraduate:

Six registrars and two Medical Officers in the Division of Forensic Medicine underwent training varying from Year I to IV of their specialist forensic-pathology training.

Two registrars from the Anatomical Pathology Division spent two months each as rotating registrars in a Postgraduate Autopsy Technique module. They were supervised and trained by senior specialists of the Forensic Pathology Division.

Two registrars successfully completed the MMed Forensic Pathology Part 1.

Two registrars successfully completed the Forensic Pathology Part 2/F C For Path(SA) with the College of Forensic Pathologists in the Colleges of Medicine of South Africa.

The FPS Tygerberg Medico-legal Mortuary was also used as a venue for the final Autopsy Examination in the MMed Anatomical Pathology Part II Examination with the co-operation and assistance of the technical and administrative personnel.

Electives:

The elective students were tutored and trained by medical personnel in the Division.

Three internal elective medical students from the Faculty of Medical and Health Science, Stellenbosch University, were accommodated in the programme for 2011.

Forensic Pathology Officers:

The training of the new technical personnel is an ongoing process, including practical-skills transfer and information-technology training. This was undertaken jointly with the Division of Forensic Medicine, Faculty of Health Science, University of Cape Town.

Job shadowing exposure:

Three learners from high schools from the Cape Town metropole spent time job shadowing in the Division and the Histology Lab. They used the time to experience some aspects of Forensic Medicine and considering Medicine as a career option.

Special achievements

- Dr J Dempers –IAP National Travelling Forensic Seminar in 2011
- Dr Lene Burger Death Notification Form Completion Training provincially in 2011 and now nationally working with the National Committee on Civil Registration and Vital Statistics involving Stats SA, the Department of Home Affairs and the Department of Health and Medical Research Council for a national programme.

MEDICAL IMAGING AND CLINICAL ONCOLOGY
Medical Imaging and Clinical Oncology
Professor Annare Ellmann
Summary

Nuclear Medicine is still actively involved in all three of our primary business areas, namely service delivery, teaching and training, and research. Several doctors, scientists and radiographers from Africa received postgraduate training. Through our longstanding cooperation with the International Atomic Energy Agency (IAEA), we are involved in several IAEA activities, e.g. Prof. S. Rubow is the South African project counterpart for a radiopharmacy project on improving radiopharmacy practices in Africa. Service delivery is constantly under pressure because of manpower and equipment shortages.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor / Principal Specialist	1	1
Specialist	2	2
Registrar (Number only)	3	3 + 2 supernumerary
Radiopharmacist	1	1
Radiographers (Assistant director)	1	1
Radiographers chief	4	4
Radiographers senior	6	6
Radiographers community service	3	3

Output

TYPES OF STUDIES	NUMBERS
Cardiac: GSPECT	1107
Cardiac: Myocardial Perfusion Scintigraphy	1029
Cardiac: Ventricular Function	103
Cerebral Perfusion Studies and Receptor Imaging	65
Flow Studies	232
Gallium Scintigraphy	31
Gastrointestinal and Hepatobiliary studies	123
Haematologic studies	17



TYPES OF STUDIES	NUMBERS
Infection Imaging	73
Lung Scintigraphy: Perfusion	111
Lung Scintigraphy: Ventilation	146
Lymph Imaging	118
Miscellaneous Scintigraphy	155
PET/CT studies	382
Renal	29
Renal: GFR Measurement	90
Renography	236
Renography: Transplant	63
Skeletal Scintigraphy	1648
SPECT/CT Studies	701
Thyroid Clinic First Visit	257
Thyroid Clinic Follow-up	531
Thyroid I-131 Therapy	185
Thyroid Scintigraphy	273
Thyroid Uptake	272
Thyroid: Whole Body Iodine Scintigraphy	39
Endocrine (other)	69
Tomography (misc)	1471
Total	9556

Comment on output

During 2011 patient numbers increased by 15%, and procedures also by 15%. The number of private patients (H2, H3, private) increased further by 10% during 2011, generating invoices to the value of R872 192, an increase of 27%.

PET/CT scanning continued at the private practice in Panorama, and showed steady growth during 2011, with 24% more studies performed in 2011 than in 2010. Since the middle of 2011, an increasing number of MUGA scans for the evaluation of ventricular ejection fraction before and during chemotherapy have been performed, specifically for patients receiving cardiotoxic chemotherapy drugs.

There is ongoing close collaboration with clinical colleagues with participation in regular multidisciplinary meetings with Radiation Oncology, Pulmonology, Haematology, Radiology, and Psychiatry. Nuclear Medicine is still the only centre in South Africa performing Datscan and SISCOM studies, resulting in referrals from as far as Gauteng.

There was a relatively high cancellation rate of 13% of bookings, although this is slightly down from 15% in 2010. In addition 11% of studies were not completed during a single visit which is down from 15% – while this is normal for a minority of studies, it should not be the case for most. The division faces a number of challenges related to patient bookings which are due to a number of factors including difficulties faced by patients with contacting the hospital, and with transport (especially when coming from rural areas). In order to reduce this problem, great effort is made by staff to contact patients to confirm appointments and to ensure that they arrive timeously and correctly prepared for their investigations.

Medical Physics

Head of Division: Dr Wilhelm Groenewald

Summary

In the past year the Medical Physics Division contributed widely to the application of ionising radiation and to training in the use of radiation in the hospital and in the Faculty. Notable contributions included the involvement of medical physicists in the planning of the PET/CT Centre for the Western Cape and the implementation of new software on the CMS patient treatment planning computers in the Radiation Oncology Division. Medical Physics fulfilled required service obligations towards the Radiation Oncology, Nuclear Medicine and

Diagnostic Radiology Divisions, maintained the radiation monitoring service delivered to radiation workers in the hospital and supervised the safe use of LASER devices. Radiological physics and medical physics were lectured to registrars, physics students and student radiographers.

On the international front our staff members participated in the activities of the International Atomic Energy Agency (IAEA) on the African Continent. A number of courses and meetings were attended. Staff members actively participated in the operations of two IAEA projects, viz. Medical Physics to support Cancer Management on the African Continent and Information and Communication Technology on the Continent.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Senior Manager: Medical Physics	1	1
Deputy Manager	1	1
Assistant Manager	1	1
Medical Physicist	2	2
Intern Medical Physicist	1	1
Radiation Laboratory Technologist	1	5/8 Contract
Medical Technologist	1	1
Radiographer	2	1
Auxiliary Service Officer:	1	1
Secretary:	1	1

Output

MEDICAL PHYSICS AND DOSIMETRY	
Quality-control procedures on radiotherapy units	260
Patient-treatment plans checked	2659
Patient-treatments charts checked	2283
Radionuclide administrations	16
Radiation monitors issued to Tygerberg Hospital staff	5200
In vivo diode dosimetry system calibrations	150
Stability tests on doseimeters	12
Brachytherapy procedures checked	606

NUCLEAR MEDICINE	
Stability tests on dosimeters	312
Quality Control Procedures	1650

RADIATION TECHNOLOGY LABORATORY	
Alloy shielding filters	6
Plaster impressions	10
Bite blocks	60
Wax build-ups	20
Special devices	6

Comment on output

Since Medical Physics is a service provider to Nuclear Medicine, Radiation Oncology and Diagnostic Radiology, the number of Medical Physics procedures is generally determined by the activities of the divisions mentioned above.

RADIATION ONCOLOGY

Head of division (acting): Dr Magda Heunis

Summary

The division offers a full spectrum of oncological services; including Radiosurgery, Proton beam therapy and neutron therapy through association with iThemba LABS.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor	1	0
Head Clinical Unit	1	1
Specialist	4	4
Registrar	5 +2 (super-numerary)	7
Medical Officers	6	6
Radiographers	22	20 + 1 contract post

POSTS (SESSIONAL – HOW MANY HOURS PER WEEK)		
	NUMBER	FILLED
Locum posts	1 (20 hours per week)	1 (20 hours per week)

Output

THEATRE PROCEDURES	
New patients per year:	1 750
Outpatient visits:	18 184
Speciality Clinics:	6
Admissions:	1 532
Theatre procedures:	181
Planned patients:	2 283
Simulated and scanned patients:	3 680
Machine statistics (number of treatment fields):	59 953
Chemotherapy administrations:	7 377
S-tube insertions (X-block theatre):	116
S-tube treatment procedures:	606

Livelihood is a record-keeping system that was started as a pilot programme at Oncology. It proved highly successful and links in well with the Tygerberg main hospital system. Extension of the programme is in process.

Comment on output

Outputs in terms of machines are restricted due to radiographer shortage which in turn leads to long waiting lists.

Outputs in terms of chemotherapy are limited by: lack of 'modern' oncology systems, limited space, lack of oncology trained sisters and use of old drug schedules.

Outputs in terms of research and publications are limited due to skills shortage.

RADIODIAGNOSIS

Head of division: Prof Richard Pitcher

Summary

During the year 175 298 examinations were performed, representing a 9,1% increase in overall service delivery. There was a 13,8% increase in after-hour service load, with 62 523 studies – 35,6 % of the total workload performed outside normal working hours.

An additional consultant radiologist was appointed to the permanent staff.

MRI scanning times were extended beyond normal working hours to include service delivery between 16:00 to 19:00, Tuesdays to Thursdays. MRI in-patient waiting times have reduced from 13 to seven working days.

The CT service was extended to include routine use of the Emergency Unit scanner during normal working hours. Inpatient waiting times for CT scans have reduced from 10 to three working days and outpatient waiting times from 40 to 13 working days.

The division acquired two new ultrasound machines, which will significantly enhance service capacity in the coming year, particularly with respect to the mobile ultrasound service.

The division continues to derive immense benefit from the academic mentorship of Prof. Jan Lotz, who holds a supernumerary Ad Hominem Associate Professorship funded by the Private Radiological fraternity of South Africa.

The division was extremely fortunate to have the services of Dr David Legge, a retired Irish interventional radiologist who worked in the Division on a voluntary basis for six months and provided invaluable clinical supervision of registrars doing their vascular rotation.

The Department of Education (DoE) funding made provision for the part-time appointment of Prof. Richard Hewlett, whose outstanding teaching and clinical supervision greatly enhanced neuroradiology training. DoE funding also facilitated the initial planning to incorporate Prof. Hewlett's lifelong neuroradiology teaching file into our Division's digital archive.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Associate Professor/ Chief Specialist	1	1
Supernumerary Associate Professor/ Principal Specialist	1	1
Principal Specialist	0	0
Specialists	8	8
Registrars	20	20
Supernumerary Registrars	2	2

SESSIONAL SPECIALIST POST (HOURS PER WEEK)		
	NUMBER	FILLED
Specialists	1 (5 hours)	1 (5 hours)
Volunteer	1 (20 hours)	1 (20 hours)

Output

2011	
CT Scan	18 144 (6,4%)
Arteriography/Interventional Radiology	4 292 (-2,9%)
Ultrasound	11 773 (5,8%)
Chests	60 488 (7,2%)
General Examinations	67 134 (11,8%)
Special Investigations	7 348 (4,6%)
Mammography	3 159 (56,6%)
MRI	2 960 (15,3)
Total Examinations	175 298
Total Patients	140 479
Inpatients	50,73%
Outpatients	49,27%
Children (<14 years)	20,46%

Comment on output

While outpatient MRI waiting times decreased only slightly, from 110 to 100 working days, this must be seen in the context of a 15% increase in patient load and service delivery.

The apparent increase in mammography outputs is spurious and simply a reflection of a change in billing convention, which involves entering a bilateral mammogram as two examinations.

Nuclear Medicine

Infrastructure development

A major development was the acceptance of a donated PET/CT scanner from NTP Radiopharmaceuticals by the Western Cape Government in June 2011 and the resultant building of the PET/CT Centre commencing in September 2011 with funding from the Department of Health. An experienced radiographer to manage the centre was appointed in January 2012.

One of the existing dual head gamma cameras was upgraded to a SPECT/CT system. This allows Nuclear Medicine to do more SPECT/CT scans, to better localise lesions detected on the planar views or the SPECT.

Community outreach programmes

Nuclear Medicine has an active training programme for African students. Requests are regularly received

through the IAEA for specialist Nuclear Medicine training of physicians and other scientists from Africa, but also directly from students. These students are not remunerated by the Western Cape Government or Stellenbosch University, but play an essential role in maintaining a clinical service in the division. Unfortunately given the limited number of specialists in Nuclear Medicine at Tygerberg Hospital, numerous of these potential students cannot be accepted.

Partnerships

National

Profs Warwick and Ellmann served on the Council of the College of Nuclear Physicians (CNP) of the Colleges of Medicine of South Africa (CMSA), with Prof. Ellmann serving as president of the CNP until October 2011, and Prof. Warwick acting as its secretary and also serving on the Senate of the CMSA from October 2011. Prof. Warwick was also a member of an advisory board on Neuroendocrine tumours for Novartis. There is research collaboration with Prof. D. Stein of Psychiatry at the University of Cape Town. Prof. S. Rubow served on a committee of the Medicines Control Council of South Africa.

Profs Ellmann, Warwick and Rubow participate in the activities of the Nuclear Technologies in Medicine and the Biosciences Initiative (NTeMBI), operated under the aegis of the South African Nuclear Energy Corporation (Necsa). Prof. Rubow led the group that prepared a report on Radiopharmacy as scarce skill in South Africa for NTeMBI.

Both Profs Rubow and Ellmann were involved in training of radiography students at CPUT.

Private sector

There is good interaction between Nuclear Medicine and the private Nuclear Medicine practices. The collaboration with the private PET consortium continued in 2011. From time to time the private practices made use of our facilities. The division's consultants, including the radiopharmacist, were consulted from time to time by private nuclear physicians for opinions on some of their difficult cases. Prof. Warwick and Prof. Ellmann also participate in a multidisciplinary group for the optimal management of gastro-entero-pancreatic neuroendocrine (GEPNET) tumours. This is an activity with joint involvement of colleagues from the private sector and academic hospitals in the Western Cape. There is great need for such a collaboration as the management of these tumours is complex and often requires inputs from many specialities.

International

There is ongoing close collaboration with Prof. P. Dupont of the Laboratory for Cognitive Neurology and Medical Imaging Center, Catholic University, Belgium. There is also less formal clinical interaction with a number of experts internationally on an ad hoc basis to assist with the management of difficult or unusual cases.

Prof. Ellmann was invited by the International Atomic Energy Agency to advise the IAEA on staffing models in Radiation Medicine, and attended two meetings as part of an international expert group

Prof. Rubow was invited to lecture at an African Regional Training Course on Quality Control and Quality Systems in Radiopharmacy in Uganda in July 2011, under the auspices of the African Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA) section of the IAEA. As Project Coordinator for South Africa, Prof. Rubow also took part in the mid-term Project Coordination Meeting of the AFRA Project Strengthening and Expanding Radiopharmacy Services in Africa, during August 2011.

Achievements

Prof. Ellmann was a contributor to an IAEA publication in their Human Health Series (number 18), titled *Nuclear Cardiology: Its role in cost-effective care*.

The following papers were published:

Warwick J.M., Sathekge M.M. *PET/CT scanning with a high HIV/AIDS prevalence*. **Transf Apheres Sci** 2011; 44:167-172.

Warwick J.M., Rubow S., Du Toit M., Beetge E., Carey P., Dupont P. *The role of CT based attenuation correction and collimator blurring correction in striatal SPECT quantification*. **International Journal of Molecular Imaging** 2011; Article ID 195037

Ding J., Chen H., Liao W., Warwick J.M., Duan X., Qiu C., Zhang W., Gong Q. *Disrupted Functional Connectivity in Social Anxiety Disorder: A Resting State fMRI Study*. **Magn Reson Imaging** 2011; 29:701-711.

At the Divisional Research Meeting at the beginning of 2012, the division currently has two projects submitted for review or examination, 19 completed projects to be written up, 13 projects currently undergoing data acquisition and/or analysis, and two new projects in the process of protocol development and/or approval.

Other

Nuclear Medicine is involved in a multicentre coordinated research project of the IAEA, with participation from nine countries, looking at the *Longitudinal monitoring of complicated osteomyelitis by SPECT/CT in diabetic foot, post traumatic osteomyelitis with or without metal implants and endo-prosthesis joints infections*. Dr N Korowlay is the Tygerberg study leader.

Prof. Ellmann, with co-workers Drs Venesen Pillay (Nuclear Medicine registrar), and Hennie Botha and Haynes van der Merwe (gynaecology specialists) are involved in a multicentre coordinated research project of the IAEA, with participation from 11 countries, looking at *The use of sentinel lymph node detection in breast, melanoma, head & neck and pelvic cancers*. Prof. Ellmann is the Tygerberg study leader.

Teaching and Training

Nuclear Medicine is involved in the orientation of MBChB I students, and in lectures and middle clinical rotations of MBChB students.

One student completed the fellowship of the College of Nuclear Physicians of the CMSA. Three students from Africa continued their studies for the MSc in Medical Sciences (Nuclear Medicine) and one student obtained the MSc in Medical Sciences (Nuclear Medicine).

There are ongoing academic activities, including regular combined Nuclear Medicine meetings with Groote Schuur and Red Cross hospitals, meetings with Radiology, Journal Club meetings, seminars, and clinical multidisciplinary meetings.

Special achievements

The IAEA supported a national project to develop human resource capacity in PET/CT. As part of this project, NM sent Valencia Marcus (radiographer) for a three-month fellowship training in the Guys and St Thomas' Hospital in London, UK.

MEDICAL PHYSICS

Infrastructure development

Medical Physics played a significant role in procuring and commissioning of new radiation equipment. In this regard we may mention the successful specification and tender procedures for the PET/CT scanner for Nuclear Medicine and the commissioning of a software upgrade for the CMS XIO treatment planning computers in Radiation Oncology.

Community outreach programmes

Medical Physics maintains active involvement in the establishment and functioning of the Radiation Emergency Medical Advisory Centre of South Africa (REMACSA). REMACSA may, in case of a radiological incident, be activated via the Western Cape Disaster Management Centre.

Achievements:

Medical Physics staff members presented one paper at an international conference, two papers at a national conference and two papers and one poster at the Faculty of Health Sciences' Annual Academic Day.

Teaching and Training

Radiological Physics courses were presented to MMed and MSc students in Nuclear Medicine, MMed Radiation Oncology students, MMed Diagnostic Radiology students and to Diploma and BTech Radiography students. Students enrolled for the BSc Honours (Medical Physics) course received teaching in theoretical and practical aspects of Medical Physics.

Special achievements

IAEA activities: In the past year Medical Physics actively participated in activities of the IAEA under the African Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA) .

Tumelo Moalosi attended the Joint ICTP-IAEA School on Advanced Radiotherapy Techniques with emphasis on imaging and treatment planning in Trieste, Italy, from 4 to 8 April 2011. He also attended a three-month IAEA fellowship on Nuclear Medicine Physics in Sidney, Australia, from November 2011 until February 2012.

Anne-Mari Rossouw attended the 3rd AFRA ICT Workshop and the 3rd Project Coordination meeting in Abuja, Nigeria, from 31 October until 4 November 2011.

Hannelie MacGregor attended the IAEA regional training course on Quality Assurance in the Physical and Technical Aspects of Radiotherapy in Argonne, Illinois, America, from 12 to 23 September 2011.

Mohlapoli Mohlapholi attended the regional AFRA training course on Commissioning of Linear Accelerators and Treatment Planning Systems used in Radiotherapy in Abuja, Nigeria, from 26 until 30 September 2011.

Lelanie Nolan attended the regional AFRA training course on Nuclear Cardiology, Targeted Therapy and Infection in Rose Belle, Mauritius, from 5 until 9 December 2011.

RADIATION ONCOLOGY

Infrastructure development

Intensity Modulated Radiation Therapy (IMRT) was initiated and treatment is pending on further training of staff.

Community outreach programmes

International cooperation through the training of a supernumerary registrar from Uganda.

The overnight facility in Protea Hof is running successfully in collaboration with CANSA. Patients that come from far and need daily treatment but are not ill as to be admitted to hospital, can stay there. This facility houses 20 beds, provides food, and helps with social support and transport.

Partnerships

Continued clinical programme at iThemba LABS, Faure. iThemba LABS as a satellite centre of Tygerberg Oncology gets recognition from the HPCSA.

Private sector and International

Participation in international clinical trials.

Partnership between the Oncology Unit, Pulmonology and Calypso research, based in Seattle, America.

Successful candidate for fellowship at Columbia University: D43 educational grant: Columbia South Africa collaboration for HIV-related malignancies.

Achievements

Journal Articles (subsidised)

Barnardt P., Fourie A.E. *A Metastatic unclassified trophoblastic tumour with spontaneous bilateral pneumothoraces.* **South African Journal of Obstetrics and Gynaecology** 2011; 3(2):76-78.

Barnardt P., Narinesingh D. *Primary Breast Lymphoma And HIV/AIDS.* **Southern African Journal of HIV Medicine** 2011; 41:21-22.

Barnardt P. *The Radiological appearance of metastatic cystic lesions.* **SA Journal of Radiology** 2011; 15(4):131-132.

Simonds H.M., Wright J.D., Du Toit N., Neugut A.I., Jacobson S. *Completion of and Early Response to Chemoradiation Among Human Immunodeficiency Virus (HIV)-Positive and HIV-Negative Patients With Locally Advanced Cervical Carcinoma in South Africa.* **Cancer Research** 2011.

Chapters in Books

Simonds H.M. *Non-surgical treatment for malignant gynaecological conditions.* In **Clinical Gynaecology**, Juta, Cape Town, South Africa, 2011: 609-613.

Teaching and Training

- The department are providing two days training to fourth-year and fifth-year medical students.
- We have five registrars and two supernumerary registrars from Kenya and Uganda sponsored by the Kenyan government and the IAEA respectively.

RADIODIAGNOSIS

Infrastructure development

Department of Education funding facilitated the purchase of two digital diagnostic workstations to enhance consultant supervision of plain-film reporting. Minor building alterations to Faculty office space created a dedicated plain-film reporting tutorial room.

Community outreach programmes

Dr Georg Wagener was an invited speaker in the following educational outreach initiatives:

- Lectures to general practitioners and medical officers in Swellendam on *Basic chest X-ray interpretation* (25 March 2011) and *X-rays of the neck and upper extremity* (14 April 2011)
- Lecture to general practitioners and medical officers in George (22 September 2011) on *Basic approach to the lumbar spine and pelvis and X-rays of the lower limb.*

Our Division collaborated with the Western Cape Government, the Tygerberg Hospital Breast Clinic and PinkDrive on a pilot mammography screening project in the East Metropole.

Supernumerary registrar training for Africa

- The Division trained Dr Natasha Tjongarero (Namibia) in 2011.
- Supernumerary registrar posts for 2012 have been awarded to Dr Joseph Kabongo (Zambia) and Dr Archan Patel (India).

- Supernumerary medical officer posts for 2012 have been awarded to Dr P Ngoya (Tanzania), Dr P Champiti-Binauli (Malawi), Dr T Maboreke (Namibia) and Dr F Bah (Sierra Leone).

Partnerships

International

Visiting lecturers to the Department:

- Dr Oliver Wieben, assistant professor, departments of Medical Physics and Radiology,

University of Wisconsin-Madison, March 2011

- Dr George Sofis, Radiological Associates of Fredericksburg, America, March 2011
- Dr David Legge, Irish interventional/vascular radiologist, spent six months as a volunteer in the department, providing clinical supervision and teaching to the registrars

National:

College of Radiologists, Colleges of Medicine of South Africa

- Prof. Richard Pitcher convened the August-October 2011 FCRad (Diag) SA Part I and II Examinations, is Secretary of the College of Radiologists for 2011 to 2014 and will serve as the Chairman of the College of Radiologists' Education Committee for the same period.
- Prof. Jan Lotz served as Examiner for the August 2011 FCRad (Diag) SA Part I Anatomy and Physics Examinations and was Moderator of the August-October 2011 FCRad (Diag) SA Part II Examination.
- Dr Christelle Ackermann served as an Examiner for the August-October 2011 FCRad (Diag) SA Part II Examination.

Private sector:

A supernumerary, Ad Hominem Associate Professorship and Principal Specialist post is funded by the South African Private Radiological fraternity.

Provincial:

The 3 Tesla Magnetic Resonance Imaging (MRI), Cape University's Brain Imaging Centre (CUBIC), a joint initiative between the Universities of Cape Town and Stellenbosch, partly funded by Siemens, represents a collaboration between the universities in the Western Cape and private enterprise. Prof. Pitcher serves on the Management Committee and the Scientific Advisory Committee.

A three-month Paediatric Radiology rotation for Stellenbosch University registrars has been established

at Red Cross Children's Hospital, in collaboration with the Division of Paediatric Radiology at the University of Cape Town. This has proved extremely successful and laid the foundation for further teaching and research collaboration with the University of Cape Town.

Achievements

Publications

- 16 International publications
- 2 International proceedings
- 25 National presentations
- 20 National proceedings
- 4 National publications not subsidised

Other

- 2 Masters degrees successfully completed
- 5 Masters research projects completed
- 8 Masters research projects in progress
- 1 Doctoral research project in progress

Teaching and Training

Undergraduate Teaching:

Clinical Rotations

- Four didactic radiology lectures to second-year students are incorporated in the undergraduate curriculum.
- During the fourth or fifth undergraduate year Middle Clinical Rotation, students spend a week in Medical Imaging and Clinical Oncology, exposed to Radiology, Nuclear Medicine and Clinical Oncology, completing a project and end-of-block assessment.

Postgraduate Teaching:

Modular Academic Programme

This didactic postgraduate teaching programme is in its fourth year of operation with further refinement and some expansion of the academic programme. The following visiting lecturers were included:

- Dr C Koegelenberg, Department of Internal Medicine, Stellenbosch University, Acute Pulmonary Embolism, 19 January 2011.
- Dr Qonita Said-Hartley, consultant radiologist, University of Cape Town An approach to high resolution CT, 26 January 2011.
- Dr Christelle Buisson, Division of Paediatric Nephrology, Stellenbosch University, Paediatric Nephrology, 23 February 2011.
- Dr Oliver Wieben, University of Wisconsin-Madison,

MR Angiography – the past, present and future, 2 March 2011.

- Dr Veejay Daya, radiologist in Private Practice, Cape Town Cardiac MRI, 9 March 2011.
- Dr Derek Solomons, radiologist in private practice, Barium study – Techniques and Interpretation, 16 March 2011.
- Dr Antony Levy, radiologist in private practice, CT and MR enterography, 23 March 2011
- Prof. Stephen Beningfield, Head of the Division of Radiology, University of Cape Town, Hepatobiliary imaging, 4 May 2011
- Dr Tracy Kilborn, Head of the Division of Paediatric Radiology, Red Cross War Memorial Children's Hospital and University of Cape Town Hips to be paired (September 2011) and Langerhans cell histiocytosis (12 October 2011)
- Dr Pierre Goussard, Paediatric Pulmonologist, Stellenbosch University, The role of paediatric bronchoscopy, 5 October 2011

Special Postgraduate Students

Nine special postgraduate students were enrolled in the Division of Radiodiagnosis at Stellenbosch University in 2011.

Registrar Complement

A total of 20 postgraduate students (registrars) and one supernumerary registrar are currently in training. The registrar : consultant (FTE) ratio is currently 2.6:1

Three candidates successfully completed the Fellowship of the College of Radiologists of the Colleges of Medicine of South Africa. Two candidates were successful in the Master of Medicine, Radiological Diagnosis, Stellenbosch University.

Educational Research

A research project is currently being planned evaluating the Stellenbosch University final year registrar knowledge of the radiation dose and radiation risk from commonly requested radiological examinations.

International Undergraduate Students

Two international undergraduate elective students spent time in our department during 2011:

- Dr Ivan Norval from 28 February to 18 March 2011
- Nikola Lohse from 22 August to 11 December 2011

Special achievements

Prof. Pitcher served on the Provincial PACS-RIS Steering Committee and was Chairperson of the Bid-evaluation Committee for the Regional and District Hospital PACS-RIS Tender.

Radiological Publications

South African Journal of Radiology

- Prof. Jan Lotz is the Editor-in-Chief of the South African Journal of Radiology.
- Prof. Richard Pitcher and Dr Christelle Ackermann served on the Editorial Board of the South African Journal of Radiology.

South African Medical Journal

Prof. Pitcher was an invited reviewer for the South African Medical Journal.

Radiological Society of South Africa

Prof. Pitcher served as an Academic Representative on the Executive Committee of the Radiological Society of South Africa.

National Awards

- Dr Braham van der Merwe was awarded the Radiological Society of South Africa's Travel Award for the Best Oral Presentation of a Registrar Research Project at the Society's National Congress in August 2011.
- Dr Hein Els was awarded the Radiological Society of South Africa's Poster Prize at the Society's National Congress in August 2011.

MEDICINE

Department of Medicine

Professor MR Moosa

Summary

The department enjoyed a productive year, in terms of both its academic and service mandates. It has excelled in many spheres of activity, and members of the department continue to hold influential positions in the faculty as well as on a national and international level.

Among the major highlights of the year was the affiliation of the Centre for Medical Ethics and Law (CMEL) with the department as of October 2011. The department had a successful strategic planning workshop in July 2011, and three staff members obtained their doctorates. On the service side, highlights were the commissioning of a new cardiac catheterisation laboratory, donated by the DG Murray Trust, and the installation of a new reverse-osmosis system in the Renal Unit. HIV continues to have a major impact on services delivered by the department. Among the pioneers, Dr Weich inserted the first trans-catheter tricuspid valve in Africa and Prof. Bolliger published two first-in-man studies.

Personnel

Dr Neshaad Schrueder joined the department, taking over from Dr Andy Parrish as the head of the Division of General Internal Medicine. Dr Annemarie de Kock retired in October and her post was filled by Dr Abu Mowlana. It is pleasing to note that all vacant consultant and registrar posts were filled with minimum delay. Sadly, Sunelle Hanekom, the ever-efficient financial officer of the department, was offered a better position by the SU Business School and left the department at the end of the year. The untimely death of Mr Johan Mouton, the control technologist, has also left a huge vacuum. Following the formal approval of the affiliation of the CMEL with the department, Prof. Keymanthri Moodley and her staff were "transferred" to the department for reporting purposes. William Ferris, head of the Basic Science Laboratory, was promoted to associate professor.



Accolades

Several members of the department were recognised for outstanding contributions. Rector's awards were given to Anton Doubell, Marina Ackerman, Jenny Stopford, and Suzette Visser. Three registrars in the Department of Medicine, Drs Lou Hofmeyer, Mo Jansen, and Annari du Plessis, were voted the most outstanding clinical teachers by the undergraduate students (Tygerberg Student Council) - Dr Hofmeyer for the second consecutive year.

New National/International appointments

Prof. Moosa was reappointed for three years as a member of the International Board of Kidney Disease: Global Outcomes. Prof. Moosa was elected to the Council of the College of Physicians of the Colleges of Medicine of South Africa. Prof. Hough was elected to the Board of the International Osteoporosis Foundation, and Prof. Rosenkranz was elected as vice-president (for three years) of the South African Society for Basic and Clinical Pharmacology. In this capacity, Prof. Rosenkranz will be responsible for the World Congress of the discipline. Prof. William Ferris was elected vice-president of the Society for Endocrinology and Metabolic Diseases of South Africa. Senior staff members serve on various other boards and act as editors of national and international journals (see individual reports).

Table 1: Results of the Fellowship of the Colleges of Physicians examinations (FCP, 2011)

FCP PART I	FCP PART II	OTHER
Dr Mohammed Alteer	Dr Zane Stevens*	Certificate in Gastroenterology: Monique Marais
Dr Zaheera Cassimjee	Dr Danie Kotze	Certificate in Infectious Disease: Philip Botha
Dr Ankia Coetzee	Dr Sajith Sebastian	Certificate in Cardiology: Dr Lou Hofmeyr
Dr Robert Cooper	Dr Ighsaan Carr	Certificate in Endocrinology: Dr Marli Conradie
Dr Annari du Plessis	Dr Pieter de Witt	FC Neurology Part I: Dr Naeem Brey
Dr Ashnee Govender	Dr Hannes Koornhof	
Dr Donald Simon	Dr Riya Moodley	
	Dr Arifa Parker	
	Dr Pieter vd Bijl	
Pass rate: 50%	Pass rate: 100%	Pass rate: 100%
	*Medal	

Postgraduate students

The department maintained its excellent record of postgraduate results. The department boasted the acquisition of three doctorates – Drs Coenie Koegelenberg, Gerhardt Sissolak, and Micheline Sanderson, while Prof. Moosa supervised Dr Bates of Pathology who also obtained his doctorate. The department fared very well in the FCP examination, with a 100% pass rate in the Part II and subspecialty examinations. However, the pass rate in the Part I was only 50%, indicating room for improvement. One of our candidates, Dr Zane Stevens, scored the highest mark in the FCP Part II examination, the second year in a row that one of candidates has managed this achievement. A new basic science-teaching programme was launched to assist registrars in their preparations.

Undergraduate students

The teaching and training of undergraduate students remain one of the department's core functions. The pass rate in Internal Medicine is consistently above 90%. In an effort to improve undergraduate teaching, an initiative was launched under Dr Whitelaw to modernise the undergraduate programme. It is hoped that some of the recommendations made by the task team will find its way into the teaching and training programmes in the coming years.

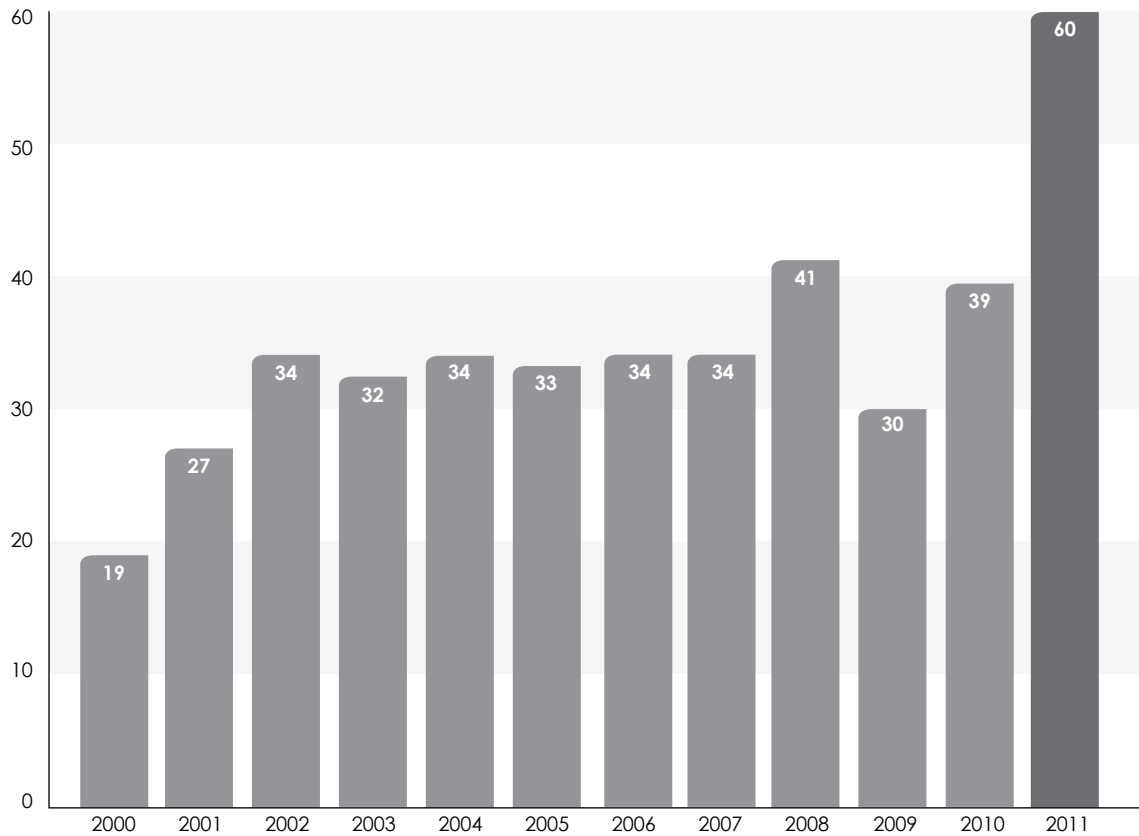
Physician's refresher course

This biennial event hosted by the department and organised by a team led by Dr Jantjie Taljaard, was held at the Lord Charles Hotel on 3 and 4 June 2011 and proved to be a great success. The theme was HIV disease and the physician. The course was attended by over 200 delegates from centres all around the country. The guest speaker was Prof. Francois Venter, who made an invaluable contribution.

Service delivery

The Department of Medicine provides a comprehensive clinical service to Tygerberg Hospital. These include basic services as well as all the services of the relevant sub-specialties. The department participated in the annual operational planning workshop of Tygerberg Hospital. At the meeting, areas that were highlighted as requiring attention were the Haematology Division's need for isolation facilities, the congestion in, and pressure on, the medical-admissions ward, the shortage of ICU beds, and the lack of an independent emergency-medicine centre. Also of concern were the service shifts which were envisaged with the commissioning of the new Khayelitsha Hospital. Outreach was an important activity, of which General Internal Medicine and Infectious Diseases had the lion's share.

Figure 2: Publications in 2011 compared to those over the past decade.



Academic activities

Aside from the teaching activities, the department has experienced a dramatic 54% increase in publications, reflecting the wealth of research activity taking place in the department (see Figure above). The growth in publications has been gratifying. Especially gratifying has been the increase in publications from our basic science laboratory under the guidance of Prof. William Ferris. Aside from the record number of publications, the Basic Science Laboratory also attracted significant grant funding totalling R700 000. These grants included awards from the Medical Research Council, the National Research Fund, and the Harry Crossley Foundation.

The coming year poses interesting challenges, but none that the department, together with the faculty and the hospital, cannot meet with alacrity.

General Internal Medicine

Dr N Schrueder

Background

The Division of General Internal Medicine (GIM) is the largest of the divisions in the Department of Medicine and carries a large service load. The division has had many new developments and changes during the year of 2011/12.

A new head of the division, Dr Neshaad Schrueder, was appointed after the resignation of Dr Parrish in 2010. This appointment includes a regional responsibility overseeing General Specialist Services for Medicine in the Metro East subdistrict. A commitment was made by Prof. Moosa (Executive Head: Medicine) and members of the Department of Medicine to improve and strengthen the GIM in 2011. This resulted in strategic planning sessions and meetings to redevelop and reorganise the division, under the leadership of the new head, into a highly functioning, effective, and efficient division within the Department of Medicine. The focus was on improving service delivery, teaching, and research. Momentum was gained by the appointment of two additional general-medicine consultants, Drs Abu Mowlana and Yazied Chothia. Dr Mowlana replaced Dr A de Kock, who retired in October 2011, and Dr Chothia was appointed into a new post.

Resources

GIM functions within four general wards, an eight-bed high-care ward, and the medical emergency unit and admission ward. A total of 154 beds were in use for the GIM for most of the year, with 10 beds added in April 2012 for the service shifts from the Khayelitsha subdistrict. The medical outpatients clinic runs four days a week in the C8 outpatients block.

Medical staff with primary responsibility in General Medicine include Dr Neshaad Schrueder (Head: GIM), Prof. Paul Brink, Dr Steve Walsh, Dr Abu Mowlana, Dr Braam Viljoen, Dr Philip Botha, and Dr Yazied Chothia. Other clinicians working in the division, providing a contribution from the subspecialist units, are Dr Manie and Dr Du Toit (Rheumatology); Dr Prozesky and Dr Taljaard (Infectious Diseases); Dr Bouwens (Geriatrics); and Dr Wilken and Prof. Van Rensberg (Gastroenterology).

Output

Admissions: F1 Emergency Unit	8 330
Admissions: Medical wards	5 473
MOPD visits	7 432

Medical ward admissions have remained stable but with a high bed-occupancy rate in excess of 90%, accompanied by an increase in the emergency workload. The need for a dedicated medical emergency area separate from the F1 Admission ward has become critical, especially after the Khayelitsha subdistrict service shift to Tygerberg Hospital.

Medical outpatient department (MOPD) numbers have remained stable, but an improvement in the new-to-follow-up ratio has been achieved with more new patients seen.

Activities and events Tygerberg Hospital

Improvement highlights include:

Service delivery

1. The management of the Medical Emergency Unit/ Admission ward has been improved. A dedicated consultant with a team on a shift system provide 24-hour cover. This has improved turnaround and decision-making in the emergency unit.
2. Daily ward rounds by consultants and after-hour cover of the High Care Unit has improved efficiency and clinical governance.
3. Discharge planning initiatives have been undertaken to improve efficiency and patient turnover in the medical wards.

Teaching

1. Postgraduate teaching has been enhanced by coordinating an organised programme, including mortality-and-morbidity meetings, journal-club meetings, topic presentations as well as an objective test for the postgraduate students.

2. The multidisciplinary teaching of Physiotherapy and Occupational Therapy to undergraduate students was coordinated.
3. Dr Botha and Dr Mowlana coordinated the undergraduate internal medicine clinical examinations.
4. The clinical grand rounds for all registrars continue and are coordinated by Dr Manie.

Management

1. A weekly divisional operational meeting has improved the communication within and coordination of the division.
2. A quality-assurance focus in all areas is intended to improve access to services with enhanced clinical care.

Khayelitsha District Hospital

The new Khayelitsha District Hospital (KDH) opened its doors for service on the 15 January 2012, after moving out of Tygerberg Hospital's J Block. The medicine and emergency medicine service was the first to be commissioned and has rapidly increased its activity at KDH, beyond the level anticipated. This has resulted in a steep increase in patient numbers referred to Tygerberg Hospital. To compensate, an additional 10 beds were commissioned in Tygerberg Hospital in Medicine in J1 with two Medical Officers, one Registrar and one Consultant post added to the Division. The division has been supporting the services at KDH strategically and has strongly motivated that an additional physician be appointed at KDH.

Outreach

District-level outreach has grown, with visits to Elsie's River Community Health Centre (CHC) (by Dr Schrueder), Stellenbosch Hospital (by Dr Taljaard), and weekly visits to Eerste River Hospital (by Dr Schrueder). There are bi-weekly ward rounds at KDH (by Dr Heys – Infectious Diseases, and Dr Schrueder). Dr Bouwens continues her much-valued outreach programme to neighbouring old-age homes.

Other activities

Information technology

1. Dr Steve Walsh continues to develop the postgraduate portal.
2. Access to the web-based NHLS Lab results portal was rolled out, with improved access to the information for patient care.

Publications

Carstens N, Van der ML, Revera M, Heradien M, Goosen A, Brink PA, Moolman-Smook JC. *Genetic variation in angiotensin II type 2 receptor gene influences extent of left ventricular hypertrophy in hypertrophic cardiomyopathy independent of blood pressure*. J Renin.Angiotensin.Aldosterone.Syst. 2011; 12(3): 274-80.

A research and publication agenda is being developed and discussions are on-going.

Division of Cardiology

Head: Prof. AF Doubell

Summary

The Cardiology Unit is an integral component of Tygerberg Hospital and the Faculty of Health Sciences of Stellenbosch University (SU). The clinical activities of the unit revolve around the 25-bed intensive care unit, the cardiac catheterisation laboratory, the echocardiography laboratory, and the outpatient clinic. Four clinics are held per week: three general cardiology clinics and one cardiology clinic specialising in: lipid disorders (in the first and third week of every month), severe heart failure (in the second week of every month), and adult ("grown-up") congenital heart disease (GUCh, every fourth week of the month). The service rendered and the teaching platform provided is very dependent on the Electrocardiogramme (ECG), the Holter ECG, stress ECG, pacemaker, echocardiography and the catheterisation service.

Our effort to achieve excellence in service delivery, teaching, and research is still hampered by critical shortages of staff (a Cardiologist, Medical Officer, technical staff and nursing staff). With regard to equipment, it must be noted that critical deficiencies still exist, for example, a lack of monitors in the emergency coronary care unit (A6) and in the echo unit, as well as a lack of echocardiographical facilities in the emergency areas of the hospital. However, an important step forward was the installation of a new cardiac catheterisation laboratory with the generous assistance of the DG Murray Trust. Building alterations had started in November 2010 and the new laboratory was officially opened on 7 December 2011.

Despite the challenges we face:

- cardiology has maintained its service excellence (once again thanks to the great personal sacrifice of staff members)

- good student teaching remains a hallmark of the unit
- the unit has managed to maintain a reasonable academic output, with nine publications; however, there is concern about the drop in numbers (15 in 2010) and a number of research programs have been launched to improve the output in 2012
- the unit has remained an important role-player among academic cardiology centres in the country, with Prof. Doubell being on the executive committee of the South Africa Heart Association as well as the editor of the official journal of this association, SA Heart, official Journal of the South Africa Heart Association. The journal now appears in electronic and printed form and is accredited by the Department of Education.
- Prof. Doubell received the SU's Rector's Award for General Achievement in 2011.

Staff

Professors

Prof. AF Doubell

Specialist Cardiologists

Dr H Weich

Dr P Herbst

The fourth Cardiologist post is currently filled by a senior registrar to increase our training capacity. This is a temporary measure for the next (three-year) training cycle.

Cardiologists in training

Dr Hofmeyr (completed training in November 2011)

Dr W Lubbe (training cycle started 1 December 2009)

Dr C Kyriakakis (training cycle started 1 January 2010)

Dr A Pecoraro (training cycle started 1 August 2010)

Dr Mokwunyei (supernumerary trainee from Nigeria – training cycle started July 2010 – departed April 2011)

Dr Kieran Mwazo (supernumerary trainee from Kenya – training cycle started August 2011).

Medical Officers

Dr HP Cyster

5/8 Medical Officer post in echocardiography vacant (this post is currently used to fund the post Dr Pecoraro is appointed in – supplemented with a Discovery grant awarded to Dr Pecoraro)

Research staff – US appointments

Prof L Burgess
Ms M Carstens

TECHNICAL STAFF

Control Technologist

1 (Y Singh)

Technologists

4 (S Ahmed, M Claasen/Van der Wal, A Husselman, JP de Villiers, M Swanepoel, P Rantoaleng, J Loubser)
(Ahmed, Claasen, Husselman and De Villiers resigned in 2011)

Technical Assistants

5 (M Africa, C Faroe, S Baron, H Charles, E Kainda)

Technology students

4 (P Rantoaleng, J Loubser, S Matshika, A Meiring)

ADMINISTRATIVE STAFF

Secretary Y Waller

Typist E Burger

Registrars

(Rotated for periods of six months)

Dr Bilal Bobat
Dr Kushroo Aubeelack
Dr Michael Cass
Dr Jacques Badenhorst

Dr Morne Vorster
Dr Keethal Somers
Dr Raquel Brauns
Dr Annari du Plessis

Emergency Medicine Registrars

(Rotated for periods of six weeks)

Dr Koekemoer
Dr Ndebele
Dr Maharaj
Dr Cloete

Coronary intensive care unit	8
Coronary high care	17
D4 (elective admissions)	5

Factors impacting negatively on service in the unit

1. STAFF SHORTAGES

Consultant

The last round of applicants for a training post in Cardiology yielded exceptional applicants. In order to train an additional Cardiologist, it was decided to keep a consultant post vacant for one training cycle (three years) and to appoint a Senior Registrar against this post. On completion of this training cycle the post will revert back to the consultant post.

Medical Officer

In order to create an additional research/training post in cardiology it was agreed with management to keep a post in Echocardiography (5/8 Medical Officer post) vacant in the short term in order to utilise this post to establish a research/training post for one training cycle (three years). On completion of this training cycle the post will revert back to the 5/8 Medical Officer post in Echocardiography. During this period the echocardiography service required from this post will be provided by the Cardiology trainee appointed against this post.

Technologists

We had three resignations this year, which put severe strain on our service while we had to find replacements.

Nursing staff

The acute nursing shortage in the coronary care unit continues to result in cases of suboptimal medical care, which is of grave concern.

2. LACK OF EQUIPMENT

Monitors

We are still awaiting monitoring equipment for the echocardiography laboratory (four monitors). The monitors required for A6 have been budgeted for in the next financial year.

Echocardiography machine

There is a growing need to provide an echocardiography service at the point of contact in the emergency areas of the hospital, particularly in the critical-care unit. This service is currently rendered by transporting very expensive equipment from the echocardiography unit to the emergency area. One new mobile machine has been allocated to the coronary care unit and should be delivered early in 2012. The provision of echocardiography facilities for F1 and the obstetric high-care unit are the next priorities. Thereafter the other intensive care units should be planned for.

Patient Statistics

IN PATIENTS	NUMBER
A6 Admissions: Unit	781
A6 Admissions:Ward	1312
D4 elective admissions	389
Total	2482
Patients seen in the emergency room	1087
Resuscitations	70

CONSULTATIONS	NUMBER
In patient consultations	949
Consultations from referring hospitals	2455
Total	3404

OUTPATIENTS	NUMBER
Cardiac Clinic	
New patient consultations	742
Follow-up patient consultations	3512
Lipid Clinic	
New patient consultations	54
Follow-up patient consultations	697
Adult Cardiology total	5005
Paediatric Cardiology Clinic total	1032

ELECTROCARDIOGRAPHY	NUMBER
Standard ECG	14345
Exercise ECG	1101
Holter recordings	172
Total	15618

ECHOCARDIOGRAMS	NUMBER
TTE ¹ (adult)	4567
TTE (paediatric)	525
TEE ²	139
Exercise stress echo	43
Dobutamine stress echo	139
Total	5413

CARDIAC CATHETERISATION	NUMBER
Left and coronary	1081
Femoral	333
Radial	748
Grafts (included in above)	40
Aortograms (included in coronary stats)	2
Coronary flow wires (included in coronary stats)	37
IVUS (included in coronary stats)	13
Pulmonary arteriogram (included under MVP, i)	31
Right heart studies	35
Total	1116

CORONARY INTERVENTIONS	NUMBER
PCI ³ (number of patients)	443
PTCA ⁴ balloons	335
Stents	455
Coronary aspirations (included above)	53

INTRA-AORTIC BALLOON PUMP (IABP)	25
PERCUTANEOUS MITRAL BALLOON VALVULOPLASTY	31

DIVER'S CARDIAC INTERVENTIONS	NUMBER
PDA ⁵ coils	0
Aortic valvuloplasty	5
Pulmonary valvuloplasty	1
Tricuspid valve replacement (TVI)	0
Coarctation stent	1
PFO ⁶ closure	0
ASD ⁷ closure	1
Myocardial biopsy (RA)	1
Loop recorder	2
Bronchial stent	3

VALVE SCREENING (FLUOROSCOPY)	38
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¹ TTE: Transthoracic echocardiography
² TEE: Transesophageal echocardiography
³ PCI: Percutaneous coronary intervention
⁴ PTCA: Percutaneous transluminal coronary angioplasty
⁵ PDA: Patent ductus arteriosus
⁶ PDO: Patent foramen ovale
⁷ ASD: Atrial septal defect

PERICARDIAL ASPIRATIONS	56
Pericardioscopy	13

PACEMAKER IMPLANTATION	NUMBER
New	99
Replacement	23
Lead replacement	0
Lead extraction	0
Epicardial lead	1
Total	122
VVI ⁸	59
VVIR	34
VDD	4
DDD	12
DDDR	6
CRT	5

TEMPORARY PACING	200
A6	66
Cathlab	134

PACEMAKER FOLLOW-UP	909
ICD ⁹ INSERTION	0
SWAN GANZ CATHETERS	0
ARTERIAL LINES	4
VENTILATION	78

Academic activities

The unit is actively involved in the departmental teaching programme.

Undergraduate

- The Cardiology module was presented to the second-year students. The clinical content of the module is under the chairmanship of Prof. Doubell.
- Student Interns (late rotation) rotate through Cardiology for a seven-day period during which intensive bedside teaching is presented. The middle-rotation students attend an ECG seminar weekly (two visits per student during their two-week rotation in Internal Medicine).

- The training of Technologists (four posts) accommodates the curricula of both the Central University of Technology (Free State) and the Durban University of Technology.

Postgraduate

- A structured teaching programme was presented to Registrars rotating through Cardiology for six months at a time.
- The Registrar training programme was significantly expanded during 2010 and now includes structured and supervised echocardiography training under the guidance of Dr Herbst.
- Prof. Doubell was an examiner in the August/October Certificate in Cardiology examination.

Continued Medical Education

- An echocardiography outreach programme for Paarl Hospital has been presented to and accepted by the management of Tygerberg Hospital. The required equipment will be provided jointly by the hospital management and the Division of Cardiology (Stellenbosch University Cardiology Research Fund).

⁸VVI – CRT: These acronyms are the abbreviated names of pacemakers with a variety of functions.

⁹ICD: Implantable cardioverter defibrillator

Outstanding achievements in 2011

H Weich

Dr Weich performed a unique transcatheter tricuspid-valve replacement (second ever reported, first in Africa).

A Doubell

Prof. Doubell received the SU's Rector's Award for General Achievement, is a member of the executive committee of the South African Heart Association, and the editor of the cardiology journal *SA Heart*.

Research output

Subsidised journal articles

1. Esterhuysen A, Van der Westhuizen K, **Doubell AF, Weich H**, Scheffer C. *Application of the finite element method to the fatigue life prediction of a stent for a percutaneous heart valve. Journal of Mechanics in Medicine and Biology.* In press.
2. Smuts AN, Blaine DC, Scheffer C, **Weich H, Doubell AF**, Dellimore KH. **Application of finite element analysis to the design of tissue leaflets for a percutaneous aortic valve. Journal of the Mechanical Behaviour of Biomedical Materials.** 2011; 4: 85-98.

2011 Highlights

Tygerberg Children's Hospital welcomes new technology



The funds required to purchase a new portable echocardiography machine for TCH were donated on 18 August 2011 by Pareto, South Africa's premier shopping-centre investor and a leading industry player in retail property.

The machine, valued at R500 000, is portable and light-weight and is about the size of a laptop, whereas the previous echocardiography unit was large and heavy, which made it difficult to move.

Dr John Lawrenson, Head of the Paediatric Cardiology Service of the Western Cape testing the new portable echocardiography machine.

Tygerberg Children's Hospital welcomes donation of the Retcam



Dr Nicola Freeman demonstrating how the Retcam works.

Tygerberg Children's Hospital celebrated the official handover of the RetCam on 9 March. The RetCam is a device with a computerised camera that is used to examine the eyes (retinas) of babies and older children. The RetCam will assist with the early detection and prevention of visual impairment due to retinal injury after oxygen therapy, as well as with the detection of eye cancer (retinoblastoma) in older children.

Tygerberg Hospital is one of three institutions in South Africa that acquired this special device with the help of donations from the KidsRights Foundation in Holland (R730 000), the Foschini Group (R50 000) and Pareto Limited (R360 000). Tygerberg Children's Hospital is the only institution where the device is used to examine the retinas of young babies.

Jean De Villiers visits Tygerberg Children's Hospital



12 year old Gixwon De Kock sharing his dream with Jean De Villiers. On 9 June 2011 Stormers and Springbok rugby player Jean De Villiers who is the ambassador for the medical scheme Resolution Health visited the Tygerberg Children's Hospital. He encouraged the children with a message of hope saying that "they are the future of this country; they are the people who have to take this country to the next level". The faces of the sick children lit up during the interaction with their role model, some were even speechless.

DG Murray Trust donated a new Cardiac Catheterisation Laboratory (Cath Lab) to Tygerberg Hospital



The opening of the new Cath Lab was held on 7 December. The DG Murray Trust donated a Cath Lab worth millions to Tygerberg Hospital. Dr Beth Engelbrecht, Deputy Director-general: Secondary, Tertiary and Emergency Care of Western Cape Government Health, officially received the donation.

The value of the new Cath Lab equipment amounts to approximately R13 million, and the infrastructure upgrades an additional R1.5 million (the latter paid for by Western Cape Government Health).

From left to right: Dr D Harrison (CEO, DG Murray Trust), Dr P Ciapparelli (COO, TBH), Dr B Engelbrecht (DDG: Secondary, Tertiary and Emergency Care of the Western Cape Government), Mr D Orton (Chairperson of the Board DG Murray Trust), Prof J Volmink (Dean, University of Stellenbosch) and Prof A Doubell (Head of Cardiology, University of Stellenbosch).

Cardiac Intensive Care Unit welcomes donation of 28 beds



Mediclinic Southern Africa donated 28 new beds to the Cardiac Intensive Care Unit as part of their corporate social investment (CSI) programme. These beds valued at R 500 000,00 replaced all the beds in the cardiac unit (Ward A6).

Above are Minister of Health Mr Theuns Botha and Unit Manager Ms Muriel Jones with a patient.



Next photo from left to right: Prof Anton Doubell, Ms Natalie Wolfaardt, Dr Dimitri Erasmus (TBH CEO), Minister of Health Mr Theuns Botha, Dr Beth Engelbrecht (DDG: Secondary, Tertiary & Emergency Care of the Western Cape Government), Mr Dawood Khan (Hospital Board member), Mr Koert Pretorius (MCSA CEO), Mrs Rachel Basson (Director: Nursing) and Dr Revere Thomson (Manager: Medical Services)

2011 Highlights

Tygerberg Hospital Nursing School 2011 Certificate and Nursing Pledge Ceremony



Forty-two learners from the Tygerberg Hospital Nursing School made their Florence Nightingale Pledge and received their training certificates and badges as enrolled nurses on 22 September 2011.

The group consisted of four different classes and included honorary students and officials from Community Services, Psychiatry, and rural hospitals. The guest speaker at the function was Ms Florence Africa, Director of Nursing Services in the Western Cape.

22nd Hartman Memorial Ceremony for Clinical Excellence in Nursing



On 21 September 2011 Tygerberg Hospital hosted its 22nd annual Hartman Memorial Ceremony at the Disa Hall.

The ceremony, named after Miss M Hartman, the first Chief Matron at Tygerberg Hospital, is held to award nurses for their excellent services during the year. Candidates were nominated within their modules from the three nursing categories i.e. professional nurse, enrolled nurse and enrolled nurse auxiliary.

Paediatrics Module Clinical Excellence in nursing nominees from left: Ms Susan Lyners, Ms Maria Koopman, Ms Mary Adonis, Ms Deidre Pitts, Ms Alice Harmse, Ms Mariana Humphries, Ms Sintie Lawrence, Dr Dimitri Erasmus, Ms Lee-Ann Hammers, Ms Sylvia Webster

Ms Spring Beauty Pageant



Tygerberg Hospital hosted its first Ms Spring Beauty Pageant. The contestants were our very own staff members, who staged a first-rate beauty pageant that had the crowd cheering throughout. The following sponsors: Donna-Claire, Northlink College, Woolworths Parow Centre, Moondrops, Old Mutual, Liberty Promenade Mall (Pep Stores), Pilano Fashions, Beauty and Wellness Centre Parow, Protea Hotel Tyger Valley, Achmats Fruit Stall and Feedem Caterers contributed to the success of the day.

Contestants with Ms Spring 2011, Ms Jennifer Juta (front row, centre), are Ms Olivia Sanders (First Princess and Ms Photogenic, left) and Ms Thembela Pongoma, (Second Princess, right). In the second row, middle is Ms Lorraine de Vries (Ms Personality), and Ms Laticia Pienaar (Principal Communications Officer)

Launch of the PET/CT Scanner



The launch of the Positron Emission Tomography – Computed Tomography (PET/CT) Scanner was held on 25 November 2011 at the Gene Louw Building. The launch was an intermediate stage of the installation of the PET scanner worth R32 million at Tygerberg Hospital (TBH). This project was made possible by a partnership between Western Cape Government Health, and NTP Radioisotopes (Pty) Ltd and its parent company Necsa.

PET is a modern medical functional imaging technique used in the management of patients with cancer. It is also used in infection and inflammation, Cardiology and Neurology. The PET technique provides accurate diagnosis, staging and restaging in certain cancers, and allows rapid evaluation of the efficacy of therapy. PET has led to changes in treatment options and prevention of unnecessary surgical procedures in a significant number of patients.

Attending the launch from left is: Ms Mapula Letsoalo (NTP: Executive Director), Ms Manette De Jager (Hospital Board Chairperson), Ms Rachel Basson (Director: Nursing), Dr Beth Engelbrecht (Deputy Director General: Secondary, Tertiary & Emergency Care) Dr Matodzi Mukosi (Manager: Medical Services) and Mr Joseph Valentine (Hospital Board member)

2011 Highlights

Staff End-of-year Celebrations



The hospital facility board hosted its staff end-of-year celebrations on 29 and 30 November and 1 December. Emo Adams and the band Take Note entertained the staff on the three days and the MC was Ashley Pienaar. Lucky draws were held where the winners took home Emo's picture and they also had an opportunity to take pictures with Emo. Capitec bank gave away watches to some of the lucky winners and lunch was served to all staff members.

Lucky draw winners won a photo opportunity with Emo Adams.

From left to right: Ms Nomakhaya Thembekwana, Ms Charlene Coetzee, Mr Hiram Miggel, Ms Berenice Adams, Emo Adams (back centre), Ms Sophia Dawson, Ms Hermien Temba, Mr Andries Boois, Ms Wilhemien Charles, Ms Maria Sindi and Ms Mary-Anne Hofständer



Father Christmas at the party with sisters Amber and Adriene Armerville

TCH 2011 Christmas party

The Public Relations Department hosted the annual children's Christmas party on 9 December. The party catered for 400 children that came from various surrounding areas and that were either inpatients or outpatients at the hospital. It was made possible by the generosity of various sponsors who supplied entertainment and donated food and gifts to the children. The entertainment included a magic show by Jabulani the Clown, Spiderman, Dora the Explorer, Moshe and Kami from Takalani Sesame, and face-painting. There were various musical performances by the band Acoustic Element, the Durbanville High School and Jaydon Valentine.

Penny the Fairy painting Faiz Claasen's face



The Kfm Truck of Love brings Christmas cheer to TCH



Ms Laticia Pienaar and Father Christmas wheeling in gifts for Tygerberg Children's Hospital's patients

On the morning of 9 December the Kfm Truck of Love delivered 400 Christmas gifts to the patients of Tygerberg Children's Hospital (TCH). The truck with the Kfm staff received a warm reception from the excited TCH patients and their parents.



Father Christmas handing a gift to one of TCH's patients

Casual Day



Staff at Tygerberg Hospital supported the rights of persons with disabilities dressing like rock stars or musicians from their favourite musical era.

From left to right: Ms Anneke Warwick, Mr Jordan Faro, Ms Glenda Esterhuizen and Ms Samantha Basson

2011 Highlights

New smiles for Western Cape kids



During the annual Vodacom Smile Week at Tygerberg Hospital, 27 children with facial conditions received reconstructive surgery. Conditions of the children being operated on included Cleft Lip and Palate, ear conditions, some cranio-facial conditions, and burn wounds. Premier Helen Zille and the Minister of Health Mr Theuns Botha paid a visit and interacted with the patients and their parents.

Princess Irene of Greece visits Tygerberg Children's Hospital



Princess Irene of Greece, President of the non-profit organization World in Harmony and Ms Sonia Catris (vice President) visited Wards A9, G9 and G8 at the Tygerberg Children's Hospital (TCH) on 14 March 2011. World of Harmony donated 60 sleeping couches as well as diagnostic equipment to the TCH.

Nathalie with her son Nathan seated on one of the couches that was donated by World in Harmony. During the day the couch serves as a chair and at night it folds out as a bed for mothers to sleep next to their sick child.

Premiers visit to Carel du Toit Centre



On 22nd June, Premier Helen Zille visited the Carel du Toit Centre, where Deaf Children learn to Speak, at Tygerberg Hospital. At the end of her visit Ms Zille said, "I wish ALL deaf children could have the same quality of education as they have at the Carel du Toit Centre."

Julian Marx (left), Meagan May and Alana Muller welcoming the Premier

International Nurses' Day



The nurses of Tygerberg Hospital were treated with facials, manicures, pedicures and make-up at a special event to celebrate International Nurses' Day on. Each nurse was greeted with a warm smile and a flower on arrival, and presented with a card to show the hospital's appreciation for their hard work.

International Day of the Midwife



Many midwives around the world celebrated International Day of the Midwife on 5 May. The purpose of the day was to celebrate midwifery and to bring awareness of the importance of midwives' work to as many people as possible.

At their display from left: Ms Jennifer Sapto, Ms Rachel Basson, Ms E Van Zyl, Ms Charmaine de Villiers, Ms Desiree Joseph and Dr Simon Moeti (Manager: Medical Services)

Annual Open Day



The second annual open day was hosted at Tygerberg Hospital and once again the committee outdone themselves with the showcasing of the unique services that the hospital renders.

A community member having her blood pressure tested at the Outpatients Departments stall.

Staff Wellness Day



The annual Staff Wellness days were held on 11 and 13 October 2011. Staff were treated to wellness screens and back and neck massages. Sister Thami Matyeni checking Ms Marilyn Pypers's blood pressure.

3. **Terblanche M, Burgess LJ**, *Cardiovascular trials in Africa: Advantages and Pitfalls*, **SA Heart**; Autumn 2011; 8(2): 114-121.
4. Van Aswegen KHJ, Groenwold AA, Scheffer C, **Weich H, Doubell AF**. *Investigation of leaflet geometry in a percutaneous aortic valve with the use of fluid-structure interaction simulation*. **Journal of Mechanics in Medicine and Biology**. 2011; 11(5): 1-15.
5. **Weich H**, Ackermann C, Viljoen H, Van Wyk J, Mabin T, **Doubell AF**. *Transcatheter aortic valve replacement in a patient with an anomalous origin of the right coronary artery*. **Catheterization and Cardiovascular Intervention**. In press.
6. **Weich H**, Janson J, Van Wyk J, **Herbst P**, Le Roux P, **Doubell A**. *Transjugular tricuspid valve-in-valve replacement*. **Circulation**. 2011; 124(5): e157-60.

National and international proceedings

1. **Kyriakakis CG, Weich H, Doubell AF**. *Percutaneous pericardioscopy in tuberculous pericarditis: improving the diagnostic yield*. Twelfth Congress of the South African Heart Association, East London, South Africa 2011. **SA Heart**. 2011; 8(4): 238.
2. **Lubbe W, Doubell AF, Herbst P**. *Pericardial Constriction: Haemodynamics in a nutshell*. Twelfth Congress of the South African Heart Association, East London, South Africa 2011. **SA Heart**. 2011; 8(4): 240.
3. **Stevens Z, Doubell AF**. *Retrospective audit of percutaneous balloon mitral valvuloplasty: Experience over the last 14 years at Tygerberg Hospital*. Twelfth Congress of the South African Heart Association, East London, South Africa 2011. **SA Heart** 2011; 8(4): 257.

Presentations at the Annual Academic Day of the Faculty of Health Sciences, Stellenbosch University

1. Kyriakakis CG, Weich H, **Doubell AF**. *Percutaneous pericardioscopy in tuberculous pericarditis: Improving the diagnostic yield*. 2011.
2. Stevens ZD and **Doubell AF**. *Retrospective audit of percutaneous balloon mitral valvuloplasty: Experience over the last 14 years at Tygerberg Hospital*. 2011.
3. Van der Bijl P, Heradien M, Brink PA and **Doubell AF**. *QTc prolongation prior to angiography predicts poor outcome and associates significantly with lower left ventricular ejection fractions and higher left ventricular end-diastolic pressure*. 2011.

Other ongoing research

Pericardial disease

- We are investigating the use of adenosine-deaminase (ADA) isoenzymes in tuberculous effusions.
- The role of pericardioscopic percutaneous pericardial biopsies in the management of tuberculous effusions.

Myocardial disease

- assessment of left ventricular function in patients with severe pre-eclampsia

Valve disease

- the role of atrial natriuretic peptide (ANP) and brain natriuretic peptide (BNP) in predicting the outcome of balloon mitral valvuloplasty
- the long-term outcome of mitral balloon valvuloplasty – a ten-year audit (will complete in 2011)
- markers of risk for thromboembolism in mitral stenosis
- percutaneous valve replacement
- novel echocardiographic assessment to determine the severity of mitral stenosis
- developing new echocardiographic criteria for the diagnosis of rheumatic valvular heart disease.

New technology

- Evaluation of heart sounds with the aid of an "auscultation jacket" – collaborative research project involving the Department of Mechanical and Mechatronic Engineering. Currently investigating the value of laser-based sensors of heart sounds.

Contract research

- The unit has an active drug-trial unit and continues to be a leader in this field in the faculty.

National cooperation and partnerships

Prof. Doubell is the founder of the National Cathlab Registry initiative, which aims to recruit all cardiac catheterisation laboratories (cathlabs) in the country to participate. The registry continues to launch at new sites. Currently the roll-out of this program is being extended to all cathlabs wishing to participate.

Division of Dermatology

Prof. H. Francois Jordaan

Summary

The missions of the department, namely effective administration, basic research, excellent service delivery, undergraduate teaching, postgraduate teaching and outreach, were achieved satisfactorily.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Associate Professor Principal Specialist	1	1
Specialist	1	1
Registrar	4	4
Medical Officer	1	0
Supernumerary Registrar	2	1

POSTS (SESSIONAL – HOW MANY HOURS PER WEEK)		
	NUMBER	FILLED
Specialists		
Part-time posts	1 4 hrs per week	1
Locum posts	1	1
Full-time equivalents	4 hrs per week	-

Output

OPD visits:	11 340
Patch tests:	22
Admissions:	7 to 8/month
Theatre procedures:	±1000

Comment on output

Patients were consulted by two specialists and six registrars. Patients expressed satisfaction with the quality of service. Special investigations such as skin biopsies for dermatopathology and patch tests contributed to the effective management of patients.

Approximately 90 inpatient patients were managed. The commonest reasons for admission were widespread or complicated psoriasis, widespread dermatitis refractory to treatment, subepidermal blistering disorders, and patients with HIV-associated skin lesions.

Co-operation with other departments are promoted actively. Registrars from Family Medicine and Occupational Medicine rotate through Dermatology and see patients at OPD.

Infrastructure development

Installation of an Olympus multihead teaching microscope.

NB-UVB cabinet for the treatment of complicated skin disease.

Community outreach programmes

- Continuation of a monthly outreach clinic at Worcester Hospital – 120 patients managed (increase of 30%)
- South to South Partnership for Comprehensive HIV care and treatment (6 lectures)
- Course at University of Fort Hare, East London Campus: HIV and the Skin
- Radio interviews: RSG and Radio Tygerberg
- Educational lectures to members of the public
- Teaching lectures to GP's as a component of a GP Refresher Course
- Consultations at HIV Clinics in KZN and the Eastern Cape (Ukwanda initiative).
- Lecture at NWU (Annual Symposium of Diseases Relevant to South Africa)
- Lectures (2) at the 32nd Annual Medical Congress in Windhoek, Namibia
- Involvement in Telemedicine & eHealth, an MRC and MTN initiative

Number of publications 1

Teaching and Training

Elective students 4

Special achievements

- Prof. H.F. Jordaan – member of the Melanoma Advisory board
- Prof. H.F. Jordaan – member of EXCO of the DSSA
- Prof. H.F. Jordaan – examiner MMED Part 2, UFS
- Dr WI Visser obtained the Good Clinical Practice certificate
- Dr SMH Kannenberg received a Galderma Award for a publication in a peer-review journal.
- Dr WI Visser lectured nationally and internationally on the cutaneous side effects of the Epidermal Growth Factor Receptor Inhibitors.

Division of Endocrinology

Prof. B.H. Ascott-Evans

Summary

Consolidation of teaching, training and outreach programmes.

Establishment of fully fledged combined Pregnant Diabetic clinic with Prof. Hall.

FSH elected to serve on Internal Osteoporosis Federation (IOF) Board, as representative for Africa.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor	2	2
Specialist	1	0
Senior Registrar	1	1
Medical Officer	2	2
Med.Tech	1	1

Number of beds (usable):	13	2 shared with GIT
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Output

Outpatient visits:	2 457
follow-ups	
Speciality Clinics:	427 new patients
Admissions (Ward A 10):	440
DEXA scans:	820
Referrals seen (not in clinics)	3 150

Comment on output

High load and turnover of often very complex cases requiring extensive investigation.

Quaternary referral centre for certain conditions.

Partnerships

National:

Prof. F.S. Hough – Chairman of NOFSA

Editor-in-Chief of JEMDSA (official journal of SEMDSA)

Chairman: Organising Committees Fifth NOFSA-IOF Advanced Training Course (Cape Town)

BAE: section leader of Department of Health (and SEMDSA) 2011 Diabetes guidelines

International:

Prof. F.S. Hough – Member of Scientific Advisory Committee of the International Osteoporosis Foundation (IOF).

Member of the Membership Committee of the International Bone and Mineral Society (IBMS)

Member of the Advisory Committee of the American Paget Foundation

Ordinary Member of the American Endocrine Society, American Society for Bone and Mineral Metabolism, etc.

Various: multiple presentations at national and international conferences

Private sector

BAE: on advisory boards of international (local affiliate) pharmaceutical companies,

Achievements

Number of publications from the department/division. Text books and contributions to text books. 14 - 3

Teaching and Training

FSH Chair: Departmental Postgraduate Committee

Co-coordinator: New Postgraduate Diploma in Pharmaceutical Medicine

FSH and BAE: Promotor or examiner of M and D degrees

Special achievements

Prof F S Hough: Elected to the Board of Governance of the International Osteoporosis Foundation.

William Ferris promoted to Associate Professor

(1) Elected as a member of The Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA) executive committee and vice Chairman of the society.

(2) Awarded the SEMDSA prize for the best paper in 2010-2011 by South African investigators in the field of diabetes for the manuscript Ferris W.F., Marriott C.E., Ali T., Landy C., Campbell S.C., Macfarlane W.M. The Tumour suppressor Pcd4 is major transcript that is upregulated during in vivo pancreatic islet neogenesis and is expressed in both beta cell and ductal cell lines. *Pancreas*. 2011 Jan;40(1):61-6.

(3) With Hanel, awarded the SEMDSA prize for the best paper by South African investigators in the field of endocrinology for the manuscript: Sadie-Van Gijzen H., Crowther N.J., Hough F.S., Ferris W.F., Depot-specific differences in the insulin

response of adipose-derived stromal cells. Mol Cell Endocrinol. 2010 Oct 26; 328 (1-2):22–7.

PhD completion and graduation: Micheline Sanderson

Lab funding and awards

- Medical Research Council (MRC) Self-initiated Grant (WFF)
- MRC career development grant (HSVG)
- MRC PhD bursary (CLB)
- NRF PhD bursary (MvdH)
- Harry Crossley Foundation Research Funding (WFF, M vd H, CLB, EA)
- Other research grants (community-outreach studies):

Grants

- MRC Self-Initiated Grant (PI Stephen Hough): A study on the effects of antiretroviral drugs on bone and mineral metabolism
- Harry Crossley Foundation Research Support Grant (PI Dr M Hoffman – PhD candidate): Prevalence and clinical significance of acanthosis nigricans in mixed race populations in the Western Cape.

Other:

- Dr Marli qualified as endocrinologist.

Gastroenterology and Hepatology Unit

Prof. C. J. van Rensburg

Summary

Academic activities related with the Department of Internal Medicine, Department of Pathology and General Surgery

Consultation of patients with gastrointestinal problems

Diagnostic and therapeutic gastrointestinal endoscopic service

Gastrointestinal motility laboratory service.

Training of students and fellows in gastroenterology

Collaboration with NHLS

Training of Anaesthetist (Diploma in Sedation & Pain Management)

Training of International elective students

Academic Year day: 17 & 18 August 2011

Lectures for third- and fourth-year medical students.

Member of the South African Gastroenterological Society (SAGES)'s executive committee (academic portfolio)

Members of South African Gastrointestinal Nurses' Society (SAGINS)

Member of Continued Professional Development Committee

Member of the Laser Committee

Active participation at interviewing new senior medical staff

Original research in collaboration with the Surgery Department, Groote Schuur Hospital and the International Centre for Genetic Engineering and Biotechnology, UCT

Examiner for the CMSA (Prof. C J van Rensburg)

Editor of the South African Gastroenterology (Official Journal of SAGES)

Editor of the World Journal of Gastroenterology (Prof. C J van Rensburg)

Member of various committees:

- Management Committee
- Departmental Resources Committee
- Postgraduate committee (Dr E Wilken) The senior registrar successfully completed Certificate of Gastroenterology in May 2011. Dr. Marais gave a presentation on HIV cholangiopathy, at the annual physicians' refresher course in June 2011,.

Various workshops and congresses were attended:

Dr Marais was invited to, and attended, the IBD10 in Vienna, from 17 to 19 November 2011.

The consultant and registrar attended the Liver morning master class, on 3 December 2011.

The fellows' weekend for gastroenterology was attended by Dr M Marais, at Spier, outside Stellenbosch.

SAGES 2011 Annual Congress, from 12 – 16 April 2011

Various members of the unit attended the congress.

Prof. Van Rensburg chaired various sessions.

Dr M Marais attended the United European Gastroenterology Week in Stockholm, Sweden from 19 to 27 October 2011.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor Principal Specialist	1	1
Specialist	1	1

POSTS (FULL-TIME)	NUMBER	FILLED
Registrar	1	1

POSTS (SESSIONAL – NUMBER OF HOURS PER WEEK)		
	NUMBER	FILLED
Part-time posts	1	1

Number of beds (usable):	2
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Outpatient visits

Follow-up patients:	9 526
New patients:	3 892
Total	13 418

Theatre procedures

Gastroscopy	3 978
Colonoscopy	1 859
Sigmoidoscopy	129
ERCP	306
Laser treatment	0
Dilatation (patients were referred to GSH)	81
Stent placement	81

Comment on output

The output is comparable to the previous year. Lack of equipment, medical officer and specialist personnel, and lack of administrative support and resources made routine service delivery unsatisfactory and at times impossible. The Manometry Laboratory is not in operation at the moment, due to a lack of staff training. Patients are referred to GSH.

Infrastructure development

We have received:

- two endoscopic washing machines (the construction of the wash room is still in progress)
- one colonoscope with light source and processor
- three electrical theatre beds.

The manometry system and a colonoscope were condemned.

Community outreach programmes

During the annual colonoscopy surveillance outreach programme, to the West Coast from 15 to 19 August 2011, several colonoscopies and gastroscopies were performed (Prof. C J van Rensburg).

Prof. Van Rensburg and Dr M Marais published a chapter in book:

Management of acute peptic ulcer bleeding.

ISBN: 978 – 953 – 307 – 976 – 9. Editor: Jianyuan Chai.

Partnerships

National:

In participation with UCT the following projects:

“The role of genetic polymorphisms of carcinogen metabolizing enzymes in the development or susceptibility to oesophageal cancer.” Reference number: 040/2005

The efficacy of profound acid inhibition with Esomeprazole 40 mg bd to reverse –C-MYB mRNA expression in patients with Barrett's oesophagus. Reference number: M08/07/036.

Achievements

Feasibility questionnaires were completed for a number of studies.

Number of publications from the department / division	5 +1
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Teaching and Training

Actively involved in the daily training of undergraduate Stellenbosch students.

Postgraduate registrars in Surgery and Internal Medicine – 8 per year.

Currently 2 registrars are registered to do their MMed projects.

International elective students from Europe and Cuba are trained here.

Special achievements

Research interests/projects:

1. Establishment and maintenance of University of Stellenbosch Barrett's oesophagus access database for research purposes (which currently contains approximately 150 patients).
2. Genetics in Barrett's oesophagus: the identification of clinically informative biomarkers within the spectrum of gastro-oesophageal reflux disease in the South African population.
3. A study of hepatitis B virus resistance in HIV-infected and HIV-uninfected patients at Tygerberg Hospital: Drs M Andersson, W Preiser, CJ van Rensburg and J Taljaard.

Division of Haematology

Dr. Fatima Bassa

Summary

- The division continues to be very busy, with increasing numbers of very ill patients with complex referrals.
- In July 2011, a subspecialty registrar was appointed, presently on a borrowed post. We will need to get a dedicated post for haematology for the future.
- Rotation of haematopathology registrars through the clinical unit began in June 2011. They rotate for four months at a time.
- Approval for the development of the Haematology high-care unit was obtained. Many meetings have been held to design and implement the proposal. Work is scheduled to start in 2012.
- Approval for the extension of the chemotherapy suite in X block was obtained. Negotiations for the expansion of the outpatient clinic continue.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Consultants	2	2
Senior Registrar (borrowed post from Pulmonology)	1	1
Registrars (rotating)	2 from Department of Medicine, 1 from Department of Haematopathology	

Output

Follow-up outpatient visits:	5513
New outpatient referrals:	410
Admissions:	539
Number of patients given chemotherapy:	1741

Comment on output

The number of referrals, admissions and chemotherapies handled increases each year. The new referral above reflects only new patients referred to the clinic. It does not include inpatient referrals and telephonic consultations.

Challenges:

- The rotation of registrars lasts for only three months, and the registrars have minimal prior experience. Consequently they need close supervision, which is very labour intensive. A possible solution would be to consider appointing a senior medical officer that can be trained and who will be a permanent member of the team.
- The appointment of a senior registrar is a milestone, but it is difficult to ensure that the registrar spends the required year rotating through Haematopathology. The appointment of a medical officer will assist with this problem as well.

Infrastructure development

As noted above, there is continuous collaboration with various stakeholders to create a high-care unit and upgrade outpatient facilities. Work is in progress, and requests for updating old equipment and for new equipment for the high-care unit have been submitted.

Community outreach programmes

At present we do not have capacity to run outreach activities, because our present commitments within the hospital, both clinical and academic, are overwhelming. The need to improve Haematology services in the outlying areas is acknowledged and will be considered in the future.

Partnerships

Collaboration with the University of Nebraska continues through the D43 grant. Last year two members from Tygerberg Hospital went on a training programme thanks to this project. The D43 team leaders visited Tygerberg Hospital in December 2011.

We work closely with the Department of Haematopathology. The rotation of the Haematopathology registrar through Clinical Haematology started in July 2011.

Research with the Tygerberg lymphoma study group continues.

Research output

1. Abayomi EA, Somers A, Grewal R, Sissolak G, Bassa F, Maartens D, Jacobs P, Stefan C, Ayers LW. *Impact of the HIV epidemic and Anti-Retroviral Treatment policy on lymphoma incidence and subtypes seen in the Western Cape of South Africa, 2002-2009: Preliminary findings of the*

Tygerberg Lymphoma Study Group. **Transfus Apher Sci.** 2011; 44(2): 161-166.

- Louw V, Bassa F, Dreosti L, Du Toit M, Gunther K, Jogessar V, Mahlangu J, McDonald A, Patel M, Ruff P, Sissolak G, Webb MJ. *Guideline for the treatment of myelodysplastic syndromes (MDS) in South Africa.* **SAMJ.** 2011; 101(12): 900-906.

Postgraduate students

PhD completed

Dr G Sissolak. Impact of rituximab on standard chemotherapy for diffuse large b-cell lymphoma subtyping using a new immunohistochemistry algorithm.

Supervisor: Prof. P Jacobs

Master's completed

Dr D Kotze. Retrospective analysis of treatment outcome in HIV positive and negative patients with Burkitt's lymphoma treated in Tygerberg Hospital.

Supervisor: Dr G Sissolak

Dr R Moodley. Retrospective clinical audit of treatment outcome in adult patients with acute Myeloid Leukemia at Tygerberg Hospital from 2000 – 2009.

Supervisor: Dr G Sissolak

Dr P de Witt. AIDS-related diffuse large B-cell lymphoma at Tygerberg Hospital, Cape Town, South Africa

Supervisor: Dr G Sissolak.

Ongoing research

Master's

Dr MP Cass. Evaluation of patients with neutropenia at the Haematology Unit at Tygerberg Academic Hospital.

Supervisor: Dr Fatima Bassa

Patient accrual was completed March 2012

Teaching and training

- We are actively involved in the undergraduate training programme and contribute towards both the teaching and assessment of undergraduates.
- We teach and assess third-year students taking the Haematology module.
- Dr Bassa is the coordinator for the late rotation in the Department of Medicine.
- We teach visiting elective students from the University of Nebraska's Medical Centre, on both an undergraduate and postgraduate level.

- We participate weekly in the postgraduate teaching programme in the Department of Medicine.
- We are also participants of the combined clinical Haematology-Haematopathology postgraduate teaching programme.

Division of Infectious Diseases

Dr. Jantjie Taljaard

Summary

Outpatient service

The Tygerberg Hospital Infectious Diseases Clinic (IDC) has prepared and initiated more than 3 500 patients on antiretroviral therapy (ART) since January 2004.

This is a primary-level service and the initiation of ART at Tygerberg Hospital was an interim measure to allow capacity development in the subdistrict. Provincial efforts to develop more ART clinics in the TBH area did, however, not keep track with the spread of the HIV epidemic to the North-Eastern metro. Our clinic initiated a PEPFAR-funded project (Share Care) in 2008 to support the Province in establishing new clinics by identifying areas in need, training staff, and delivering interim pharmacy and nursing services. The Bishop Lavis Clinic was opened and became fully functional in 2011. Elsie's River Clinic was also opened in 2011, but has not been fully transferred to the Province. The next clinic which will be opened in 2012 as part of this programme will be Kasselsvlei (Bellville South). The project's funding comes to an end in September 2012. This initiative made it possible to transfer 409 patients to a more appropriate level of care (100% increase). In spite of this, the total number of patients on ART increased, and we had more than 2000 extra clinic visits compared to 2010.

In spite of the increasing primary-care burden on the clinic, we still need to fulfil our Level 2/3 function. Adding to already existing integrated specialist clinics (HPV/Cx Ca screening, HBV/HIV co-infection, and high-risk PMTCT) the HIV Renal Disease Clinic was established in 2011 in collaboration with the Division of Nephrology.

A business plan was drafted by Dr Taljaard (in collaboration with General Medicine and TBH management) for the establishment of a Level 2/3 HIV rapid assessment unit. The projected time for implementation is September 2012, but relies heavily on our ability to decrease the number of primary care patients accessing care at TBH.

The electronic database facilitating patient care and follow-up contributes significantly toward faster consultations, better communication with clinics and to the ability to audit output.

The HIV pharmacy became operational in April 2011 and shortened patients' total visit time to between 1 and 4 hours depending on the time they arrived at the hospital.

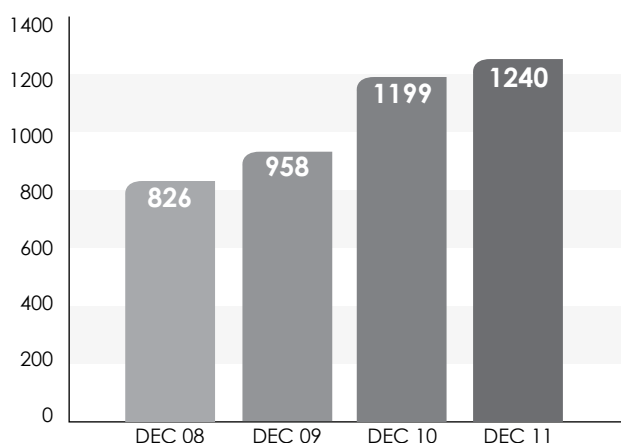
Inpatient service

Infectious diseases inpatient services are delivered on a consultative basis. Registrars see the patients as soon as possible after referral and all cases will be discussed on the daily consultant round. The average number of consultations per week is 15, and most consultations originate from the General Medicine wards, Obstetrics High Care and Medical High Care wards. During 2011 an effort was made to start more patients on ART in hospital in an attempt to decrease mortality of the severely ill HIV patients. In 2012 this initiative will also include ICU patients.

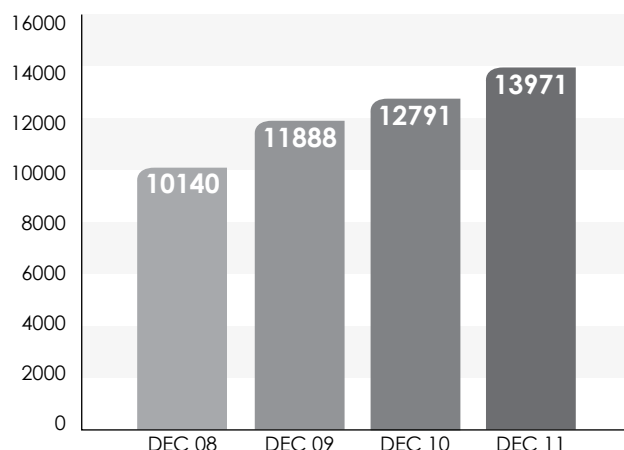
Weekly antibiotic stewardship rounds in surgical and medical ICUs, in collaboration with Medical Microbiology, continue to take place.

A business plan for the establishment of an isolation ward for medical patients was drafted by Dr Taljaard on instruction from TBH management and the Unit for Infection Prevention and Control. The estimated time for structural changes to Ward D10 is early 2013.

Patients on ART at TBH IDC (2008 – 2011)



TBH IDC - Total number of clinic visits (2008 – 2011)



Outreach

Monthly outreach visits to TC Newman, Paarl Hospital, Worcester and Brewskloof Hospital continued, as well as weekly outreach visits to Khayelitsha Hospital. The weekly visits to Khayelitsha are made possible by PEPFAR funding which will discontinue in September 2012.

Lack of capacity is preventing us from increasing our scope of outreach in the region. Other areas in great need for support include Karl Bremer Hospital, Stellenbosch Hospital and Malmesbury Hospital.

Khayelitsha Hospital is in need of more continuous specialist physician/Infection Diseases support.

Management

Quarterly multidisciplinary business meetings take place in order to continuously evaluate the care that is being delivered. Staff members represented at the meetings include doctors, nurses and pharmacists.

Monthly mortality and morbidity meetings – mortalities are discussed in detail and used as a learning opportunity to change or enhance our patient care.

TBH Antibiotic Stewardship Committee under chairmanship of Dr Kurt Maart has continued with its activities throughout 2011, and specific projects have been identified for 2012.

Teaching

Dr Cronje Heys completed his first year as a supernumerary Infectious Diseases fellow. Dr Taljaard took over the chair of the Infectious Diseases and Immunology module for fourth-year students. All the members of the division, Drs Botha, Prozesky, Thebe and Zeier, are involved in undergraduate teaching.

All the members of the division were involved in CME activities during 2011 including STI-management courses for nurses and HIV management courses for doctors, nurses, and pharmacists.

Elective medical students from the Netherlands, Germany, Sweden and Denmark are exposed to HIV care and assist with research projects; this has been an enriching experience for staff and students alike.

A new addition to our academic programme is a monthly clinical meeting with HAST subdistrict doctors and nurses. The idea is to discuss difficult-to-manage patients, disseminate information on guidelines and to share the latest developments in infectious diseases locally and worldwide.

The collaboration with the University of Fort Hare continued in 2011. The group of 35 registered nurses were the fifth group of students to complete the one-year course in advanced management of HIV infected patients. As usual, the course included highly successful practical mentorship visits to Tygerberg Hospital during September. This course aims to prepare and empower nurses to initiate ARV therapy in the communities they serve, and is aligned to the National initiative NIM-ART.

Our collaboration with the Irish Internal Medicine training board has resulted in the very successful rotation of a second Irish ID subspecialist registrar for the first 6 months of 2011.

Research

The HIV Research Unit located within the clinic is conducting a number of clinical research projects. The combination of research and clinical care benefits patients by offering additional procedures and treatment and provides funding for additional health-care team members – 40% of staff are funded by research. Current protocols include our ShareCare down-referral project, HPV Project (a study investigating the effect of cART on HPV infection in HIV-positive women), the hepatitis cohort study, and a comparative study of the progression of cervical dysplasia in HIV-infected vs. non-infective women.

Apart from publications in journals the team has also completed several clinical audits and contributed to academic meetings.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Sub-specialist Grade 2 (shared with Division of General Medicine)	2	2
Principal Medical Officer (full time)	2	2

POSTS (FULL-TIME)	NUMBER	FILLED
Subspecialist Registrar	0	0

POSTS (SESSIONAL – HOURS PER WEEK)		
	NUMBER	FILLED
Specialist	6	6

Output

Specialist Clinics

ADULT ART STATS	2008	2009	2010	2011
New started on art	368	399	511	491
Transfer out (tfo)	192	170	202	409
Transfer in (tfi)	18	38	56	86
Lost to follow (lff)	104	111	139	174
	(11%)	(10%)	(10%)	(12%)
Deaths	21	26	31	28
	(2%)	(2%)	(2%)	(2%)
Total number on art	826	958	1 199	1 240

ADULT HIV CLINIC VISITS	2008	2009	2010	2011
Doctor Visits	5 888	6 593	7 324	7 233
Nurse Visits	4 241	5 293	2 281	4 233
Pharmacy Visits	-	-	3 184	2 505
Total Clinic Visits	10 140	11 888	12 791	13 971

Comment on output

The fact that outpatient numbers are increasing in spite of efforts to down-refer patients to a more appropriate level of care is alarming. If we cannot decrease the numbers by 50% in 2012 it will be impossible to fulfil our mandate of delivering an appropriate level of care to the subdistrict by establishing a Level-2 or -3 referral unit.

Infrastructure development

The ARV pharmacy moved from the main pharmacy on the ground floor to the IDC on the 8th floor of TBH, in August 2011. Old toilets were converted into a space suitable and large enough for our needs. The move from the main pharmacy was necessitated by the fact that we wanted to deliver a better service to our clients (shorter waiting times, more personal and

confidential care), to have a closer relationship with our ARV pharmacist, who are an integral part of our team (patient queries and meetings easier due to proximity) and to alleviate the pressure on the main pharmacy with regards to storing space, and space to accommodate the patients.

A baby nappy-changing area was also taken into use, with the new urine-test room which includes a toilet for wheelchair patients.

Community outreach programmes

Adolescent services

(babies born with HIV surviving to adolescence)

Although not a new initiative, the adolescent service is growing dramatically. This service is currently not part of the provincial HAST vision and is sustained by PEPFAR funding. The funding comes to an end in September 2012. A camp was arranged in April 2011 in collaboration with the Anglican Church of Durbanville. The aim of the camp was to strengthen relationships between the children, empower them to be independent, and for them to meet up with the peer educators. Because the Anglican Church has adopted the children, in terms of the provision of programmes they will go on excursions on a continuous basis.

The expert patient initiative

An "expert patient" from the community was paid by PATA (Paediatric Aids Treatment for Africa) to assist clinic staff during 2011 with small patient-related tasks, focussed on the family living with HIV and AIDS. She led the mother information groups in the clinic. This initiative gives hope to new patients entering the system and also empowers patients who have lost their jobs and income due to their HIV diagnosis.

Partnerships

National

Dr Taljaard:

- was appointed to the Provincial AIDS Council under chairmanship of the MEC for Health
- is a member of the Provincial HAST Policy Advisory Forum
- was a co-writer of the Provincial Infectious Diseases Framework accepted as an official policy document of the Province in 2011
- took part in the Stellenbosch University Rural Medical Education Partnership Initiative (SUR-MEPI)
- was project leader for two activities as part of this

NIH grant and collaborates with the Knowledge translation Unit at UCT lung institute on another activity

- did research capacity building at Brewelskloof TB Hospital in Worcester Hospital by establishing a research forum and developing a clinical database for clinicians. A data capturer will be appointed in 2012 and research projects will be identified with the aim to publish in peer reviewed journals
- held CME activities to Worcester HAST, Worcester Family Medicine and Internal Medicine Divisions and Brewelskloof TB Hospital via a monthly combined academic and clinical meeting at Worcester Hospital
- will be introducing PALS-plus HIV/TB/STI training to undergraduate medical students as part of the ID theoretical module – this initiative is the first of its kind in the country and will start in February 2012
- trained primary-care nurses at the University of Fort Hare's School of Nursing in the management of HIV, TB, and STIs.

Dr Prozesky

- is the principal site investigator for the leDEA Southern Africa HIV data-collection initiative. Specifically piloting the programme - **To determine TB outcomes by linking South African ART programmes with provincial TB registries – at Tygerberg Hospital**
- is a national EDL committee member

Achievements

1. Du Toit R, Whitelaw DA, Taljaard JJ, Du Plessis L-M, Esser M. *Lack of specificity of anticyclic citrullinated peptide antibodies in advanced human immunodeficiency virus infection.* **Journal of Rheumatology** 2011; 38(6): 1055-1060.
2. Keiser O, Chi BH, Gsponer T, Boule A, Orrell C, Phiri S, Maxwell N, Maskew M, Prozesky HW, Fox MP, Westfall A, Egger M. *Outcomes of antiretroviral treatment in programmes with and without routine viral load monitoring in Southern Africa.* **Aids** 2011; 25: 1761-1769.
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9. Nachega JB, Rosenkranz B. Targeting tuberculosis and HIV/AIDS: a global progress report of a deadly partnership. **Infectious Disorders - Drug Targets** 2011; 11(1): 96-97.
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12. Maher D, Harries AD, Nachega JB, Jaffar S. Methodology matters: what type of research is suitable for evaluating community treatment supporters for HIV and tuberculosis treatment? **Tropical Medicine & International Health** 2011; 00: 1-8.
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14. Bakanda C, Birungi J, Mwesigwa R, Ford N, Cooper C, Au-Yeung C, Chan K, Nachega JB, Wood E, Hogg RS, Dybul M, Mills EJ. Association of aging and survival in a large HIV-infected cohort on antiretroviral therapy. **Aids** 2011; 25: 701-705.

Teaching and Training

Undergraduate

Appointed chair of Infectious Diseases and Immunology module

Postgraduate

Subspecialisation in infectious diseases – Dr Cronje Heys (first year)

MMed project leader – Dr Arifa Parker (HIV outcomes in Medical ICU)

Post-basic training for nurses in HIV management (University of Fort Hare) - J Taljaard (lectures), family-clinic doctors and nurses (one week TBH practical rotation).

Elective students

Dr Ciaran Bannan visited our unit for a six-month period, from January to June 2011. He is a senior Infectious Diseases fellow from Ireland.

Undergraduate elective students from the UK, Sweden, Germany, the Netherlands and Denmark visited our division in 2011 for periods of 1 to 3 months.

Special achievements

Treating a large number of chronic-disease patients with regimens unforgiving of non-adherence while at the same time streamlining patient flow to avoid treatment fatigue requires more than a regular clinic visit. The Infectious Diseases Clinic's interactive clinical database is running smoothly, although paper-based note-taking is still preferred by physicians and required by hospital regulations. Here it is done on a template which is a per-visit updated report of previous diagnoses, treatment status, medications and laboratory investigations. Prescription errors are mostly eliminated and doctors respond to prompts, easing rotating staff into their new jobs. Monitoring and reporting of clinical conditions, treatment associated adverse events, mortality and morbidity reports, provincial statistics, and collaboration on national and Southern African cohorts have all been made possible by electronic record-keeping. Transfer-out letters are instantly created and neatly summarise years of data in an instant. Apart from the Infectious Diseases Clinic database, the Infectious Diseases consultation database keeps a record of referrals, while the COLPOS database, and the the soon-to-be-implemented lymphoma and hepatitis databases form secure, convenient, and powerful server-based tools for retrospective and future monitoring of these cohorts.

Since HIV is a chronic disease, patients are expected to remain on treatment for decades; but many move to other provinces, only to return to our care after a year or two. The future choice of treatment regimens for these patients depend on good record-keeping and ease of access to clinical notes. The lack of storage space in the clinic has prompted the implementation of an e-filing system. The system is web-based, giving doctors remote access to patient folders and management protocols of Infectious Diseases and HIV. Offices are consequently being liberated from overflowing filing cabinets and mountains of clinic folders. The database has now expanded to include support to the newly established HBV/HIV Co-infection Clinic in collaboration with the divisions of Medical Virology and Gastroenterology.

An example of information generated by a database:

Adults

NUMBER OF PATIENTS WHO STARTED DURING THE MONTH	
GENDER	TOTAL
Female	17
Male	11
Total	28

NUMBER OF PATIENTS ON TBH ROLL-OUT BY THE END OF THE MONTH	
GENDER	TOTAL
Female	750
Male	449
Total	1199

NUMBER OF PATIENTS WHO STOPPED TBH ROLL-OUT ART DURING THE MONTH		
GENDER	ENDPOINT	TOTAL
Female	Died	2
Female	Interrupt Therapy for Rollout	1
Female	Lost to Follow Up	16
Female	Transferred	4
Male	Died	1
Male	Lost to Follow Up	14
		38

Division of Nephrology

Prof. M.R. Davids

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Nephrologists	3	3
Registrars	4	4

Output

Admissions:

Ward A7	
Total	270
Patients on chronic dialysis at year-end:	
Haemodialysis	63
Peritoneal dialysis	40

Outpatient Department (OPD) visits for the year:

Nephrology OPD – (new 327, follow up 1 723)	2 050
Peritoneal Dialysis Clinic	595
Transplant Clinic	2 805
Haemodialysis Units	8 075

Procedures:

Haemodialysis: Chronic	7 353
Haemodialysis: Acute	698
Plasmapheresis:	168
Charcoal haemoperfusion:	5
Kidney biopsies:	186

Kidney Transplants:

New renal transplants	19
Living donor transplants	10
Surviving patients followed up at Tygerberg Hospital	164
Cumulative total transplants	893

Assessments for dialysis or transplant programme:

Total assessed	225
Accepted	55
Not accepted	148
No decision	22

Infrastructure development

A new reverse osmosis water treatment system was procured. The water quality improved dramatically.

Community outreach programmes

The Nephrology training of fellows from the developing world continues: Dr Wala from Kenya. Dr Manadhar from Nepal completed his training. These fellows are mainly sponsored by the International Society of Nephrology. Dr Adeniyi from Nigeria has completed the MSc Clin. Epi. degree.

Public-private initiatives (PPIs) with the Paarl and Vredenburg units of National Renal Care and the Hermanus unit of Fresenius Medical Care continues successfully. This improves access to dialysis and improves quality of life of patients involved.

Partnerships

International:

Involvement in the PACT cohort study with other African centres and Harvard University School of Public Health.

Collaboration with Clinical Infectious Diseases (CID) and others on the HIV and renal disease project.

Achievements

Dauids M.R., Chikte U.M.E., Halperin M.L. *Development and evaluation of a multimedia e-learning resource for electrolyte and acid-base disorders. Advances in Physiology Education* 2011; 35: 295-306.

Adeniyi A.B., Adeniyi F.B., Davids M.R. *The use of inferential statistics in clinical research: Between hypothesis testing and confidence interval. South African Rheumatology Journal* 2011; 3(2): 16-19.

Congress presentation: Volmink J., Laurence C., Davids M.R., Naude C., Adeniyi A.B. *Partnership for Cohort Research and Training (PaCT): pilot study, South Africa. IEA World Congress of Epidemiology Symposium.* Edinburgh, Scotland, August 2011.

Supervision of Masters Research Projects

Prof. Davids: Supervisor of Dr Aderemi Adeniyi – MSc (Clinical Epidemiology) at Stellenbosch University 2011. Project title: *The prevalence of chronic kidney disease and its association with cardiovascular risk factors among teachers in South Africa: A Partnership for Cohort Research and Training (PaCT) pilot study.*

Supervision of Doctoral thesis

Prof. Moosa: Supervisor of Dr William Bates. Thesis Title: *Hepatitis-B-associated glomerular disease: A clinicopathological study of hepatitis B virus associated membranous glomerulonephritis in Namibian and South African children 1974-2005 and a comparison with hepatitis B associated*

membranous glomerulonephritis as well as idiopathic glomerulonephritis in adults. The degree was awarded December 2011.

Sabbatical

Dr Johan Nel undertook a short sabbatical to Leuven, Holland, from July to August 2011.

Teaching and Training

Internal Medicine registrars trained in nephrology (Drs Pretorius, Brauns, Bezuidenhout, Pellizon, Jooste, Sauls, Jansen, Nwankwo, Simons, Du Toit and Swart). Dr Chothia completes his subspecialist training successfully in March 2011. Dr Sebastian begins his subspecialist training in September. Undergraduate MBChB students obtained a good pass rate in Nephrology.

Division of Neurology

Prof. J. Carr

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Specialists	3	3
Registrars (Number only)	2	2

POSTS (SESSIONAL – HOW MANY HOURS PER WEEK)		
	NUMBER	FILLED
Specialists	1	1

Output

Outpatient visits:	3 494
Speciality Clinics Admissions:	325
Theatre procedures:	
EEG:	1 385
EMG:	548
Sleep Studies:	36

Community outreach programmes

Monthly outreach to Worcester Department of Medicine and outreach service to Helderberg Hospital continued, in addition to the EEG service to Worcester Hospital.

Achievements

1. Keyser R.J., Oppon E., Carr J., Bardien S. *Identification of Parkinson's disease candidate genes using CAESAR and screening of MAPT and SNCAIP in South African Parkinson's disease patients. J Neural Transm.* 2011 Jun; 118(6):889-97.

2. Zatzirua V., Butler J., Carr J., Henning F. *Neuromyelitis optica and pulmonary tuberculosis: a case-control study*. *Int J Tuberc Lung Dis*. 2011 Dec; 15(12):1675-80.
3. Ross O.A., Soto-Ortolaza A.I., Aasly J.O., Abahuni N., Annesi G., Bacon J.A., Bardien S., Bozi M., Brice A., Brighina L., Van Broeckhoven C., Carr J., Chartier-Harlin M-C., Dardiotis E., Diehl N., Ferrarese C., Ferraris A., Friske B.J., Gibson B., Gibson R., Hadjigeorgiou G., Hattori N., Heckman M.G., Jasinska-Myga B., Jeon MD B.S., Kim Y.J., Klein C., Kruger R., Kyrtzi E., Lesage S., Lin C-H., Lynch T., Maraganore D.M., Mellick G., Nilsson C., Nuytemans K., Opala G., Park S.S., Pedersen N.L., Puschmann A., Quattrone A., Sharma M., Silburn P.A., Sohn Y.H., Stefanis L., Tadic V., Tomiyama H., Ryan J., Uitti R.J., Maria Valente E.M., Van de Loo S., Vassilatis D., Vilariño-Güell C., White L.R., Wirdefelt K., Wszolek Z.K., Wu R-M. and Farrer M.J. on behalf of the Genetic Epidemiology Of Parkinson's Disease (GEOPD) consortium. *LRRK2 exonic variants and susceptibility to Parkinson's disease*. *Lancet Neurology* 2011.
4. Bardien S., Lesage S., Brice A., Carr J. *Genetic characteristics of leucine-rich repeat kinase 2 (LRRK2)-associated Parkinson's disease*. *Parkinsonism & Related Disorders* 2011; 17(7):501-8.

Division of Pharmacology

Prof. B. Rosenkranz

Summary

Services:

The service function of the Division of Pharmacology includes Therapeutic Drug Monitoring (TDM, 32 drugs) and the operation of the nationwide Tygerberg Poison Information Centre, both offered as a 24-hour service. A total number of 23 732 samples were analysed in the TDM laboratory in 2011, of which 60% were for Tygerberg Hospital as the main customer. The remainder of laboratory analyses was for other provincial hospitals and for various outreach services.

The Tygerberg Poison Information Centre provided 6 263 consultations in total. A total of 41% of the cases were related to non-drug chemicals, 40% to drug overdoses, 9% to biological exposures and 10% was non-patient related calls. A total of 39% of the calls came from the Western Cape and remarkably, 61% actually came from other provinces, some even from outside the country.

Members of the Division actively participated in the Drug and Therapeutics Committee, the Provincial Pharmacy and Therapeutics Committee and the Ethics Committee of the Faculty of Health Sciences.

Teaching:

Undergraduate and postgraduate programmes for medical and physiotherapy students were successfully presented by the Division of Pharmacology.

The contact sessions of the first Diploma in Pharmaceutical Medicine course were successfully completed by the Division, together with Tiervlei Trial Centre. In 2011, five students participated in this programme. Links were established to the EU IMI initiative PharmaTrain; this important network assists in international recognition and in joint teaching programmes with course providers internationally.

Four MSc and two PhD students were trained by the Division in 2011. In addition, three German medical students (Wuerzburg University) performed the practical work of their medical thesis (Dr med) in the Division.

The training programme for Clinical Pharmacology (MMed) was approved by the Department of Education, four registrar training numbers were granted by the HPCSA. The programme will be initiated in 2012 depending on the availability of posts or supernumeraries.

Research:

The clinical research focus remained on the pharmacokinetics of TB drugs and antiretrovirals in special patient populations (three projects). These studies were performed together with clinical departments at Tygerberg Hospital and external clinics. Non-clinical projects addressed interactions between traditional medicines and conventional drugs (in vitro metabolism), the transport of drugs across biological membranes, and chemical and biochemical studies on reverse transcriptase inhibitors. These projects heavily involved the bioanalytical team in the Division. Research projects were performed by the Tygerberg Poison Information Centre, mainly as surveys of the use and application of its services by using the INTOX database on which all consultations are registered.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor Chief Specialist	1	1
Senior Specialist / Researcher	4	3
Principle Pharmacist/ Scientist	2	2
Researcher	1	0
Technologists	6	6
Administrative assistant	1	1

SESSIONAL POSTS		
	NUMBER	FILLED
Specialist	3	3

Output

Tygerberg Poison Information Centre		
Consultations:		6 263
Laboratory services (TDM)		
Analyses:		23 732

Comment on output

The capacity of the Division was increased by hiring an experienced clinical pharmacologist and the new Director of the Poison Information Centre. Further staff development in the Division will assist in providing an appropriate clinical consultancy service to Tygerberg Hospital and later to affiliated clinics.

The toxicology service provided by the Tygerberg Poison Information Centre remains threatened by the lack of financial support from the Province, especially for the after-hours service. Therefore, it is highly appreciated that – as in previous years – the Centre was kindly supported by dedicated experts from Emergency Medicine and from the University of Cape Town (UCT) Clinical Pharmacology.

Members of the Division actively participated in the Drug and Therapeutics Committee, the Provincial Pharmacy and Therapeutics Committee, and the Ethics Committee of the Faculty of Health Sciences. They also contributed to national and international organisations.

The research output of the Division was presented in peer-reviewed publications and in presentations on international and national scientific meetings (see below).

Infrastructure development

The contact to the clinical departments was strengthened by regular involvement of Clinical Pharmacology in teaching and special clinical pharmacology and toxicology ward rounds, provided by newly hired staff, an experienced clinical pharmacologist (doctor), and the Director of the Poison Information Centre (pharmacist).

Community outreach programmes

Routine TDM laboratory analyses continued to be performed for several outreach clinics.

The following education to health-care providers and the public was provided by the Tygerberg Poison Information Centre:

- Poison Chart Project – in the past year the chart has continuously been distributed free of charge to members of the public by retailer outlets via community projects development.
- The poison chart was published in the newspaper Beeld on 24 March 2011.
- Interview on Fokus on SABC2 with Dr GJ Muller on Adolescent Volatile Hydrocarbon sniffing, recorded on 7 June 2011.

The good cooperation with the NGO HOPE Cape Town (www.hopecapetown.com) – with offices in the Division of Pharmacology – continued in 2011. HOPE Cape Town facilitated the contact to two traditional healers who provided their traditional medicines to be tested in a research project (in vitro drug interactions) by a PhD student. Prof. Rosenkranz is a member of the board of this organisation.

Partnerships

National

Participation in the joint working group of the national Poison Information Centres under the umbrella of the Department of Environmental Health.

Regular joint research meetings with the Division of Clinical Pharmacology (UCT) and the School of Pharmacy (University of the Western Cape (UWC)) in order to facilitate collaborative research projects.

Research cooperation with the Tygerberg Children's Infectious Diseases Clinical Research Unit (KID-CRU) and the Desmond Tutu TB Centre (Stellenbosch University).

Prof. Rosenkranz is council member of the CMSA College of Clinical Pharmacologists, Vice President of the South African Society for Basic and Clinical Pharmacology (SASBCP) and chair of the Finance Committee of the 2014 World Congress for Basic and

Clinical Pharmacology. Capacity building is provided to one of the PhD students that serves as a member of this Committee.

Private sector

Analysis of drugs for private pathologists and other institutions.

Biological tests performed for the WP Blood Transfusion Services.

Donation to Tygerberg Poison Information Centre from Agricultural Crop Protection Dealers Association of SA.

International

International research collaborations continued with the Clinics for Infectious Diseases, University of Wuerzburg, Germany and the Department of Pharmacy, University of Florida, Gainesville, USA. The cooperation with Wuerzburg was supported by the National Research Foundation South Africa, the Deutsche Forschungsgemeinschaft (DFG), and the Bavarian Federal Government (International Research Training Group project 1 522 HIV/AIDS and Associated Infectious Diseases in South Africa). IRTG provided capacity building and training for South African and German postgraduate students, training seminars and student exchange visits. One Stellenbosch MSc student worked on her research project in Wuerzburg for three months, and three medical students from Wuerzburg spent five months each in the Division of Pharmacology.

Prof. Rosenkranz is an active member of the UK Faculty of Pharmaceutical Medicine (RCP) (International Committee) and of IUPHAR (Membership Committee).

Consultancy was provided to the WHO on development of Poison Information Centres in Africa and on suspected poisoning in Angola; Dr GJ Muller assisted the WHO in an investigation into suspected chemical poisoning cases occurring in a number of schools in the Cabinda Province of Angola (August – September 2011).

Achievements

Research publications

- Veale D.J., Wium C.A., Müller G.J. Amitraz poisoning in South Africa: A two year survey (2008-2009). **Clinical Toxicology** 2011; 49: 40-44.
- Van Hoving D.J., Veale D.J.H., Müller G.J. Clinical review: *Emergency management of acute poisoning - Gestion des urgences de l'intoxication aiguë*. **African Journal of Emergency Medicine** 2011; 1(2): 69-78.
- Nachega J.B., Rosenkranz B., Pham P.A. Twice-

daily versus once-daily antiretroviral therapy and coformulation strategies in HIV-infected adults: benefits, risks, or burden? **Patient Preference and Adherence** 2011; 5: 645-651.

- Pretorius E., Klinker H., Rosenkranz B. *The role of therapeutic drug monitoring in the management of patients with human immunodeficiency virus infection*. **Therapeutic Drug Monitoring** 2011; 33: 265-274.
- Innes S., Norman J., Smith P., Smuts M., Capparelli E., Rosenkranz B., Cotton M. *Bioequivalence of dispersed stavudine: opened versus closed capsule dosing*. **Antiviral Therapy** 2011; 16: 1131-1134.
- Thee S., Seddon J.A., Donald P.R., Seifart H.I., Werely C.J., Hesseling A.C., Rosenkranz B., Roll S., Magdorf K., Schaaf H.S. *Pharmacokinetics of Isoniazid, Rifampin, and Pyrazinamide in children younger than two years of age with tuberculosis: Evidence for implementation of revised World Health Organization recommendations*. **Antimicrobial Agents and Chemotherapy** 2011; 55(12): 5560-5567.
- Thee S., Seifart H.I., Rosenkranz B., Hesseling A.C., Magdorf K., Donald P.R., Schaaf H.S. *Pharmacokinetics of thionamide in children*. **Antimicrobial Agents and Chemotherapy** 2011; 55(10): 4594-4600.
- Nachega J.B., Rosenkranz B., Simon G., Chaisson R.E., Diacon A.H., Taljaard J.J. *Management of adult active tuberculosis disease in era of HIV pandemic, current practices and future perspectives*. **Infectious Disorders – Drug Targets** 2011; 11: 134-143.
- Nachega J.B., Rosenkranz B. *Targeting tuberculosis and HIV/AIDS: a global progress report of a deadly partnership*. **Infectious Disorders – Drug Targets** 2011; 11(1): 96-97.
- Van Hoving D.J., Veale D.J., Gerber E. *The influence of the 2010 World Cup on the Tygerberg Poison Information Centre*. **Clinical Toxicology** 2011; 49: 181-186.

Congress presentations:

- Muller G.J., Modler H.T., Wium C.A., Veale D.J.H., Van Zyl J.M. *Parabuthus granulatus Identified as the Most Venomous Scorpion in South Africa: Motivation for the Development of a New Antivenom*. XXXI International Congress of the European Association of Poisons Centres and Clinical Toxicologists, Dubrovnik, Croatia, May 2011.

- Fasinu P.S., Seifart H.I., Bouic P.J.D., Rosenkranz B. In vitro investigation of herb-drug interaction potential: the influence of 15 commonly used South Africa medicinal herbs on CYP1A2 activity. 55th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2011.
- Rosenkranz B., Von Bibra M., Edson C., Rabie H., Klinker H., Cotton M.F. Efavirenz levels in HIV infected children. 55th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2011.
- Wium C.A., Muller G.J., Veale D.J.H. Non-drug chemical exposures in children: Tygerberg Poison Information Centre analysis (2008-2009). 55th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2011.
- Greyling C.E., Sadie-van Gijsen H., Rosenkranz B., Ferris W.F., Hough F.S. Influence of antiretroviral therapy (ART) on the proliferation and adipocyte differentiation of multipotential adipose-derived stromal cells. 55th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2011.
- Van der Merwe, A. Therapeutic Drug Monitoring of tacrolimus at Tygerberg Hospital; May 2010 – April 2011. 55th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2011.
- Van Zyl J.M., Hawtrey A., Smith J., Van der Bijl P. A synthetic peptide-containing surfactant: Secondary structure and efficacy as therapeutic agent for respiratory distress syndrome. 6th International Conference on Pharmaceutical and Pharmacological Sciences, Durban, September 2011.
- Van Zyl J.M., Vermant J., Van Loon W., Vandebril S., Smith J., Van der Bijl P. Thermodynamic comparison of lung surfactant replacements. 6th International Conference on Pharmaceutical and Pharmacological Sciences, Durban, September 2011.
- Van Rensburg L., Van Zyl J.M., Smith J., Van der Bijl P., Seifart H. The influence of synthetic lung surfactant on the permeability of antimycobacterial drugs through porcine lung tissue. 6th International Conference on Pharmaceutical and Pharmacological Sciences, Durban, September 2011.
- Fasinu P.S., Seifart H.I., Bouic P., Rosenkranz B. In vitro investigation of the effects of commonly used South African Medicinal herbs on CYP1A2 activity employing human liver microsomes. 6th International Conference on Pharmaceutical and Pharmacological Sciences, Durban, September 2011.
- Rosenkranz B., Von Bibra M., Edson C., Rabie H., Lenker U., Klinker H., Cotton M. Efavirenz levels in HIV infected children. 6th International Conference on Pharmaceutical and Pharmacological Sciences, Durban, September 2011.
- Rosenkranz B., Prescott K., Nell H., Hough S. Pharmaceutical Medicine – a New Postgraduate Diploma Course in South Africa. 6th International Conference on Pharmaceutical and Pharmacological Sciences, Durban, September 2011.
- Wium C.A., Muller G.J., Veale D.J.H. Paediatric Pesticide poisoning: The Tygerberg Poison Information Centre Experience. 2nd Biennial Conference of the African Federation of Clinical Chemistry, Nairobi/Kenya, September 2011.

Teaching and Training

Development and implementation of the teaching plan for Pharmacology has been hampered by the lack of resources. In particular, only one of the three planned Senior Clinical Pharmacologist posts has been filled by the Province so far. With the availability of more experienced staff, Pharmacology will be able to provide students and medical staff with more practical bedside teaching.

Undergraduate

The Division remained heavily involved in its academic lecturing service to undergraduate MBChB medical students beginning from the foundation phase and throughout the curriculum. This included second-year extended degree programme (EDP2) students preceding their incorporation in the mainstream programme. Furthermore, training of final-year students in clinical pharmacology was actively pursued by a clinical pharmacologist involved on an ongoing basis in training and assessing of students at the bedside in order to integrate their background knowledge of pharmacology in treatment strategies for major diseases. The year has also seen an expansion in lecturing pharmacology to third-year physiotherapy students. This important input familiarises students with drug action that potentially could affect physical-therapy treatment of patients.

Postgraduate

The Division continued with its Pharmaceutical Medicine diploma course as well as mentoring of four MSc and two PhD students throughout the year. During

the report year, lecturing service to seven MSc students in Physiotherapy and 10 pharmacist intern students were tutored consecutively during a two-week period in the Division in aspects relating to pharmacology and toxicology as part of their requirements set by the HPCSA and the SA Pharmacy Council, respectively.

In 2011, the UK Faculty of Pharmaceutical Medicine exported their Diploma in Pharmaceutical Medicine (Dipl Pharm Med) to allow candidates to sit for this exam in South Africa; this was administered by the Division of Pharmacology together with the exam office in October 2011.

Prof. Rosenkranz was co-examiner for the first FCP-2 candidate in Clinical Pharmacology in South Africa.

Division of Pulmonology

Prof. C.T. Bolliger and Prof. E.M. Irušen

Summary

A5 ICU

The ICU functions as a seven-bed unit provided that a full complement of nursing staff is available. The unit is currently under the combined supervision of both respiratory and critical-care specialists (four permanent consultants, two part-time consultants and one senior registrar in respiratory medicine). The current nurse:patient ratio is 1:2. Although classified as a medical Intensive Care Unit (ICU), the current shortage of ICU beds in the Western Cape warrants the admission of non-medical patients.

In 2011 there was a total of 243 admissions to the ICU, 209 (86%) of whom were medical patients and 34 (14%) non-medical (M:F = 43%: 57%) . Of the non-medical patients, 8 (23%) were referred from the obstetrics and gynaecology department and 39 (77%) were post-surgery. The mean age was 42,5 years and the mean length of stay per patient was 7,55 days. There were 36 deaths for the year, translating into a 14,8% mortality rate.

Noteworthy in 2011 was the successful implementation of the VAP (ventilator-associated-pneumonia) bundle. This is aimed at reducing the incidence of VAP and ultimately reducing the number of days on the ventilator and the length of stay in ICU, thus resulting in significant cost savings. As part of this initiative we were able to motivate for new beds, which have arrived and are a great asset to our patient care. We are still awaiting calf pumps for mechanical DVT prophylaxis which is part of the VAP bundle. Recently we have also implemented the CLABSI bundle which aims to

reduce the number of central line related infections.

We acquired two cardiac output monitors which greatly assist us in resuscitating haemodynamically unstable patients.

The limitation that the shortage of trained ICU nursing staff imposes on the number of admissions to the ICU remains an ongoing problem. Currently there are 18 registered nurses allocated to the unit, 10 of whom are trained in intensive care. This staff shortage resulted in A5ICU functioning as a six- or seven-bed unit on a regular basis throughout the year. Measures to recruit more ICU trained nurses are paramount with increased advertisement for senior nurse posts and increased incentives as possibilities. This will help improve the service to our referral hospitals.

A5 Lung Function Laboratory

The staff continue to play a vital role in the pulmonary and ICU service of the hospital.

We received as a gift a Cycle Ergometer for research purposes and a new Jaegger Complete Lung Function System.

Three new technologists joined us during the past year, C. Grobler, T. du Plooy and I. Barkhuizen.

The sudden passing of Mr Johan Mouton – chief technologist for over two decades – was a sad moment and his input and leadership will be missed for many years.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor Principal Specialist	2	2
Specialist	2	2
Registrars	4	4
Senior Registrar	2	1

SESSIONAL POSTS		
	NUMBER	FILLED
Specialists	3	1
Number of ICU beds:	7	7

Output

Stats For Respiratory-Allergy Clinic 2011

Follow-Up Patients	1 658
New Patients	815
Total Patients for 2011:	2 473

DATE	FOLLOW-UP PATIENTS	NEW PATIENTS	DATE	FOLLOW-UP PATIENTS	NEW PATIENTS
January	92	25	July	163	73
February	82	14	August	133	87
March	83	27	September	172	97
April	129	85	October	183	99
May	192	108	November	195	105
June	148	59	December	86	36

DATE	FIBROSCOPE	RIGID BRONCHOSCOPE	BIOPSY	ESTRANGED OBJECT	BRONCHIAL LAVAGE	BAL	TBNA	TRU-CUT BIOPSIES	ABRAHMS BIOPSY NEEDLE	TTNA	THORACK SONAR	OWD	THORACOSCOPY	ALGE.	TOPICAL	PATIENT TOTAL
January	37	3	2	2	16	1	14	4	9	36	49	7	0	14	76	90
February	45	0	12	1	26	1	19	1	5	11	49	5	3	17	81	98
March	57	1	14	1	23	4	22	8	2	37	49	3	2	21	92	113
April	40	0	6	1	14	3	20	3	7	22	34	6	0	10	63	73
May	56	0	7	1	26	1	15	1	10	32	48	2	0	22	84	106
June	47	4	6	1	21	0	19	1	4	17	29	4	3	17	68	85
July	38	3	4	1	17	2	14	0	1	12	24	3	0	23	46	69
August	47	1	5	2	18	14	13	2	4	19	29	1	0	12	70	82
September	52	1	5	2	20	9	16	2	5	35	51	3	0	25	89	114
October	58	1	15	0	26	11	19	0	0	25	36	5	2	20	79	99
November	47	0	4	0	17	12	11	2	3	22	32	8	2	15	69	84
December	46	0	5	1	17	4	19	1	2	21	35	5	1	14	75	89
TOTAL	570	14	85	13	241	62	201	25	52	289	465	52	13	21	892	1102

Bronchoscopy Theatre

LUNG FUNCTION LAB – TOTAL PROCEDURES 5 815 AVERAGE/MONTH		
Primary evaluations	4 267	355.6
Paediatric lung function	790	65.8
Plethysmography	341	28.4
Diffusion capacity	336	28.0
Exercise studies	81	6.8
Broncho-provocation tests	0	0
INTENSIVE CARE – TOTAL PROCEDURES	128 552	

	ADULT	PAE-DIAT-RIC	TOTAL	
Bloodgases	18 136	13 303	31 439	2 619.9
Haematocrits	18 136	13 303	31 439	2 619.9
Ventilator circuits	153	331	484	40.3
Ventilator calibrations	1 469	3 439	4 908	409.0
Arterial line placement/repair	2 441	3 478	5 919	493.3
Pulmonary artery catheter placement/repair		19	19	1.6
CVP placement/repair	1 298	83	1 381	115.1
Haemodynamic studies		14	14	1.2
MIP & MEP procedures		54	54	4.5
Assistance with ventilation	3 912	7051	10 963	913.6
Blood sample collection	58	24	82	6.8
Electrolytes/Metabolytes (Na, K, Ca, Cl, Glu and Lac)	18 136	13 303	31 439	2 619.9
Monitor assembled	2 486	5 710	8 196	683.

Infrastructure development

A superDimension electro-navigation system
(Prof. Bolliger)

Cardio-pulmonary exercise bicycle (Prof. Bolliger via donation from IPS company)

New Master lab for pulmonary function testing

New ICU beds

Partnerships

National

Prof. E.M. Irusen:

Serves on advisory boards of GSK and MSD.

SA Thoracic Society

- Past-President
- Scholarship reviewer

College of Medicine examiner

National examiner: Masters and PhD dissertations

CPD outreach: about 30 lectures per year on all aspects of Respiratory Disease

Prof. C.T. Bolliger :

1. Consultant for GSK, Pfizer
2. Consultant to Panorama Mediclinic, Cape Town, South Africa
3. Consultant to the following hardware companies: Superdimension, Calypso, IPS
4. Works closely with the Swiss Federal Office of Public Health, currently implementing a project called Hospital Quit Support (HQS), establishing smoking cessation clinics at all major Swiss hospitals. Currently second follow-up phase 2010-2012
5. Task-force member of ATS/ERS task force on flexible bronchoscopy guidelines
6. Cooperation with Pulmonology/Thoracic Surgery Rikshospitalet, Oslo, Norway
7. Chairman smoking cessation guidelines for the Africa/Middle East region

Private

Prof. Bolliger. part-time consultant at KRRC, Kuilsriver Hospital

International

Prof. Irusen

- i) COPD Coalition: Prof. Irusen is on the international executive. They have lobbied with

the World Health Organisation (WHO) on anti-smoking strategies and work with health-care professionals and governments to prioritise the care of COPD patients. They also cooperate on World COPD day.

- ii) GOLD National Leader (GOLD – Global Initiative for Chronic Obstructive Lung Disease) – acknowledged for contribution to 2011 GOLD Guideline Update.
- iii) TASS Project: Targeting Asthma in Sub-saharan Africa. Has been extensively involved in outreach in terms of respiratory health, especially asthma, throughout sub-saharan Africa. Delivered Keynote address at 2nd Kenyan Lung Science Conference
- iv) Collaborative Research in SADC: Prof. T. Robbins, University of Michigan: Non-communicable Respiratory Disease.

Journal Reviewer: Clinical Drug Investigation

Clinical Infectious Diseases

Journal of IUATLD

Prof. Bolliger

Editor-in-chief : Respiration (journal).

Editor-in-Chief: Progress in Respiratory Research (Book Series)

Prof. Bolliger is on the following editorial boards:

Associate Editor Nicotine Tobacco Research

EB member of Brazilian Respiratory Journal

Consultant to CHEST

Pneumon (Greek national pulmonology journal)

Prof. Bolliger is president of EABIP (European Association of Bronchology and Interventional Pulmonology). 2010-12

Prof. Bolliger

- ERS evaluation committee member
- Project leader of HQS, national hospital-based smoking cessation project

Achievements

Number of publications from the division	18
Text books and contributions to text books.	1

Teaching and Training

Elective postgraduate students for training and research in Interventional Pulmonology with

Prof. Bolliger

- Dr FT Von Groote-Bidlingmaier (started 1 January 2009)
- Dr M Bernasconi (January 2010 to 30 June 2011)
- Dr Ozoh, Nigeria (September to November 2011)
- Dr Thakkar, India (October to December 2011)

Undergraduate students:

- Hannah Fengels, Germany (August to September 2011)
- Annemarie van Leeuwen, Holland (October to December 2011)
- Marlene Mende, Holland (October to December 2011)

Special achievements

- Two first-in-man studies at Tygerberg Academic Hospital
 - a) Calypso: pulmonary transponder placement for improved radiotherapy guidance (Prof. Bolliger)
 - b) IPS: targeted lung denervation in COPD (Prof. Bolliger)
- Third international thoracic endoscopy course at Tygerberg Academic Hospital, March 2011 (Prof. Bolliger, Drs. Koegelenberg, Von Groote)
- Congress chair at 2nd Interventional Pulmonology Meeting, Maidstone UK. (Prof. Bolliger)

Division of Rheumatology**Dr M Manie****Summary**

In line with our decision to reduce our outpatient load, we have refined our written guidelines to follow up patients at secondary and primary levels of care.

Our two full-time rheumatologists have to share their time between running the Thursday firm in the division of General Medicine and running the division of Rheumatology.

We are fortunate to have retained the services of Dr Whitelaw, the ex-head of the division of Rheumatology, to assist with undergraduate teaching. The division, thanks to the sterling work of Dr Du Toit, has pioneered the efforts to make biologics available in the public sector. We were pleased when the Provincial Coding Committee approved the use of biologics for a total of 20 patients (10 adults and 10 paediatric cases). This is an exciting development,

not only for the benefit of patients but also for the training of our registrars.

The division also secured funding from the pharmaceutical company Abbot for the furnishing of a dedicated room for the ultrasound evaluation of the musculo-skeletal system.

We are fortunate to have recruited Sr Fortuin, a dynamic nursing sister, who has already made an appreciable difference in the efficient running of the rheumatology clinics.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Principal specialist	1	1
Specialist	1	1
Registrar	2	2

SESSIONAL POSTS		
	NUMBER	FILLED
2	8 hours/week	

Output

Outpatient visits:	3 843
Admissions:	224

Comment on output

There has been a slight reduction in outpatient numbers but we face increasing numbers requiring admission, particularly ill lupus patients.

Infrastructure development

As mentioned above, we have acquired and furnished a room dedicated to the use of musculo-skeletal ultrasound.

Community outreach programmes

We have continued our outreach to Worcester Hospital, and we have a well-functioning arrangement with Paarl Hospital that has a trained rheumatologist to manage some patients in their drainage area.

Achievements

Dr Manie presented: *Assessment of the clinical utility of Rheumatoid Factor in adults at a large South African academic hospital – a retrospective study* at the FHS annual academic year day in August 2011.

Teaching and Training

CONGRESS PRESENTATIONS.

SA Rheumatology congress in September 2011.

Presented by Dr Chothia: Chothia M.Y., Manie M. *A descriptive study of patients with inflammatory myopathies at Tygerberg Academic Hospital and a review of current classifications*

Dr Sebastian presented: *Assessment of the clinical utility of Rheumatoid Factor in adults at a large South African academic hospital – a retrospective study.*

POSTER PRESENTATION

- Du Toit R. et al. Lack of specificity of anti-cyclic citrullinated peptide in advanced HIV-infection
- International congress presentation (poster): *Controversies in Rheumatology and Autoimmunity*, Florence, Italy March 2011: Du Toit et al. *Lack of specificity of anti-cyclic citrullinated peptide in advanced HIV-infection.*

Publications :

1. Du Toit et al. 2011. *Lack of specificity of anti-cyclic citrullinated peptide antibodies in advanced HIV-infection.* *Journal of Rheumatology*, 38:1055–60.
2. Du Toit et al. 2011. *Giant cell arteritis GCA, hypertrophic pachymeningitis and CNS lymphoma: A case report and review of the literature.* *South African Rheumatology Journal*, 3:2; 27–31.
3. M. Manie, L du Plessis. 2011. *An unusual cause of paraplegia – a gouty tophus.* *South African Rheumatology Journal*, 3: 2 ;23–25.
4. M Manie, E Richter. 2011. *Methotrexate – An unrecognised case of mucosal pigmentation.* *South African Rheumatology Journal*, 3:2 ; 20–22.

Teaching and Training

We continued with our monthly postgraduate joint examination technique teaching course with Dr Allan Tooke.

We also initiated and are currently busy with a video teaching programme on basic musculo-skeletal examination with Dr Tooke – ongoing.

OBSTETRICS AND GYNAECOLOGY

Department of Obstetrics and Gynaecology

Professor Gerhardus Barnard Theron

History

Prof. J.N. de Villiers was the first Head of Department and he held this position up until 1970. Prof. W.A. van Niekerk then became Head, this was the beginning of the Tygerberg era. In 1983, Prof. H.J. Odendaal succeeded Prof. Van Niekerk. Prof. T.F. Kruger succeeded Prof. H.J. Odendaal in 2003. These four heads of department made significant contributions towards the discipline of Obstetrics and Gynaecology, which led to the international recognition of Tygerberg Hospital (TBH) and the Department of Obstetrics and Gynaecology, Stellenbosch University. Prof. Theron succeeded Prof. Kruger in March 2010.

Summary

We are committed to quality care, research and training. The obstetric service strives towards the improvement and extension of the infrastructure for the delivery of excellent service. The gynaecology service strives to perform fewer conventional gynaecological procedures and more endoscopic procedures, as well as the use of a day theatre for minor gynaecological problems.

Planning for the commissioning of the new Khayelitsha Hospital in March 2012 was done. The new hospital will serve as a level 1 referral hospital for both midwife obstetric units in Khayelitsha. All level 2 and 3 patients will be referred to Tygerberg Hospital.

Generation of external funds for research and post-degree fellowships is a priority for the department.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Chief Specialist	3	3
Principal Specialist	4	4
Natural Scientist (specialist)	2	2
Specialist	10	10
Registrar (1 each at Worcester + Paarl Hospital)	20	20
Medical Officer	13	13
Intern	12	12
Technologist	2	2
Radiographer	2	2



SESSIONAL POSTS		
	NUMBER	FILLED
Specialists	5 persons 42 hours/week	filled
Part time posts	2 specialist posts filled with 5/8th appointment	

NUMBER OF BEDS	
Obstetrics	107
Gynaecology	43 (+15 radiation therapy beds)

Output

Obstetric Report

OBSTETRIC YEARLY REPORT: 1/1/2009 - 31/12/2009		
IN PATIENTS	2010	2011
Admissions	8 239	8 471
Total number of deliveries	5 975	5 864
Normal vertex deliveries	3 631	3 265
Forceps deliveries	7	7
Vacuum extractions	64	53
Breech deliveries	151	107
Caesarean sections	2132	2599
	35,7%	44%
Twins	214	144

IN PATIENTS	2010	2011
Number of low birth weight babies < 2500g	2 433 40.6%	2 179 37.2%
Very low birth weight babies < 1500g	447 13.7%	480 7.9%
Extremely low birth weight babies < 1000g	295 6.3%	376 6.2%
Perinatal Mortality Rates (≥500g - < 1000g)	640/1000	596/1000
(≥1 000g)	41/1000	40/1000
Maternal deaths	15	17

Fetal evaluation clinic

ANTENATAL FETAL HEART RATE MONITORING		
IN PATIENTS	2010	2011
Total number of patients	2 058	1 936
New patients	1 603	1 498
Follow-up patients	455	438
Twins	77	59
External cephalic versions	46	70
DOPPLERS		
Total number of patients	3 912	4 093
New patients	2 643	2 672
Follow-up patients	1 269	1 421
Foetal evaluation referrals (back to AN clinic, HRC or C2A)	2 057	1 622

Tygerberg Hospital out patients

OBSTETRICS		
IN PATIENTS	2010	2011
Second visit and high-risk patients	18 422	18 096
New patients	553	111
Postnatal patients	647	545
Diabetic clinic	1 054	1 268
Special-care clinic	684	914
Anaesthetic referrals	342	278
Cardiac clinic (new information)	-	191
Total	21 702	21 403

Gynaecological Report

IN PATIENTS	2010	2011
Seen on call	3 722	4 366
Total admissions	3 846	3 672

Operations

IN PATIENTS	2010	2011
Cold knife biopsies	34	43
Operative hysteroscopies (general theatre)	79	76
Vaginal hysterectomies	106	60
Abdominal hysterectomies (including TAH and BSO)	265	231
Laparotomies	76	85
Ectopic pregnancies		
Laparoscopy	9	12
Laparotomy	57	74

Outpatients

OUT PATIENTS	2010	2011
Follow-up patients (general gynaecology)	330	4 441
New patients (general gynaecology)	844	2648
Endocrinology	639	745
Colposcopy clinic	932	2 211
LLETZ	633	681
Andrology	434	411
Oncology	1 697	1 719
Cytology	293	207
Urogynaecology unit	1 049	1 091
TOP (evaluations seen at Gynaecology)	1 073	1 242
G.E.C theatre:		
Terminations of pregnancies	837	906
Day theatre cases	166	94
Hysteroscopies	361	355
Total	15 655	16 751

Outreach Statistics

Colposcopy / LLETZ Helderberg Hospital – new service

Sterilisation	340
Gynaecology consultations Eerste River Hospital – new service	260
Surgical procedures	20
Sterilisations	25

General Specialist Services

DR GS GEBHARDT

The General Specialist Services are responsible for all acute obstetrics and gynaecology referrals from midwife obstetric units, community health centres, clinics and district hospitals within the Metro East. The 24-hour emergency centre has a triage area (four obstetric and three gynaecology beds) with 13 dedicated antenatal and delivery beds and one 24-hour emergency theatre. During 2011 a total of 8 817 obstetric patients and 4 366 gynaecology referrals were managed here. In addition, there is a high-risk antenatal clinic and general gynaecology referral clinic every weekday. At these clinics, a total 18 096 patients were seen at the high-risk antenatal clinic and at the gynaecology clinic, 4 441 new patients and 2 648 follow-up patients. Out of all these emergency and outpatients, 21 366 was admitted to either the antenatal, postnatal, general gynaecology or labour ward. This resulted in a total of 39 274 general specialist inpatient days. There were 5864 deliveries of which 2 599 (44,3%) were Caesarean sections. In addition, a total of 1 242 terminations of pregnancy were performed.

During 2011, the labour ward operated at an average bed occupancy rate of 118%. This made management of acute cases extremely difficult as there are constantly more patients in the ward than equipment or personnel can manage. The planning for the new Khayelitsha Hospital (with its independence from the Tygerberg structure; takeover of the Site B obstetric unit with secondary and tertiary referrals to Tygerberg) reached its final stage and preparations were made to accommodate the increased patient load expected from them. It is projected that the obstetric service at Tygerberg will increase by about 15%. Two new medical officer posts and one consultant post were allocated (and filled) as well as 16 additional maternity beds. A community consultant obstetrician post (funded by the national Department of Health) was also filled with 50% of duties at Tygerberg Hospital

and the rest at the community clinics and hospitals. All the cardiotocographic machines in the labour ward have been overhauled and intra-partum monitors have also been ordered to cope with the increased burden of obesity in pregnancy.

The general specialist services do outreach to the surrounding district hospitals and midwife obstetric units. A gynaecology clinic and colposcopy outreach service has been set up on a two-weekly basis at Eerste River Hospital with a monthly theatre list as well. The colposcopy outreach service every second week at Helderberg Hospital has decreased the waiting time for clients with abnormal cervical cytology smears to two weeks. The service is currently overburdened and additional clinics will have to be established in 2012/13. In addition, training and feedback sessions are done on a monthly basis at the midwife obstetric units in the Tygerberg drainage area.

The outreach activities in Metro East are planned and governed by a separate ad hoc technical task team for Women's Health that report to the greater Geographical Services Area meeting in the District Health services. This meeting is an important interface with hospital specialists, family physician specialists, district managers and nursing personnel attending.

Family planning and Reproductive Health Care Unit

DR PS STEYN

Personnel

Head (Senior Specialist)	Dr PS Steyn – up until September 2010
Specialists:	Dr T Matsasend and Dr J Kluge
Rotating registrars:	2
Senior nursing staff:	Ms Cupido and Ms Naudé
Senior auxiliary nursing staff	Mr Kotze
Secretary	Ms L Nontshiza

Female Programme

PATIENTS COUNSELLED	2010	2011
In Clinic	9 745	10 410
In Wards	7 381	6 612
Patients accepting a method	14 980	15 134
Sterilisations done	779	841
Booked for sterilisation, did not turn up	208	246
Cancellation of sterilisation	44	60
Female Condom use	1 820	1 510
Emergency Contraceptive use	220	59
Intrauterine Contraceptive Device Fitting	57	284
Cervical Smears		
Total taken	355	334
CIN lesions	39	35
Referred for Colposcopy	13	12
Male Programme		
Consultation before Vasectomy	543	535
Vasectomy done	225	233
Health Education/ Consultation	491	-
Male Condoms issued	297 600	295 620

Comments

August 2011 – Women's Wellness Month (provincial)

The clinic participated in this initiative and provided free cervical screening services to 90 hospital staff members.

IUD insertions

There has been a substantial increase in IUD insertions. This is extremely positive as it is a highly effective long acting reversible contraception (LARC) with improved compliance and discontinuation rates compared to other reversible methods.

Sterilisations

The day-theatre sterilisation lists are currently not optimised to the fullest as many patients are booked on the firm or main theatre list. As a result, most patients have long waiting times before their procedure is performed and could explain the

numbers who fail to return. An option to improve this is to set up clear guidelines in collaboration with the anaesthetists to facilitate patients with well-controlled medical conditions to be booked for the day theatre which currently has a one- to two-week waiting time.

Training

Registrar training

A designated consultant from the general specialist platform is assigned to supervise the registrar when performing sterilisations in the day theatre if needed. This is a new development as previously Dr Steyn was solely responsible.

Nursing staff

Tutoring of a trainer to provide IUD insertion training for the Klipfontein/Khayelitsha subdistrict reproductive health services.

Medical staff

Dr PS Steyn accepted a post at the University of Cape Town as from October 2011. He will be replaced by Dr Judy Kluge as Head of Unit when she returns from maternity leave in 2012.

Unit of Gynaecological Oncology

PROF. M.H. BOTHA AND DR FH VAN DER MERWE

The year 2011 was a successful year for the Unit of Gynaecological Oncology. Our first priority was patient-centred clinical service delivery to women with gynaecologic cancers. Patients presenting to the unit are managed by a multidisciplinary team with a holistic approach where patient dignity is of utmost importance. We appreciate the close working relations from colleagues in other departments. These include, but are not limited to, Dr Hannah Simmonds of Radiotherapy, Dr Pieter Barnard of Chemotherapy, Dr Mercia Louw of Pathology, and the departments of Urology, General Surgery and Radiology. Due to the impact of the HIV epidemic in our population there was immense pressure on the colposcopy service.

Equally important priorities of the unit include teaching, training and research. Dr A Diarra successfully qualified as subspecialist in gynaecological oncology and Dr M Dlamini joined the unit as Discovery fellow.

A large multicentre study on vaccination and screening to prevent cervical cancer is well underway. The community benefits directly from the study. More than 600 primary school girls

received HPV vaccines and their mothers were screened. Another important HPV vaccination trial in cooperation with an international team lead by the well-known Prof. Anna Giuliana is about to start after months of preparation.

Personnel

Head of Clinical Unit	1
Senior Specialist	1
Fellow in Gynaecologic Oncology (Discovery Fellowship)	1
Registrar (3-month rotation)	1
Nursing Staff	
Chief Professional Nurse	1
Administrative	
Typist	1
Clinic Clerk	1

Statistics

NEW PATIENTS MANAGED BY THE UNIT FOR GYNAECOLOGIC ONCOLOGY		
IN PATIENTS	2010	2011
Carcinoma cervix	200	237
Carcinoma endometrium	38	63
Carcinoma ovaries	6	38
Carcinoma vagina	3	4
Carcinoma Fallopian tube	2	0
Uterine sarcoma	10	14
Carcinoma vulva	15	17
Melanoma vulva	5	0
Carcinoma of the Bartholin gland	1	1
Other: Unknown primary	2	2
Gestational trophoblastic disease	13	15
Gestational trophoblastic neoplasia	7	7
Total New Patients	349	373

Colposcopy clinic

New	1 063	1 208
Follow-up	854	1 000
Total	1 917	2 208

Oncology clinic

New	278	337
Follow-up	1 382	1 394
Total	1 660	1 731

Cytology clinic

New	61	24
Follow-up	228	183
Total	289	207

Staging clinic	463	610
LLETZ (Colposcopy clinic)	633	681
Pap smear	1 239	1 214
Biopsies	569	818

Obstetric Critical Care Unit (OCCU) and Acute Post Natal (APN)

DR E LANGENEGGER

During 2011 510 critically ill patients were admitted to the ward. There were three maternal deaths in OCCU. A total of 56 intubated patients were ventilated when no other ICU beds were available. The unit provides world class invasive and non-invasive monitoring.

Dr Langenegger is the editor of the ESMOE training programme; there are two master trainers in the department and they train all the interns.

There is a combined Obstetric Cardiac Clinic which provides one-stop clinical, obstetrics evaluation, echo and delivery planning for 30 patients on a monthly basis.

There is also a new acute postnatal area in the labour ward with non-invasive electronic monitoring. An additional four beds have increased the turnover in the unit and enable us to provide a better level of care.

Personnel

Senior specialist	1
Rotating registrar	1
Medical Officers	2

Total patients admitted to the Obstetric Critical Care Unit	402	510
PROCEDURES PERFORMED	2010	2011
Arterial lines	275	292
Central venous pressure lines	129	151
Swan Ganz Catheter	10	22
RESPIRATORY SUPPORT	2010	2011
Ventilated	45	56
CPAP	72	90
Non-invasive ventilation	72	60
Deaths	4	3

Acute post natal step down unit

New information – statistics May – December

PROCEDURES	MAY – DEC 2011
Monitoring required	434
Arterial lines	94
Intravenous labetalol	47
Epidural	21
Deaths	0

Urogynaecology and Reconstructive Surgery

DR JA VAN RENSBURG

The Urogynaecology Unit experienced a productive year in 2011. The Unit has established the needed infrastructure to accommodate a fellow in the field of urogynaecology. The first fellow completed his training period in March 2011. Tygerberg Hospital patients are referred to the colorectal unit at Groote Schuur Hospital when necessary.

Dr van Rensburg was on a sabbatical from August 2011 to January 2012. During this period, Dr Juul was in charge of the Urogynaecology Unit. The physiotherapist has settled in well and continues to provide her specialised service on a sessional basis. She completed her official training in women's health.

Surgery

The needed devices and equipment for complicated reconstructive surgery and incontinence surgery were procured, and the unit is in the process of expanding its laparoscopic expertise. The waiting time for theatre has been abolished. The next aim

is to restructure the clinic to reduce the waiting time for appointments.

One-stop service

Clinics were scheduled to establish a one-stop clinic visit with success. The clinic includes urogynaecological consultation service and physiotherapy service on the same day.

Personnel

Specialists	2
Registrar	1 (Part time)
Fellow:	1 (Bursary from Netcare)
Urologist	1
Physiotherapist	1
Nursing staff	1

Urogynaecology Patient Statistics

	2010	2011
New patients seen	220	176
Follow-up patients seen	727	901
Urodynamic studies performed	108	107

Reproductive Medicine

PROF. T.F. KRUGER

Microsurgery is performed on Level II and Level III in the S & T theatres, and our unit is one of the few endoscopic theatres providing a service in an academic hospital.

We have an outpatient theatre for endoscopic procedures which results in a huge saving to the hospital.

The Andrology Department provides a service for the region and helps patients with infertility, cancer patients and urology patients.

Freezing of semen is also offered for cancer patients requiring this service. We also offer a low-cost assisted reproduction service to patients.

Personnel

Chief specialist	1
Senior specialist	1
Senior specialist	5/8 post
Fellows	3

Natural scientist	2
Technologist	2
MSc students	2
PhD students	3

ASSISTED REPRODUCTION

ANDROLOGY	2010	2011
Number of semen analyses	726	654
Number of post-vasectomy patients (Included in total)	276	239
Wet semen preparations examined	726	654
Semen counts performed	438	415
Samples examined after centrifugation	276	239
Supravital semen stains evaluated	-	16
Semen morphology smears prepared	1250	1121
Semen morphology smears stained	1250	1121
Sperm morphology evaluations performed	1383	2181
Antispermatozoa antibody tests performed	370	329
Reports placed on computer system	726	654
Fructose tests (Azoospermia samples)	50	34
In vitro fertilisation (IVF)	-	-
Patients aspirated	26	78
Number of ova handled	-	216
Semen samples prepared for ova inseminations	26	72
Number of patients receiving embryo transfers	-	51
Semen samples prepared for IUI	32	52

In 2011 there was a slight decrease in total semen analyses performed, but more morphology evaluations were performed. Due to the activation of the IVF programme (public-private partnership) there were three times more IVF patients seen compared to 2010, and the IUI cycles almost doubled.

Ultrasound

PROF. L.T.G.M. GEERTS

A very significant proportion of the workload in the Stellenbosch University unit is at level III, both for obstetrics and gynaecology. Although the number of referred cases has not increased substantially in the last year, the case mix is changing. This is illustrated by a significant increase in first referrals for foetal anomalies (now 620 clients - this is approximately 5% of the pregnancies in the region) as well as an increase in total visits related to foetal anomalies (891 instead of 622 for the year). These cases are always complex and require extensive counselling. We are experiencing ever-increasing technical difficulties with the examination of the severely obese women in whom very poor image quality leads to longer and often repeated scanning. This again puts a significant strain on workload and workflow but also causes physical strain and work-related injuries. The addition of an extra sonographer to the team in 2011 was therefore absolutely essential for the service to continue.

In spite of the increase in referrals for foetal anomalies, we have been able to contain the number of diagnostic procedures overall. This has been made possible by a change of approach to genetic screening, counselling and testing in our region, whereby we rely much stronger on a detailed ultrasound assessment to select the women in whom invasive testing would be most cost-effective.

During 2011 an unusual number of intrauterine transfusions were performed (20), several of these on women referred from the private sector.

The subspecialist-lead foetal medicine clinic which delivers a holistic care package for women with complicated pregnancies requiring detailed foetal surveillance continues to manage a significant number of cases, mainly consisting of women with complicated twin pregnancies, severe placental insufficiency, as well as red cell iso-immunisation. This clinic has increased the workload of the unit since these women now receive total care and not just ultrasound assessments in this facility, but the need was met by the allocation of a dedicated registrar and the availability of level III beds for foetal medicine patients. The number of foetal medicine admissions remains limited because outpatient surveillance is optimised by sometimes assessing women several times per week to avoid admission.

Personnel

Principal Specialist	1
Chief Medical Officer	1
Chief Sonographer	2
Registrar	1
Assistant Nurse	1
Typist (shared with O & G)	1
Clinic Clerk (shared with FEC)	1

Ultrasound Outpatient Visits and Speciality Clinics

OBSTETRICS	2010	2011
Total visits	7 893	7 729
Twin visits	1 248	1 221
Foetal anomaly visits	622	891
Doppler visits	3 809	3 765
Invasive procedures	370	356
Foetal medicine clinic	250 since 10/3/10	256
Foetal medicine admissions	14 since 1/8/10	56
Level III visits	2 269 since 1/6/10	3 253

GYNAECOLOGY	2010	2011
Total visits	1 424	1 599
Level III visits	515 since 1/6/10	1 054

Comment**General Obstetrics**

The number of deliveries, patients with severe obstetric complications and morbidity has stabilised in 2011. The focus in 2011 continued to be good clinical governance in the antenatal clinics, labour ward and postnatal wards. The hard work and good planning resulted in a reduction in both perinatal and maternal deaths. The number of perinatal deaths (birth weight >1000g) declined from 50,2 to 41,4/1000 deliveries. The number of maternal deaths increased slightly from 15 to 17. The Caesarean section rate increased slightly from 36% to 44% reflecting the level 2 and 3 service and the associated increased morbidity.

General Gynaecology

The cost-effective, patient-friendly and evidence-based service was continued in 2011. The sustained increase in the number of patients with seen with cervical intra-epithelial neoplasia at the colposcopy clinic reflects an important effect of the HIV pandemic on women's health. Special measures were required to provide the service and through outreach to expand the service to Metro East district hospitals. Planning, training and improving the infrastructure to increase the number of gynaecological laparoscopic procedures during 2012 were actively pursued.

Research

The department is involved in research with a focus of addressing research questions relevant to the health needs of South Africa. Members of the department are extensively involved with international research collaboration. International funding agencies contribute generously towards research done in the department. The number of publications in peer reviewed subsidised journals was 19 in 2011.

Under- and postgraduate training

High quality undergraduate and postgraduate training is offered. Two registrars completed their training. Dr C Cluver was awarded with the Dubenton medal as the best Part II candidate for 2011. Dr A Diarra successfully completed his fellowship training in Gynaecological Oncology.

Outreach programmes**GYNAECOLOGICAL ONCOLOGY**

- The unit for Gynaecological Oncology visits Worcester and Paarl hospitals on a fortnightly rotation. The aim of the visits:
 1. Training of specialists, registrars and medical officers working in these hospitals
 2. Evaluation of new patients in order to ascertain management in local hospital and relevant referral and follow-up of patients.
- The unit is involved in the provincial screening programme for cervix carcinoma and also provides training in cervical cytology in the rural areas.
- Continued medical education remains a priority of the unit, and outreach programmes towards the rest of the public sector in the Province in terms of CME activities was an important focus. Several half-day courses on cervical cancer screening have been presented in the Western

Cape, including George, Oudtshoorn, Worcester, Paarl, Vredenburg and in the Metro region. The demand for this course remains high.

- Another CME activity initiated by the unit is the Northern Suburbs Gynaecologic Oncology meeting that is an outreach programme towards private gynaecologists with the focus of gynaecologic malignancy.
- The unit's role in education in the rest of Africa was strengthened by a visit to the National University of Rwanda and to Zambia. Dr A Diarra from Mali completed the subspecialty training and will go to work in Kimberley 2012.
- The cooperation with the Gynaecologic Oncology Unit of the University of Cape Town is strong, and there is regular contact about clinical protocol development and at academic meetings.
- Towards the end of 2010 a decision was taken to accept patients from the George referral area to Tygerberg Hospital due to long waiting times at Groote Schuur Hospital.

COMMUNITY OBSTETRICS

- There are monthly visits to the midwife obstetric units within the Tygerberg substructure to develop skills and to provide clinical feedback from audit meetings. Obstetrics training and outreach have been extended to include the whole Metro East. This includes the Michael Mapongwana MOU in Khayelitsha and the Kraaifontein MOU, as well as KDH and Helderberg Hospital (HH). The focus is improved care and a reduction of maternal and perinatal deaths (Millennium Development Goal 4 and 5). A Metro East Morbidity and Mortality Meeting was also initiated on a three-monthly basis to provide a discussion and feedback mechanism for morbidity or mortality in the geographical service area.

ESMOE

- Essential skills in developing Obstetric Emergencies: Trained 45 interns in 2011. Staff from KDH, KBH and HH were also trained.
- National board and co-editor of ESMOE.

FAMILY PLANNING AND REPRODUCTIVE HEALTH CARE UNIT

- The Unit of Family Planning, with the help of funding from international organisations, is actively promoting life-orientation courses amongst the youth, educators, NPOs and the Department of Education through their adolescent health project group.

- Life skills programme – Today's Choices, including an interactive CD - covers the whole Further Educational Tract (grade 10 to 12 or FET) phase, now available from grade 10 and 12.
- Developed Parent Involvement and social learning through video scenario manuals.
- More than 1 million learners reached.
- The unit continues to operate a contraception helpline for enquiries and support – this is supported by the World Population Foundation and was expanded to cover the whole of South Africa in 2007.

ULTRASOUND

- Prof. Geerts performed a formal audit process towards the end of the year to identify barriers to the implementation of the official provincial guideline regarding obstetric ultrasound services in the different facilities of Metro East. The audit required major inputs from consultants and sonographers in the region and will lead to structured and 'personalised' feedback to the different facilities early in 2012.
- Three ultrasound courses, involving both theoretical and practical training, were offered by the unit's staff at the premises of Tygerberg Hospital, and attended by both private practitioners and staff members from the public sector. This offered hands-on training to a significant number of junior doctors who are appointed to the new Khayelitsha Hospital, and this will hopefully benefit not only pregnancy management but also the foetal medicine referrals we expect from there in the future. The courses have been upgraded to accreditation courses for those delegates who, after practicing these techniques in their own environment, later pass a formal assessment of their skills. The courses are unique in South Africa in this respect in ensuring that delegates master essential skills to the ultimate benefit of their pregnant patients.
- The training programme for junior registrars to ensure their basic obstetric ultrasound skills has been highly effective in ensuring they can meet the need for patient care from the early stages of their career.
- The staff of the ultrasound unit is also responsible for the practical training of successful CPUT students qualifying as sonographers (BTech).
- Two staff members acted as trainers in a practical ultrasound workshop at the latest SASUOG National Congress.

- Prof. Geerts remains an active member of the Diagnostic Ultrasound Unit, a forum where foetal medicine specialists, paediatricians and geneticists from both Western Cape universities as well as private practice, meet six times a year to discuss policies and interesting or complex cases.
- Prof. Geerts collaborates with the Division of Human Genetics for the development of an educational video for patients regarding prenatal screening and diagnostic testing.

OBSTETRIC CRITICAL CARE UNIT

- E. Langenegger presented an Obstetrics Emergency Workshop to general practitioners and is also involved in the national life-saving skills workshop aimed at level I care.

FILM AND TELEVISION UNIT – W MYBURGH

The Film and Television Unit continues to generate a regular income, which is used to purchase its own professional film production equipment, thus enabling Mr Myburgh to produce DVD footage of a high quality.

- PowerPoint training series consisting of four DVDs
- Recording of lectures onto DVDs for general training purposes in department
- Video recordings for dieticians at iThemba Labs
- Recordings for the Department of Anaesthesiology
- Recordings for the Department of Radiology
- Recording for Dr Baatjies
- Honours long-distance education training videos
- Copies of DVDs for private clinics

National cooperation and partnerships

Obstetric Critical Care and ESMOE – E Langenegger

- Established new step-down acute postnatal unit with minimal infrastructure with collaboration from Philips.
- ESMOE master trainer, developed two modules for programme.
- A mannequin for training was purchased by the Department of Health.
- ESMOE editor
- Facilitator and editor for the Obstetric Anaesthetic Emergency Training Module (ESMOE, Anaesthetic)
- SA master trainer for the BASIC course (Basis assessment and support in intensive care)
- NCCEMD assessor
- Critical Care Society Western Cape: Annual invited speaker

- Combined projects Philips outreach clinical team.

Family Planning – P Steyn

- Department on Health – Training in Eastern Cape Northern Cape and Mpumalanga in family planning.
- Department of Education – Western Cape, Eastern Cape, KwaZulu-Natal, Free State, Northern Cape Province, Northern Province and Western Cape FET colleges.
- Department of Health – Countrywide emergency contraception helpline.
- National Stop Aids Now! Consortium, which is made up of ten civil society organisations all working with children who are affected by HIV / AIDS. Theatre for life, the Catholic Institute of Education (CIE), the Children's Institute (CI). Dance4Life. God's Golden Acre (GGA) Save the Children UK (SC.UK), the SA Scout Association, Stellenbosch University, Targeted AIDS Interventions (TAI) and Twilight Children

Safe Passage Study – Pass Study – HJ Odendaal

The PASS Network was formed in 2003 through a cooperative granting mechanism jointly supported by two NIH Institutes – Eunice Kennedy Shriver National Institute for Child Health and Development (NICHD) and the National Institute for Alcohol Abuse and Alcoholism (NIAAA). Most recently, the National Institute for Deafness and Communicative Disorders (NIDCD) became a partner in this unprecedented effort. The PASS Network is comprised of five elements:

- Two comprehensive clinical sites serving high risk populations for stillbirth, SIDS and FASD
 - Cape Coloured population in the Western Cape, South Africa (University of Stellenbosch – 7,000 maternal/foetal pairs)
 - American Indians in the Northern Plains (North Dakota and South Dakota – 5,000 maternal/foetal pairs)
- Developmental Biology and Pathology Centre (Children's Hospital, Boston)
- Physiology Assessment Centre (Columbia University, New York)
- Data Coordinating and Analysis Centre (DM-stat, Boston)
- NICHD, NIAAA and NIDCD program scientists

The Safe Passage Study involves recruitment and analysis of a prospective cohort of 12 000 maternal/foetal pairs in a longitudinal and multidisciplinary study design. It is designed to answer critical questions

regarding the relationship between prenatal alcohol and other adverse exposures, stillbirth, the sudden infant death syndrome (SIDS) and foetal alcohol spectrum disorders (FASD) in infancy. The Safe Passage Study is the largest study in underserved populations to investigate interactions between environmental, genetic, maternal, and placental factors that affect foetal and infant growth, physiology and brain development, and how these interactions lead to adverse outcomes such as stillbirth and infant death. The extensive infrastructure and large investment in this cohort affords unique opportunities for collaboration and a well characterised cohort suitable for long-term follow-up and intervention studies.

Prof Odendaal is the local principal investigator. Funding has been obtained for another five years, from 2011 to 2016. Recruitment is proceeding well. As of May 2012, more than 4 400 participants have been recruited.

Ultrasound Unit – L. Geerts

- The new provincial policy on aneuploidy screening, compiled by Prof. Geerts, was accepted early on in the year and was implemented at Tygerberg Hospital from 1 January onwards. The aim of the policy was to improve access to prenatal diagnostic procedures, as well as improving efficacy and efficiency of the screening programme. The rationale for this was addressed in a publication (*Effectiveness of prenatal screening for Down syndrome on the basis of maternal age in South Africa*, **S Afr Med J 2011;101: 45-48**) co-authored by Prof. Geerts. The new policy has enabled us to contain the number of invasive procedures and expensive genetic tests in spite of an increase in foetal medicine referrals.
- The new provincial policy on Obstetric and Gynaecological ultrasound services, edited by Prof Geerts, was revised and is in the final stages of updating and approval.
- There is an ongoing collaboration with members of the Department of Psychiatry of the universities of Cape Town and Stellenbosch on a prospective study to assess the effects of maternal stress as well as amphetamine use on the developing foetus.
- Prof. Geerts served on the scientific committee of the latest SASUOG Congress hosted by the University of Cape Town, and was an invited speaker. She continues to be a committee member of both SASUOG and the SA Society for Maternal and Foetal Medicine.

Staff members of the unit are actively involved in the training and formal assessment of CPUT students (BTech (Ultrasound)).

No new equipment was purchased during 2011, but a tender for an advanced 3D-4D ultrasound unit was successfully completed towards the end of the year, and delivery is expected in March 2012.

Gynaecological Oncology –

M.H. Botha and F.H. Van Der Merwe

- The unit remains intimately involved in activities of the South African Society for Gynaecologic Oncology.
- Prof. Botha and Dr van der Merwe are involved in examinations for the Colleges of Medicine of South Africa.

Urogynaecological Unit – K. Van Rensburg

- The Pelvic Floor Society of Cape Town continues with monthly talks with excellent participation between UCT and US. Dr van Rensburg initiated CPD points for these meetings and the allocation of points will commence in 2011.
- No fellowship training is as yet offered at any other universities in South Africa and we thank Prof. T.F. Kruger and Prof W van der Merwe for their contribution in helping this happen. We would also like to thank the colorectal unit at Groote Schuur Hospital under the chairmanship of Prof Goldberg.
- Dr van Rensburg holds the position of secretary on the SAUGA committee and is also a member of ICS.
- Dr Juul is a member of IUGA and SAUGA.

Reproductive Biology

- Dr Marie-Lena Windt-De Beer serves as the new secretary for the South African Society for Reproductive Sciences and Surgery.
- Prof. R. Menkveld: Works together with Prof. Ralf Henkel, Department of Biomedical Sciences, University of the Western Cape.
- Prof. Menkveld retired in August 2011 and a new specialist scientist will be appointed.
- Prof. Siebert is chairing the endoscopic section of the Southern African Society of Reproductive Medicine and Gynaecological Endoscopy (SASREG).
- Prof. Kruger serves as a member and scientific programme director of SASREG.

International cooperation, outreach actions and partnerships

Prof. T. Kruger works with:

- Dr S Oehninger Jones Institute, Norfolk Virginia.
- Prof. D.R. Franken: WHO workshop for the performance of basic semen analysis for African countries – December 2010.

Dr S Gebhardt works with:

- Prof. Ogechi Ikediobi, University of California, San Francisco, on the influence of antiretroviral pharmacogenetic traits and drug levels in hair on treatment outcomes in HIV-positive South African individuals.
- Prof. L. Warnich, Department of Genetics, Stellenbosch University, on several projects related to the genetics and pharmacogenetics of HIV and pre-eclampsia.

Prof. H. Odendaal works with:

- The universities of Harvard, Columbia, Boston and North and South Dakota on the Safe Passage Study.

Prof. D. Hall works with:

- United Kingdom. Cochrane Collaboration: Working on systematic reviews. Status: one completed 2011, one ongoing.
- Australia. Preterm prelabour rupture of membranes close to term trial. National Principal Investigator for South Africa. Status: Recruitment ongoing.
- Canada. The Centre for Research in Women's Health, Director: ME Hannah, University of Toronto. Agreement to collaborate and/or share information. Status: Ongoing, low key.
- Canada. PIERS Study. A WHO funded, screening study for pre-eclampsia in developing countries. Status: Recruitment ongoing.
- Canada. PIERS on the Move Study. An internationally funded study on pre-eclampsia using a screening score and cell phone technology. Status: Protocol stage.
- Canada and South Africa. Calcium and pre-eclampsia Study. A WHO co-ordinated study investigating the effect of pre-conception calcium on the incidence of pre-eclampsia. Status: Protocol stage.
- France. Member of International Workshop on Reproductive Immunology/Immunological Tolerance and Immunology of Pre-eclampsia. Status: Next meeting 2012.

Prof. L. Geerts works with:

- (UK) Foetal Medicine Foundation, regarding programme on first trimester screening (assistance in training an assessment).
- (UK) D. Khumar, Oxford University Press (collaborated with Dr M Urban, then from University of Cape Town, for a chapter '**Prenatal diagnostic services and prevention of birth defects in South Africa**' in an international book on *Genomic variation and genetic disorders in developing countries*). The work addresses the current status and shortcomings of prenatal screening and diagnosis in South Africa, in the public as well as the private sector. The book is soon to be ready for publication
- (USA) Harvard University, University of North and South Dakota, Columbia University and Boston University for the Safe Passage Study. The topic of the main study is the effect of alcohol intake during pregnancy on stillbirths and sudden infant deaths. The ultrasound aspect focuses on the effects of alcohol on foetal development, growth and placental function. For this purpose a rigorous and objective quality assessment programme was developed that can be used in the clinical setting as well.
- (Netherlands) Data from a previous study performed in the Ultrasound Unit are being incorporated in an international 'individual-patient-data meta-analysis' on the prediction of maternal and perinatal outcome in severe early onset preeclampsia, named POPULAR. The results have not yet been communicated.
- Dr Ehigba Enabudoso, an obstetrician from Nigeria, was accommodated in the Foetal Medicine Unit as a trainee in foetal medicine for a period of nine months. He was equipped with the necessary skills to develop a foetal medicine referral unit in his own University (Benin). Prof. Geerts remains involved in his future career and assists him with the planning of relevant research.

Dr MH Botha and Dr FH van der Merwe work with:

- The unit collaborates in a study on uptake of screening for cervical cancer in South Africa. The principal investigator is Prof. Greta Dreyer from the University of Pretoria.
- The unit is involved in an HPV observation study in HIV-positive patients. The recruitment into the study is nearly completed. This study takes place in collaboration with Dr M Zeier (principal

investigator) from the Infectious Diseases Unit in Tygerberg Hospital. The work has led to two publications in international journals.

- The vaccine preparedness study with Prof. Guillani, an international authority on HPV vaccination from the USA, will start recruitment at the end of 2012.

Prof. W. Steyn works with:

- PASS Study – participant in project under guidance of Prof. H.J. Odendaal.
- PIERS Project – study together with the University of British Columbia, Vancouver.
- New initiative – University of Utrecht; University of British Columbia (see above).
- Academic collaboration and partnership – University of Utrecht; University of British Columbia (see above).
- Edgardo Abalos (Argentina), Lelia Duley (UK) and David Henderson-Smart (Australia) on Cochrane reviews on Moderate Hypertension in Pregnancy (Published 2007).

Dr M-L Windt works with:

- Institute of Biomedical Sciences Abel Salazar (ICBAS), University of Porto (UP), Porto, Portugal, St Antonio General Hospital (HGSA), Porto Portugal.

Prof. D.R. Franken works with:

- WHO – ongoing presentation and hosting of annual workshops since 1997.

Prof. Menkveld works with:

- Dr J Rhemrev, Bronovo Hospital, The Hague, The Netherlands. Dr L Bjordahl, Karolinska Institute, Stockholm, Sweden. Prof. C Barratt, Reproductive and Developmental Biology Group, Division of Medical Sciences, University of Dundee, Scotland, UK. Dr D Mortimer, Oozoa Biomedical Inc., Vancouver, Canada.

Prof. G. Theron works with:

- The International Maternal Paediatric Adolescent AIDS Clinical Trials Group (IMPAACT) as: Principle investigator of the Promoting Maternal and Infant Survival Everywhere (PROMISE/1077) study.
- Protocol Vice-chair for a randomised double blind placebo-controlled trial to evaluate the safety of immediate (antepartum-initiated) versus deferred (postpartum-initiated) isoniazid preventative therapy among HIV infected women in high TB incidence settings. Also sponsored by The National

Institute of Allergy and Infectious Diseases (NIAID), The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) and Scientific Collaboration with the Tuberculosis Trials Consortium (TBTC) of the Centres for Disease Control and Prevention. The study has been approved by the Human Research Ethics Committee of the Stellenbosch University. Approval by the Medicine Control Council is pending prior to commencing the study.

- The Wellcome Trust in the United Kingdom as a co-investigator of a study investigating Mother-Infant Transmission of Drug-driven Immune-escape HBV variants.
- The International Maternal Paediatric Adolescent AIDS Clinical Trials Group (IMPAACT) as principle investigator of the Administration of Polysaccharide of Conjugated Pneumococcal Vaccines to HIV-infected Pregnant Women: Safety and Magnitude Persistence, and Transplacental Transfer of Vaccine-Serotype Pneumococcal Anti-capsular Antibodies – a multicentre international trial. The protocol is the final stages of development.

Dr E Langenegger works with:

- RCOG international office : ESMOE modules
- University of Queensland, University of Hong Kong: Establishing the Basic Assessment and Support in Intensive Care work Shops in WC.

New cooperation agreements with the private sector

- Dr Diarra completed his subspeciality training in a fellowship post sponsored by the Medic-clinic group.
- The new fellow in gynaecological oncology, Dr Dliamini, has been appointed in a fellowship post sponsored by Discovery.
- The Netcare Group instituted the first fellowship in Urogynaecology (L Juul).
- Collaboration between Vincent Palotti Hospital (Life Health Care) and the Unit for Reproductive Biology, three PhD students are coupled to this project.
- Prof. Geerts is collaborating with a large organization of general practitioners to make accreditation in obstetric ultrasound a reality in South Africa. The procedural concept of the accreditation process has been accepted by the executive board of this organization as well as SASUOG, and steps are underway to implement this, with the assistance and support of SASUOG.

- The meetings of the Diagnostic Ultrasound Unit provide a forum for sonologists in Cape Town private practice to discuss complex cases and review current clinical approach.

Publications

JOURNAL ARTICLES (SUBSIDISED)	2010	2011
Maternal Foetal Medicine	14	12
Reproductive Medicine	11	5
Urogynaecology	-	-
Gynaecology	4	2
Family Planning	1	1
Urogynaecology	-	1
Total	30	19

JOURNAL ARTICLE (NON SUBSIDISED)	2010	2011
Reproductive Medicine	2	1
Family Planning	1	-
Gynaecological Oncology	2	1
Maternal Foetal Medicine	5	5
Obstetrics and Gynaecology	2	3
Urogynaecology	-	1
Total	12	12

Unique Activities and training

Ultrasound Unit – L Geerts

- The three formal one-day obstetric ultrasound courses (aimed at different scanning levels and attended by private practitioners and employees of the public sector) have now been upgraded to full accreditation courses. This is a first for South Africa.
- Dr Ehigha Enabudoso from Nigeria was the first trainee in foetal medicine accommodated in the US unit for a nine-month period. Currently two fellows are in training for the subspecialty in Maternal and Foetal Medicine. Prof. Geerts is responsible for their Foetal Medicine module.
- Routine teaching activities in the Stellenbosch University Unit.
- Ultrasound tutorials for third-years, including practical demonstration (two per clinical rotation).

- Foetal medicine lectures for registrars (weekly).
- Journal Club (monthly).
- State-of-the-art lectures at the Biennial Congress of SASUOG.
- Hands-on training and formal assessment of ultrasound skills for registrars in O&G and Radiology, medical officers and BTech (US) students of CPUT.

Reproductive Biology

Endoscopic Training – Tf Kruger

- Endoscopy work is performed on level 2 and 3 in the S&T theatres, and our unit has one of the few theatres with endoscopic services in theatre.
- Microsurgery is performed on patients weekly.
- The hysteroscopy outpatient theatre has already been in use for the past seven years. It forms part of the endoscopic procedures performed by the Unit of Reproductive Biology. As these procedures are performed on an outpatient basis, large savings are made for the hospital.
- Two endoscopic training courses are presented during the year in this region.
- An outreach to Namibia was performed by Prof. Siebert on two occasions.
- A large endoscopic workshop was held at Red Cross Hospital during December 2011. The aim was to help subspecialties such as Urogynaecology and Oncology.
- The second workshop for the basic curriculum for registrars was held at Groote Schuur Hospital. This formed a basis for the future.

Obstetrics Critical Care Unit

Established a new acute postnatal and step-down unit to meet increased demand on limited critical care resources.

- Designed floor plan
- Infrastructure
- Motivated for funding from Philips for monitors
- Trained staff
- Opened 5 May
- Treated 434 patients
- No deaths
- Step down from OCCU – 108 patients.

Established a new combined Obstetric Cardiac Clinic with Cardiology

- Trained in echocardiograph screening.

PAEDIATRICS AND CHILD HEALTH

Paediatrics And Child Health

Professor Mariana Kruger

Executive Summary – 2011

The Tygerberg Children's Hospital (TCH) is situated in the Tygerberg Academic Hospital Complex and serves as the large paediatric academic hospital for the eastern metropolitan region of Cape Town in the Western Cape. There were 4694 admissions to highly specialised services (HSS) with a bed occupancy rate (BOR) of 73% and 8523 admissions to general specialist services (GSS) with a bed occupancy rate of 77%. Neonatology delivered an excellent service with a low early neonatal death rate (ENDR) of 7,1/1000 for babies > 1 kg and 13,1/1000 for babies < 500 g, which is far below the target for the Western Cape. Constraints include the shortage of critical-care beds and staff (4,5% of all admissions) and in GSS the emergency workload with 39% of children seen after hours in G Ground.

The HSS ambulatory services had a huge workload with 13572 patient visits and this is partially due to the inadequate physical space for GSS ambulatory care, necessitating these patients to be seen by HSS staff. The specific burden of disease is related to developmental paediatrics (20% include high-risk prematures), neurology (12%) and pulmonology (10%).

The teaching programme in Paediatrics was excellent, with a pass rate of 98% for final-year medical students, five newly qualified paediatricians and three new PhD-enrolled students (two of whom are staff at TCH). The research programme was also excellent with 93 publications by peer review, two text books, 10 chapters in text books and several research grants.

Infrastructure improvement included the donation of the RETCAM Digital System for Paediatric Ophthalmology, to the value of R1 140 000) and other equipment of R821 020. Four new high-care neonatology beds opened in September 2011 and a Cardiology Echo Laboratory was established.

Plans for 2012 include the partial unbundling of the ambulatory paediatric service in the HSS and GSS services, as well as the establishment of four high-care beds (HSS), as well as 17 neonatal beds (three isolation beds) and four general beds (GSS).



Resources and Output

Human resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor/Chief Specialist	2	2
Chief Specialist	1	1
Principal Specialist	6	5
Senior Specialist	19 + 1 (5/8)	19 + 1 (5/8)
Senior Registrar	7 (WCG n=3)	7 (WCG n=3)
Registrar	31 (2 super-numerary)	31
Medical Officer	26	26

SESSIONAL POSTS - HOURS PER WEEK

	NUMBER	FILLED
Specialist	4 (37 hrs/week)	4 (37 hrs/week)
Medical Officer	1 (16 hrs/week)	1 (16 hrs/week)
Locum: Dr JCF du Preez (4 months)	1	1
Number of beds	253	253

Subspecialist Paediatrics

TOTAL PATIENT ADMISSIONS 2011 (CLINICOM DATA)							
*A9 NICU	A9 PICU	TRA-CHEA UNIT	G1	G3	G7	G9	TOTAL
617	518	17	1029	605	692	1233	4694

* A9 Neonatal Intensive Care Unit (NICU) includes High-care beds, since Clinicom cannot separate data.

BED OCCUPANCY RATE 2011 (CLINICOM DATA)							
*A9 NICU	A9 PICU	TRA-CHEA UNIT	G1	G3	G7	G9	TOTAL
87%	85%	62%	81%	58%	72%	71%	73,7%

* A9 NICU includes High-care beds, since Clinicom cannot separate data.

Neonatology

Staff: Profs G Kirsten, J Smith, Drs A Bekker, S Holgate, G Kali, A Madide, L van Wyk, and SK van der Merwe, four Registrars, 10 Medical Officers

WARD A9: INTENSIVE CARE UNIT			
BEDS N=8	2011	2010	2009
Admissions	617	408	387 (420#)
Average hospital stay in days	6	8,2 [#]	21,1 [#]
Average bed occupancy %	93% (Only NICU)	80% [#]	82,40% [#]
% Growth	51%	5,4%	-30%
Caesarean sections	2521 (41%)	2122	2113
Deaths	63 (10,2%)	76 (18,62%)	162 (38,5%)

Combined with PICU data

G1: NEONATAL UNIT – BABIES BORN OUTSIDE TBH			
BEDS N=36	2011	2010	2009
Admissions	1029	987 (1036*)	946
Average hospital stay in days	10	10,5*	11,5
Average bed occupancy %	81%	96,6%*	75,9%
% Growth	-1,5%	4,3%	-7%
Deaths	30 (2,9%) (12 outborn)	33 (3,34%)	27 (4,68%)

*Data from Clinicom

A9: PAEDIATRIC INTENSIVE CARE UNIT			
BEDS N=8	2011	2010	2009
Admissions	598 (PICU)	629	625 (280#)
Average hospital stay in days	6	#	6
Average bed occupancy %	85%	#	120% (137,5%*)
% Growth	#	#	17 – 20%
Deaths	52 (8%)	74 (11,8%)	73 (11,7%)

Clinicom combined data with NICU – no split for PICU, therefore cannot provide data

Staff: Prof. R Gie, Drs P Goussard, S Kling, and L Heyns, 2 Registrars, 1 Medical Officer

A9: TRACHEOSTOMY UNIT	
BEDS N=10	2011
Admissions	17
Average bed occupancy %	62%
Deaths	2

Clinicom combined data with NICU – no split for PICU, therefore cannot provide data

Staff: Prof. R Gie, Drs P Goussard, S Kling, L Heyns, 2 Registrars, 1 Medical Officer

G9: PAEDIATRIC PULMONOLOGY AND ALLERGY			
PULMONOLOGY BEDS N=10	2011	2010	2009
Admissions Pulmonology	511	512	534 (389*)
Average hospital stay in days	6,75	7,0	7,0
Average bed occupancy %	78%	#76%	#76,67%
Deaths	5	2 (0,4%)	4 (1,02%)
HIV-related (ChIP)	0	1	1
Exposed	1	1	1
Infected	0	0	/

Includes all three subdisciplines in G9: Pulmonology, Cardiology, and Neurology.

PROCEDURES AND OTHER ACTIVITIES	
Bronchoscopies	265
Thoracic surgery	55

G9: NEUROLOGY			
BEDS N=10	2011	2010	2009
Admissions	392	397	245 (78*)
Average hospital stay in days	6,75	6,75	8,3
Average bed occupancy %	135%	129%	*
% Growth	None	62%	
Deaths	5 (1,2%)	14 (3,52%)	1 (1,28%)

* Clinicom data (combined with Paediatric Pulmonology)

Staff: Profs J Schoeman, Drs R van Toorn, P Springer, R Solomons (G10), H Saunders, PAM Brink (Senior Registrars), 2 Registrars, 1 shared Medical Officer for G9

OTHER ACTIVITIES	
Paediatrics and neonatal EEGs reported	620
CT brain scans	1043
MRI brain scans	306
MRI spinal cord	100

G9: PAEDIATRIC ENDOCRINOLOGY			
BEDS N=5	2011	2010	2009
Admissions	193	171 (139*)	151 (132*)
Diabeti patients	91	98	64
Endocrine patients	102	73	87
Other wards	49		
Average hospital stay in day	7	10	12 (11,5)
Average bed occupancy %	74%	82%*	137,5%
% Growth	1,1%	13,2%	6,3%
Deaths	0	1 (0,6%)	2 (1,5%)

*Data from Clinicom

Staff: Drs E Zöllner and D Abraham, Registrar, 1 shared Medical Officer for G9

G7: GASTROENTEROLOGY			
BEDS N=9	2011	2010	2009
Admissions	317	285	368 (256*)
Average hospital stay in days	12,6	15,4	11,2
Average bed occupancy %	89%	90,3%	91,5%
% Growth	11,1%	-22,5%	21,8%
Deaths	9	19 (6,6%)	18 (5%)

* Clinicom data and CHIP data

Staff: Dr E Nel, Registrar, 1 shared Medical Officer for G7

THEATRE PROCEDURES	
Gastroscopy (including enteroscopy)	29
Colonoscopy	6
Liver biopsy	5

G7: INFECTIOUS DISEASES UNIT			
BEDS N=14	2011	2010	2009
Admissions	226	193	219
Average hospital stay in days	16,4	16,8	17,0
Average bed occupancy %	89%	72%	91,5%
% Growth	11,1%	-11,9%	28,8%
Deaths	7	11 (5,6%)	8 (3,7%)
HIV related (CHIP)	All	10	1
Exposed (CHIP data)	0	0	7
Infected (CHIP data)	7	10	4

* Clinicom data combined with gastroenterology, therefore cannot determine

Staff: Prof. MF Cotton, Dr H Rabie (HIV Clinic), Registrar, 1 shared Medical Officer for G7

G3: Oncology and Haematology			
BEDS N=9	2011	2010	2009
New patients	51 Haematology	30 Haematology	25 Haematology
	44 Oncology	60 Oncology	46 Oncology
Admissions	343	475	464 (587*)
Average hospital stay in days	5,3	3,4	5,2
Average bed occupancy %	48,2%	51,5%	90,5% (56,09%)
Mortality CHIP	5	4 (0,84%)	2 (0,43%)
% Growth	/	23%	/
Deaths	5	10	15 (3,23%)
Day patients	1181	1317	1051

*Clinicom data

Staff: Staff: Profs M Kruger, C Stefan,
Drs A Dippenaar and R Uys, 2 Registrars

G3: NEPHROLOGY		
BEDS N=4	2011	2010
Admissions	168	140
Other	142	
Average hospital stay in days	12	6
Average bed occupancy %	92%	81%
Deaths	1	1

Staff: Dr C du Buisson, Dr JL Shires – part-time,
Registrar, 1 shared Medical Officer for G3

Renal biopsies (all done in G3)	33
Acute dialyses (all done in PICU)	5

G3 AND G10: CARDIOLOGY		
BEDS N=10 (G3=5, G10=5)	2011	2010
Admissions	148 (G10: 37; G3: 111)	147
Average hospital stay in days	*	*
Average bed occupancy %	*	*
Inpatient echocardiography	649	708
Inpatient consultations	707	*

* Clinicom data combined with cardiology therefore cannot determine

Staff: Drs J Lawrenson, L Andrag, G Comititis, and
R de Dekker (RXH), 2 Registrars, 1 shared
Medical Officer in G3 & G10
(from July to December 2011)

OFFERED AT RXH AS COMMON PLATFORM OF SERVICE DELIVERY	
RXH theatre procedures, operations	323
RXH theatre catheterisations	219

Outpatient Complex

SUBSPECIALIST CLINICS			
CLINICS	2011	2010	2009
Haematology	259	177	155
Immunology	146	113	166
Oncology	448	392	410
Pulmonology	1381	1308	1258
Gastroenterology	527	604	664
High-risk babies	1671	1442	1390
Neurology	1643	2537	2271
Neurodevelopment	1042		
Allergy	713	689	762
Premature follow-up	277	347	288
Nephrology	1201	1103	1120
Cardiology	1076	1032	1069
Bronchopulmonary dysplasia	22	23	30
Diabetic	598	586	479
Endocrinology	530	490	447
Rheumatology	183	205	184
Infectious diseases	1308	1003	848
Genetics	367	293	265
Chemist prescriptions	178	250	236
Total	13 574	12 604	11 983

General Specialist Services

TOTAL PATIENT ADMISSIONS 2011 (CLINICOM DATA)				
G2	G8	G10	GG SHORT STAY	TOTAL
1845	834	1215	4629	8523

BED OCCUPANCY RATE 2011 (CLINICOM DATA)				
G2	G8	G10	GG SHORT STAY	TOTAL
85%	80%	71%	73%	77,2%

Neonatology

WARD G2 NEONATAL UNIT – BABIES BORN IN TBH			
BEDS N=38	2011	2010	2009
Admissions	1845	2017 (2037*)	2302
Average hospital stay in days	6,0	6,3*	8,6
Average bed occupancy	85%	150%*	82,1%
% Growth	-2,5%	-12,3%	29%
Deaths	66 (3,5%)	53 (2,62%)	57 (2,48%)

* Data from Clinicom

G8: NEONATE AND KANGAROO MOTHERCARE (KMC) – STEP-DOWN FACILITY			
BEDS N=30	2011	2010	2009
Admissions	834	736 (855*)	835
Average hospital stay in days	11,1	11,25*	11,4
Average bed occupancy %	80%	80%*	79,2%
% Growth	-2,5%	-11,8%	36%
Deaths	0	2 (0,27%)	1 (0,12%)

* Data from Clinicom

G10: GENERAL PAEDIATRICS			
BEDS N=25	2011	2010	2009
Admissions	1119	820	306
% Increase in general admissions	Increase by 36%	Increase by 168%	
Average bed occupancy %	70,8%*	66,74%	137,5% (77,53%)
Average hospital stay in days	6,33*	5,3	9,1
Deaths	10 (0,89%)	6 (0,73%)	11 (3,6%)

* Clinicom data

Staff: Dr R Solomons, Registrar, Medical Officer, 2 Interns

SHORT-STAY G GROUND: <48-HOUR ADMISSIONS			
BEDS N=25	2011	2010	2009
Total admissions to G Ground	4629	4738	4834
% Increase in general admissions	Decrease by 2%	Decrease by 2%	Increase by 8,5%
Average patient admissions per day	13	13	13
Average hospital stay in days	1,2		1,7
Average bed occupancy rate	73%	75%	73%
Average gastro daily occupancy %	63%	74%	64%
Average gastro daily occupancy % (gastro season Feb-May) – 8 beds during gastro season instead of the usual 6	80%	/	/
Deaths	13	17 (0,13%)	20 (0,15%)
HIV-related mortality	3	2	11
HIV Exposed	2	0	4

Staff: Prof. S Schaaf, Drs E Malek, L Smit, H Finlayson, and M du Preez (part-time), 3 Registrars, (1 Emergency Medicine Registrar), 2 Medical Officers, 2 Interns

GENERAL PAEDIATRICS: EMERGENCY AND CLINICS			
CLINICS	2011	2010	2009
OPD 8:00 – 16:00 Emergency and Routine	7668		
	5512 new referrals	7277	7695
	2156 booked		
Daily average seen	31	29	30
OPD after hours: 16:00 – 8:00 and weekend – Emergency	4900	4797	5246

GENERAL PAEDIATRICS: EMERGENCY AND CLINICS			
CLINICS	2011	2010	2009
OPD after hours: 16:00 – 8:00 %	39%	39%	40%
Total	12 568	12 074	12 941

2011 Morbidity and mortality

PPIP data

Total births in TCH (TBH): n=6084

PNMR (≥ 500 g) = 74,8/1000

ENNDR (≥ 500 g) = 13,3/1000

PNMR (≥ 1000 g) = 40,5/1000

ENNDR (≥ 1000 g) = 7,1/1000

MORTALITY OF BABIES BORN IN TCH (TBH) PER BIRTH WEIGHT CATEGORY: N=90		
BIRTH WEIGHT	% MORTALITY 2011	% MORTALITY 2010
≤ 1000 g	21,6	27,6
1001 to 1500 g	4,6	3,1
1501 to 1999 g	1,5	1,2
2000 to 2499 g	0,8	1,8
≥ 2500 g	0,3	1,8

CAUSES OF DEATH OF BABIES BORN IN TCH (TBH): N=90		
CAUSE OF DEATH	% OF TOTAL 2011	% OF TOTAL 2010
Prematurity-related complications	46,7	28,7
Extreme prematurity	18,9	19,8
Infection-related	21,1	21,8
Peripartum hypoxia	11,1	14,8
Congenital anomalies	16,7	11,9
Other	1,1	2,9

DEATHS OF BABIES REFERRED TO TCH PER WEIGHT CATEGORY		
BIRTH WEIGHT	% MORTALITY 2011	% MORTALITY 2010
< 1000 g	33,3	20,5

DEATHS OF BABIES REFERRED TO TCH PER WEIGHT CATEGORY		
BIRTH WEIGHT	% MORTALITY 2011	% MORTALITY 2010
1000 to 1499 g	25	25
1500 to 1999 g	8,3	11,7
2000 to 2499 g	8,3	10,3
≥ 2500 g	25	32,3

CAUSE OF DEATHS OF BABIES REFERRED TO TCH		
CAUSE OF DEATH	% OF TOTAL 2011	% OF TOTAL 2010
Prematurity-related complications	1 (8,3%)	16,2
Infection-related	4 (33,3%)	26,5
Extreme prematurity	3 (25%)	14,7
Peripartum hypoxia	2 (16,7%)	11,8
Congenital anomalies	2 (16,7%)	16,2
Total deaths	12	14,7

Mortality according to geographic origin of referral to G1

PLACE OF ORIGIN (HOSPITAL)	NUMBER 2011	PERCENTAGE
Helderberg	59	20,27%
Paarl	48	16,49%
Michael M Clinic	47	16,1%
Khayelitsha	36	12,37%
Karl Bremer	26	8,93%
Worcester	19	6,52%
Elsies River Clinic	13	4,46%
Stellenbosch	9	3,09%
Delft Clinic	9	3,09%
Kraaifontein Clinic	6	2,06%
Vredendal	4	1,37%
Caledon	3	1,03%
Ceres	3	1,03%
Beaufort West	2	0,68%
Bishop Lavis	2	0,68%
Swartland	1	0,34%
Robertson	1	0,34%

PLACE OF ORIGIN (HOSPITAL)	NUMBER 2011	PERCENT-AGE
Clanwilliam	1	0,34%
Montagu	1	0,34%
Macassar	1	0,34%

Geographic distribution of the outborn NICU admissions and deaths of babies referred to TCH of referral to G1

PLACE OF ORIGIN (HOSPITAL)	NUMBER 2011	PERCENT-AGE 2011	NUMBER 2010
Paarl	4/41	9,7%	13
Helderberg	8/30	26,7%	7
Other	7		6
Worcester	4/19	21%	5
Karl Bremer	6/35	17%	5
Khayelitsha	1/5	20%	4
Stellenbosch	1/5	20%	2
Swartland	1/3	33,3%	2
Robertson	0	0%	1

CHIP MORTALITY for all subspecialist paediatric wards (2011)

CHIP MORTALITY	DEATHS	HOSP. MORTALITY RATE
*0 – 28 days	5	4,2
28 days – 1 year	59	50
1 – 5 year	38	32,2
5 – 13 years	13	11
13 – 18 years	3	2,5
Number of deaths	118	100

* Please note: Excluding neonatal deaths

LENGTH OF STAY	NUMBER	%
Dead on arrival	6	5,1
< 24 hours	27	22,9
1 – 3 days	23	19,5
4 – 7 days	29	24,6
8 – 14 days	12	10,2
> 14 days	21	17,8

GENDER	NUMBER	%
Female	59	50
Male	56	47,5
Unknown	3	2,5

MAIN CAUSES OF DEATH IN CHILDREN	NUMBER	%
Pneumonia, acute respiratory infection (ARI)	25	21,2
Septicaemia, possible serious bacterial infection	21	18,6
Acute diarrhoea with hypovolaemic shock	10	8,5
Tumours	7	
*Other nervous system (see below)	6	6,8
Other respiratory system	5	4,2
Cirrhosis, portal hypertension, liver failure, hepatitis	5	4,2
TB: Meningitis	4	3,4
TB: Millitary, other extra-pulmonary	4	3,4

5 FACILITIES WHERE MOST PATIENTS WERE REFERRED FROM

REFERRING FACILITY	NUMBER	%
Karl Bremer Hospital	11	9,3
Delft CHC	9	7,6
Worcester Hospital	9	7,6
Paarl Hospital	9	7,6
Helderberg Hospital	9	7,6
Not referred	8	6,8

HIV MORTALITY		
HIV CLINICAL STAGE	NUMBER	%
Stage III	6	5,1
Stage IV	11	9,3
Not staged (but indicated)	8	7
Not staged (not indicated)	71	60,2
Unknown	22	18,6

HIV MORTALITY ACCORDING TO CATEGORY		
HIV LAB CATEGORY	NUMBER	%
Negative	67	56,8
Exposed	11	9,3
Infected	20	16,9
No result	1	0,8
Not tested (but indicated)	2	1,7
Not tested (not indicated)	13	11
Unknown	4	3,4

MORTALITY ACCORDING TO WEIGHT CATEGORY		
WEIGHT CATEGORY	NUMBER	%
Overweight for age (OWFA)	3	2,5
Normal	49	41,5
Underweight for age (UWFA)	41	34,7
Marasmus	17	14,4
Kwashiorkor	4	3,4
Marasmic Kwashiorkor	2	1,7
Unknown	2	1,7

MORTALITY PER WARD	
WARD	NUMBER
A9 PICU	68
G Ground	13

MORTALITY PER WARD	
WARD	NUMBER
G10 – General	10
G7 – Gastro	8
G7 – Infec	6
G3 – Onco	5
G9 – Neuro	4
G9 – Resp	2
G9 – Cardio	1
G3 – Nephro	1
Total	118

Infrastructure development

Developmental paediatrics

- An Autism Diagnostic Observation Schedule (ADOS) kit scholarship was awarded at the South African Association for Child and Adolescent Psychiatry and Allied Professions (SAACAPAP) congress at Wits. The ADOS is considered to be one of the "gold standard" tools used to diagnose autism. Professor Catherine Lord donated ADOS kits (each worth R25 000) to three participants who first had to motivate why their departments needed the equipment, and we were grateful to be awarded one of the kits.
- Access to Gait Laboratory at SU for children with cerebral palsy or HIV-related gait abnormalities. We are running a combined orthopaedic/CP clinic every two months, when Dr J du Toit (Orthopaedics) refers selected children for gait analysis (subsidised) to help plan surgery and assess post-operative results. A research project looking at gait abnormalities in children with HIV is presently underway.

Neonatology

- Four neonatal high-care beds were opened in A9 as a step-down facility for non-ventilated infants who still require intensive care. Infants who had undergone surgery benefitted most from these additional beds, because they previously occupied intensive-care beds.
- A new Echo-room is being established on the ninth Floor in Tygerberg Hospital.

Neurology

- Dr van Toorn acquired a probe and Doppler apparatus for transcranial Doppler measurements in children. This development greatly improves the management of raised intracranial pressure and shunt complications in childhood tuberculous meningitis.

Pulmonology

- Two new paediatric bronchoscopes were acquired through funding from the Tygerberg Children's Hospital Trust.

Tygerberg Children's Hospital Trust's contribution to infrastructure

DATE	SUPPLIER	EQUIPMENT	AMOUNT
2011/01/17	Genop Holdings	RETCAM digital system for Paediatric Ophthalmology	R1 140 000,00
2011/01/18	Siyakhanda Medical Services	4 ENT mobiles and stands for GG, G7, and G10; 3 phototherapy units for G1, G2, and G8	R55 529,56
2011/01/18	Dinaledi Medical	9 pulse oximeters for GG, G1, G2, G3(2), G7, G9, and C3A	R107 730,00
2011/02/11	SSEM Mthembu Medical	Cardiorespiratory monitor for NICU & PICU	R94 449,00
2011/02/11	Smiths Medical	4 apnoea monitors for G7, G2 (2) and GG	R23 940,00
2011/02/25	GE Medical Systems	3S-RS sector phased array comfort scan probe for Paediatric Neurology	R42 522,00
2011/02/25	Siyakhanda Medical Services	2 procedure carts for G8 and G1; phototherapy unit for G1	R34 271,53
2011/03/28	SSEM Mthembu Medical	4 oxygen blenders for G8, G2, G9, and G10	R50 456,40
2011/04/08	Tecmed	Bronchoscope	R227 885,74
2011/04/08	Carefusion	5 Alaris GH syringe pumps for GG, G7 (2), G9, and G10	R39 749,98
2011/08/24	Khusela Solution	Computer and monitor for G-Ground	R16 281,48
2011/09/27	Shonaquip	Shonabuggy for Monique Gabriels	R33 755,40
2011/11/08	SSEM Mthembu Medical	Cardiorespiratory monitor for A9	R94 449,00
Total			R1 961 020,09

COMMUNITY OUTREACH PROGRAMMES/ COMMUNITY SERVICE AND INTERACTION, AND PARTNERSHIPS

International

Expert members

- International Society for Paediatric Oncology (SIOP) continental president for Africa – Prof. M Kruger.
- SIOP advocacy chairperson – Prof. M Kruger.
- Chairperson for the Global Drug Facility, a WHO-funded body – Prof. RP Gie.
- National Neuroscience Institute (NNI) Advisory Board – Dr ED Nel.

Education and training

- External examiner for the Catholic University of Leuven, Department of Bioethics; candidate: Wim Pinxten; title: One size does not fit all – Prof. M Kruger.
- Visiting professor to Catholic University of Leuven, Department of Paediatrics, with lectures to postgraduate students – Prof. M Kruger.
- Responsible for a review of the childhood TB programme in the Philippines, as requested by the Philippines National TB Programme and the WHO – Prof. RP Gie.
- Participation as external examiner in Zimbabwe – Prof. DC Stefan.
- Facilitors in an operational research workshop on paediatric lung disease held by the International Union Against Tuberculosis and Lung Disease (IUATLD) in Llongwe, Malawi, attended by paediatricians from 10 African countries. The outcome of the workshop was to reduce deaths from paediatric lung disease to achieve the Millenium Development Goal of reducing child mortality – Prof. R Gie.

Outreach

- Twinning with Bansa Baptist Hospital, Mbingo Baptist Hospital and Mutengene Baptist Hospital, Cameroon – Profs PB Hesseling and M Kruger.
- Clinical advice and guidelines to colleagues from different African countries – Prof. DC Stefan.
- Invitation by the haematology oncology unit in Zambia – Prof. DC Stefan.
- Medical coordinator of Burkitt's lymphoma in Eastern Africa (National Cancer Institute) – Prof. DC Stefan.

- Involvement with Rwanda CHUC Hospital in Kigali – Prof. DC Stefan.
- Twinning with paediatric haematology oncology unit in Namibia – Prof. DC Stefan.
- World Asthma Day promoted via radio interviews – Dr S Kling.

Partnerships

- Pulmonology:
 - The IUATLD, consultant in paediatric lung disease.
 - Consultant to the Childhood TB programme, Philippines.
 - Technical advisor to the Global Drug Facility, WHO, Geneva, Switzerland.
- Oncology:
 - Twinning project with World Child Cancer, The Cameroon Baptist Convention Health Board and Beryl Thyer Memorial Africa Trust.
 - Twinning project with Windhoek Central Hospital, Namibia.
 - Research study in SA (HIV malignancy) – collaboration with York University, Namibia.
- Neurology:
 - The Unit of Paediatric Neurology has a research agreement with the Free University Amsterdam which includes a combined Stellenbosch/Amsterdam PhD degree. Dr Regan Solomons from the Department of Paediatrics and Child Health has registered for this PhD degree and is also the receiver of a scholarship from the Free University Amsterdam for the next four years.
- Nephrology:
 - International Pediatric Nephrology Association (IPNA), International Children's Continenence Society (ICCS).
- Gastroenterology:
 - Cooperation with the European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) to provide postgraduate training in paediatric gastroenterology to paediatricians in southern Africa.
- Cardiology:
 - Research partnership with the World Heart Federation on rheumatic heart disease screening.

National

Education and training

- National Child Healthcare Problem Identification Programme (ChIP) and national breastfeeding orientation meetings – Dr E Malek.

Partnerships

- Pulmonology:
 - Department of Child and Adolescent Medicine, Cape Town University Medical School. Training of senior registrars in paediatric bronchoscopy.
- Allergy:
 - College of Paediatrics of South Africa: Dr Kling is the honorary secretary of the council.
 - Colleges of Medicine of South Africa: Dr Kling was elected as a senator.
 - Allergy Society of South Africa: Dr Kling is the past chairperson.
 - On the editorial board of the journal *Current Allergy and Clinical Immunology*.
 - Section editor of the ethics section of *Current Allergy and Clinical Immunology*.
- Developmental Paediatrics:
 - Outreach to Paarl Hospital, Paarl School for cerebral palsy and Sivuyile Special Care.
 - We now partner with Autism Western Cape; a psychologist and social worker now do outreach work in our clinic once a week.
- Oncology:
 - Strong collaboration with Bloemfontein Universitas Hospital (paediatric haematology oncology).
 - The chair of the South African paediatric cancer registry is located at Stellenbosch University/Tygerberg Children's Hospital.
- Nephrology:
 - Red Cross Children's Hospital and Steve Biko Academic Hospital.

Regional

Education and training

- Training of senior registrars from the University of Cape Town in paediatric bronchoscopy – Paediatric Pulmonology Unit.
- The Diabetic Education Nurse is actively involved in the education and training of the nurses at the St. Joseph's Home and the teachers and nursery-school teachers at various schools and nursery schools.

Outreach

- Paarl Regional Hospital – Paediatric Pulmonology Unit.
- Telephonic outreach – Dr CJ du Buisson
- Ward rounds are conducted at the neonatal and KMC wards at Helderberg and Eerste River Hospitals (ERH) by neonatologists.
- Subspecialist neurology outreach to Worcester and Paarl Hospitals once every two months. The goal of a client-centred approach was achieved with 311 patients seen closer to their homes, thus decreasing transport costs to Tygerberg Hospital, training doctors at the secondary hospitals and decreasing the load on the tertiary paediatric neurology outpatients at Tygerberg Hospital – Dr van Toorn and Dr Solomons.
- Subspecialist and training outreach to Worcester and Paarl Hospitals for paediatrics, paediatric haematology and oncology twice a year – Prof. M Kruger.
- Paediatric neurology clinic at Alta du Toit School in Kuils River twice a year – Prof. J Schoeman.
- Paarl Hospital and Paarl School for cerebral palsy and Sivuyile Special Care – Dr P Springer.
- Khayelitsha District Hospital (KDH) based at Tygerberg Hospital under the leadership of Level 2/general paediatric head, Dr Malek, including a quarterly morbidity and mortality meeting. The ChIP system of death reporting was instituted at KDH in 2011 – Dr R Solomons (G10).
- Responsible for the Brooklyn Chest Hospital's (BCH) children's wards together with a TCH registrar and a full-time BCH medical officer. Ward rounds are done twice weekly, of which one is also an opportunity for medical-officer training and case presentations for discussion, by Dr Andre Burger from Brewelskloof Hospital. BCH has 65 children's beds and manages complicated TB cases – there were 132 new admissions for 2011 – Prof. HS Schaaf.
- The importance of outreach and support to district hospitals and community health centres (CHSs) that have no resident paediatricians remained the focus of outreach initiatives, as well as the consolidation of paediatric and neonatal services for the Metro East, through the leadership of Level 2/general paediatric head, Dr Malek. A representative continued to attend the monthly morbidity and mortality meetings at Helderberg Hospital (HBH), KDH and ERH, to give further insight into the paediatric deaths to try to assist

in preventing them in future, as well as to follow up on any transfers and facilitate the ChIP system of death reporting at ERH, HBH and KDH. Weekly ward rounds at ERH have continued enhancing the care of the children and strengthening the skills and confidence of the community service doctors in attendance there.

- This year all paediatric medical officers from KDH rotated through G Ground for 2 weeks for on-site training in emergency and ambulatory paediatrics in preparation of the opening of the new KDH in 2012. Nursing staff from KDH followed a similar process.
- There continues to be a close liaison with the WCG and City of Cape Town during the diarrhoeal campaign, with education and skills sessions and regular meetings within the Eastern, Khayelitsha and Tygerberg subdistricts. Outreach and support to the paediatric ward at BCH has continued as in the past – G Ground.
- TB service outreach – Outreach for MDR-TB and complicated TB cases has also continued to two subdistricts – Khayelitsha (at Town Two) every first Wednesday of the month (302 patient visits), which also included in-service training of Khayelitsha doctors to manage these cases, and Kraaifontein (at Scottsdale) every second month on the last Wednesday of the month (89 patient visits) – G Ground.
- Three months' clinics at Eben Dönges Hospital, Worcester, and six-monthly clinics in East London. They are also available for telephonic consultations with George Hospital – Paediatric Cardiology.

Partnerships in the private sector

- Oncology:
 - Offer clinical advice and second opinions to private patients referred by Prof. C Stefan and Dr A Dippenaar.
- Nephrology:
 - Cape Kidney, South African Transplant Society (SATS), South African Renal Society (SARS), and SPRS.
- Endocrinology:
 - Novo Nordisk donates the salary for the diabetics educator.

Teaching and training

Undergraduate students

98% pass rate

Current PhD students

Dr UD Feucht - *Evaluating and improving the care of HIV-infected and HIV-affected children in the first years of the implementation of a large-scale antiretroviral therapy programme in Pretoria, South Africa.*

Promotors: Profs M Kruger and B Forsyth

Dr P Goussard - *Bronchoscopic assessment and management of children presenting with clinical significant airway obstruction due to tuberculosis.*

Promotors: Profs RP Gie and C Bolliger

Dr SEV Innes – *Lipoatrophy in pre-pubertal children on antiretroviral therapy in South Africa.*

Promotors: Profs MF Cotton and B Rosenkranz, and Dr EWA Zöllner

Dr A Mandalakas – *Development of a novel conceptual framework of childhood tuberculosis within which to study the impact of an isoniazid preventative therapy (IPT) program for childhood TB prevention in high burden communities.*

Promotors: Profs AC Hesseling and RP Gie

Dr EWA Zöllner – *Adrenal suppression in asthmatic children on steroids.*

Promotors: Profs S Hough and E Irušen

PhD applications submitted

Dr R van Toorn - *Childhood tuberculous meningitis: challenging current management strategies.*

Promotors: Profs JF Schoeman and HS Schaaf

Dr R Solomons with NRF bursary – *Improving early diagnosis of tuberculous meningitis in children.*

Promotors: Profs J Schoeman (Stellenbosch University), M van Furth (Free University Amsterdam)

Joint PhD degree with Free University Amsterdam – Profs J Schoeman (Stellenbosch), M van Furth (Amsterdam).

Ms M Zunza – *Prolonged Breastfeeding with Antiretroviral Prophylaxis or Commercial Infant Formula Milk and associated health outcomes: A comparative study of a birth cohort of HIV-exposed infants in public health care settings.*

Promotors: Prof. MF Cotton and Dr MM Esser

Successful candidates in the DCH(SA), CMSA

(Diploma in Child Health, Colleges of Medicine of South Africa)

Dr N Maclou

Dr JR Murray

Successful candidates in the FC Paed(SA)**Part I, CMSA**

(Fellowship of the College of Paediatricians of South Africa Part I, Colleges of Medicine of South Africa)

Dr M Bassier

Dr IEH Webster

Successful candidates in the FC Paed(SA)**Part II, CMSA**

(Fellowship of the College of Paediatricians Part II, Colleges of Medicine of South Africa)

Dr Ströbele

Dr M Morkel

Dr J Reddy

Dr T Wessels

Dr M Wessels

Successful candidate in the MMed (Paed), Stellenbosch University

(Master of Medicine in Paediatrics)

Dr N O'Connell under the supervision of Dr H Rabie

Title: *Presumed cytomegalovirus retinitis in human immunodeficiency virus type I-infected South African children* and published in '**Ped Infect Dis J** 2011; 30(6).

Candidate in the MMed (Paed) Part II, Stellenbosch University

(Master of Medicine in Paediatrics Part II)

Dr OR Karangwa

Successful candidate in the Cert ID (SA) Paed, CMSA

(Certificate in Infectious Diseases of the College of Paediatricians of South Africa, Colleges of Medicine of South Africa)

Dr A Dramowski

Successful Candidate in the Cert Nephrology (SA) Paed, CMSA

(Subspecialty Certificate in Nephrology of the College of Paediatricians, Colleges of Medicine of South Africa)

Dr CJ du Buisson

Successful candidate in the MSc Infectious Diseases, London School of Hygiene and Tropical Medicine

Dr H Rabie

Successful candidate in the MPhil Health Sciences Education, Stellenbosch University

Dr L Heyns

Successful candidate in the MSc in Medical Science, Stellenbosch University

Mnr R Dunbar

Training awards

Discovery Foundation

Dr L Frigati – Paediatric Infectious Diseases

Dr ED Nel - Received financial support from ESPGHAN, from an unrestricted grant of €35 000 annually for two years by the Nestlé Nutrition Institute (NNI) to train a fellow in paediatric gastroenterology.

Education-related activities

- The education committees of the department are comprised as follows:
 - Undergraduate: Drs D Abraham, R van Toorn, R Solomons, P Springer, PA Henning, L Heyns (chairperson), GF Kirsten.
 - Postgraduate: Drs S Kling (chairperson), ED Nel, H Finlayson, Prof. DC Stefan.
 - PhD: Profs M Kruger (chairperson), N Beyers, JF Schoeman, HS Schaaf and AC Hesselting.
- All consultants are involved with under- and postgraduate teaching on a daily basis. Additional education activities included:
- Senior registrars in training:
 - Paediatric Pulmonology: Dr GA Poole, funded by bursary from Nycomed Pharmaceuticals, and Dr TC Gray, funded by bursary from the Discovery Foundation.
 - Developmental Paediatrics: Dr HH Saunders, funded by Discovery Foundation.
 - Paediatric Cardiology: Dr B Rossouw
 - Neonatology: Dr L van Wyk, funded by bursary from the Discovery Foundation, and Dr SK van der Merwe.
 - Paediatric Infectious Diseases: Dr A Dramowski.
- Colleges of Medicine of South Africa (CMSA):
 - Convenors/External Examiners:
- Diploma in Child Health (DCH): Drs H Finlayson, L Heyns, E Malek, R Solomons.

- FC Paed(SA) Part II: Prof. M Kruger, Dr S Kling.
- Cert Paediatric Neurology (SA): Prof. JF Schoeman, Dr R van Toorn.
- Cert Neonatology (SA): Prof. GF Kirsten.
- Cert Paediatric Oncology (SA): Prof. M Kruger
 - Examiners Workshop: Prof. M Kruger, Drs E Malek, S Kling.
- Professional Educational Development for Academics (PREDAC), 2011, attended by Drs DR Abraham and R Solomons.
- Prof. DC Stefan: 1 Chapter in book: Informing Curriculum development in Health Sciences – a Delphi method inquiry (Curriculum inquiry in South African higher education: Some scholarly affirmations and challenges, SUNMeDIA).

Research

Achievements

While working for Paediatric Pulmonology, Dr Aneesa Vanker was awarded the Discovery Academic Fellowship to investigate paediatric lung infections in a developing community.

Publications

Journal articles (subsidised)

1. Abayomi EA, Somers A, Grewal R, Sissolak G, Bassa F, Maartens D, Jacobs P, **Stefan C**, Ayers LW. *Impact of the HIV epidemic and anti-retroviral treatment policy on lymphoma incidence and subtypes seen in the Western Cape of South Africa, 2002-2009: Preliminary findings of the Tygerberg lymphoma study group.* **Transfusion and Apheresis Science**; 2011, 44: 161-166.
2. Abrams AI, Opiyo N, **Cotton MF**, Crowley S, Okebe J, Wiysonge S. *Supporting registration of child-focused clinical trials in Africa: The Child Strategy Project.* **South African Medical Journal** 2011; 101(11): 804.
3. Al-Dabbagh M, Lapphra K, Mcgloin R, Inrig K, **Schaaf HS**, **Marais BJ**, Sauve L, Kitai I, Kollmann TR. *Drug-resistant Tuberculosis.* **Pediatric Infectious Disease Journal**; 2011, 30(6): 501-505.
4. Andronikou S, **Goussard PL**, **Gie RP**. *Not all children with nodular interstitial lung patterns in South Africa Have TB – A rare case of Paediatric “Bird Fanciers” Disease.* **Pediatric Pulmonology**; 2011, 46(11): 1134-1136.
5. **Claassen M**, Sismanidis C, **Lawrence K**, Godfrey-Faussett P, Ayles H, Enarson DA, Beyers N. *Tuberculosis among community-based health care*

- researchers.* **International Journal of Tuberculosis and Lung Disease**; 2011, 14(12): 1576-1581.
6. **Cotton MF**. *INH Preventive therapy (IPT) in HIV-Infected South African Children.* **Southern African Journal of HIV Medicine**; 2011, 40: 27-30.
 7. Davies M-A, Eley B, Moultrie H, Technau K, **Rabie H**, Van Cutsem G, Giddy J, Wood R, Egger M, Keiser O. *Accuracy of immunological criteria for identifying virological failure in children on antiretroviral therapy - The leDEA South Africa Collaboration.* **Tropical Medicine & International Health**; 2011; 16(11): 1367-1371.
 8. Davies M-A, Moultrie H, Eley B, **Rabie H**, Van Cutsem G, Giddy J, Wood R, Technau K, Keiser O, Egger M, Boule A. *Virologic failure and second-line antiretroviral therapy in children in South Africa - the leDEA South Africa collaboration.* **Journal of Acquired Immune Deficiency Syndromes**; 2011, 56(3): 270-278.
 9. Dekker G, Andronikou S, **Van Toorn R**, Scheepers S, Brandt A, Ackermann C. *MRI findings in children with tuberculous meningitis: a comparison of HIV-infected and non-infected patients.* **Childs Nervous System**; 2011, 27: 1943-1949.
 10. Delva W, Beauclair R, Welte A, Vansteelandt S, Hens N, Aerts M, Du Toit E, **Beyers N**, Temmerman M. *Age-disparity, sexual connectedness and HIV infection in disadvantaged communities around Cape Town, South Africa: a study protocol.* **BMC Public Health**; 2011, 11: 616-621.
 11. Diacon AH, Dawson R, Hanekom M, Narunsky K, Venter A, Hittel N, Geiter LJ, Wells CD, Paccaly AJ, **Donald PR**. *Early bactericidal activity of delamanid (OPC-67683) in smear-positive pulmonary tuberculosis patients.* **International Journal of Tuberculosis and Lung Disease**; 2011, 15(7): 949-954.
 12. Diacon AH, Maritz JS, Venter A, Van Helden PD, Dawson R, **Donald PR**. *Time to liquid culture positivity can substitute for colony counting on agar plates in early bactericidal activity studies of antituberculosis agents.* **Clinical Microbiology and Infection**; 2011.
 13. **Donald PR**, Maritz JS, Diacon AH. *The pharmacokinetics and pharmacodynamics of rifampicin in adults and children in relation to the dosage recommended for children.* **Tuberculosis**; 2011, 91(3): 196-207.
 14. **Donald PR**. *The chemotherapy of osteo-articular tuberculosis with recommendations for treatment of children.* **Journal of Infection**; 2011, 62: 411-439.

15. **Donald PR.** *The chemotherapy of tuberculous lymphadenopathy in children.* **Tuberculosis**; 2010, 90: 213-224.
16. **Dramowski A, Bekker A, Kirsten GF, Marais BJ, Rabie H, Cotton MF.** *A case of congenital measles during the 2010 South African epidemic.* **Annals of Tropical Paediatrics**; 2011, 31: 185-188.
17. **Dramowski A, Coovadia A, Meyers T, Goga A.** *Identifying missed opportunities for early intervention among HIV-infected Paediatric admissions at Chris Hani Baragwanath Hospital, Soweto, South Africa.* **Southern African Journal of HIV Medicine**; 2011, 12(42): 16-23.
18. **Dramowski A, Tshuma M, Finlayson H, Cotton MF, Rabie H.** *Experience with pandemic influenza A/H1N1 2009 at Tygerberg Children's Hospital, South Africa.* **Southern African Journal of Epidemiology and Infection**; 2011, 26(2): 99-102.
19. **Du Preez K, Hesselning AC, Mandalakas AM, Marais BJ, Schaaf HS.** *Opportunities for chemoprophylaxis in children with culture-confirmed tuberculosis.* **Annals of Tropical Paediatrics**; 2011, 31: 301-310.
20. **Du Preez K, Mandalakas AM, Kirchner HL, Grewal HMS, Schaaf HS, Van Wyk SS, Hesselning AC.** *Environmental tobacco smoke exposure increases Mycobacterium tuberculosis infection risk in children.* **International Journal of Tuberculosis and Lung Disease**; 2011, 15(11): 1490-1496.
21. **Dunbar R, Lawrence K, Verver S, Enarson DA, Lombard CJ, Hargrove J, Caldwell J, Beyers N, Barnes JM.** *Accuracy and completeness of recording of confirmed tuberculosis in two South African communities.* **International Journal of Tuberculosis and Lung Disease**; 2011, 15(3): 337-343.
22. **Dunbar R, Van Hest R, Lawrence K, Verver S, Enarson DA, Lombard CJ, Beyers N, Barnes JM.** *Capture-recapture to estimate completeness of tuberculosis surveillance in two communities in South Africa.* **International Journal of Tuberculosis and Lung Disease**; 2011, 15(8): 1038-1043.
23. **Friedrich SO, Venter A, Kayigire XA, Dawson R, Donald PR, Diacon AH.** *Suitability of Xpert MTB/RIF and Genotype MTBDRplus for patient selection for a Tuberculosis clinical trial.* **Journal of Clinical Microbiology**; 2011, 49(8): 2827-2831.
24. **Frigati L, Kranzer K, Cotton MF, Schaaf HS, Lombard Cj, Zar HJ.** *The impact of isoniazid preventive therapy and antiretroviral therapy on tuberculosis in children infected with HIV in a high tuberculosis incidence setting.* **Thorax**; 2011, 66(6): 496-501.
25. **Goussard PL, Gie RP, Kling S, Nel ED, Louw M, Schubert PT, Rhode D, Vanker A, Andronikou S.** *The Diagnostic Value and Safety of Transbronchial Needle Aspiration Biopsy in Children With Mediastinal Lymphadenopathy.* **Pediatric Pulmonology**; 2010, 45: 1173-1179.
26. **Green RJ, Kling S.** *The Diploma in Allergology - Levels of Competence Required and new Developments.* **Current Allergy & Clinical Immunology**; 2011, 24(3): 130-133.
27. **Guech-Ongey M, Yagi M, Palacpac NMQ, Emmanuel B, Talisuna AO, Bhatia K, Stefan C, Biggar Rj, Nkrumah F, Neequaye J, Tougan T, Horii T, Mbulaiteye SM.** *Antibodies reactive to Plasmodium falciparum serine repeat antigen in children with Burkitt lymphoma from Ghana.* **International Journal of Cancer**; 2011, 130: 1-7.
28. **Hallbauer UM, Schaaf HS.** *Ethionamide-induced hypothyroidism in children.* **Southern African Journal of Epidemiology and Infection**; 2011, 26(3): 161-163.
29. **Heidari S, Mofenson LM, Cotton MF, Marlink R, Cahn P, Katabira E.** *Antiretroviral Drugs for Preventing Mother-to-Child Transmission of HIV: A Review of Potential Effects on HIV-Exposed but Uninfected Children.* **Journal of Acquired Immune Deficiency Syndromes**; 2011, 57(4): 290-296.
30. **Hesselning AC, Graham SM, Cuevas LE.** *Rapid molecular detection of tuberculosis.* **New England Journal of Medicine**; 2011, 364(2): 183-184.
31. **Holgate SL, Bekker A, Rabie H, Cotton MF.** *Oseltamivir Use in Low-Birth Weight Infants During the 2009 nH1N1 Influenza A Outbreak in the Western Cape, South Africa.* **Journal of Tropical Pediatrics**; 2011,1-5.
32. **Hoosen EGM, Cilliers AM, Hugo-Hamman CT, Brown SC, Lawrenson JB, Zuhlke L, Hewitson J.** *Paediatric cardiac services in South Africa.* **South African Medical Journal**; 2011, 101(2): 106-107.
33. **Innes S, Cotton MF, Venter F.** *Why should we still care about the stavudine dose?* **Southern African Journal of HIV Medicine**; 2011, 12(42): 14-15.
34. **Innes S, Norman J, Smith P, Smuts M, Capparelli E, Rosenkranz B, Cotton M.** *Bioequivalence of dispersed stavudine: opened versus closed capsule dosing.* **Antiviral Therapy**; 2011, 16: 1131-1134.
35. **Jaspan HB, Myer L, Madhi SA, Violari A, Gibb DM, Stevens WS, Dobbels E, Cotton MF.** *Utility of clinical parameters to identify HIV infection in infants below ten weeks of age in South Africa: a*

- prospective cohort study. **BMC PEDIATRICS**; 2011, 11: 104-110.
36. Jones CE, Naidoo S, De Beer C, Esser M, Kampmann B, **Hesseling AC**. Maternal HIV Infection and Antibody Responses Against Vaccine-Preventable Diseases in Uninfected infants. **Journal of the American Medical Association**; 2011, 305(6): 576-584.
 37. **Kling S, Goussard PL, Gie RP**. The treatment of acute asthma in children. **Current Allergy & Clinical Immunology**; 2011, 24(1): 22-26.
 38. **Kling S**. Ethical Issues in Treating Children. **Current Allergy & Clinical Immunology**; 2011, 24(4): 218-220.
 39. **Kling S**. Off-label drug use in childhood asthma. **Current Allergy & Clinical Immunology**; 2011, 24(1): 38-41.
 40. **Kling S**. Professionalism, Education and Allergy. *Current Allergy & Clinical Immunology* 2011; 24(3) : 165-166.
 41. Le Roux DM, **Cotton MF**, Le Roux SM, Whitelaw A, Lombard CJ, Zar H. Bacteremia in Human Immunodeficiency virus-infected children in Cape Town, South Africa. **Pediatric Infectious Disease Journal** 2011; 30(10): 904-909.
 42. Madhi SA, Nachman S, Violari A, Kim S, **Cotton MF**, Bobat R, Jean-Philippe P, Mcsherry G, Mitchell C. Primary Isoniazid Prophylaxis against Tuberculosis in HIV-Exposed Children. **New England Journal of Medicine** 2011; 365(1) : 21-31.
 43. Madhi SA, Violari A, Klugman K, Lin G, McIntyre JA, Von Gottberg A, **Cotton MF**, Adrian P. Inferior quantitative and qualitative immune responses to pneumococcal conjugate vaccine in infants with nasopharyngeal colonization by *Streptococcus pneumoniae* during the primary series of immunization. **Vaccine**; 2011, 29(40): 6994-7001.
 44. **Mandalakas AM, Detjen AK, Hesseling AC**, Benedetti A, Menzies D. Interferon-gamma release assays and childhood tuberculosis: systematic review and meta-analysis. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(8): 1018-1032.
 45. **Mandalakas AM, Detjen AK, Hesseling AC**. Can we Accurately Diagnose Tuberculosis Infection in Children? **Pediatric Infectious Disease Journal**; 2011, 30(9): 817-818.
 46. **Mandalakas AM**, Menzies D. Is screening immigrants for latent tuberculosis cost-effective? **Lancet Infectious Diseases**; 2011, 11(6): 418-419.
 47. **Marais BJ, Rabie H, Cotton MF**. TB and HIV in children – advances in prevention and management. **Paediatric Respiratory Reviews**; 2011, 12: 39-45.
 48. **Marais BJ**. Impact of Tuberculosis on Maternal and Child Health. **Journal of Infectious Diseases**; 2011, 203: 304-305.
 49. **Marais BJ**. On the Role of Chest CT Scanning in a TB Outbreak Investigation. **Chest**; 2011, 139(1): 229.
 50. **Maritz ER**, Kidd M, **Cotton MF**. Premasticating Food for Weaning African Infants: A Possible Vehicle for Transmission of HIV. **Pediatrics**; 2011, 128(3): e579-e590.
 51. McIlleron H, Nuttal J, **Rabie H, Cotton MF**, Eley B, Meyers T, Smith PJ. Lopinavir exposure is insufficient in children given double doses of lopinavir/ritonavir during rifampicin-based treatment for tuberculosis. **Antiviral Therapy**; 2011, 16(3): 417-421.
 52. McIlleron H, **Willemsse M, Schaaf HS**, Smith PJ, **Donald PR**. Pyrazinamide plasma concentrations in young children with tuberculosis. **Pediatric Infectious Disease Journal**; 2011, 30(3): 262-265.
 53. Mugabo P, Els I, **Smith J, Rabie H**, Smith PJ, Mirochnick M, Steyn W, Hall D, Madsen R, **Cotton MF**. Nevirapine plasma concentrations in premature infants exposed to single-dose nevirapine for prevention of mother-to-child transmission of HIV-1. **South African Medical Journal**; 2011, 101(9): 655-658.
 54. **Nel ED, Rabie H**, Goodway J, **Cotton MF**. A Retrospective Study of Cryptosporidial Diarrhea in a Region with High HIV Prevalence. **Journal of Tropical Pediatrics**; 2011, 57(4): 289-292.
 55. **O'Connell N**, Freeman N, **Rabie H, Cotton MF**. Presumed cytomegalovirus retinitis in human immunodeficiency virus type 1-infected South African children. **Pediatric Infectious Disease Journal**; 2011, 30(6): 2.
 56. Omar N, Andronikou S, **Van Toorn R**, Pienaar M. Diffusion-weighted magnetic resonance imaging of borderzone necrosis in paediatric tuberculous meningitis. **Journal of Medical Imaging and Radiation Oncology**; 2011, 55: 563-570.
 57. Orth H, Salaam-Dreyer Z, **Kirsten Gf, Bekker A**, Gqada Z, Wasserman E. Emergence of reduced susceptibility to glycopeptides in a *Staphylococcus aureus* strain causing infection in a neonate. **Southern African Journal of Epidemiology and Infection**; 2011, 26(3): 107-108.
 58. Pappasavvas E, Azzoni L, Foulkes A, Violari A, **Cotton MF**, Pistilli M, Reynolds G, Yin X, Glencross

- DK, Stevens WS, McIntyre JA, Montaner LJ. Increased Microbial Translocation in 180 Days Old Perinatally Human Immunodeficiency Virus-Positive Infants as Compared With Human Immunodeficiency Virus-exposed Uninfected Infants of Similar Age. **Pediatric Infectious Disease Journal**; 2011, 30(10): 877-882.
59. Peprah KO, Andronikou S, Goussard PL. Characteristic Magnetic Resonance Imaging Low T2 Signal Intensity of Necrotic Lung Parenchyma in Children With Pulmonary Tuberculosis. **Journal of Thoracic Imaging**; 2011.
60. Rabie H, Violari A, Duong T, Madhi SA, Josipovic D, Innes S, Dobbels E, Lazarus E, Panchia R, Babiker Ag, Gibb DM, Cotton MF. Early antiretroviral treatment reduces risk of bacilli Calmette-Guérin immune reconstitution adenitis. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(9): 1194-1200.
61. Razack R, Michelow P, Leiman G, Harnekar A, Poole J, Wessels G, Hesselning PB, Stefan C, Louw M, Schubert PT, Clarke H, Wright C. An Interinstitutional Review of the Value of FNAB in Pediatric Oncology in Resource-Limited Countries. **Diagnostic Cytopathology**; 2011, 1-7.
62. Reynders D, Omar F, Kruger M, Wedi O. Treatment Outcome of Osteosarcoma in a Single Institution in a Developing Country. **Pediatric Blood & Cancer**; 2011; 57(5): 880.
63. Rose PC, Schaaf HS, Marais BJ, Gie RP, Stefan C. Value of bone marrow biopsy in children with suspected disseminated mycobacterial disease. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(2): 200-204.
64. Schaaf HS, Hesselning AC. Induced sputum microbiology in confirming pulmonary tuberculosis in children. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(9): 1139.
65. Schaaf HS, Marais BJ. Management of multidrug-resistant tuberculosis in children: a survival guide for paediatricians. **Paediatric Respiratory Reviews**; 2011, 12: 31-38.
66. Schoeman JF, Janse Van Rensburg A, Laubscher JA, Springer P. The role of aspirin in Childhood Tuberculous Meningitis. **Journal of Child Neurology**; 2011, 26(8): 956-962.
67. Schoonees A, Lombard M, Nel ED, Volmink J. Ready-to-use therapeutic food for treating undernutrition in children from 6 months to 5 years of age (Protocol). **Cochrane Database of Systematic Reviews**; 2011, 2: 1.
68. Schubert PT, Cotton MF, Wright C. Cytomorphological Patterns of *M. bovis* BCG and *M. tuberculosis* on Fine Needle Aspiration Biopsies: Does HIV make a Difference? **Diagnostic Cytopathology**; 2011; 39(4): 264-269.
69. Shanuaube K, Hargreaves J, Fielding K, Schaap A, Lawrence K, Hensen B, Sismanidis C, Menezes A, Beyers N, Ayles H, Godfrey-Faussett P. Risk Factors Associated with Positive QuantiFERON-TB Gold In-Tube and Tuberculin Skin Tests Results in Zambia and South Africa. **PLoS ONE**; 2011, 6(4): e18206.
70. Smith J, Velaphi S, Horn A, Joolay Y, Madide A. Neonatal circumcision. **South African Journal of Bioethics and Law**; 2011, 4(2): 50-51.
71. Solomons R, Slogrove A, Schoeman JF, Marais BJ, Van Zyl GU, Maritz JS, Van Toorn R. Acute Extraparamidal Dysfunction in Two HIV-infected children. **Journal of Tropical Pediatrics**; 2011, 57(3): 227-231.
72. Stefan C, Siemonsma F. Delay and causes of delay in the diagnosis of childhood cancer in Africa. **Pediatric Blood & Cancer**; 2011, 56: 80-85.
73. Stefan C, Stones DK, Newton R. Burkitt lymphoma in South African children: One or two entities? **Transfusion and Apheresis Science**; 2011, 44: 191-194.
74. Stefan C, Stones DK, Wainwright L, Newton R. Kaposi Sarcoma in South African Children. **Pediatric Blood & Cancer**; 2011, 56: 392-396.
75. Stefan C, Wessels G, Poole J, Wainwright L, Stones DK, Johnston WT, Newton R. Infection with human immunodeficiency virus-1 (HIV) among children with cancer in South Africa. **Pediatric Blood & Cancer**; 2011, 56: 77-79.
76. Thee S, Seddon JA, Donald PR, Seifart HI, Werely CJ, Hesselning AC, Rosenkranz B, Roll S, Magdorf K, Schaaf HS. Pharmacokinetics of Isoniazid, Rifampin, and Pyrazinamide in children younger than two years of age with tuberculosis: Evidence for implementation of revised World Health Organization recommendations. **Antimicrobial Agents and Chemotherapy**; 2011, 55(12): 5560-5567.
77. Thee S, Seifart HI, Rosenkranz B, Hesselning AC, Magdorf K, Donald PR, Schaaf HS. Pharmacokinetics of ethionamide in children. **Antimicrobial Agents and Chemotherapy**; 2011, 55(10): 4594-4600.
78. Thee S, Zöllner EW, Willemse M, Hesselning AC, Magdorf K, Schaaf HS. Abnormal thyroid function tests in children on ethionamide treatment. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(9): 1191-1193.

79. Van Elsland SL, **Springer P**, Steenhuis IHM, **Van Toorn R**, **Schoeman JF**, Van Furth AM. Tuberculous Meningitis: Barriers to Adherence in Home Treatment of Children and Caretaker Perceptions. **Journal of Tropical Pediatrics**; 2011, 1-5.
80. Van Ingen J, Aarnoutse RE, **Donald PR**, Diacon AH, Dawson R, Plemper Van Balen G, Gillespie Sh, Boeree MJ. Why do we use 600mg of Rifampicin in tuberculosis treatment? **Clinical Infectious Diseases**; 2011, 52(9): e194-e199.
81. **Van Toorn R**, **Janse Van Rensburg P**, **Solomons R**, Ndondo AP, **Schoeman JF**. Hemiconvulsion-hemiplegia-epilepsy syndrome in South African children: Insights from a retrospective case series. **European Journal of Paediatric Neurology**; 2011, 1-7.
82. Van Wyk AC, **Marais BJ**, Warren RM, **Van Wyk SS**, Wright CA. The use of light-emitting diode fluorescence to diagnose mycobacterial lymphadenitis in fine-needle aspirates from children. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(1): 56-60.
83. **Van Wyk SS**, Enarson DA, **Beyers N**, Lombard CJ, **Hesseling AC**. Consulting private health care providers aggravates treatment delay in urban South African tuberculosis patients. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(8): 1069-1076.
84. **Van Wyk SS**, Reid AJ, **Mandalakas AM**, Enarson DA, **Beyers N**, **Morrison J**, **Hesseling AC**. Operational challenges in managing Isoniazid Preventive Therapy in child contacts: A high-burden setting perspective. **BMC Public Health**; 2011, 11: 544-549.
85. Van Zyl GU, **Rabie H**, Nuttal J, **Cotton MF**. It is time to consider third-line options in antiretroviral-experienced paediatric patients? **BMC Medicine**; 2011, 14: 55-62.
86. Walker KG, Brink A, **Lawrenson J**, Mathiassen W, Wilmshurst JM. Treatment of Sydeham Chorea with intravenous immunoglobulin. **Journal of Child Neurology**; 2011.
87. Walker KG, Cooper M, McCabe K, Hughes J, Mathiassen W, **Lawrenson J**, Wilmshurst JM. Markers of susceptibility to acute rheumatic fever: the B-cell antigen D8/17 is not robust as a marker in South Africa. **Cardiology in the Young**; 2011, 21(3): 328-333.
88. Wilson N, Chadha S, **Beyers N**, **Claassen M**, **Naidoo P**. Helping the poor access innovation in tuberculosis control: using evidence from implementation research. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(7): 853.
89. **Wiseman CA**, **Schaaf HS**, **Cotton MF**, **Gie RP**, Jennings T, Whitelaw A, Roux P, Hesseling AC. Bacteriologically confirmed tuberculosis in HIV-infected infants: disease spectrum and survival. **International Journal of Tuberculosis and Lung Disease**; 2011, 15(6): 770-775.
90. Zeegers I, **Rabie H**, Swanevelder S, **Edson C**, **Cotton MF**, **Van Toorn R**. Attention Deficit Hyperactivity and Oppositional Defiance Disorder in HIV-Infected South African Children. **Journal of Tropical Pediatrics**; 2010, 56(2): 97.
91. **Zöllner EW**, Delpont S. Ambulatory care of paediatric and adolescent diabetic patients in the Western Cape. **South African Medical Journal**; 2011, 101(4): 210.
92. **Zöllner EW**, Lombard CJ, Galal I, Hough FS, Irusen E, Weinberg E. Hypothalamic-pituitary-adrenal axis suppression in asthmatic children on inhaled and nasal corticosteroids - more common than expected? **Journal of Pediatric Endocrinology & Metabolism**; 2011; 24(7-8): 529-534.
93. **Zöllner EW**, Lombard CJ, Galal U, Hough FS, Irusen E, Weinberg E. Hypothalamic-pituitary-adrenal axis suppression in asthmatic children on inhaled and nasal corticosteroids: is the early-morning serum adrenocorticotrophic hormone (ACTH) a useful screening test? **Pediatric Allergy and Immunology**; 2011, 22: 614-620.

Journal Articles (Nonsubsidised)

1. Diacon AH, Maritz JS, **Donald PR**. Early bactericidal activity of antituberculosis agents. *Progress in Respiratory Research* 2011; **40** : 213-219.
2. **Donald PR**. Antituberculosis drug-induced hepatotoxicity in children. *Pediatric Reports* 2011; **3**(e16): 51-64.
3. **Du Preez K**, **Schaaf HS**, **Dunbar R**, Swartz A, Bissell K, Enarson DA, Hesseling AC. Incomplete registration and reporting of culture-confirmed childhood tuberculosis diagnosed in hospital. **Public Health Action** 2011; 1(1): 19-24.
4. Hainline C, Taliep R, Sorour G, Nachman S, **Rabie H**, **Dobbels E**, **Janse Van Rensburg A**, Cornell M, Violari A, Madhi Sa, Cotton MF. Early Antiretroviral Therapy reduces the incidence of Otorrhea in a randomized study of early and deferred antiretroviral therapy: Evidence from the Children with HIV Early Antiretroviral Therapy (CHER) Study. **BMC Research Notes**; 2011, 4: 448-451.

5. Irving B, **Goussard PL, Gie RP**, Todd-Pokropek A, Taylor P. *Identification of Paediatric Tuberculosis from Airway Shape Features. Medical Image Computing and Computer-Assisted Intervention*; 2011, 14(3): 133-140.
6. Irving B, **Goussard P, Gie RP**, Todd-Pokropek A, Taylor P. *Segmentation of obstructed airway branches in CT using airway topology and statistical shape analysis. Biomedical Imaging*; 2011, 447-451.
7. **Marais BJ, Schaaf HS, Donald PR**. *Management of Tuberculosis in Children and New Treatment Options. Infectious Disorders - Drug Targets*; 2011, 11: 144-156.
8. **Marais BJ**. *Childhood tuberculosis: epidemiology and natural history of disease. Indian Journal of Pediatrics*; 2011, 78(3): 321-327.
9. Müller B, **Schaaf HS**, Gey Van Pittius NC, **Donald PR**, Victor TC, Van Helden PD, Warren RM. *Current standard drug regimens facilitate the evolution of extensively drug-resistant tuberculosis: Recommendations for improvements. MRC Policy Brief*; 2011.
10. Murray JR, **Stefan C**. *Cost and indications of blood transfusions in Pediatric Oncology in an African Hospital. The Open Hematology Journal*; 2011, 5: 10-13.
11. Scheepers S, Andronikou S, Mapukata A, **Donald P**. *Abdominal lymphadenopathy in children with tuberculosis presenting with respiratory symptoms. Ultrasound*; 2011, 19: 134-139.
12. **Slogrove A, Rabie H, Cotton MF**. *Paediatric antiretroviral drug targets. Infectious Disorder Drug Targets*; 2011, 11(2): 115-123.
13. Teasdale C, **Marais BJ, Abrams E**. *HIV: prevention of mother-to-child transmission. Clinical Evidence*; 2011, 1: 909-941.

Proceedings – International

1. **Kruger M**, Reynders D, Omar F, Schoeman J, Wedi O. *Improvement of Retinoblastoma Outcome through Public Health Care Interventions. Pediatric Blood & Cancer*; 2011, 57(5): 788.
2. **Kruger M**, Tchintseme F, Ngum E, Kimbi C, Tambe J, **Hesseling PB**. *A Survey of Destitution in Children treated for Burkitt Lymphoma in Rural Cameroon. Pediatric Blood & Cancer*; 2011, 57(5): 724.
3. Chotun BN, Andersson MI, **Cotton MF**, Preiser W. *A cross-sectional study of the prevalence of Hepatitis B virus infection in HIV-exposed infants at Tygerberg Hospital, Cape Town. Virology*

Africa 2011, V&A Waterfront, Cape Town, South Africa, 2011: 1.

4. **Innes S**, Eager R, **Edson C, Rabie H**, Hough S, Haubrich R, **Cotton MF**, Browne S. *Prevalence, DEXA differences and risk factors for lipoatrophy among pre-pubertal African children on HAART. Third International Workshop on HIV Paediatrics, Rome, Italy, 2011: 36.*

Proceedings – National

1. Pitcher R, Beningfield S, Lombard C, **Goussard P, Cotton M**, Zar HJ. *Baseline chest radiographic findings in a cohort of HIV-infected South African children. Abstract 203. 55 Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, University of Stellenbosch 2011: 163-164.*
2. **Van Wyk L, Smith J**, Du Plessis AM, Maritz JS, Scheepers S. *Neonatal rib width correlation with gestational age and growth status: interim analysis. Abstract 94, 55th Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, University of Stellenbosch, 2011: 103.*

Books

1. Bolliger CT, **Donald PR**, Van Helden PD. 2011. *Antituberculosis Chemotherapy*. Basel, Switzerland: Karger. 252 pp.
2. **Donald PR**, Van Helden PD. 2011. *Progress in Respiratory Research: Antituberculosis Chemotherapy*. Basel, Switzerland: Karger. 252 pp.

Chapters in books

1. Diacon AH, Maritz JS, **Donald PR**. 2011. "Early Bactericidal Activity of Antituberculosis Agents". In *Progress in Respiratory Research: Antituberculosis Chemotherapy*. Basel, Switzerland: Karger. Pp. 213-219.
2. Donald PR, Schaaf HS. 2011. "Isoniazid pharmacokinetics and efficacy in adults and children". In *Progress in Respiratory Research: Antituberculosis Chemotherapy*. Basel, Switzerland: Karger. Pp. 25-31.
3. **Kling S, Kruger M**. 2011. "Paediatric Ethics". In *Medical Ethics*. Pretoria: Van Schaik. Pp. 183-202.
4. **Marais BJ**. 2011. *What do we know about how to treat tuberculosis?* In *Advances in Experimental Medicine and Biology: Hot Topics in Infection and Immunity in Children VIII*. Curtis N, Finn A, Pollard AJ (Eds.) New York: Springer. Pp. 171-184.
5. Mcneeley DF, Raouf A, Lin J, **Marais BJ**. 2011. "The Evaluation of New Antituberculosis Drugs in Children. In *Progress in Respiratory Research:*

Antituberculosis Chemotherapy, Karger: Basel, Switzerland. Pp. 235-242.

6. Moodley K, Moosa MR, **Kling S**. 2011. Justice. In *Medical Ethics, Law and Human Rights*. Pretoria: Van Schaik. Pp. 73-84.
7. **Schaaf HS, Seddon JA**. 2011. "Second-line antituberculosis drugs: Current knowledge, Recent Research Findings and Controversies". In *Progress in Respiratory Research: Antituberculosis Chemotherapy*. Basel, Switzerland: Karger. Pp. 81-95.
8. **Stefan C**. "Informing curriculum development in health sciences - A Delphi method inquiry". In *Curriculum Inquiry in South African Higher Education - Some scholarly affirmations and challenges*, Stellenbosch: SUNMeDIA. Pp. 303-314.

Conferences: Participants and attendees

International

- Prof. Mariana Kruger:
 - Forty-third SIOP Congress of the International Society of Paediatric Oncology (SIOP): 23 – 31 October 2011, in Auckland, New Zealand.
- Oral presentation: *A survey of destitution in children treated for Burkitt's lymphoma in rural Cameroon*.
- Poster presentation: *Improvement of Retinoblastoma Outcome Through Public Health Care Interventions*.
 - Moroccan Society of Haematology and Paediatric Oncology Annual Meeting: Marrakech, Morocco, 2 – 5 March 2011.
- Invited speaker: *Vision for paediatric oncology in Africa*.
- Prof. Cristina Stefan, in collaboration with Prof. M Kruger, Drs A Dippenaar and R Uys:
 - Organised the 3rd Paediatric Haematology/Oncology Workshop – 12 and 13 May 2011.
- Dr Sharon Kling
 - Invited speaker: Allergy Society of South Africa (ALLSA) congress, October 2011.
- Prof. Johan Smith:
 - Attended: Surfactant conference, Istanbul, 23 May 2011.
- Dr Heather Finlayson:
 - *Measles deaths in children admitted to Tygerberg Children's Hospital in the 2010 Outbreak*, 7th World Congress of the World Society of Infectious Diseases Melbourne, Australia, 15 – 19 November 2011.
- Dr Christelle du Buisson
 - Participated in the first African International Children's Continence Society meeting.
- Prof. Gert Kirsten:
 - Attended the 52nd Annual Meeting of the European Society for Paediatric Research (ESPR), Newcastle, UK, 14 – 17 October 2011.
- Dr ED Nel
 - *Recent Advances in Growth Research: Nutritional, Molecular and Endocrine Perspectives*. Seventy-first Nestlé Nutrition Institute Workshop, Vienna, Austria, 23 – 26 October.
 - Attended ESPGHAN conference and postgraduate course, Italy, 25 – 30 May 2011.
- Dr Gugu Kali
 - Attended: *Neonatal Update 2012*, Imperial College, London, November 2011.
- Profs. HS Schaaf and A Hesseling, together with Profs. RP Gie, N Beyers, Drs H Rabie, L Walters, K du Preez, P Goussard, ED Nel, A Bekker, R van Toorn and J Seddon:
 - Organised the 5th International Child TB Training Conference on 28 November – 2 December 2011.
- Prof. HS Schaaf:
 - Keynote speaker: *Treatment of tuberculosis: new concepts and drug resistance*. *Fourteenth Seminar on Paediatric Infectious Diseases*, Thessaloniki, Greece, 12 February 2011.
 - *Demystifying diagnosis of childhood tuberculosis (workshop)*. Forty-second Union World Lung Health Conference, 26 – 30 October 2011, Lille, France.
 - *Diagnosis and management of MDR/XDR-TB in children (postgraduate course)*. Forty-second Union World Lung Health Conference, 26 – 30 October 2011, Lille, France.
 - *Fourth serial 2-year tuberculosis drug resistance survey in children, Western Cape, South Africa*. Forty-second Union World Lung Health Conference, 26 – 30 October 2011, Lille, France.

National

- Prof. Mariana Kruger:
 - Twenty-fifth South African Children's Cancer Study Group Meeting, Irene Country Lodge, Centurion, Pretoria, 2 – 4 September 2011.
- Invited speaker: *Improvement of retinoblastoma outcome through public health care interventions and National retinoblastoma protocol.*
 - Health Research Ethics Committee new-member training: *How to review a clinical trial*, Stellenbosch University Faculty of Health Sciences, 12 May 2011.
- Invited speaker: *Risk assessment.*
 - MSD GP University Programme, Arabella, Hermanus, 26 – 27 March 2011.
- Invited speaker: *Professionalism.*
- Prof. Gert Kirsten:
 - Presented:
 - *Evidence-based Neonatology.* University of Pretoria, Pretoria, March 2011.
 - *Head growth as an indicator of adequate nutrition in very low birth weight infants.* Thirtieth Conference on Priorities in Perinatal Care in Southern Africa, The Ranch, Limpopo, March 2011.
 - *Neonatology Seminar, George, November 2011. Are current breastfeeding practices sufficient for ELBW infants? and Predictors for survival in ELBW infants.*
- Prof. Johan Smith:
 - Conferences organised:
 - Neonatal Update 2011, 30 March-1 April 2011
 - IPOKRATES Clinical Seminar: 28 – 30 October 2011.
 - Workshops hosted:
 - High-frequency oscillation workshops
 - A) 8 – 10 June 2011.
 - B) 16 – 18 November 2011.
- Dr Gugu Kali
 - Attended ALLSA/PMG conference (October 2011).

Regional

- Prof. Mariana Kruger:
 - Radio/television interviews:
 - Radiosondergreuse: Invited speaker – *Behandeling van kinderkanker*, 29 June 2011.
 - eTV: Invited speaker – *CANSA/paediatric oncology*, 23 June 2011.
 - Radio Tygerberg: Invited speaker – Discussion about paediatric oncology, 11 February 2011.

- SAFM: Invited speaker – Discussion about paediatric oncology, 7 February 2011.
- Voice of the Cape: Invited speaker - Discussion about paediatric oncology in aid of World Cancer Day, 4 February 2011.

Prof. Gert Kirsten:

Presented:

- Milk banking and breastfeeding at Tygerberg Hospital. Milk Matters Workshop: *Breastfeeding and Donor Milk in the Hospital*, Mowbray Maternity Hospital, March 2011.
- Tygerberg Children's Hospital: Neonatal Update 2011, Stellenbosch, 30 March – 1 April 2011. *Are current breastfeeding practices sufficient for ELBW infants? and nCPAP and InSurE in ELBW infants and The danger of inadvertent HIV transmission in KMC Units.*
- *Oxygen therapy, from nasal cannulae, high flow delivery, nCPAP to ventilation.* Paediatric Management Group Weekend Seminar: *Advancing Paediatrics.* Arabella Western Cape Hotel, May 2011.
- *Non-invasive ventilation of the VLBW infant.* High-frequency oxygen ventilation (HFOV) workshop, Department of Paediatrics and Child Health, Health Sciences Faculty, June 2011.
- *Nutritional needs of the VLBW infant.* South African Kangaroo Mother Care Foundation workshop, Cape Town, November 2011.
- *Non-invasive ventilation of the VLBW infant.* HFOV workshop, Department of Paediatrics and Child Health, Health Sciences Faculty, November 2011.
- *Breast is best for the premature brain – or is it?* Paediatric Day of Academic Excellence: *Brains matter to US.* Stellenbosch University medical campus, November 2011.
- *Oxygen therapy in the extremely low birth weight infant and NEC: what is new?* Panorama Medi-Clinic Neonatology Seminar, Cape Town, December 2011.

Prof. M Kruger and Prof. Johan Smith

- Organised the Paediatric Day of Academic Excellence: *Brains matter to US*, Faculty of Health Sciences, 25 November 2011. Invited speakers from the Department: Prof. Mariana Kruger, Prof. Johan Smith, Dr Lizelle van Wyk, Dr Gugu Kali, Prof. Gert Kirsten, Dr John Lawrenson, Dr Sharon Kling, Dr Christelle du Buisson and Dr Ronald van Toorn.

Dr Gugu Kali:

- Presented at the Stellenbosch Neonatal Update (March 2011).

Dr ED Nel

- *Paediatric Reflux*. SAGES GP Update, Cape Town International Convention Centre (CICC), Cape Town, 16 April 2011.
- *Paediatric Reflux*. CPC/Qualicare Open Day. Sanlam Head Office, 23 July 2011.
- *Paediatric Reflux*. Clicks Pharmacy Update, CICC, Cape Town, 11 August 2011.

Special achievements and highlights

- Prof. Mariana Kruger:
 - Received funding (€49 236) from the European and Developing Countries Clinical Trials Partnership (EDCTP) for the period from January to December 2011 for the project *Network of Southern Africa Research Ethics Committee (REC) Chairpersons and the Development of a Review Textbook for African REC members (SAREN Southern African Research Ethics Network)*.
 - Together with Prof. PB Hesselting: Cameroon Twinning Project. World Child Cancer, Beryl Thyer Memorial Africa Trust and Stellenbosch University – £160 923.
 - PharmHuman Foundation €4 200 grant – *Unlicensed or off label drug use in paediatric practice – a survey*.
- Prof. Cristina Stefan:
 - CANSA grant for her project *HIV and other infections in South African children with cancer*.
 - Nominated as chairperson for paediatric oncology in Africa: AORTIC.
 - UICC fellowship (cancer distribution in Africa)
 - Faculty member of IARC (International Agency for Research on Cancer) epidemiology summer course.
 - GTF-CCC member of the task force
 - Invited guest of National Cancer Institute (cancer in Africa).
- Dr Ronald van Toorn – Harry Crossley Foundation grant.
- Prof. Peter Hesselting – South African Cancer Association has awarded Prof. Hesselting the GA Oettle Medal for his contribution to childhood cancer treatment. He is the first paediatric oncologist to be awarded this prestigious medal.
- Dr Angela Dramowski – Federation of Infectious Diseases Societies in Southern Africa (FIDSSA) fellowship award (R100 000) for her study on non-vertical HIV transmission in children.
- Dr Regan Solomons – R100 000 Vrije University-NRF-Desmond Tutu Doctoral Scholarship.
- Dr Liz Walters – Novartis bursary towards the MScClin Epi; R40 000 over two years.
- Dr Mareli Claassens:
 - Faculty bursary
 - Obtained the Southern African Consortium for Research Excellence (SACORE) MSc Scholarship.
- Dr Steve Innes: Fogarty International Clinical Research Fellowship: study – *Screening tool to detect lipodystrophy among HIV-infected African children on HAART*, May 2011.
- Dr Etienne Nel – Collaboration with ESPGHAN for future projects: Paediatric gastroenterology training course and ESPGHAN sponsorship for paediatric gastroenterology trainee; and invited to Nestlé Nutrition Institute Meeting.
- Dr Adrie Bekker – Thrasher Research Grant (Pharmacokinetics of INH in LBW babies in SA); Harry Crossley Foundation grant.
- Shahra Sattar: Johns Hopkins University Summer School (South African Tuberculosis Aids Training [SATBAT] Fogarty programme).
- Dr Cath Wiseman: Master of Public Health, UCT (SATBAT Fogarty programme).
- Dr Karen du Preez: Master of Public Health, London School of Hygiene and Tropical Medicine (LSHTM) (SATBAT Fogarty programme).
- Prof. A. Hesselting received funding (\$21 560) from the Central Research Development Fund (CRDF) for the period 1 January until 31 December 2011 for the project: *Measuring the impact of IPT policy and practice in TB-HIV co-infected children in a high burden setting: a cost-effectiveness analysis*.

CENTRES

The Children's Infectious Diseases Clinical Research Unit (Kid-Cru) – Prof. Mf Cotton

The Children's Infectious Diseases Clinical Research Unit (KID-CRU) was established in 2002, mainly for the conduct of prospective clinical trials. The main focus areas are HIV and tuberculosis. The Unit is strongly collaborative. KID-CRU is immediately adjacent to the Family Clinic for HIV (FCH), the second oldest family clinic in Africa (to our knowledge). FCH provides ARV care for children and adults.

On-study active patients

KID-CRU STUDIES	TOTAL EN-ROLLED	TOTAL ACTIVE ON-STUDY
P1060	89	71
P1066	2	2
P1070	5	5
P1073	28	26
Promise	58	54
BMS	27	22
GSK	30	14
Lipo	234	225
Cher	329	179

Staff

POSITION	NUMBER
Director	1
Unit Manager	1
Administrators	3
Auxiliary Workers	2
Counsellors	11
Data Clerks	3
Data Managers	1
Drivers	3
Lab Assistants	2
Medical Officers	7
Pharmacists	4
Project Managers	3
Registered Nurses	7
Social Workers	1
Staff Nurses	8
Study Coordinators	1
Total	58

International congresses, workshops, meetings

Prof. M Cotton – Tuberculosis Trials Consortium (TBTC) meeting, Denver, USA, 13 – 14 May 2011, **committee member**.

Prof. M Cotton – International Maternal Pediatric Adolescent AIDS Clinical Trials Group (IMPAACT) Group meeting, Washington DC, USA, 7 – 10 June 2011: **committee member**.

Prof. M Cotton – Workshop on TB and HIV Diagnostics in Adult and Pediatric Populations, Silver Spring, USA, 28 – 30 June 2011, **invited participant**.

Prof. M Cotton – Third International Workshop on HIV paediatrics, Rome, Italy, 15 – 16 July 2011, **organising committee member**.

Moderator of clinical case presentations – Difficult cases in the treatment and management of HIV in children.

Abstracts, oral presentations

E Walters, K Reicchmuth, H Rabie, M Cotton, A Dramowski, BJ Marais – Virological outcomes in South African children co-treated with highly active anti-retroviral therapy (HAART) and anti-tuberculosis therapy.

Abstracts, poster presentations

S Innes, R Eagar, C Edson, H Rabie, s Hough, R Haubrich, **MF Cotton**, S Browne – Prevalence, DEXA differences and risk factors for lipoatrophy among pre-pubertal African children on HAART.

AL Slogrove, H Rabie, **MF Cotton** – Non-vertical transmission of HIV in children: more evidence from the Western Cape, South Africa.

S Innes, E Lazarus, K Otjombe, A Liberty, R Germanus, **A Janse van Rensburg**, **M Cotton**, A Violari – Significant CD4 depletion and advanced HIV disease in infants initiating HAART before 3 months of age.

AL Slogrove, T Kollmann, **MF Cotton**, S Williams, J Bettinger, D Speert, M Esser – HIV exposed uninfected (HEU) infants: evidence of severe infectious morbidity of South Africa.

H Hassan, H Rabie, **MF Cotton** – The clinical manifestations and outcomes of HIV infected children with *Cryptococcus neoformans* at Tygerberg Children's Hospital.

N O'Connell, H rabie, A Dramowski, J Lawrenson, **M Cotton** – Cytomegalovirus myocarditis presenting as immune reconstitution inflammatory syndrome in an HIV-1-infected child.

Prof. M Cotton – International AIDS Conference, Rome, Italy, 17-20 July 2011, **organising committee member**.

Prof. M Cotton – Fourth Federation of Infectious Diseases Societies of Southern Africa (FIDSSA) Congress, Durban, 8-11 September 2011, **scientific committee member, invited faculty**.

Prof. M Cotton – International Maternal Pediatric Adolescent AIDS Clinical Trials Group (IMPAACT) Leadership Retreat, Washington DC, USA, 6 – 9 November 2011, committee member.

Prof. M Cotton – Seventh World Congress of the World Society for Pediatric Infectious Diseases (WSPID), 16 – 19 November 2011, Melbourne, Australia, **organising member**.

Abstracts can be viewed at <http://www.sajcn.co.za/index.php/SAJCN>.

Prof. M Cotton – Fourth Annual Paediatric Global Health symposium, 16 September 2011, Philadelphia, USA – Talk: *Prevention and early detection in children: perspectives from the Western Cape, South Africa*.

Prof. M Cotton – Forty-second Union World Conference on Lung Health, Lille, France, 26 – 30 October 2011:

- Presented a talk on the risk of TB in HIV-exposed uninfected children (born to HIV+ mothers) and presented evidence of increased risk for many diseases. The incidence of TB is three times higher than the general population of children below two years of age.
- Presented a poster on tobacco addicts who smoke outside entrances 1 and 2 of TBH. Most have moderate addiction, are aware of the dangers and would appreciate assistance in quitting.

National and local meetings

Prof. M Cotton – Treatment, care and support – member of technical task team, 9 March 2011, Pretoria.

Prof. M Cotton – meeting chairperson, Antiretroviral Drug Dosing in Children and Adolescents, Johannesburg, 2 December 2011.

Lectures/presentations/seminars

Prof. M Cotton – Stellenbosch Forum Lecture, 17 March 2011, J.S. Gericke Library Auditorium, Stellenbosch – presented a seminar: Preventing and treating HIV in children.

Prof. M. Cotton – NIAID Grants Policy and Management Training workshop, Cape Town, 28 March 2011 – The challenges of conducting research while complying with USA grant funding requirements.

Prof. M Cotton – US/MRC Centre for Molecular and Cellular Biology, 25 July 2011, HIV and research update.

Awards

Dr Steve Innes

Fogarty International Clinical Research Fellowship: Study – Screening tool to detect lipoatrophy among HIV-infected African children on HAART.

Lipoatrophy/stavudine group studies:

Stavudine pharmacokinetic study has been published in the Antiviral Therapy journal.

A section of lipoatrophy study has been submitted for publication in Antiviral Therapy journal.

Annual follow-up visits of lipoatrophy cohort are underway (due to be completed in May 2012)

Lipoatrophy screening tool data has been analysed and manuscript drafted for publication.

Training/Teaching

Weekly teachings and presentations are held on different work-related aspects. Guest speakers are invited and Dr A Riddick drives this initiative. See G:\Personnel\Paediat\KIDCRU\Training\Library.

Highlights

- Dr E Maritz – Annual meeting of tropical paediatrics, Hamburg, Germany, 29 January 2011 – Talk: The influence of pre-mastication on blood borne virus transmission.

Prof. M. Cotton

- Radio 786, topic: Mother-to-child HIV transmission and related issues, broadcasted 21 March 2011.
- Radio Tygerberg, Mother-to-child HIV Transmission and related issues, broadcasted 21 March 2011, received excellent feedback from both radio stations.
- Interviewed by Dr Michael Mol on SABC3, 26 July 2011, as medical expert and member of the SA HIV Clinicians Society – Prevention of mother-to-child-transmission of HIV.
- Congress of Retroviruses and Opportunistic Infections, 5 – 8 March 2012, Seattle, USA – presenting final data from CHER trial.

- Fourth HIV Paediatric Workshop, 20 – 21 July 2012, Washington DC, co-chairing workshop and participating in debate on the relevance of INH prevention.
- Nineteenth International AIDS Conference, 22 – 27 July 2012, Washington DC, participating in ARV workshops for children.

South2South Programme for Comprehensive Family HIV Care & Treatment

Dr K van der Walt

During 2011, South2South trained 1 346 health care workers and mentored 386 health-care workers in paediatric HIV treatment, PMTCT, and psychosocial support. During 2011, South2South distributed 4 174 toolkits and training resources. South2South provided technical assistance to the national Department of Health in various technical working committees, including paediatric HIV, PMTCT, breastfeeding, and quality improvement.

South2South's focus is on capacity building and health system strengthening through training and training-material development, mentoring, quality improvement, and technical assistance to the South African Department of Health.

POSTS (FULL-TIME)	NUMBER	FILLED
Directors	2	2
Deputy Directors	2	1
Clinical Advisors	5	4
Nursing Advisors	5	4
Psychologists	1	1
Social Workers	3	2
Occupational Therapists	1	0
Administrative	5	5

SESSIONAL POSTS - HOURS PER WEEK		
	NUMBER	FILLED
Dieticians	1 (5 hours per week)	1

Community outreach programmes/community service and interaction

- South2South provides training to health workers through the following courses:
- Tygerberg Hospital Paediatric HIV Treatment Course (one-week course).

- The Role of the Rehabilitation Team in the Identification and Management of Paediatric HIV.
- Paediatric HIV Toolkit Orientation.
- Paediatric Nurse-Initiated Management of Antiretroviral Treatment (NIMART).
- Basic Paediatric HIV Treatment Course for doctors
- PMTCT Toolkit Orientation Course.
- Adherence training for caregivers, children, and adolescents.

South2South also provides mentoring to health workers through clinical systems mentoring and quality improvement mentoring in the Moretele subdistrict, North West.

Partnerships

National

National Department of Health
 Foundation for Professional Development
 Zoe Life
 Right to Care
 Keth'Impilo
 Anova Health Institute

International

PEPFAR/USAID
 Institute for Healthcare Improvement
 PATA ("Paediatric AIDS Treatment for Africa")
 Association Francois-Xavier Bagnoud

Achievements with regard to research activities and research outputs

Clayton, J.A. *Paediatric Disclosure: Legal and Ethical Implications for Nurses and Healthcare Workers*. **HIV Nursing Matters**; 2011, 2(3), 26-29.

Smit, L. *Are Children Small Adults?* **HIV Nursing Matters**; 2011, 2(3), 22-24.

Smit, L.D. *Nurses, HIV and Paediatrics*. **HIV Nursing Matters**; 2011, 2(3), 10-13.

Teaching and training

	NUMBER
Number of health workers trained	1346
Number of health workers mentored	386
Amount of training material distributed	4174

Special achievements

South2South represented the Department of Paediatrics and Child Health on various technical advisory committees of the National Department of Health, including:

Prevention to Mother-to-Child Transmission (PMTCT)
Quality Improvement
Data Collection Tools
Disclosure
Breastfeeding and Infant Feeding
Paediatric HIV.

Desmond Tutu TB Centre

Prof. N Beyers

The Desmond Tutu TB Centre (DTTC) aligns itself with the domains of the university, namely:

- research
- teaching and training
- community service

However, we have added an additional domain, namely that of

- Influence on Policy and Practice.

Infrastructure development

1. Seven field offices of the ZAMSTAR study (Kuyasa, Delft-South, Wallacedene, Mzamomhle, Nyanga, Kayamandi and Mbekweni) have been donated back to the Department of Health.
2. The site office in Site C Khayelitsha has been donated to the Paediatrics TB team for childhood TB studies.
3. A new room has been built at Brooklyn Chest Hospital for Childhood MDR TB studies.
4. The laboratory has been transferred to Prof. Paul van Helden.
5. The two field offices in Ravensmead and Uitsig are being maintained.
6. The paediatric rooms in the field offices of Ravensmead, Uitsig and Site C are maintained as child-friendly for the childhood TB studies.
7. The e-nose study is ongoing and maintaining offices in Adriaanse and Elsie's River.
8. We are in the process of transferring the community VCT centres to NGOs and the whole project will exit permanently during 2012.
9. The fleet of vehicles has been maintained and new vehicles purchased.

10. The new offices (where the old security was at the Western entrance of Lower Ground floor) are now in full use after initial delays in refurbishment.
11. Facilities to allow access for Mr Dunbar's service dog are in the process of being developed (garden and lawn).
12. Kitchen refurbished to allow wheelchair access to garden for Mr Dunbar.
13. The website (www.sun.ac.za/tb) has been maintained.

Community outreach programmes

1. The ZAMSTAR study has finally been completed and activities in the eight communities have been concluded.
2. A new community cluster randomised trial (Population ART to Reduce Transmission - PopART) has been funded and we are in the process of obtaining nine field sites for this trial.
3. The PMTCT programme is continuing with training of trainers in the whole province in preparation for exit.
4. The TB-free Kids Project has been maintained as a flagship project of the university. Many activities have been done in the community. Ms Erica Jacobs is now doing an exit study in Ravensmead and Uitsig.
5. The paediatric studies at DTTC focuses on the following areas of research:
 - a. Community-based household studies on contact tracing, diagnostics and prevention, and biomarker studies of TB.
 - i. This prospective community-based study utilises a household-contact study design to assess the diagnostic utility of new blood-based tests for TB infection; interferon-gamma release assays (IGRAs). To date, we have enrolled 550 children in three study communities; enrolment and longitudinal follow-up are ongoing. This large cohort study has also served as a platform for several substudies (see below), student projects, capacity building and training.
 - b. There is also a study investigating environmental tobacco smoke (ETS) and its effect on children. A total of 196 children were included from three study communities (Uitsig, Ravensmead, and Site C, Khayelitsha), of which 65,3% were exposed to ETS in the household.

- c. A study investigating private health care enrolled 210 patients from Site C.
 - d. Studies on TB Infection and Exposure among HIV-unexposed, HIV-exposed, uninfected and HIV-infected children, as well as studies investigating Helminth co-infection and the effect on TB infection risk in children are taking place in Khayelitsha.
 - e. Health-systems research to strengthen Isoniazid preventative therapy (IPT) implementation for at-risk children in the community took place in Ravensmead and Nolungile clinic (Khayelitsha).
 - f. A decentralised clinic for the management of children in contact with MDR-TB and with MDR-TB has been established in Site B Khayelitsha and more than 150 children have been managed in this clinic.
 - g. Assessment of IPT delivery to tuberculosis-exposed newborns was done in Tygerberg Hospital.
 - h. The isoniazid (INH) pharmacokinetics in low-birth-weight South African infants in the era of HIV was investigated at Tygerberg Hospital.
 - i. Exploring the challenges faced by field workers in conducting clinical research – this is a study initiated by the field workers.
 - j. Pharmacokinetics and toxicity of second-line antituberculosis drugs in HIV-infected and uninfected children was investigated in Brooklyn Chest Hospital.
6. The study on the evaluation of new diagnostics focuses on the magnitude and nature of the inputs required to implement LPA as part of diagnostic algorithms in routine health services, the magnitude and range of benefits for patients and their clinical management, and the extent to which these differ according to the epidemiological and health-system context. TB data is being received from NHLS on a daily basis for all City Health and Provincial facilities, and MDR-TB data extracted. This is a complex study evaluating MDR-TB treatment initiation, health systems and processes, patients' perspectives and economic factors.
 7. In the study on initial default in TB cases together with the Department of Health, Dr Mareli Claassens expanded her studies in five other provinces (Northwest, KZN, Eastern Cape, Limpopo, Mpumalanga) to evaluate reasons for primary default and to do home visits to trace these primary defaulters. A new study on initial default has started in the Western Cape Province.
 8. Funding has been procured to design and construct a sustainable primary health care clinic in collaboration with the Western Cape Provincial Health Department.
 9. The women in networks (WIN) project is continuing in Site C, Khayelitsha. In this project we partner with the Philani Nutrition Centre with the aim of ensuring that children have access to the child care grant. Additional funding has been awarded by Virgin Unite.
 10. House for Mama Maphosela
 - a. DTTC has for a number of years been involved with Mrs Maphosela, who takes care of orphans and vulnerable children. The plans for the new house are still awaiting approval by the City of Cape Town.
 11. The TB-HIV Integration project, currently in year five of its five-year lifespan has the dual goal of reducing the TB burden by increasing TB case finding and ensuring appropriate TB care and of reducing HIV transmission in communities and minimising the impact of HIV on individuals. There are three objectives:
 - a. The project's first objective, to increase access to HIV counselling and testing services, has been achieved through the establishment and maintenance of seven community HCT centres in partnership with NGOs. These centres tested 29 950 clients during 2011, half of whom were males.
 - b. The project's second objective is to strengthen health systems and improve access, quality and collaboration between HIV and TB services.
 - i. Many health-system strengthening activities, including training and mentoring, that were implemented earlier in the project have continued in all 101 TB clinics in Cape Town.
 - ii. A wide range of interventions to improve TB case finding, TB cure rates infection control and to reduce susceptibility to TB and HIV have continued during 2011. These activities happen in all the 101 clinics as well as on sub-district level in Cape Town.

- iii. Capacity development has continued: 81 clinic staff members were trained on the HIV/AIDS/STI/TB (HAST) integrated audit tool, 39 GPs were trained, 50 counsellors and clinic staff members were trained on TB adherence.
 - iv. DTTC has partnered with the Department of Health to establish a data management system for managing the results from the centralised laboratories of the NHLS in an attempt to increase the number of TB cases diagnosed.
 - v. A pilot intervention was initiated in the Tygerberg subdistrict to reduce the number of TB defaulters. This pilot project will now be rolled out to all the clinics in Cape Town.
- c. The final objective is to improve access to PMTCT services and address comprehensive antenatal and postnatal care.
- i. Support has been extended to all health subdistricts around Cape Town (initially supported one subdistrict).
 - ii. Generic programme support has been provided in the form of training on the revised PMTCT protocol and its implications for infant feeding.
 - iii. Support was provided for the development of PMTCT and pregnancy information, education and communication (IEC) materials.
- 5. Training on request of Cape Town Health Directorate:
 - a. 81 clinic staff members were trained on the HIV/AIDS/STI/TB (HAST) integrated audit tool
 - b. 39 GPs were trained on TB
 - c. 50 counsellors and clinic staff members were trained on TB adherence.
 - 6. DTTC has partnered with Department of Health to establish a data management system for managing the results from the centralised laboratories of the NHLS in an attempt to increase the number of TB cases diagnosed. A pilot intervention was initiated in the Tygerberg sub-district to reduce the number of TB defaulters. This pilot project will now be rolled out to all the clinics in Cape Town.
 - 7. PMTCT services:
 - a. Support to all health subdistricts around Cape Town.
 - 8. The ZAMSTAR study has finally been completed and activities in the eight communities have been concluded. The model for household counselling based on this study has been discussed with Cape Town City Health Directorate and standard operating procedures have been shared and we offered training.
 - 9. The TB-free Kids Project in Ravensmead and Uitsig is continuing in the community by the Community Health Advocates who do home visits and trace TB patients and get them back on treatment.
 - 10. The community paediatric studies at DTTC are done mainly in Ravensmead, Uitsig and Site C, Khayelitsha. Although these are research studies, the focus is on improving the health systems and by doing household contact studies and piloting insulin potentiation therapy (IPT) registers, the care of children in contact with TB cases is improved.
 - 11. Studies on the management of children with MDR-TB or children in contact with MDR-TB have been established in Site B, Khayelitsha, and more than 150 children have been managed in this clinic.
 - 12. The study on Evaluation of New Diagnostics focus on strengthening health services and the link between health services and NHLS is improved. A database is being developed to track the results of TB tests.
 - 13. The study done with the national Department of Health on initial default in TB cases is being conducted in five other provinces (Northwest, KZN, Eastern Cape, Limpopo, Mpumalanga) to evaluate reasons for primary default and to do home visits to trace these primary defaulters. A new study on initial default and the reasons for

Projects and studies with components of community interaction and outreach

1. Monthly meetings with City of Cape Town and Western Cape Government to jointly decide on activities.
2. HIV counselling and testing: established seven community HCT centres in partnership with NGOs. These centres tested 29 950 clients during 2011, half of whom were males.
3. Strengthening of health systems and improving access, quality and collaboration between HIV and TB services. Many health-system strengthening activities, including training and mentoring, in all 101 TB clinics in Cape Town.
4. A wide range of interventions to improve TB case finding, TB cure rates, infection control and to reduce susceptibility to TB and HIV happen in all the 101 clinics as well as on sub-district level in Cape Town.

initial default has started in the Western Cape in collaboration with the City of Cape Town.

14. Funding has been procured to design and construct a Sustainable Primary Health Care Clinic in collaboration with the Western Cape Provincial Health Department.
15. The Women in Networks (WIN) project is continuing in Site C, Khayelitsha. In this project we partner with the Philani Nutrition Centre with the aim of ensuring that children have access to the child care grant. Additional funding has been awarded by Virgin Unite.
16. DTTC is closely aligned with the National, Provincial and Local health departments and assist on all levels in the development of guidelines, manuals and training material.
17. DTTC hosts an annual meeting with the National TB Programme to establish new priorities for TB research in South Africa.
18. On request of and in partnership with the Health Directorate of the City of Cape Town, DTTC presents a TB clinical forum once a month which is attended by clinicians working in the City clinics. In 2011 there were 10 TB clinical forums and 534 health-care workers attended.
19. A five-day operational research protocol development workshop for colleagues from the Department of Health in each of the nine provinces and their associated academic institutions was held in 2011 – 23 people from the nine provinces attended and 13 proposals were developed.
20. A workshop on manuscript writing for colleagues from the Department of Health was conducted in June and 11 manuscripts are in the process of being finalised for submission.

Partnerships

National

1. DTTC is closely aligned with the national, provincial and local health departments and assist on all levels in the development of guidelines, manuals, and training material.
2. National TB programme has requested that DTTC presents research data at the quarterly national meetings.
3. DTTC hosts an annual meeting with the National TB Programme to establish new priorities for TB research in SA.

4. All activities are planned in close collaboration with the various levels of the Department of Health. A monthly meeting is held with government partners.
5. All activities are planned and implemented with the support of the local community advisory boards (CABs).

International

1. DTTC remains a collaborating centre of the International Union Against TB and Lung Disease.
2. DTTC has numerous ongoing collaborations with the following:
 - a. London School of Hygiene and Tropical Medicine
 - b. University of Zambia
 - c. KNCV TB Foundation
 - d. University of Amsterdam
 - e. Oslo University
 - f. Case Western University
 - g. KIT
 - h. CDC Tuberculosis Clinical Trials Consortium (TBTC): with >20 international sites
 - i. Bergen University, Norway
 - j. Case Western Reserve University, USA
 - k. Columbia University, USA
 - l. Imperial College, London
 - m. All Indian Institute of Medicine
 - n. St John Medical College, India
 - o. Bernard Nocht Institute of Tropical Medicine, Hamburg, Germany
 - p. Max Plank Institute for TB Research, Berlin, Germany
 - q. Charite Hospital, Berlin, Germany
 - r. McGill University, Canada
 - s. South African TB Vaccine Initiative (SATVI)
 - t. Division of Clinical Pharmacology, University of Cape Town
 - u. Health Economics Unit: University of Cape Town
 - v. University of Western Cape: Human Nutrition Division
 - w. South African MRC: Centre for Biostatistics
 - x. South African Centre for Epidemiological Modelling and Analysis (SACEMA)

Achievements with regard to research activities and research outputs

The DTTC published 27 peer-reviewed articles.

Teaching and training

1. On request of and in partnership with the Health Directorate of the City of Cape Town, DTTC presents a TB Clinical Forum once a month which is attended by clinicians working in the City clinics. In 2011 there were 10 TB clinical forums and 534 health-care workers attended.
2. A five-day operational research protocol development workshop for colleagues from the Department of Health in each of the nine provinces and their associated academic institutions was held in 2011 – 23 people from the nine provinces attended and 13 proposals were developed.
3. Prof. Donald Enarson visited DTTC twice to teach and mentor the staff of DTTC.
4. 50 GPs were trained at a TB workshop.
5. A workshop on manuscript writing was conducted in June and 11 manuscripts are in the process of being finalised for submission.
6. Supervision was provided to at least 21 postgraduate students (four PhDs, 15 masters, 2 Bachelor's).
7. Prof. Hesseling and Prof. Beyers teach in the M Clin Epidemiology course.
8. Prof. Beyers teaches in various faculty courses including the NIH Ethics course and the master's classes for researchers.
9. The annual childhood TB course was again held at Goudini in December 2011, and participants from more than 20 countries attended. The course will be repeated in 2012.
4. Conference achievements:
 - a. Numerous presentations.
 - b. Symposium on operational research at the 42nd Union World Conference on Lung Health, Lille, France.
 - c. Symposium on results from ZAMSTAR at the 42nd Union World Conference on Lung Health, Lille, France.
5. Mr Rory Dunbar now has a service dog to assist him with tasks.
6. Ms Wena Moelich is still seconded to the national Department of Health to roll out the national "Kick TB" campaign.
7. Numerous media reports on various studies were done.
8. Prof. Hesseling is the chairperson of the community day centre's Tuberculosis Trial Consortium (TBTC) and the Paediatric TB Interest Group (TB-PIG), from 2010 to present.
9. Prof. Hesseling is also the chairperson of the Childhood TB Subgroup of the World Health Organisation's New Diagnostics Working Group, from 2009 to present.
10. Prof. Hesseling is the secretary of the Lung Health Section of the International Union Against Tuberculosis and Lung Diseases (IUTALD), from 2009 to present.
11. Prof. Hesseling was the chairperson of IUTALD's International working on BCG, from 2006 to 2010.
12. Member (Hesseling) and chairperson (Prof. Gie) of the World Health Organisation's Dots Expansion Working Group on Childhood Tuberculosis, from 2005 to 2011.
13. Prof. Hesseling is the associate editor of the International Journal against Tuberculosis and Lung Diseases.
14. Prof. Beyers is the associate editor of Public Health Action.
15. Members of the Paediatric TB/HIV provincial steering committee, Western Cape Province, from 2007 to present (Schaaf, Hesseling).
16. Prof. Hesseling is a WHO consultant for the Stop TB Global Plan – Research update; tools from 2009 to 2011.
17. Prof. Beyers is a member of the University Institutional Forum, the Provincial Health Research Committee, the University Honorary Degrees committee, the University Senate Research Ethics Committee, and the Provincial Health TB Task Team.

Special Achievements

1. During her sabbatical Prof. Beyers completed three domains of work:
 - a. She wrote a report on the TB situation in South Africa The challenge of tuberculosis – Lessons from research undertaken by the Desmond Tutu TB Centre for the Western Cape Province of South Africa – this report was submitted among others to the Minister of Health, Dr Motsoaledi.
 - b. She completed and published a manual for conducting operational research.
 - c. She developed modules for a transdisciplinary PhD in Health.
2. The Desmond Tutu TB Centre was accepted as a HOPE Project for Stellenbosch University.
3. Strategic management meetings were conducted, and Strategy 2020 was developed to determine the direction DTTC should take in the next few years.

PSYCHIATRY

Executive Head of Department

1987-June 2011

Professor Robin Emsley

Acting Executive Head of Department

July - December 2011

Professor Soraya Seedat

Summary

- Prof. Robin Emsley retired as Head of Department, a position that he served with distinction since 1987. He remains involved in an academic and research capacity.
- A Nepad grant has been secured for collaborative African outcome study on schizophrenia for the period 2008 to 2012.
- A Stanley Medical Research Institute Research Award Grant was obtained for 2010 and 2012.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Head of Department	1	0
Principal Specialist	2	2
Specialist	5	5
Registrar	7*	7*
Medical Officer	0	0

Output

OUTPATIENT VISITS		
J.LG - Adults	1464	1627
Liaison/Emergency Psychiatry – Adults	1451	1778
F.LG – C&A	2762	2854
Total Outpatient Visits	5677	6259

ADMISSIONS		
DG - Adults	264	245
DLG - Adults	204	220
DG - C&A	98	105
DLG - C&A	146	91
Total Admissions	712	661



Number of beds (usable)	41 (and 3 for seclusion)	41 (and 3 for seclusion)
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Theatre procedures

Electroconvulsive Therapy (ECT)	27 (4pts)	28 (4 pts)
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The department also delivers a full clinical service at Stikland Psychiatric Hospital and shared input with Lentegeur Hospital for which the statistics are not included here. (Statistics for Clinical Psychology are also not included here.)

Comment on output

There has been a steady increase in liaison or emergency referrals from within Tygerberg Hospital. Access to inpatient beds have remained in demand, possibly because of increased numbers of more ill (included physically ill) patients requiring hospital admission. Methamphetamine- and HIV-related admissions have remained high. Many patients are still required to be waitlisted prior to admission. Total outpatient and liaison assessments have increased at a rate of 10,2%.

Infrastructure development

The first phase of establishing a separate child and adolescent in-patient psychiatric unit (GLG) which was expected to be completed in 2010 is now finally awaiting completion in 2012. Further phases include the renovation and switch of the adult (JLG) and child & adolescent (FLG) out-patient departments.

Community outreach programmes

Ongoing service delivery and in-service training (adults and children) continued in community mental-health clinics in the West Coast, Winelands and Eastern Metropole Districts. Besides 24-hour telephonic support, registrars are seconded to clinics for half a day each a week. To help combat the escalating substance problems in the Western Cape, the department continued to provide psychiatric support, outreach and training to a number of substance treatment NGOs, including SANCA, Sultan Bahu, Toevlug, Ramot and Hesketh King, as well as government departments including the Department of Social Development. **Dr Lize Weich** continued the training of primary health-care workers in the Western Cape in the management of substance-use disorders.

The Assertive Community Treatment (ACT) team at Stikland Hospital continues, under the guidance of **Dr Ulla Botha**, to support individuals with psychiatric illness and their families in the metro. This service includes a day centre for the Northern Suburbs at Stikland Hospital.

Prof. Christine Lochner reported that the Mental Health Information Centre (MHIC), directed by Ms Janine Roos since 2011, hosted another Brain Awareness Week, which is an international Dana Alliance campaign dedicated to raising public awareness of the progress, promise and benefits of brain research. As a Brain Awareness Week partner, the MHIC once again celebrated this event between 14 and 18 March 2011. MHIC staff visited 200 Grade 10 learners from Valhalla Park Secondary, Marion Secondary and Excelsior High Schools. The learners were presented with talks on the effects of substance abuse and the brain, the psychological impact of trauma in general and various research projects currently underway at the MRC Unit on anxiety and stress disorders. Ms Jennifer Hsieh of UCT did a presentation on the effects of methamphetamine on the brain, and Ms Lindi Martin (MRC Unit) was responsible for arranging some of the activities at the various schools and informing learners about current MRC Unit research projects. Each school library received books and brochures distributed by the Dana Alliance. The learners participated in quizzes, which were based on the information that was provided, and a number of prizes were awarded.

The MHIC also took part in a Mental Health Awareness Project with the Visual Arts Department of Stellenbosch University in May 2011 and on this university's Wellness Days in June 2011. The

MHIC furthermore did poster presentations at the Stellenbosch University's Community Interaction Symposium in September 2011, as well as at the World Congress for Mental Health during October 2011. Also during October, the MHIC organised a Bundu Bash Walk for Mental Health to celebrate Mental Health Awareness Month, and hosted an Anxiety Expert forum on Health24.com.

Through the MHIC, the Department of Psychiatry also maintains regular contact with consumer support groups such as the South African Depression and Anxiety Group, the Cape Mental Health Society, BIG/MIND, the South African Federation for Mental Health and the Postnatal Depression Support Group. Other important partners are the Department of Health: Mental Health & Substance Abuse Subdirectoriate, professional organisations such as the South African Society of Psychiatrists, the South African Medical Association, the Medical Research Council and the pharmaceutical industry. In 2011 the revamping of the MHIC website and the online version of the MHIC resource guide were finalised. Updates are ongoing and are supervised by Ms Roos, with the help of research assistant Ms Bronwyne Coetzee.

Dr Francois Pretorius, in cooperation with the National Institute for the Deaf, established a monthly "Visual Interaction Clinic" at Worcester Hospital, where psychiatric services are made available to individuals using South African Sign Language as their first language. This service is unique in Africa.

Partnerships

Prof. Robin Emsley secured a Nepad Grant for a collaborative African outcome study on schizophrenia. Funding was allocated for the period 2008 to 2012.

The study is being conducted in collaboration with Prof. Gureje from the University of Ibadan in Nigeria. Part of the funding was for capacity development – young psychiatrists from both Stellenbosch and Ibadan Universities as well as research nurses from Ibadan have already received training in research methodology and inter-reliability testing during 2008.

The MRC Unit on Anxiety Disorders under the leadership of **Prof. Soraya Seedat** continued functioning as a cross-university centre (including the University of Cape Town (UCT)) in which several different Principal Investigators focus collaboratively on key scientific themes.

The FAS Prevention substudy, Ethics Project number N 06/07/129A, was approved on 6 October 2009 and was started on 1 November 2009. Preliminary findings

of the study were released at a media briefing day in September 2011. The project is nearing completion and the final results will be released at the end of 2012.

In her capacity as provincial psychiatric substance services coordinator, **Dr Lize Weich** was involved in various projects. She also served as a member of the SANCA board, the steering committee for South African Quality Measures, the opioid treatment advisory board as well as the Western Cape Substance Abuse Forum executive committee.

Achievements w.r.t. research activities and research outputs

The Department of Psychiatry is actively involved in original research covering a wide variety of topics, including anxiety disorders, schizophrenia and genetics. In 2011 twenty papers were presented at international congresses and 55 nationally. Approximately 70 articles were also published.

Proceedings: International

1. **ADAMS RCM, COTTON MF, ESSER M, DE BEER C.** *Pilot study of the innate immune abnormalities in HIV exposed uninfected infants.* Virology Africa 2011. Virology Africa 2011, V&A Waterfront, Cape Town, South Africa, 2011: 1.
2. **ALEXANDER D.** *Concussion in early adolescent rugby players: impact on cognitive and academic performance.* Sixteenth International Conference of the Association of Psychology and Psychiatry for Adults and Children, Athens, Greece, 2011: 2.
3. **ASMAL L, EMSLEY RA, CHILIZA B, OOSTHUIZEN PP.** *Previous offending among first episode psychosis patients: Prevalence and clinical correlates.* Tenth World Congress of Biological Psychiatry, Prague, Czech Republic, World Federation of Societies of Biological Psychiatry, 2011: 92.
4. **ASMAL L.** *Bridging bedside and bench: developing translational neuropsychiatry research in Africa.* Second Annual Centre for Global Health Symposium: Global Mental Health and Africa, Mbarara, Uganda, 2011: 15.
5. **ASMAL L.** *Family intervention for schizophrenia: an exploratory qualitative study.* World Mental Health Conference, Cape Town International Convention Centre, Cape Town, South Africa, 2011: 2.
6. **EMSLEY RA, OOSTHUIZEN PP, KOEN L.** *Relationship between antipsychotic medication adherence, remission and relapse in first episode psychosis.* Tenth World Congress of Biological Psychiatry, Prague, Czech Republic, World Federation of Societies of Biological Psychiatry, 2011: 59.
7. **EMSLEY RA.** *The EMEA ADHES survey in schizophrenia, an initiative to raise awareness of non-adherence to medication, demographics and methodology.* Nineteenth European Congress of Psychiatry, Vienna, Austria, European Psychiatry Supplement, 2011: 1445.
8. **EMSLEY RA.** *The EMEA ADHES survey in schizophrenia: psychiatrists' perceptions of reasons for partial or non-adherence.* Nineteenth European Congress of Psychiatry, Vienna, Austria, European Psychiatry Supplement, 2011: 1444.
9. **EMSLEY RA.** *The EMEA ADHES survey in schizophrenia: psychiatrists' perceptions of the extent of assessment and management of partial and non-adherence to medication.* Sixteenth Biennial Winter Workshop in Psychoses, Innsbruck, Austria, International Clinical Psychopharmacology Supplement, 2011: e168-e169.
10. **JORDAAN GP.** *Resting brain perfusion in alcohol-induced psychotic disorder: a comparison in patients with alcohol dependence, schizophrenia and healthy controls.* Nineteenth European Congress of Psychiatry, Vienna, Austria, European Psychiatry Supplement, 2011: 1850.
11. **LOCHNER C.** *Comorbid obsessive-compulsive personality disorder in obsessive-compulsive disorder (OCD): a marker of severity.* Fifteenth World Congress of Psychiatry, Buenos Aires, Argentina, 2011: 28.
12. **LOCHNER C.** *Comorbid obsessive-compulsive personality disorder in obsessive-compulsive disorder (OCD): a marker of severity.* Eighteenth Annual Conference on Hair Pulling and Skin Picking Disorders, California, San Francisco, USA, 2011: 8.
13. **LOCHNER C.** *The validity of DSM-IV-TR criteria B and C of hair-pulling disorder (trichotillomania): evidence from a clinical study.* Fifteenth World Congress of Psychiatry, Buenos Aires, Argentina, 2011: 12.
14. **LOCHNER C.** *The validity of DSM-IV-TR criteria B and C of hair-pulling disorder (trichotillomania): evidence from a clinical study.* Eighteenth Annual Conference on Hair Pulling and Skin Picking Disorders, California, San Francisco, USA, 2011: 7.
15. **NIEHAUS DJH, KOEN L, EMSLEY RA.** *Duration of illness as a predictor of latent class allocation in a Xhosa schizophrenia sample.* Tenth World Congress of Biological Psychiatry, Prague, Czech Republic, World Federation of Societies of Biological Psychiatry, 2011: 48.

16. **NIEHAUS DJH.** *A prospective randomized controlled trial of paliperidone ER versus oral olanzapine in patients with schizophrenia.* Eighteenth European Congress of Psychiatry, Munich, Germany, European Psychiatry Supplement 2011: 1109.
 17. **POTOCNIK FCV.** *Leukocyte counts in multiple sclerosis and Alzheimer's disease.* Eighth International Brain Research Organization (IBRO) World Congress of Neuroscience, Florence, Italy, IBRO, 2011: 90.
 18. **ROOS J.** *Mental health information with the click of a button.* World Mental Health Congress, Cape Town International Convention Centre, Cape Town, South Africa, South African Federation for Mental Health, 2011: 8.
 19. **ROOS J.** *The Mental Health Information Centre of Southern Africa: a call centre with a difference.* World Mental Health Congress, Cape Town International Convention Centre, Cape Town, South Africa, South African Federation for Mental Health, 2011: 7.
 20. **SEEDAT S.** *Contributory effects of childhood trauma to white matter tract injury in HIV infected and uninfected women.* Oral free communication, Tenth World Congress of Biological Psychiatry, Prague, Czech Republic, 29 May – 2 June 2011.
 21. **SPIES G.** *Neurocognitive outcomes in HIV and childhood trauma.* Tenth World Congress of Biological Psychiatry, Prague, Czech Republic, World Federation of Societies of Biological Psychiatry, 2011: 71.
- Proceedings: National**
1. **AHMED F.** *Associations between neurocognition and brain volumes in adolescents with and without posttraumatic stress disorder (PTSD).* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 186.
 2. **ASMALL.** *Bridging bedside and bench: developing translational neuropsychiatric research in Africa.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 1.
 3. **ASMAL L.** *Family intervention for schizophrenia: an exploratory qualitative study.* Provincial Research Day, Valkenburg Hospital, Cape Town, South Africa, Department of Health, 2011: 10.
 4. **BAKELAAR SY.** *The aetiological contributions of early childhood trauma to social anxiety disorder (SAD) and post traumatic stress disorder (PTSD): a systematic review.* Fifty-fifth Annual academic day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 187.
 5. **BAKELAAR SY.** *The aetiological contributions of early childhood trauma to social anxiety disorder (SAD) and post traumatic stress disorder (PTSD): a systematic review.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 26.
 6. **BARNARD MP.** *Utilizing bayley scales to determine developmental functioning of infants and toddlers born to high risk alcohol exposed women: the fetal alcohol syndrome prevention study.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 118.
 7. **BOTHAM.** *The impact of voluntary exercise on relative telomere length in a rat model of developmental stress.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 2.
 8. **CHILIZA B.** *Typical versus atypical antipsychotics.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 2.
 9. **COETZEE B.** *Impulsivity in obsessive-compulsive disorder: clinical and genetic correlates.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 183.
 10. **COETZEE B.** *Impulsivity in obsessive-compulsive disorder: clinical and genetic correlates.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 26.
 11. **COETZEE B.** *Impulsivity in obsessive-compulsive disorder: clinical and genetic correlates.* Medical Research Council research conference, Medical Research Council, Parow, South Africa, 2011: 9.
 12. **DE VRIES MM.** *Addressing maternal risk factors for fetal alcohol spectrum disorders.* Fifty-fifth Annual academic day, Health Sciences Faculty, Tygerberg, South Africa, 2011: 151.
 13. **DU PLESSIS SA.** *Validation of an fMRI stop signal anticipation task for use in Xhosa South Africans.* Fifty-fifth Annual Academic Day, Health Sciences Faculty, Tygerberg, South Africa, 2011: 188.
 14. **DU PLESSIS SA.** *Validation of an fMRI stop signal anticipation task for use in Xhosa South Africans.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry, 2011: 6.

- 15 **EMSLEY RA.** *Does relapse in schizophrenia cause long-term harm?* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 7.
- 16 **FJELDHEIM C.** *Effects of mediators and moderators amongst mortuary workers and paramedic students.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 188.
- 17 **FOUCHE JP.** *Diffusion tensor imaging in HAART-NAIVE children vertically infected with HIV.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 189.
- 18 **FOUCHE JP.** *Evidence for fractional anisotropy and mean diffusivity white matter abnormalities in the internal capsule and cingulum of patients with OCD.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 197.
- 19 **HEMMINGS SMJ.** *Effects of childhood trauma and telomere length on HIV-associated neurocognitive impairments in South African women.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 27.
- 20 **HEMMINGS SMJ.** *Identification of ligands interacting with the wolframin protein, a candidate in the pathophysiology of posttraumatic stress disorder (PTSD).* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement September, 2011: 9.
- 21 **HEMMINGS SMJ.** *Investigating telomere length and psychological stress in South African rape victims.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 8.
- 22 **JORDAAN GP.** *Resting brain perfusion in alcohol-induced psychotic disorder: a comparison in patients with alcohol dependence, schizophrenia and healthy controls.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 10.
- 23 **LOCHNER C.** *Obsessive Compulsive Disorder – The myths, the facts, its course, symptoms, causes and the cognitive behavioural treatment of OCD.* A CPD talk at Vista Clinic, Centurion, October 2011.
- 24 **LUCKHOFF M.** *Assault and seclusion monitoring at Stikland Hospital.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 13.
- 25 **MALAN S.** *Effects of childhood trauma and telomere length on HIV-associated neurocognitive impairments in women.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 29.
- 26 **MARTIN L.** *Correspondence between self-reported and objectively determined memory and attention/concentration performance in traumatized adolescents.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 30.
- 27 **MCGREGOR NW.** *The identification of novel susceptibility genes in anxiety disorders.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 191.
- 28 **MCGREGOR NW.** *The identification of novel susceptibility genes in anxiety disorders.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 31.
- 29 **NASSEN R.** *A case series of medically ill HIV positive children referred to a paediatric consultation liaison service for a psychiatric evaluation.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 16.
- 30 **NIEHAUS DJH.** *Facial affect recognition and medical students.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 16.
- 31 **OJAGBEMI AA.** *Association between duration of untreated psychosis and baseline demographic characteristics among Nigerian patients with first episode schizophrenia.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 16.
- 32 **OOSTHUIZEN PP.** *Should depression be treated by algorithm? A call to arms against Zombie science.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 17.
- 33 **PIENAAR WP.** *Informed consent in psychiatric research - overrated and exclusionary.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 18.
- 34 **PIENAAR WP.** *The interface of morality, bio-ethics and the law by case discussion.* Second Forensic Mental Health Conference, Educational Centre,

- Valkenburg Hospital, Cape Town, South Africa, Department of Health 2011: 3.
- 35 **RAS J.** *Audit of non-urgent general adult referrals to a state psychiatric facility.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 192.
- 36 **RAS J.** *Audit of non-urgent general adult referrals to a state psychiatric facility.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 18.
- 37 **REVINGTON N.** *Does the number of experienced abuses impact on measures of neurocognition in trauma exposed South African youth?* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 192.
- 38 **REVINGTON N.** *Does the number of experienced abuses impact on measures of neurocognition in trauma exposed South African youth?* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 32.
- 39 **ROOS A.** *Hair-pulling disorder (trichotillomania): white matter changes and their clinical correlates.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 33.
- 40 **ROOS A.** *White matter integrity in trichotillomania is altered by illness duration and severity.* Fifty-fifth Annual Academic Day, Health Sciences Faculty, Tygerberg, South Africa, 2011: 193.
- 41 **ROSENSTEIN D.** *The state of child and adolescent cognitive behavior therapy in South Africa: a case series and oral presentation.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 18.
- 42 **SEEDAT S.** *Contributory effects of childhood trauma to white matter tract injury in HIV (Human immunodeficiency virus) infected and uninfected women.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 20.
- 43 **SMIT I.** *Neurological soft signs as an endophenotype in an African schizophrenia population - a pilot study.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 193.
- 44 **SMIT I.** *Neurological soft signs as an endophenotype in an African schizophrenia population - a pilot study.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 20.
- 45 **SPIES G.** *Neurocognitive outcomes in HIV and childhood trauma.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 194.
- 46 **SPIES G.** *Neurocognitive outcomes in HIV and childhood trauma.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 35.
- 47 **SULIMAN S.** *Memory, sleep and acute stress disorder.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 195.
- 48 **SULIMAN S.** *Memory, sleep and acute stress disorder.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 35.
- 49 **VAN DEN HEUVEL L.** *Prevalence and correlates of anxiety and mood disorders among TB and HIV infected Zambians.* Biological psychiatry congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 23.
- 50 **VAN DER WALT L.** *Resilience and PTSD in the acute aftermath of rape: comparative analysis of adolescents versus adults.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 196.
- 51 **VAN DER WALT L.** *Resilience and PTSD in the acute aftermath of rape: comparative analysis of adolescents versus adults.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 36.
- 52 **VOGES J.** *Assessment of the verbal communication skills of medical students.* Fifty-fifth Annual Academic Day, Faculty of Health Sciences, Tygerberg, South Africa, 2011: 82.
- 53 **VOGES J.** *Assessment of the verbal communication skills of medical students.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 36.
- 54 **WEICH LEM.** *Medical management of opioid use disorders.* Biological Psychiatry Congress, Protea Hotel, Stellenbosch, South Africa, African Journal of Psychiatry Supplement, September 2011: 24.

Chapters in books

1. **EMSLEY RA, CHILIZA B, ASMAL L, DE FLEURIOT M.** 2011. "Long-acting injectable antipsychotics in early psychosis". In *Antipsychotic long-acting injections*. New York: Oxford University Press. Pp. 145-162.
2. **KATZ C, STEIN M, RICHARDSON JD, SEEDAT S, SAREEN J.** 2011. "A review of interventions for treatment-resistant posttraumatic stress disorder". In *Different views of anxiety disorders*, InTech, Rijeka, Croatia (local name: Hrvatska). Pp. 251-270.
3. **MATSUNAGA H, SEEDAT S.** 2011. "Obsessive-compulsive spectrum disorders: cross-national and ethnic issues". In *Obsessive-compulsive spectrum disorders - refining the research agenda for DSM-IV*. Arlington, USA: American Psychiatric Association. Pp. 205-222.
4. **PIENAAR WP.** "Ethics in mental healthcare". 2011. In *Medical Ethics, Law and Human Rights*. Pretoria: Van Schaik. Pp. 203-222.
5. **VAN RENSBURG SJ, POTOČNIK FCV, KOTZE MJ, STEIN DJ.** 2011. "Antemortem markers in Alzheimer's disease". In *Principles and practice of geriatric psychiatry*. Chichester: John Wiley & Sons. Pp. 299-303.
6. **WANG PS, AGUILAR-GAXIOLA S, ALONSO J, LEE S, SCHOENBAUM M, ÜSTÜN TB, KESSLER RC, BRUFFAERTS R, BORGES G, DE GIROLAMO G, GUREJE O, HARO JP, KOSTYUCHENKO S, KOVESH V, LEVINSON D, MATSCHINGER H, MNEIMNEH Z, OAKLEY BROWNE M, ORMEL J, POSADA-VILLA J, SEEDAT S, TACHIMORI H, TSANG A.** 2011. "Assessing Mental Disorders and Service Use Across Countries: The WHO World Mental Health Survey Initiative". In *The Conceptual Evolution of DSM-5*. Eds Regier DA, Narrow WE, Kuhl EA, Kupfer, DJ. Arlington, USA: American Psychiatric Publishing. Pp. 261-301.

Teaching and training

STUDENTS	NUMBER
MMed students registered in 2011	21
MMed students currently registered (2012)	22
D students registered	16
DMed students (Drs Chiliza and Hawkridge)	2
PhD students	14

STUDENTS	NUMBER
Number of FC Psych Part II successful candidates (Dr's Sunet Bodenstein & Elsa du Toit & Mpogi Mashile)	3
Number of MMed degrees awarded (Dr Elsa du Toit)	1
Number of D degrees awarded (Drs Helen Ferrett & Georgina Spies)	2

The first year of combining the MBChB III course with Allied Health Sciences (Pat AGB) was successfully completed under the guidance of Dr Helena Lategan, to be in line with the faculty's integrated teaching approach.

Ms Michele Ainslie was appointed as Teaching and Learning Manager and Service Learning Coordinator in the Department of Psychiatry in January 2011.

Special achievements

Prof. Robin Emsley:

- was awarded a Stanley Medical Research Institute Research Award Grant, USA (from 2010 to 2012)
- received a Nepad Grant for a collaborative African outcomestudy on schizophrenia (from 2008 to 2012)
- served as:
 - committee member and Officer of the Section on Schizophrenia of the World Psychiatric Association
 - council member of the Faculty of Psychiatry The Colleges of Medicine of South Africa
 - committee representative of the Southern African Biological Psychiatry Group
 - fellow of the Collegium Internationale Neuro-Psychopharmacologicum
 - international advisory council member of the Schizophrenia International Research Society and member of the Education and Training and Financial Committees
 - faculty member of the Lundbeck International Psychiatric Institute
 - faculty member of the Janssens International Psychiatry Academy
 - member of the International Advisory Boards for Janssen-Cilag and Servier, and served on the editorial boards of nine international and one national psychiatric journal

Prof. Soraya Seedat

- was, in collaboration with researchers at UCT, awarded a five-year NIH (National Institute of Health) grant for a study titled: Mechanisms of HIV Neuropathogenesis: Emerging Domestic and Global Issues (2009 to 2013)
- was awarded an African collaboration grant for a collaborative genetics study with Dr Eugene Kinyanda from the Medical Research Council's HIV Unit in Kampala, Uganda
- elected to the International Scientific Programme Committee (ISPC) for the 10th World Congress of Biological Psychiatry, Prague, Czech Republic, from 29 May to 2 June 2011
- was appointed as collaborator on (i) an AIDS-related TB study in Zambia, Common Mental Disorders among TB and HIV-Positive Patients Accessing Treatment at Primary Health Care Facilities in Zambia, and (ii) the International Study of Student Career Choice in Psychiatry, a World Psychiatric Association (WPA) grant study
- is editor-in-chief of the Journal of Child and Adolescent Mental Health, since 2010
- was elected as:
 - member of Senate of the Colleges of Medicine of South Africa, from 2009 to 2011
 - member of the World Federation of Societies of Biological Psychiatry: Task Force Committee on the Developing World, 2006 to present
 - member of the Collegium Internationale Neuro-Psychopharmacologicum, and of the Constitution and Bylaws Committee
 - member of the American Psychiatric Association
 - president of the South African Society of Biological Psychiatry
 - vice-chair of the Health Research Ethics Committee, Faculty of Health Sciences, Stellenbosch University, from 2011 to 2013
 - served as member of the South African National Committee for the International Brain Research Organisation from 2009 to 2011, and was re-elected to the MRC Grants Committee for 2010 and 2012

Prof. Christine Lochner

- was re-elected as member of the Health Research Ethics Committee, Faculty of Health Sciences, Stellenbosch University

- elected as member of the committee for postgraduate teaching, Faculty of Health Sciences, Stellenbosch University

Prof. Willie Pienaar

- is a member of the Tygerberg Hospital Ethics Committee
- a member of the Bioethics Unit of the Faculty of Health Sciences
- is the chair of the Mental Health Drug and Therapeutic Forum of the Associated Psychiatric Hospitals

Dr Bonginkosi Chiliza

- received a National Research Foundation Improvement of Academic Qualification Grant, 2011
- recipient from the Andrew Mellon Foundation Early Researcher Career Program, 2011
- Serves as:
 - Chair of the South African Society of Psychiatrists' (SASOP) Western Cape subgroup
 - Chair of the South African YMCA National Board
 - Chair of the Annual Academic Day Committee in the Faculty of Health Sciences

Prof. Christine Lochner

- received a travel award and stipend from the Trichotillomania Learning Centre
- was selected as Young Affiliate for the Academy of Sciences for the Developing World (TWAS), from the TWAS regional office for Sub-Saharan Africa for the period 2011 to 2015
- is the founding member of the South Africa Young Academy of Science (SAYAS), a branch of the Academy of Science of South Africa (ASSAf), 2011 – 2016
- received an NRF grant for 2012 to 2013 (Competitive Programme for Rated Researchers)

Dr Laila Asmal

- received an Oppenheimer Memorial Trust Award and funding for travel for a scientific observership programme in neuropsychiatry to Massachusetts General Hospital, Harvard University, Boston, for June 2011
- was selected to attend an Early Career Psychiatrists Fellowship Programme, at the World Psychiatric Association Thematic Conference in Istanbul, July 2011

- received a World Federation of Biological Psychiatry travel award and was selected for a Young Physician Leaders workshop, at the World Health Summit in Berlin (DRD Research Visit Grant), October 2011

Dr Chris Verster

- is the representative of Psychiatry and committee member of the provincial Pharmaceutical and Therapeutic Committee

Drs Sue Hawkrigde, Felix Potocnik, Chris Verster, Lize Weich and Gerhard Jordaan

- are members of the Associated Psychiatric Hospitals' Mental Health Drug and Therapeutic Forum

Dr Rob Allen

- is our representative and member the Metro East Geographical Service Area Committee
- is the convener of the provincial Annual Mental Health Day

Dr Francois Pretorius

- is the chair of the South African Society for Mental Health and Deafness, and acts as consultant to the Africa Contact Group for Mental Health and Deafness
- is also the Chair of the provincial coordinating committee for Mental Health.

Dr Gerhard Jordaan

- is a member of the Lentegeur Hospital Facility Board
- and the Tygerberg Hospital Drug and Therapeutics Committee

Dr Inge Smit

- was awarded the best registrar presentation at the Biological Psychiatry Congress in Stellenbosch, September 2011

Dr Annerine Roos

- received a best poster award at the fifty-fifth Annual Academic Day at the Faculty of Health Sciences

Ms Janine Roos

- selected as winning poster in the category Interdisciplinary Health Sciences at the Annual Academic Day, for The Mental Health Information Centre of Southern Africa: A call centre with a difference

Dr Georgina Spies

- received an Improving Academic Qualifications (IAQ) grant for 2011
- obtained an international travel award for 2011
- was awarded a Claude Leon Foundation Postdoctoral Fellowship for 2012 and 2013

SURGICAL SCIENCES

Department of Surgical Sciences

Professor B.L. Warren

DIVISION OF SURGERY

Head of Division

Professor B.L. Warren

Head of General Specialist Services:

Surgery – Dr J de V Odendaal

Units

- **Surgical Gastroenterology**
Professor B.L. Warren (Head)
 - Monday Firm – Dr A v V Lambrechts
 - Tuesday Firm – Dr J Lübbe
 - Wednesday Firm – Drs J de V Odendaal, S Hofmeyr
 - Thursday Firm – Dr CE Cooper
- **Vascular Surgery**
Professor D.F. du Toit (Head), Drs J de V Odendaal, JP Mouton
- **Head, Neck and Breast Surgery**
Professor J.P. Apffelstaedt (Head), Dr KJ Baatjes
- **Surgical Intensive Care**
Drs CE Fourie (Head), I Aggenbach, N Ahmed
- **Burn Unit**
Drs AE van der Merwe (Head), M Jansen
- **Trauma Surgery**
Dr A v V Lambrechts (part-time Head)
- **Karl Bremer Hospital Surgical Service**
Dr AE Victor (Head)

A total of 20 registrars are on the Tygerberg Hospital staff establishment, plus one each employed by Karl Bremer, Paarl and Worcester hospitals, and two supernumerary registrars (Nigeria and Namibia) rotate, on a three-monthly basis, to do service in abovementioned units and also cover the affiliated provincial hospitals.

Selected Statistics

Average Bed-occupancy C1D-East Surgical admissions ward	181%
Trauma Patients Treated	18 494
Patients requiring Resuscitation Unit Admission	1 097



- **Intensive Care Unit**
(12 beds if nursing staff complement is on duty)

Admissions	746
Average Length of Stay	6 days
Deaths	44 (5.8%)

- **Burn Unit**
(Tertiary Referral Unit for Adult Burn Patients in the Western Cape: 22 Beds)

Admissions	58
Average Length of Stay	13 days

Comment

These figures reflect the intense pressure on surgical services at Tygerberg Hospital and the need to make provision for an increasing burden in years to come.

The year was characterised by continued optimal patient care within fixed resources, but with the expectation of imminent improvements, including the eventual appointment of a full-time specialist in Trauma Surgery, additional ICU/High Care Beds and expansion or upgrading of the Surgical Admissions Ward in 2012. Some of the elective case load could be diverted to Eerste River Hospital and treated there by Tygerberg staff, while weekly outreach visits to Helderberg Hospital were established.

Highlights

Dr AE (Elbie) van der Merwe, Head of the Burn Unit, was awarded the prestigious Whitaker Award for the most significant contribution to burn care worldwide.

All seven candidates for the College of Surgeons Final Examinations passed, this being the only institution in the country to achieve a 100% pass rate. Dr Helene

Louwrens received the 2011 Douglas Medal for the best performance out of 90 candidates countrywide in this examination. This is the second consecutive year and the third time in six years that a Tygerberg/Stellenbosch University candidate has received this medal.

DEPARTMENT OF CARDIOTHORACIC SURGERY

Summary

As a small department we take pride in the achievement of service-delivery goals as well as fulfilling our obligations regarding training.

Resources

POSTS	NUMBER
Specialists/Consultants	3
Registrars	4
Perfusionists/Technologists	3
Scrub sisters	2
Auxillary theatre staff	4
Ward Sisters	27
Auxillary ward staff	17
Administrative	3
Housekeeping	7

SESSIONAL POSTS	NUMBER
Consultants	1 x 25 hrs/week
	1 x 4 hrs/week
Vacant posts	3 Ward sisters
	3 Staff nurses
	2 auxillary ward staff

Output

	NUMBER
Theatre Procedures	
Major heart surgery	346
Major lung surgery	224
Major paediatric heart surgery	50
Trauma	57
Other	148
Ward Admissions	800
Specialist-clinic visits	1 760
Multidisciplinary meetings	138
Lectures	132
Elective Students	20

Comment on output

Considering the limited amount of staff and the constraints of limited ICU, high care and ward beds, the department has managed an outstanding output with excellent patient outcomes. We have maintained outcome statistics comparable to the best units in South Africa and abroad.

Infrastructure development:

- New heart-lung machine was purchased.
- Operating tables were upgraded.
- Waiting room was upgraded.
- Patient-satisfaction audit was implemented.

Partnerships

National

- Participation at national conferences
- Partnerships with other university departments

Private sector

Collaboration and maintenance of relationships with colleagues in private hospitals.

International

- Attendance of international congresses
- Attendance of international courses
- Liaison with overseas departments

Community outreach programmes

Due to departmental workload no community outreach could be performed.

Research Activities

Publications	3
Books purchased	3

Teaching and training

Undergraduate	150
Postgraduate	4
Elective students	20

DEPARTMENT OF NEUROSURGERY

Prof. H.B. Hartzenberg

Summary

During 2011 two specialists – Drs Armin Gretschel and F Taleb – graduated for the division as neurosurgeons. All vacant posts were filled in this year as well as a specialist post that was awarded to Dr A Gretschel, one of our graduates.

The division also took delivery of two very important pieces of equipment that will be greatly beneficial in managing neurosurgical patients. This state-of-the-art equipment included neuronavigation with electromagnetic tracking as well as a flexible endoscope.

A number of registrar-training workshops were hosted.

Dr Ian Vlok and Dr A Gretschel operated on spinal cases in the Worcester Hospital. This is an important outreach programme started by the division to help rural patients from this area.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Specialists	3	3
Registrars	5	5
Supernumerary registrars	2	2

Part-time specialist	20 hours per week
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Output

OUTPATIENTS	NUMBER
Outpatient visits: New cases	822
Follow-up	2236
Total	3058

ADMISSIONS	NUMBER
Paediatrics:	35 high-care intensive care cases 215 ward
Adults total beds	52
Ward admissions A4 West	2740
Intensive care	472
A4 East	553
Total admissions and internal transfers:	4015

Theatre procedures:	
Elective in neurosurgery theatre:	319
Emergency in emergency theatre:	353
Total	672

Comment on output

There is a significant increase in all outputs compared to last year. The statistics are obtained from Clinicom and the accuracy could be questioned. The admissions also include internal transfers from within the neurosurgical unit. For example, a patient admitted to the A4 high-care ward may be transferred to the general ward in A4 West and may in fact be transferred again to the A4 East. This will affect these figures.

Community outreach programmes

A number of lectures on brain trauma were given by Dr Ian Vlok and Dr A Gretschel in collaboration with StellMed.

Prof. H.B. Hartzenberg gave lectures at Panorama Medi-Clinic on craniofacial surgery and traumatic brain injury to nurses and the general public (support groups).

Dr Ian Vlok convenes the monthly Cape Spine Meeting at Tygerberg Hospital for both private and public sector consultants and registrars.

Spinal surgery in Worcester as mentioned above.

Partnerships

National

Society of Neurosurgeons of South Africa. This division, under the Leadership of Prof. H.B. Hartzenberg, is the convener of the 22nd biennial congress of the Society of Neurosurgeons of South Africa. This congress will take place from 3 to 6 October 2012.

Private sector

Mainly with various companies such as Southern Medical, Karl Storz, Synthes, Baroque Medical, Medtronic and Johnson & Johnson. Seminars and hands-on cadaver workshops were done in collaboration with these companies.

International

London School of Hygiene and Tropical Medicine: research projects

Achievements

1. Vlok AJ, Dunn RN, 2011, *Spondylotic spondylolithesis: Surgical management of adult presentation*.
2. Hardcastle P, 2011, *Tuberculosis of the skull with associated cranio-cervical subluxation* Taleb F, Vlok AJ, 3 *Proceedings National Combining structural and functional MRI with 3D model printing as a neurosurgical planning tool*. Abstract 200. 2011 Spottiswoode B, Chung YC, Engelhardt S, Gretschel A.
3. Vlok AJ, 2011, *Proceedings National Shallow water diving injuries – Devastating but Preventable*.
4. Gretschel A, 2011, *Masters completed: Transcranial stab wounds – A retrospective analysis to assess the incidence of septic complications following penetrating stabwounds to the head*.

Presentations at the 55th Academic Year Day of the Faculty of Health Sciences, Stellenbosch University:

1. Vlok AJ, *National Shallow water diving injuries – Devastating but Preventable*.
2. Gretschel A, *Transcranial stab wounds – A retrospective analysis to assess the incidence of septic complications following penetrating stabwounds to the head*.

Congresses attendance/presentations

Prof. H.B. Hartzenberg presented a talk on controversies in craniofacial surgery at a craniofacial workshop that was held in December 2011 at the Red Cross War Memorial Children's Hospital.

Prof. H.B. Hartzenberg attended the annual conference of the South African Spine Society in the Drakensberg in May 2011.

Dr Ian Vlok attended the EuroSpine congress in Milan in September 2011.

Teaching and Training

We are involved with undergraduate teaching, training and examining during the neuroscience block; and the physiotherapy and occupational-therapy pathology block. We train postgraduates to become neurosurgeons. We also have an orthopaedic rotator as part of neurospine training.

Prof. H.B. Hartzenberg examines candidates sitting for the final neurosurgical examination of the Colleges of Medicine of South Africa. He also examined candidates for the MMed Neurosurgery final of Stellenbosch University; the MMed Neurosurgery

final of the University of the Free State; as well as the MMed Neurosurgery final of the University of KwaZulu-Natal.

Dr Ian Vlok was on the faculty for the AO Advanced course in Johannesburg in July 2011 as well as the faculty for the meeting of the International Group for Advancement in Spinal Science (IGASS) at the end of 2011.

Dr Ian Vlok also examines undergraduate students as well as for The Colleges of Medicine of South Africa's neuro-anatomy examination.

Prof. Hartzenberg did presentations at registrar-training workshops hosted by Codman in Pretoria in July 2011.

Special achievements

Prof. H.B. Hartzenberg was appointed to the steering committee of CRASH 3, an international trial of the London School of Hygiene and Tropical Medicine.

DEPARTMENT OF OPHTHALMOLOGY

Prof. D Meyer

Summary

This annual report reflects the dedicated work of all the committed staff of the Division of Ophthalmology who under challenging conditions rendered an exceptional service to the patients in our drainage area and beyond.

Our outpatient nursing and support staff shortages were still unacceptably high.

During 2011, **23 844** patients (22 714 for medical reasons and 1130 for refraction only) attended our outpatient department, making it the busiest surgical clinic in the hospital. Nonetheless these figures represent a 5,8% decline in patients compared to the previous year.

Patient admissions to our wards (D7,D4 and G4) totalled **2 962**, a number similar to 2010 (2918).

Surgical cases totalled **2662** operations (2176 in 2010), divided into **436** day-surgery cases (216 in 2010), **1467** general ophthalmic cases (1070 in 2010) and **759** cataract operations (1059 in 2010). This represents a 22% increase in total procedures from the previous year, a 102% increase in day-surgery cases (primarily driven by Avastin intravitreal injections), and a 37% increase in main-theatre cases (mainly driven by subspecialty and trauma surgery). The cataract cases have shown a steady decline by 16% in 2010 and 15% in 2011.

Laser procedures have increased from 909 in 2010 to 1241 in 2011 (an increase of 27%).

During outreach efforts 45 additional operations were performed in Namibia.

The overall increase in service delivery is remarkable, given that the number of doctors did not increase. This was managed alongside a very active academic and research programme, which is clearly reflected in the full research report of the University of Stellenbosch. Four registrars received their MMed degrees in 2011.

A very big thank you to all staff members for their dedication, especially the clinical staff.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor	1	1
Head of Unit	1	1
Specialist	3	2
Registrar (number only)	10	10
Medical Officer	3	3

POSTS (SESSIONAL – HOURS PER WEEK)		
	NUMBER	FILLED
Specialists	1	6
Part-time posts	1	5/8
Locum posts	0	0
Full-time equivalents	5	5
Number of beds (usable):	D7=31 G4=4	35

Output

OUTPATIENT VISITS:	Total: 23 844
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Specialist clinics:

1. Medical Retina
2. Surgical Retina
3. Paediatric Ophthalmology
4. Oculoplastics
5. Cornea and anterior segment
5. Refraction (1130 refraction clinic visits)

ADMISSIONS (D7, D4 AND G4):	Total: 2962
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THEATRE PROCEDURES	NUMBER
General ophthalmic	1467
Day surgery	436
Cataract	759
Total	2662

LASER PROCEDURES	NUMBER
Yag laser	580 (AxTrap)
Argon laser	579 (AxTrap)
Diode laser	82
Total	1241

Comment on output

It is unfortunately still a fact that most of the eye care in the Western Cape is rendered at the three academic complexes in the province. However, with the ophthalmology services improving in our drainage area (at Worcester and Paarl) the pressure on Tygerberg Hospital's resources should stabilise.

The Ophthalmology outpatient clinic is the busiest surgical outpatient clinic in the hospital with 23 844 patient visits in 2011. This represents an insignificant decrease of 5,8% from 2010. Cataract surgeries were reduced by 16%, from 1059 in 2009 to 890 in 2010, and again by 15% to 759 in 2011. This is due to the fact that more tertiary and trauma cases are referred to Tygerberg Academic Hospital than was previously the norm, cases which occupied the limited operating time available for elective cataract cases.

The central academic hospitals cannot continue to render the required ophthalmic services to an ever-increasing population. The establishment of secondary eye-care units outside of these academic complexes still remains the only acceptable long-term solution to the provision of responsible eye care to the communities.

The Province furthermore needs to consider creating a single tertiary dedicated eye hospital to serve the whole province and then continue supporting the two secondary service centres at the two main teaching complexes.

Community outreach programmes

- Registrars were sent to a national workshop on the prevention of blindness, sponsored by the Community Eye Health Institute, University of Cape Town. They participated in designing treatment and blindness-prevention strategies for the Province.

- **South African Outreach:**

The division maximises its outreach opportunities in partnership with NGOs such as the Bureau for the Prevention of Blindness, the South African Air Ambulance Service and Lions Clubs International. Our clinical and surgical services render invaluable assistance in underserved areas and small towns in the Western and Northern Cape, whenever needed.

- **African Outreach:**

Namibia: Prof. Meyer visited Namibia on three occasions in 2011, where he performed complex ophthalmic surgery on special cases at the state hospital in Windhoek, as a gesture of goodwill. During these visits academic activities included the transfer of surgical and clinical skills to local surgeons as well as academic evening sessions for CME, presented by Prof. D Meyer. Forty-five subspecialty operations were performed and 131 patients consulted in Windhoek during these one-week visits.

Partnerships

National

1. Academically and clinically the divisions of Ophthalmology at Groote Schuur, Red Cross and Tygerberg Academic Hospitals co-operate in combined meetings on a quarterly basis via the Ophthalmological Society of South Africa and by exchanging lecturers. A positive and cordial relationship exists between the two institutions.
2. The collaborative research initiative in retinal diseases continues between this division and the Department of Human Genetics at the University of Cape Town.
3. This Division trains one registrar at a time for the National Defence Force at 2 Military Hospital. This collaboration has existed successfully for almost 20 years. The new registrar joined the Division in 2011.
4. The first registrar arrived in 2008 and was fully sponsored by the Northern Cape Province. After completion of training, this specialist returned to Kimberley Hospital at the end of 2011 to render sorely needed specialist services there.

Private sector

1. The Cape Eye Hospital, as part of the postgraduate accredited teaching platform, renders academic as well as technical support with instrumentation and training (e.g. Excimer Laser refractive surgery and corneal transplant surgery) not readily available to our registrars at

Tygerberg Academic Hospital.

2. Tygervalley Eye and Laser Centre has also agreed to allow registrars from the Faculty of Health Sciences to visit and learn. This support is valuable especially because they possess the only femtosecond laser in the Western Cape.

International

The first supernumerary registrar from another African country arrived in April 2008 and received full sponsorship from the Namibian Department of Health and Social Welfare. This candidate successfully completed his CMSA Fellowship in Ophthalmology in 2011 and will return early in 2012 as a fully qualified ophthalmologist to serve Namibia.

Achievements

Journal articles (subsidised)

- O'Connell N., Freeman N., Rabie H., Cotton M.F. *Presumed cytomegalovirus retinitis in human immunodeficiency virus type I-infected South African children.* **Pediatric Infectious Disease Journal** 2011; 30(6): 2.
- Oystreck D.T. *When straight eyes won't move: phenotypic overlap of genetically distinct ocular motility disturbances.* **Canadian Journal of Ophthalmology/Journal Canadien d'Ophthalmologie** 2011; 46(6): 477-480.
- Rautenbach R.M., Bardiën S., Harvey J., Ziskind A. *An investigation into LOXL1 variants in black South African individuals with exfoliation syndrome.* **Archives of Ophthalmology** 2011; 129(2): 206-210.
- Whigham B.T., Williams S.E.I., Liu Y., Rautenbach R.M., Carmichael T.R., Wheeler J., Ziskind A. *Myocilin mutations in black South Africans with POAG.* **Molecular Vision** 2011; 17: 1064-1069.
- Smit D.P. *Allergic conditions of the eye.* **South African Family Practice** 2011; 53(5): 425-430.

Journal articles (non-subsidised)

- Meyer D. *Serendipity, the humble case report and modern health science challenges.* **Middle East African Journal of Ophthalmology** 2011; 18(4): 303-304.
- Smit D.P. *Complications of contact lens wear: what pharmacists should know.* **South African Pharmaceutical Journal** 2011; 78(8): 31-34.

Chapters in books

- **Freeman N.** "Pediatric Glaucoma". 2011. In *Pediatric Ophthalmic Surgery*. New Delhi: Jaypee Brothers Medical Publishers. pp. 181-184.

Teaching and training

Undergraduate training

A need for additional clinical training and curriculum development for the MBChB programme in ophthalmology has long been identified. Because the current staff are overworked and unable to devote sufficient time to clinical training and curriculum development, the Division obtained additional funding from the Department of Education to appoint two specialists as part-time lecturers to provide additional training in examination methods and to refine the curriculum in ophthalmology. During 2011 the lecture notes in ophthalmology were updated in both Afrikaans and English. Together with improved clinical training the confidence of medical students in their ability to perform an eye examination should improve as well as their knowledge base and clinical skills in ophthalmology.

Postgraduate training

A similar need in postgraduate training in vitreoretinal surgery was identified and this need was also met by appointing a specialist lecturer to assist MMed students on a sessional basis, with the aim to enhance patient care and improve surgical outcomes. The remuneration of this specialist is also funded by the Department of Education.

DEPARTMENT OF ORTHOPAEDIC SURGERY

Prof. G.J. Vlok

Summary

The Department of Orthopaedics functions on full capacity namely:

- After-hours services
- Outpatient services
- Special clinics
- Operational services
- Undergraduate and postgraduate training

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor & Head	1	1
Consultants	8	8

POSTS (SESSIONAL – HOURS PER WEEK)	
	NUMBER FILLED
Specialist sessions	13 hours per week
Podiatrist	20 hours per week

Output Source

OUTPATIENTS	NUMBER
C6B West Outpatients	
Hand Clinic	6483
Spine Clinic	793
Hip and Knee Clinic	1196
Paediatric Clinic	2308
Feet Clinic	1075
Shoulder Clinic	186
Plasters	511
Dressings	2598
C6B East Outpatients	
Trauma Clinic	9347
Cold / Reconstructive Ort	5224
Dressings	2673
Plasters	2988
After-hours casualties	
Hand injury	1690
- Cold references	989
Orthopaedic injuries	5467
Total	8146

OUTPATIENTS	NUMBER
Orthopaedic Day Surgery	773
X-ray examination	18 458
Patients with examinations	24 318
Arthroplasty and joint-replacements operations:	
Hips	127
Knees	80
Admissions in wards: Maximum capacity is used always)	
Paediatric Orthopaedic admissions	1157
A3 West	831
J6	791
A3 East	149

Comment on output

There is a big load with waiting lists over 6 months. We are constantly prioritising and refer patients to peripheral hospitals for follow-ups.

Infrastructure development

Equipment is periodically replaced, especially with donations of institution. A huge donation is the spinal cord monitoring system.

Community outreach programmes

Outreach is to the Paarl School for the handicapped as well as Helderberg Hospital.

Partnerships

Various orthopaedic surgeons in the private sector assist with postgraduate training in the department.

Achievements

Postgraduate students deliver lectures at congresses for which they are highly honoured.

Teaching and Training

There are 16 postgraduate students and a full load of undergraduate students rotating in the department.

Special achievements

The department is represented at the Colleges of Medicine of South Africa as well as the executive committees of the Orthopaedic Association.

DEPARTMENT OF PAEDIATRIC SURGERY

Prof. S.W. Moore

Summary

Paediatric Surgery currently functions within 15 beds in ward G4, but more than 50% of its patients lie within the beds of the paediatric service outside of this ward.

- Paediatric Surgery admitted 1 002 patients to ward G4 in 2010 (Clinicom).
- A total of 226 urgent paediatric in-patient referrals in paediatric wards were consulted.
- A total of 96 neonates were operated within and associated with the neonatal section.
- In addition to the in house referrals, there were 1 045 outpatients (Clinicom) seen in the two specialised clinics (General Paediatric Surgical Clinic and Ano-rectal Clinic).
- These figures exclude daily emergency referrals from G ground paediatric admissions.

Surgical procedures

- The available theatre time (very limited) could handle 706 elective procedures (theatre lists).
- There were 136 emergency operations performed [excluding vascular access frequently called for within the Intensive Care and other units].

There is also a day theatre list (1 half-day/week) [254 cases] and the first hour of the abscess list is reserved for children where the staff assist the intern.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Consultant	2	2
Registrar	1	1
Medical Officer	1	1

POSTS (SESSIONAL – HOURS PER WEEK)

Consultant	16 hrs	16 hrs
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Output Source

OUTPATIENTS	NUMBER
Outpatient visits	1 275
Speciality Clinics: G Ground referrals	551
Admissions	1 284
Theatre procedures:	
Day surgery	614
Main theatre [653 elective + 314 emergency]	967
Other procedures	260
Total	1 841*

*subject to verification

Comment on output

Output is limited due to very limited resources

Case load is increasing with the Khayelitsha shift with little extra resources.

Infrastructure development

- Development of seminar room in ward G4 for meetings and teaching purposes
- Re-siting of Divisional office to ward G4

Community outreach programmes

- Attempts to initiate an outreach training theatre list at Eerste Rivier Hospital cancelled due to lack of anaesthetic staff
- Improved liaison and service to clinics
- Teaching initiative with Ethiopia Addis Abbaba university further explored
- Contact with University of Zimbabwe established – Prof Moore invited as external examiner
- Advisory service to Africa Paediatric oOology initiative

Partnerships

Private sector

Blaauwberg Hospital-Public private partnership explored

Achievements

Publications in

- A. Peer-reviewed journals 5 published in 2011
- B. Chapters in books 5 published in 2011
- C Revision of student handbook "Student Guide to Paediatric Surgery"
- D. Revision and translation of Afrikaans version "Studentenotas in Pediatriese Chirurgie "

TOTAL 11 published in 2011

Teaching and training

The teaching commitment involves both undergraduate and post-graduate teaching programmes.

Undergraduate teaching Paediatric surgical staff are involved in teaching 2nd year MBChB ,3rd yr MBChB, 4th and 5th yr MBChB and Student Interns as well as being involved in tests and examinations in General Surgery as well as Paediatric surgery component of undergraduate Middle Surgical rotation.

Postgraduate teaching involves both training of general surgeons in Paediatric Surgery and specialist training.

Training of general surgical registrars

General surgery trainees also receive tutorials at intermediate and final modules as well as practical training on rotation.

Specialist training in Paediatric Surgery

Stellenbosch University is an accredited Paediatric and Paediatric Surgical training centre, actively engaged in goal-directed research.

One of the highlights of 2011 was the further development of the new MMed programme at Stellenbosch University as a HPCSA-approved four-year Masters programme to allow specialisation in Paediatric Surgery. The division had four enrolled postgraduate students in 2011 and follows a systematic teaching and training course.

As a result

- Regular meetings occur between units to discuss policy and individual patients.
- These include weekly meetings with Radiology, Paediatric Oncology, General Surgery as well as Neonatology – Paediatric Gastroenterology, Endocrinology, Fetal medicine, Anatomical Pathology and Clinical Genetics.
- A regular Wednesday afternoon teaching programme has been established which includes

an mortality and morbidity review, a journal club, and systematic teaching by Prof. Heinz Rode who is funded out of Department of Education funding for this purpose.

- A regular postgraduate teaching round has been commenced.
- Presentations and participation at other forums take place fairly regular.
- Foetal-assessment joint meetings were introduced.

Programme Highlights

- Dr N Tshifularo was successful in the Colleges of Medicine final examination of the Fellowship in Paediatric Surgery of South Africa (FCPS(SA)). He has completed the requirements for the MMed degree in Paediatric Surgery and will graduate at the 2012 graduation ceremony.
- Dr C Zabiegaj-Zwick was successful in the Primary examination in Surgery at the Colleges of Medicine.

Special achievements

- Prof. Moore was awarded the prize for the best paper in the *South African Journal of Surgery* 2009-2010, and was given the honour of delivering the paper at the ASSA conference at the CTICC in April and received the certificate.
- Dr C de Vos (registrar) received the second best paper award (in the open competition) at the South African Gastro-enterological (SAGES) conference and won a year's subscription to the *British Journal of Surgery*.

DEPARTMENT OF PLASTIC AND RECONSTRUCTIVE SURGERY

Prof. Frank Graewe

Summary

In November 2011 we had a Smile week sponsored by Smile foundation South Africa. We operated on children with congenital craniofacial and cleft lip and palate deformities. We also operated on another 2 children on a separate occasion sponsored by FIFA and facilitated by Smile foundation.

Our division hosted the College oral final exam in Plastic Surgery in October 2011 at Tygerberg Hospital, after Groote Schuur cancelled last minute. Also in October we hosted the first workshop on adipose derived stem cell techniques in South Africa at Tygerberg Hospital, sponsored by Cytori.

We started with a series of tutorials for our registrars

in training by accredited part time consultants and lecturers, Dr Wayne Kleintjes and Dr Liezl du Toit.

Another highlight was Dr van Deventer's publication on his new technique in cosmetic breast surgery with long-term follow up and results.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Consultants	2	2
Registrars	3	3
Supernumerary registrar	1	1
DoE funded sessions	5	5

POSTS (SESSIONAL – HOURS PER WEEK)		
Consultant	10 hrs	10 hrs

Output Source

OUTPATIENTS	NUMBER
Outpatient visits	4 507
Speciality Clinics	178 cleft lip and palate and craniofacial
Admissions	1301
Theatre procedures	760 elective cases (cases under local anesthesia and cases on other lists excuded)

Achievements

Van Deventer P., Graewe F. 2011. *Craniomedial pedicled mammaplasty based on Wuringer's horizontal septum*. **Aesthetic Plast Surg**. Oct;35(5):936-7

Teaching and Training

Continuous postgraduate training in Plastic Surgery to elective medical students from Stellenbosch University and abroad.

DEPARTMENT OF UROLOGY

Dr A van der Merwe (Acting)

Summary

The department still delivers a good service despite limitations regarding theatre time, staff shortages in relation to the number of outpatients, beds (especially in the intensive-care unit), modern equipment and infrastructure. The dedication and loyalty of the senior nursing staff is one of the greatest assets of the department. The retirement of staff nurse Mockey was a great loss for BP East.

Stability was brought to the main theatre through permanent staff that has been working at Tygerberg Hospital for years. Sr Witbooi, who works on contract, is utterly indispensable. Another great asset is the enthusiasm and dedication of the consultants and registrars that not only renders an excellent clinical service, but also performs better than any other Urology department in South Africa in the area of research, congress papers and publications. Dr Shaun Smith, Dr Jo van der Merwe and Dr Chris van der Walt were successful in their final exams at the Colleges of Medicine of South Africa. The specialist clinics take a lot of pressure from the general outpatients and they are essential in the smooth running of the department. Scope theatre is one of the busiest areas in Urology and perhaps forms the single most important area outside of the main theatre. The pressure is taken off the main theatre in terms of patient waiting lists. Scope theatre had a record number of admissions during this period.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor Principal Specialist	1	1
Specialist	3	3
Registrar	6	6
Medical Officer	2	2
Supernumerary registrar	1	1

Number of beds (usable): 31

Output Source

OUTPATIENTS	NUMBER
C6A West	5 404
C6A East	5 605
Total	11 009
Specialist clinics	
Oncology	1 697
Andrology	567
Striktire	484
Urodynamics	329
Prostate biopsies	296
Total	3 373
Admissions	

Ward D6	1 271
Ward D4	48
Ward G4 (Paediatrics)	6
Total	1 325
Theatre procedures	
Main theatre	730
Cystoscopy-theatre	2 466
Day theatre	230
Shock wave lithotripsy	58
Total	3 484

Comment on output

The 31 beds available is not enough to serve a total of more than 14 000 outpatients. The theatre time available is in good balance with the available beds, but is insufficient to serve our patient population. The kidney transplant patients that we evaluate in A7, are excluded from these totals. The kidney transplant programme is still successful and we together enthusiastically with our nephrology colleagues. The

kidney transplant programme is still successful and we work enthusiastically with our nephrology colleagues. The urgent problem there is that theatre lists are too little to be able to do sufficient transplants. Virtually all numbers has increased drastically in comparison with reports from 2007 until 2010 submitted with record numbers in ward D6, Outpatients and Scope theatre. Taking into account that staff numbers do not increase, it explains the waiting times in clinics and as well as theatre lists that are booked too full.

If Figure 1 and Table 1 is viewed, the first remarkable item is that the admissions for Ward G4 (Paediatrics) decreased from 170 to 6. This can however only be a bookkeeping mistake, since my own service group (one of three) easily operated on 40 or more patients via G4, therefore the actual number is probably close to the figure of 170 for the previous year. This puts the statistical survey for all data in a questionable light. The question is whether data was kept accurately in all areas.

Infrastructure development

Figure 1. Movement of patients through the divisions of the Department of Urology in 2011 in comparison with the previous two years.

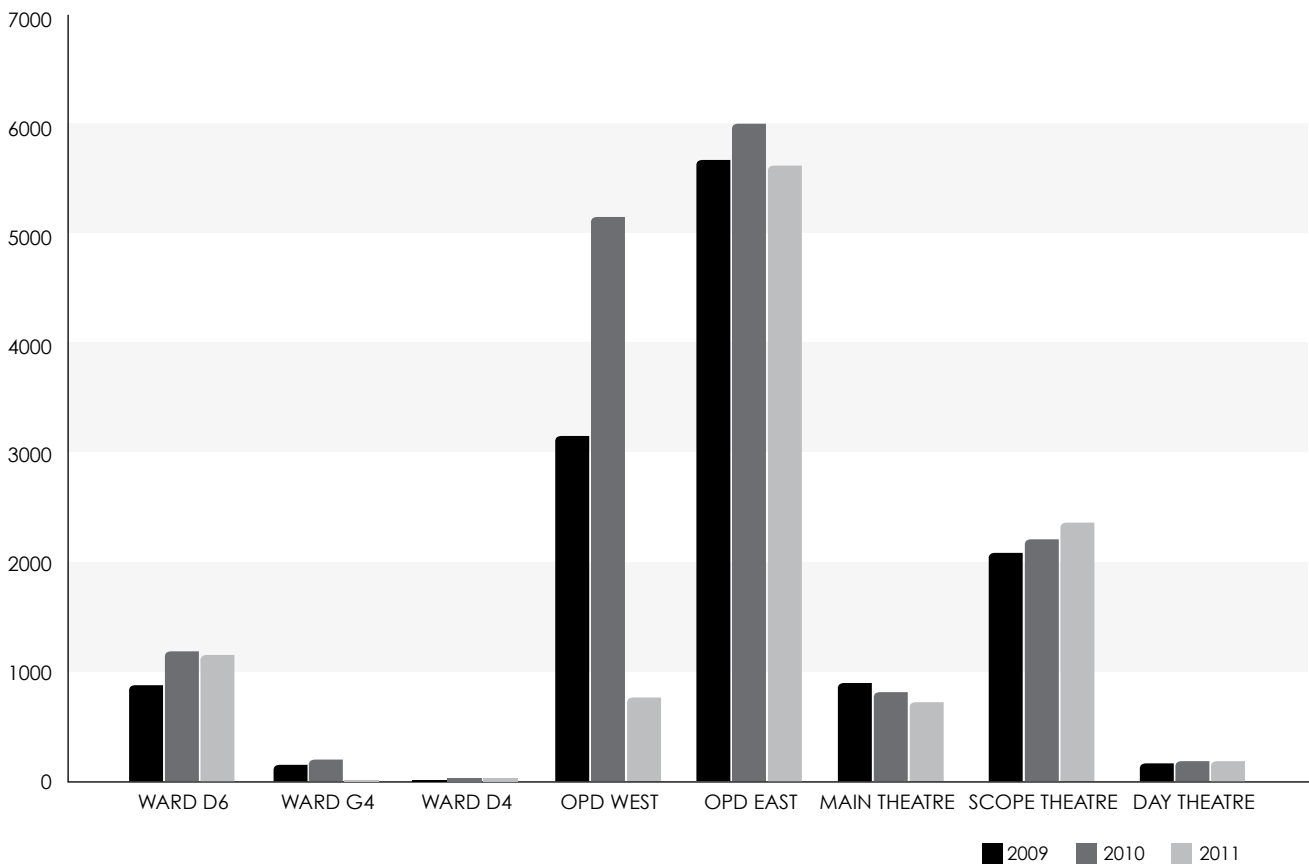


Table 1. Patient figures die past 3 years in the Department of Urology

	2009	2010	2011
Ward D6	898	1275	1271
Ward G4	127	170	6
Ward D4	44	38	48
OPD West	3265	5161	5404
OPD East	5661	6048	5605
Main Theatre	890	837	730
Scope Theatre	2149	2323	2466
Day Theatre	231	257	230

New equipment (e.g. retractors, C arm, laparoscopic video unit) was requested for the theatre and it looks very promising that we will be able to receive it in 2012.

High definition camera equipment and television monitors have been acquired and placed in our seminar room in E6. This allows us to be able to present workshops of a exceptional quality. The plan is to use it in 2012 for a group of Dutch urologists.

Community outreach programmes

Dr A van der Merwe travelled to Abuja, Nigeria, to present a three-day workshop on laparoscopy and PKNL renal calculus operations. Hy also operated in front of many. There were approximately four power failures in one of the cases. He also stayed with a local resident due to the danger of kidnapping and bomb attacks in that part of Nigeria.

Dr Samson Maina of Kenya and Dr Victor Mapulanga van Zambia joins us for the year and take skills back to their countries of origin. They are replaced by Dr Rajab Kakaire of Uganda that will be with us until the end of 2012.

Dr Pedro Fernandes is working together with a research group of Senegal, Uganda and the USA, and is applying for an NIH fund. The research is aimed at prostate cancer in Africans.

Members of the Department manages the vasectomy service that is coordinated by Tygerberg Hospital and the Association for Voluntary Sterilisation of South Africa (AVSSA). This service performs the majority of vasectomies that are done in the Western Cape.

Partnerships

National:

Dr Van der Merwe travelled to Pretoria Urology Hospital and taught them to perform laparoscopic donor nefrectomies, and he will do follow-up work if asked.

International:

The laparoscopic donor nefrectomy programme that was initiated through partnership with prof. Alex Bachmann of Basel in Switzerland is continuing well. Prof. Bachmann visits the department himself and performs a single port donor nefrectomy with Dr Van der Merwe. The Urology Department is still the only centre worldwide that performs retroperitoneal single port donor nephrectomies. After our cases were published (with Basel as co-author) quite a lot of retroperitoneal single port simple and partial nefrectomies is detected in the literature. Tygerberg Hospital and Stellenbosch University will however be the first centre in history that described the technique.

A research partnership is also begin formed with the same Swiss unit, and in 2012 there will be efforts to lessen the diagnosis of TB to 10 days or less, and also have sensitivity to substances.

Achievements

Journal articles	9
Presentations at international conferences:	17
Presentations by national conferences:	7

Special achievements

Prof. Heyns was elected as Incoming President of the International Urological Association (SUI). This means that he will lead the body in 2013. This is probably the greatest honour bestowed upon a South African urologist.

Dr Amir Zarrabi continues his outstanding academic career by receiving the Rector's prize for the best postgraduate student in the health sciences.

CLINICAL ENGINEERING

Department of Clinical Engineering**Mr J du Preez**

A question often asked is what clinical engineering entails. The answer, as defined by the Working Committee on Clinical Engineering in 2000, is simply "the management, support, development and quality assurance of health-care technology as part of a safe, cost-effective and sustainable healthcare delivery".

Despite many setbacks, the Clinical Engineering Department (CED) at Tygerberg Hospital is doing very well at ensuring the availability of properly functioning equipment and that replacement equipment is of a good quality. Nearly 2000 new items were logged on our maintenance information system (MIS) in 2011, and the CED supplied specifications for most of these. The value of these items, including donated equipment, amounted to approximately R40 million. The CED also supplied specifications for equipment not handled by CED. These include a Flight dishwasher (capable of washing 4 000 plates an hour), ICU beds, theatre lights, including mobile lights, examination lights, and trolleys.

Projects

In 2011, the CED was involved in various projects at Tygerberg Hospital, some of which do not fall within the normal scope of activities of the CED, such as building alterations for the new catheterisation laboratory and for the Gastroenterology Department, to name but a few. (Building alterations are normally a function of hospital engineering.)

Whereas security is normally a function of facility management, the security surveillance system was designed on the request of Dr Carter, who had asked us in 2008 to come up with a security plan. Extensive research was done and the help of several experts was roped in, a process facilitated by the hospital board. A few plans were submitted over the years, with the changes basically driven by the technology. Input asked from all the departments in a circular was also used to determine the security needs of the hospital. From this a plan was developed, which would have cost approximately R12 million to implement. This covered approximately 350 cameras and a baby tracking system. It was planned to be upgradeable so that other issues could be added



later to address issues such as asset tracking, time and attendance and access control. A control room was specified that could be linked to other facilities, in order to monitor their security as well, and which could be expanded to monitor most of the health facilities as long as they comply with certain criteria.

Limited funding was made available in 2011, and the project was handed over to Public Works. The CED then assisted Public Works to scale down the plan to try and fit it into the budget, to later scale the project up again when more funding is made available. The final security technology which was installed is new, adaptable, upgradeable and, without a doubt, cutting-edge technology. Installation of the system started in November 2011.

Staff difficulties facing CED

In the past year some changes were made, of which some have had, and some will have, a major impact on the CED. One of these is the new set of human-resource requirements for staff replacement and promotion, as per the implementation of the Occupation Specific Dispensation (OSD). One of the requirements is registration with the Engineering Council of South Africa (ECSA). The problem with this is that the current registration criteria make it impossible for qualified technicians already in the Department of Health to register, whereas without registration current staff cannot be promoted to higher positions. The situation has already led to resignations in this occupation, and unless something is done, will undoubtedly lead to more. Moreover, none of the individuals who have applied for positions in the CED to date were registered, even though most of the positions have been advertised more than once.

Another human-resource challenge is the fact that Clinical Engineering was classed as a scarce skill a number of years ago, but no scarce-skill allowance has ever been offered. This has led to a steady decline in personnel numbers in this occupation within the Department of Health. The OSD implementation also led to the loss of all supervisors, because they are no longer paid as such. Skills transfer was made a thing of the past as the new pay scales looked at increasing the entry-level pay scale while leaving the salaries of existing staff basically the same.

According to a work study done in 2003, there should be 30 technicians in Clinical Engineering at Tygerberg Hospital. Currently, CED has 14 filled posts. A ripple effect of this is a rise in outsourcing which is already noticeable. Another variable entering this equation is the amount of new equipment which has entered the hospital since 2003. An average annual cost of approximately R25 million means that over R200 million's worth of new equipment has entered the hospital since 2004.

Statistics

The statistics for the CED below reflect a 12% increase of repair requests in 2011 compared to the previous year.

1 JANUARY – 31 DECEMBER 2010		1 JANUARY – 31 DECEMBER 2011	
REPAIRS BOOKED IN	REPAIRS BOOKED OUT	REPAIRS BOOKED IN	REPAIRS BOOKED OUT
9 200	8 770	10 323	9 808

The repairs which are outsourced are increasingly influenced by the new procurement processes. Where spares have to be ordered, the procurement process delays repairs significantly, sometimes for longer than two months. With the new procurement process spare parts have to be advertised on Trade World. Quotations then have to be sifted through, checked and adjudicated, after which a part can be ordered. It is foreseen that the repair output rate will decline because of the time it often takes to procure parts, because, from a medical perspective, a delay in the repair of essential equipment is often not an option.

The table below gives a further breakdown of the CED's activities.

REPAIR REQUISITIONS	2010		2011	
Outsourced repairs	911	11,59%	950	10,72%
In-house repairs	7859	88,41%	8858	89,28%
Reported damages	90		186	51,6% increase
Monetary value of damages	R1 363 304,35		R1 632 324,08	
Average number of repairs per technician	730		892	
Number of new items listed on MIS	1029		1179	
Value of new items listed on MIS			R 27 087 626,54	

Note: The value of systems listed exclude the cost of donated equipment, such as the new catheterisation laboratory (R13,5 million – donated by the Murray Trust).

The table above makes the following information clear:

1. Repair requests increased by approximately 12% in 2011.
2. The number of repairs requested via repair requisitions is 10 323, of which 9 808 repairs were completed. This means that a total of 551 repair requests were not finalised (6%) by the end of the financial year. The reason for this ranges from companies who still needed to return or finish the repairs, to the workshop's waiting on spare parts already ordered.

Damages

When equipment repairs are requested and it is clear that the repair is not due to normal wear and tear, a damage report is issued. This repair then follows a different repair route. The department which sent the item for repair must first apply to Finance through their clinical manager, to have the repair approved.

A decision was made in 2009 to be more vigilant about damages because the CED has seen the amount of damaged equipment increase every year. This has since been confirmed by the 50% increase in requests for damaged equipment in 2011, compared to 2010 (see above table).

One of the reasons identified by CED to play a big role in the massive increase in damaged equipment is the fact that very few people take ownership of the equipment. When faced with damaged equipment or a damage report, staff would in some instances rather store or hide damaged equipment somewhere until such time as their department cannot function without its repair. Damages that occurred long ago and which could have been reported in earlier years, are thus only reported when the remaining essential equipment breaks and a serious need arises. The CED's inference from this is that such departments have a surplus of the relevant equipment at their disposal.

Another reason for the increase in damages is the strict control measures which were implemented to report damages in 2011. This action led to a better understanding of the real value of damages experienced within Tygerberg Hospital, although it is not an exact reflection. A damage report is issued when a repair is requested on equipment and where it is clear that the breakage is not due to normal wear and tear.

Specifications

Due to a number of instances where equipment of a poor quality found its way into the hospital, the CED requested that it be involved in all purchases of equipment. The negative consequence of this request is the large amount of specifications that CED now has to produce. Due to staffing problems it is not always possible, in which case generic specifications are supplied. At present the CED submits specifications for equipment on Trade World tenders that range from theatre instruments such as scissors to complex electronic medical equipment.

Equipment tracking

The CED is still tracking all equipment with regard to repairs and service costs by means of an in-house maintenance information system (MIS). This means that all equipment issued with a unique number is tracked. The unique number is issued for various reasons, one being that so many manufacturers are represented in this hospital that different equipment end up with the same serial number. The MIS is access based and needs to be replaced soon.

Staff establishment

Mr J du Preez (Head of Department)

Ms M Rossouw (Divisional Manager)

Ms R Elsegood (Senior Admin Clerk)

Unit managers: Workshops

Mr J Carstens (Anaesthesia/ Respiration)

Mr J Rautenbach (Communications)

Ms E Pieters (Electronics)

Mr K Vollmer (Instruments)

Mr H Theart (Optical)

Mr J Mould (X-Ray/Imaging)

Medical equipment

One of the expensive items installed at Tygerberg Hospital in 2011 is the catheterisation laboratory at Cardiology. It was donated by the Murray Trust and has an approximate value of R13,5 million.

Equipment acquisitions from internal funding

In the 2010/11 financial year, the institution obtained much-needed capital equipment to address some of the needs as far as clinical equipment is concerned, and approximately R34 million was spent on new capital equipment. This equipment ranged from instruments to X-ray machines, monitors, theatre tables, haemodialysis machines, scopes, diathermic equipment, microscopes, to cover basically all the different departments within the hospital. More than 280 items were ordered in this period.

Equipment requests

All the requests for clinical equipment from the various departments amounted to approximately R88 million, which management had to trim down to fit into the budget allocated to Tygerberg Hospital. This points to the big need for new equipment in the hospital. There was nonetheless also a lack of requests from certain departments (for various reasons), which could also influence the monetary value of received requests. The CED contributed to the decision-making process for the approval of requests by providing management with information on the equipment, such as the technical support needed, the replacement value, replacement schedules to help with the final allocation.

The goal of CED

In brief, the CED strives to provide the institution with a world-class clinical-engineering support service within the limited resources available.

HUMAN NUTRITION

Department of Human Nutrition**Professor René Blaauw****Summary**

The Division of Human Nutrition consists of three components, namely Service Delivery, Training, and Research

1 SERVICE DELIVERY

Dietetics at Tygerberg Academic Hospital consists of three firms in order to cover all aspects of nutritional care and to render a comprehensive nutrition service to all areas in the hospital. They are:

Firm 1

Burns, Cardiology, Surgery, Diabetes Mellitus and Endocrinology, Internal Medicine, Orthopaedics, Dermatology, Gynaecology, Paediatrics, Ophthalmology, Neurosurgery, Enteral Nutrition, and Eating Disorders.

Firm 2

Nephrology, Surgical Intensive Care Unit, Respiratory Intensive Care unit, Oncology, Paediatrics (all aspects), Enteral Nutrition, and Psychiatry.

Total Parenteral Nutrition team

The Adult Total Parenteral Nutrition (TPN) team consists of a nutrition support sister, three dietitians, and a medical practitioner who assist with the TPN prescriptions. Support is provided by a pharmacist for the TPN orders.

The Paediatric TPN team consists of one paediatrician and a dietitian, who are assisted by a pharmacist.

Food Services

Food Services handle the menu planning for normal and special diets, quantity and quality control, and the monitoring of the meal-ordering-and-diet system (MODS).

There is also a nutrition service in one private ward.

Clinics

There is a general on-call service to all clinics in the hospital, for both adult and paediatric patients.

Specialised clinics

The specialised clinics are the Eating Disorders, Nephrology, Diabetic, Abdominal Surgery, and



Oncology clinics. Consultations on cystic fibrosis and biliary atresia are also done for Paediatric Outpatients.

Health and Lifestyle Clinic (H&L):

Tuesday: Overweight

Thursday: Diabetes Mellitus

HIV Clinic:

Adult and Paediatric

Tube-feed Room:

This is a highly specialised area where all tube feeds and supplemental drinks are hygienically prepared and distributed. Staff members consist of six specially trained food-service workers. Our department is fully responsible for the administrative and management of the ordering system MODS 2 (the ordering system for tube feeds).

2 TRAINING

Dietetics comprises three fields of speciality: clinical nutrition, food-service management and community nutrition.

3 RESEARCH

Human Nutrition is an integral part of undergraduate training, and the focus area of the division is the unique distance-learning Masters in Nutrition. The African Micronutrient Research Group (AMRG) renders analytical services, extending across Sub-Saharan Africa.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Professor	2	2
Associate Professor	1	2
Senior Lecturer	3	3
Lecturer	4	4
Junior Lecturer	1	1
Administrative	3	3
Laboratory technicians*	3	3
Researcher	1	1
NICUS Posts*		
Manager	1	1
Dietician	1	2

POSTS (SESSIONAL – HOURS PER WEEK)	NUMBER	FILLED
Part-time posts (5/8)	2	2
Locum posts*		
NICUS Posts*		
Dietician (3/8)	1	1

* Private funds

**Posts in Tygerberg Hospital:
Dietetic and other**

POSTS (FULL-TIME)	NUMBER	FILLED
Assistant Director	1	1
Chief Dietitian	4	4
Production Dietitian:		
Grade I	9	9
Grade II	1	1
Community-service dietitian	1	1
Contract posts	0	0
Chief Professional Nurse	1	1
Typist	1	1
Food Service Supervisor	1	0
Food Service Aid	5	5

Output Source

INPATIENTS	NUMBER
Once-off visits	2 792
Patients seen > 1 once	17 487
Total visits	59 081
Informal consultations	1 315
Tube feeds	30 670
Supplementary drinks	20 302
OUTPATIENTS	
H&L clinic (new)	221
H&L clinic (follow-ups)	101
On-call (adults)	1 524
On-call (paediatric)	504
HIV clinic: Adults	210
HIV clinic: Paediatric	26
FOOD SERVICES	
Special diets	149 590
Full diets	246 783
TPN	
New referrals	227
Consultations (medical)	500
Consultations (nursing)	3 265
NUTRITION SUPPORT: FEEDS	
New referrals	1 523
Nursing consultations	7 686
PEG¹ patients: new	232
PEG¹ patients: follow-up	1 207
NUTRITION INFORMATION CENTRE (NICUS ADVISORY SERVICE)	
Correspondence	4 768
Telephonic	490
EDUCATIONAL	
Radio talks	24
Lay publications	30
Talks	9
Television	2
Training workshops	
STIKLAND OUTREACH	
Individual consultations	24
Group activities	12
COMMUNITY NUTRITION	
Individual consultations	1 936
Group activities	2 611
Campus health services and SUSPI ² (new consultations)	30

Comment on output

The above statistics include the service provided by the fourth-year dietetic students (contact with patients).

Infrastructure development

Permission was obtained to equip a new food laboratory required for practical experience in food preparation and experimentation.

The AMRG supported the Food Security Initiative (FSI) in biochemical analysis of nutritional markers for the Community Nutrition Security Project (CNSP) study. The measurement of vitamin D as both a nutritional and health marker is becoming more important. A method for analysing vitamin D metabolites in different biological matrixes is also under evaluation.

Community outreach programmes

Food-security project – data was collected in two areas in Worcester (Avian Park and Zwelethemba) from February to August 2011. Sixty local community members were trained and employed as field workers and security staff during the field work. A qualitative study was done on the experience of the fieldworkers. The first prize was awarded for a poster on the study at the SU Community Interaction Symposium in September.

Final-year dietetics students support the Stikland Hospital Day Centre with health-promotion activities and consultations to patients.

The first phase of a research project was launched to investigate the implementation of the new Road to Health booklet in health-care facilities in the metropole and Overberg municipality. Eight groups of third-year dietetic students compiled the protocol as part of their studies. They will collect data in 2012 and the results will be reported to Department of Health.

Partnerships

National

Lecturers provide input in various areas:

- i) input regarding the National Tender Document (RT9/12)
- ii) Input in the National Food Service Policy
- iii) Facilitation of finalisation of the Roadmap for the National Nutrition Strategy.

Private sector

Collaboration with the industry through our Glycaemic Index (GI) Laboratory. GI testing is

performed on foods upon request from the industry.

NICUS consultations to industry:

1. A complete nutrient analysis of Col'Cacchio Holdings's restaurant recipes with Food Finder and other selected nutrient-analysis databases.
2. The Nutrition Information Centre of Stellenbosch University (NICUS) was approached by the Heart and Stroke Foundation of South Africa to review their current restaurant endorsement programme and to develop nutrient quantifying criteria for specific menu items, for key nutrients such as fat, sodium, fibre, total energy and added sugar which would have to be met in order for that dish to be approved with the Heart Mark.
3. Consol Glass: desktop review: guidelines and recommendations for the nutrition-related prevention and treatment of heat illness, specifically focused on heat cramps.
4. Marcus Linder, Organic Kitchen. Menu planning for meal packs for babies and toddlers.

International

Collaboration with the University of Oslo in the Norwegian Programme for Master's Development, the NOMA Project, (to develop and deliver cooperative regional Master's Programmes in Nutrition, Human Rights and Governance). Collaborative project between Stellenbosch University, the University of Oslo (Norway), Akershus University College (Norway), Makherere University (Uganda) and Kyambogo University (Uganda).

Attendance as a core member in inaugural meeting of the Global Consortium on Food Security Initiatives

Achievements w.r.t. research activities and research outputs

Journal articles (subsidised)	18
Journal articles (non-subsidised)	3

Invited reviewer of the following scientific journals:

- Development Southern Africa
- Public Health Nutrition
- Current Nutrition & Food Science
- South African Journal of Clinical Nutrition
- South African Family Practice
- South African Journal of Sports Medicine
- South African Journal for Research in Sport, Physical Education and Recreation.

Master's degrees completed

1. Cilliers K. *The pharmacokinetics and toxicity of antituberculosis agents and other co-administered drugs in children with tuberculosis, with and without HIV infection, and their relationship to nutritional status.* M Nutrition, 2011. 122 pp. Supervisor: Labadarios D. Co-supervisor: Donald PR.
2. Guidozi R. *The efficacy of short-messaging service in a weight reduction programme amongst women in a general practice.* M Nutrition, 2011. 108 pp. Supervisor: Marais D. Co-supervisor: Visser J.
3. Kirsten AP. *The influence of socio-demographic factors on the nutritional intake of overweight and obese children in the Stellenbosch area, Western Cape.* M Nutrition, 2011. 122 pp. Supervisor: Marais D. Co-supervisor: Schübl C.
4. Lombard L. *Body composition of rheumatoid arthritis patients and their perceptions and practices regarding diet, nutritional supplements and other treatments.* M Nutrition, 2011. 125 pp. Supervisor: Du Plessis LM. Co-supervisor: Visser J.
5. Notelovitz T. *Abnormal eating attitudes and weight loss behaviours of girls attending a "traditional" Jewish high school in Johannesburg: an examination of teachers' awareness.* M Nutrition, 2011. 107 pp. Supervisor: Visser J. Co-supervisor: Szabo CP, Fredericks N.
6. Oostenhuizen L. *Aspects of the involvement, confidence and knowledge of South African registered dietitians regarding genetics and nutritional genomics.* M Nutrition, 2011. 99 pp. Supervisor: Du Plessis LM. Co-supervisor: Naude C.
7. Schoonees A. *Pycnogenol for the treatment of chronic disorders: a systematic review.* M Nutrition, 2011. 159 pp. Supervisor: Volmink J. Co-supervisor: Visser J.
8. Slegtenhorst S. *Antioxidant intake in paediatric oncology patients.* M Nutrition, 2011. 130 pp. Supervisor: Visser J. Co-supervisor: Meyer R.
9. Stanton M. *Changes in body mass index, dietary intake and physical activity of South African immigrants in Hobart, Australia.* M Nutrition, 2011. 148 pp. Supervisor: Herselman MG. Co-supervisor: Visser J.
10. STEAR GIJ. *Management of food allergies in children in South Africa – determining aspects of the knowledge and practices of dietitians and medical doctors.* M Nutrition, 2011. 196 pp. Supervisor: Labadarios D. Co-Supervisor: Motala C, Potter P.
11. Wasserfall E. *Growth patterns and nutrition-related problems of infants under one year attending Red Cross children's hospital's antiretroviral clinic and the knowledge, attitude, beliefs and practices of their caregivers, concerning infant feeding.* M Nutrition, 2011. 268 pp. Supervisor: Du Plessis LM. Co-supervisor: Koornhof HE.

Teaching and training

Undergraduate

Fourth-year Dietetic students: 27

Third-year Dietetic students: 32

Second-year Dietetic students: 27

First-year Dietetics students: 26

Elective students

Belgium: 6

(Sint-Lieven University College 3;
Kempen University 3)

Norway: 3 (Oslo University)

Germany: 4 (Niederrhein of University of Applied
Sciences 3; Hohenheim University 1)

Postgraduate

M Nutrition (Research) 7

M Nutrition (Structured) 74

PhD (Nutritional Sciences) 9

A lecturer, Mrs L Koornhof received the Rector's
award for Excellence in Teaching.

Special achievements

Inaugural lectures (2)

NRF grant: Global Change, Society and Sustainability
Initiative R4, 1 m (2012-2014) awarded in 2011.

Service to committees

Member of the Integrated Nutrition Programme
(INP) Committee

Member of working group: Hospital Dietitians
(Western Cape Government)

Member of the CORE committee for Allied Health
Professions at Tygerberg Hospital

Member of the Breastfeeding Committee of
Tygerberg Hospital

Member of the Provincial Food Service Menu
Management Task Team

Member of the Provincial Ration Scales Task Team

Member of the Provincial NTP policy Task Team

Member of the Provincial Technical Working Group:
Neonate, Infant and Child Nutrition

Input in provincial guidelines for paediatric diabetes mellitus

Member of Interprofessional Learning and Teaching Work Group

Member of Graduate Attribute Task Team

Member of the organising committee for the Course in Clinical Supervision (the Clinical Skills Lab)

Member of the Nutrition Advisory Committee (NAC)

Member of the advisory committee to Maties Community Service (2006 to present) LD

Member of the recruitment committee for the division, in order to improve the diversity profile of undergraduate dietetic students (2005 to present)

Member of the GESOG Committee (2009 to present)

Member of the Bishop Lavis Rehabilitation Centre management committee

President-elect (vice-president) and immediate past president (January to September 2011) and president (from September 2011) of the South African Society for Parenteral and Enteral Nutrition (SASPEN) Council

Member of the SASPEN Congress Scientific Committee

Editorial assistant of the South African Journal of Clinical Nutrition (SAJCN)

Member of SAJCN management and editorial board

Member of editorial board of The Open Nutrition Journal, Current Nutrition & Food Science (2007 to present)

Elected Deputy Editor: Nutrition, Science Direct, USA (2008 to present)

Member of editorial board of the Journal of Renal Nutrition (1999 to present)

Referees for various peer-reviewed journals

Invited member to the Provincial Technical Working Group: Infant and Child Nutrition This is an advisory subcommittee to the Department of Health's Provincial Coordinating Committee for Child Health

Western Cape representative of the South African Sports Medicine Association

Member of the executive committee of the Sports Nutrition Working Group, of the Association for Dietetics of South Africa (ADSA)

Member of the Academic Day committee

Member of the Health Research Ethics Committee

Chair and member of the Wellness committee, Faculty of Health Sciences

Member of Board of Directors of FoodBank South Africa

Director of Southern Africa Food Lab.

Presentations of workshops

Blaauw R. *Probiotics – Helpful or harmful?* SASPEN Congress, Diep in die Berg, Pretoria, South Africa, September 2011.

Blaauw R. *Management of GIT-related complications in the critically ill patient.* SASPEN Congress, Diep in die Berg, Pretoria, South Africa, September 2011.

Du Plessis LM. *Breastfeeding, the evidence revised.* CPD event: Breede Valley, Department of Health, Worcester, December 2011.

Du Plessis LM. *Breastfeeding, the evidence revised.* CPD event. Mpumalanga Department of Health, Nelspruit, December 2011.

Du Plessis LM. *HPS: platform for a successful 3-ring circus.* Health Promoting Schools Colloquium, Stellenbosch Institute for Advanced Study in South Africa (STIAS), November 2011.

Kinnear S. (Practical demonstration). *Nursing Aspects of TPN.* Stellenbosch University, Division of Human Nutrition, Continuing Nutrition Education (CNE), 2011.

Lategan E. *Nutrition of the Burns Patient.* Pan-African Burns Congress, February 2011.

McLachlan M. *Fostering Innovation for Sustainable Food Security: The Southern Africa Food Lab.* University of Cape Town Conference: The Business of Social and Environmental Innovation, November 2011.

McLachlan M. *Panel presentation: Rethinking how we each do business: Regional and Actor Perspectives – Africa.* The International Food Policy Research Institute (IFPRI) 2020 Conference on Leveraging Agriculture for Nutrition and Health. New Delhi, 12 February 2011.

McLachlan M. *The Southern Africa Food Lab: An experiment in cross-sectoral collaboration.* Food Security and Agriculture Summit, Cape Town, 6 – 7 May 2011.

Meyer N. *Critical Care.* Stellenbosch University, Division of Human Nutrition, CNE, 2011.

Potgieter S. *Body composition and anthropometry of athletes.* South African Sports Medicine Association 14th Biennial International Congress, Sandton Convention Centre, Johannesburg, 18-20 October 2011

Potgieter S. (Presenter) *GIT Anatomy and Physiology – back to basics.* CNE, Nelspruit 2011; and Stellenbosch University CNE, 2011.

Potgieter S. (Presenter) *Irritable bowel syndrome.* CNE, Nelspruit 2011.

Potgieter S. *The vegetarian athlete*. South African Sports Medicine Association 14th Biennial International Congress, Sandton Convention Centre, Johannesburg, 18-20 October 2011.

Van Niekerk E. *Probiotics in Preterm infants*. SASPEN Congress, Diep in die Berg, Pretoria, South Africa, September 2011.

Van Wyk L. *The practical management of Type 1 Diabetes in Children*. South African Society of Anaesthesiologists (SASA) and the Diabetes Education Society of South Africa (DESSA) Symposiums, September and October 2011.

Visser J. *Identifying patients at risk of the refeeding syndrome*. SASPEN Nurses Congress, Diep in die Berg, Pretoria, South Africa, September 2011.

Visser J. *Micronutrients in critical illness – why the lack of progress?* SASPEN Congress, Diep in die Berg, Pretoria, September 2011.

Research presentations

Blaauw R, Blanckenberg C. *Determination of the nutritional status of surgical ICU patients and identification of relationships thereof with clinical outcomes*. Thirty-third congress of the European Society for Clinical Nutrition and Metabolism (ESPEN), 2-5 September 2011, Gothenburg, Sweden.

Daniels L, Jackson D. *Knowledge, Attitude and Practices of Nursing Staff regarding the Baby Friendly Hospital Initiative in Non Accredited Obstetric Units in Cape Town, 2008*. Oral Presentation at the Faculty of Health Sciences's Annual Academic Day, 17 August 2011.

Koornhof HE, Lombard MJ, Goosen C, McLachlan MH, on behalf of the CNSP Research team. *A Community Nutrition Security research Project in the Breede Valley, Western Cape province, South Africa: Fieldwork*, 2011.

Abstracts

Potgieter S. *The Vegetarian Athlete*. South African Sports Medicine Association 14th Biennial International Congress Proceedings. 18-20 October 2011.

Potgieter S. *Body composition and anthropometry of athletes*. South African Sports Medicine Association 14th Biennial International Congress Proceedings. 18-20 October 2011.

Blaauw R & Blanckenberg C. *Determination of the nutritional status of surgical ICU patients and identification of relationships thereof with clinical outcomes*. *Clinical Nutrition Supplement* 2011; 6 (Suppl. 1): 211.

Journal articles (subsidised)

1. Blaauw R. *Malabsorption: causes, consequences, diagnosis and treatment*. **South African Journal of Clinical Nutrition** 2011; 24(3): 125-127.
2. Bosman L, Herselman MG, Kruger HS, Labadarios D. *Secondary analysis of anthropometric data from a South African National Food Consumption Survey, using different growth reference standards*. **Maternal and Child Health Journal** 2011; 15(8): 1372-1380.
3. Carrasco LN, Vearey J, Drimie S. *Who cares? HIV-related sickness, urban-rural linkages, and the gendered role of care in return migration in South Africa*. **Gender and Development** 2011; 19(1): 105-114.
4. Daniels L, Jackson D. *Knowledge, attitudes and practices of nursing staff regarding the Baby-Friendly Hospital Initiative in non-accredited obstetric units in Cape Town*. **South African Journal of Clinical Nutrition** 2011; 24(1): 32-38.
5. Davies H, Visser J, Tomlinson M, Rotherham-Borus MJ, Le Roux I, Gissane C. *An investigation into the influence of socioeconomic variables on gestational body mass index in pregnant women living in a peri-urban settlement, South Africa*. **Maternal and Child Health Journal** 2011; Sept 6 [E-pub]: 1-10.
6. Faber M, Witten C, Drimie S. *Community-based agricultural interventions in the context of food and nutrition security in South Africa*. **South African Journal of Clinical Nutrition** 2011; 24(1): 21-30.
7. Goeiman H, Labadarios D, Steyn NP. *Who is the nutrition workforce in the Western Cape?* **South African Journal of Clinical Nutrition** 2011; 24(2): 90-98.
8. Herselman MG, Du Plessis LM. *The importance of access to food intake data*. **South African Journal of Clinical Nutrition** 2011; 24(1): 7-8.
9. Iversen PO, Du Plessis LM, Marais D, Morseth M, Hoisaether EA, Herselman MG. *Nutritional health of young children in South Africa over the first 16 years of democracy*. **South African Journal of Child Health** 2011; 5(3): 72-75.
10. Iversen PP, Hoisaether EA, Morseth M, Herselman MG. *Diverging opinions of supplementation programmes between mothers of small children and staff at primary health clinics in the Western Cape Province of South Africa*. **Public Health Nutrition** 2011; 14(5): 923-930.

11. Laurence EC, Lombard L, Volmink J. Risk factors for myocardial infarction and stroke in Africa. **SA Heart** 2011; 8(1): 12-23.
 12. McLachlan M, Hamann R. Theme issue on food security. **Development Southern Africa** 2011; 28(4): 429-430.
 13. Naude CE, Bouic P, Senekal M, Kidd M, Ferrett HI, Fein G, Carey PD. Lymphocyte measures in treatment-naive 13-15-year old adolescents with alcohol use disorders. **Alcohol** 2011; 45: 507-514.
 14. Naude CE, Senekal M, Laubscher R, Carey PD, Fein G. Growth and weight status in treatment-naive 12-16 year old adolescents with alcohol use disorders in Cape Town, South Africa. **Nutrition Journal** 2011; 10(87): 1-10.
 15. Potgieter S, Labadarios D, Labuschagne IL. Body composition, dietary intake and supplement use among triathletes residing in the Western Cape. **South African Journal of Sports Medicine** 2011; 23(3): 74-79.
 16. Stevenson C, Blaauw R. Probiotics, with special emphasis on their role in the management of irritable bowel syndrome. **South African Journal of Clinical Nutrition** 2011; 24(2): 63-73.
 17. Van Niekerk E. Probiotics in premature infants: focus on necrotising enterocolitis. **South African Journal of Clinical Nutrition** 2011; 24(3): S35-S37.
 18. Visser J, Blaauw R, Labadarios D. Micronutrient supplementation for critically ill adults: A systematic review and meta-analysis. **Nutrition** 2011; 27: 745-758.
- Journal articles (non-subsidised)**
1. Goosen C, Labuschagne IL. New breastfeeding recommendations for HIV-positive mothers. **The Specialist Forum** 2011; February: 62-66.
 2. Lombard MJ, Labuschagne IL, Goosen C. The nutritional value of canned vegetables and fruit within a balanced diet. **Food Review** 2011; 38(2): 24-25.
 3. Schoonees A, Lombard M, Nel ED, Volmink J. Ready-to-use therapeutic food for treating undernutrition in children from 6 months to 5 years of age (Protocol). **The Cochrane Collaboration** 2011; 2: 1.
 4. Crush J, Frayne, B, McLachlan MH. 2011. Rapid Urbanization and the Nutrition Transition in Southern Africa. **AFSUN Urban Food Security Series, No. 7.**
 5. McLachlan M, Tchibindat F. 2011. (Ed). *Planning and Financing Nutrition Programmes in ECOWAS.* **SCN News. No. 39 Supplement.**

OCCUPATIONAL THERAPY

Department of Occupational Therapy

Ms Fatima Peters

Summary

- The Sixth Metro Occupational Therapy in Health (MOTH) forum meeting was held on 14th October 2011. The theme of this year's forum meeting was "*Occupation Based Practice: Building on Performance Components and Function*". The keynote speaker was Associate Professor Elewani Ramugondo from the University of Cape Town (UCT).
- The 18th National Occupational Therapy Forum was convened in Limpopo by Ms F Peters who is the current chairperson. The National Occupational Therapy Forum plays an important role in aligning Occupational Therapy practice in public service with important policies, plans and legislature.
- Tygerberg Hospital's Occupational Therapy Department continues to participate in steering and leading development and progress in Occupational Therapy service delivery in the Metro District by convening the Paediatric Occupational Therapy Interest Group, the Psychiatric Occupational Therapy Interest Group, the Work Assessment Interest Group and the Pressure Garment Interest Group.
- An effective seating clinic (for adults and children) continues to be managed at Tygerberg Hospital with well-managed waiting lists. Tygerberg Hospital's Occupational Therapy Department now offers advanced seating for adults and children.
- Tygerberg Hospital's Occupational Therapy Department once again assisted with arranging a successful Tygerberg Burns Society Fun Walk on 8 October 2011. The money generated from the walk was used to acquire much-needed equipment for the Burns Unit.
- Tygerberg Hospital's Occupational Therapy Department continues to assist with the review of certain tender items for orthopaedic management. Some of the staff also participated on a large scale in maintaining the UPFS pricelists for all central hospitals.
- Ms R Gordon acted as the chairperson of



Tygerberg Hospital's Transformation Committee and participated in the Tygerberg Hospital Absenteeism Survey.

- Tygerberg Hospital's Work Assessment Unit is actively involved with the work of the Tygerberg Hospital Occupational Health and Safety Committee.
- New Occupational Therapy groups or clinics started during 2011: A diabetes group for adolescents and Diabetes Mellitus Type 1, CP Clinic (in collaboration with Paediatric Neurology and Speech Therapy), a second Stiff Hands Group, an eight-week work preparation programme.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Occupational Therapy: Head of Department/ Manager	1	1
Occupational Therapy: Supervisor	4	4
Occupational Therapy: Clinicians	8	8
Occupational Therapy: Community Service	2	2
Occupational Therapy Technician	5	5
Total		20

Output Source

	NUMBER
Surgery (Amputation, Burns, Hands, Orthopaedics, Plastics, Internal Medicine, Pressure Garments, Rheumatology, Lymphoedema)	7251
Neurology and Neurosurgery	1956
Paediatrics	2207
Psychiatry (Adult and Child) including 360 – manual)	1887 + 1385 3272
Work Assessment	783
Total	15469
Total 2010:	13267

Comment on output

- Higher statistics due to focus on data capturing – dedicated clerk plus more effort from Occupational Therapy staff.
- Also, one additional new Occupational Therapy post was filled during 2011.
- However, challenges were four resignations during 2011 with six new appointments have had a negative impact on patient numbers.
- As well as continued high default rate of out-patients.

Infrastructure development

Acquisition of:

- An electric plinth to assist with treatment of adult patients with neurological problems.
- Two Standardised Tests for Paediatric Occupational Therapy: Miller Function and Participation Scales and Behaviour Rating Inventory of Executive Function.

Community outreach programmes

- Child Health: Autism support group, outreach and support to teachers re: visual perceptual exercises and hand function programs, outreach to nursing staff in Malmesbury re: running groups with children and adolescents with mental health problems.
- Outreach to Occupational Therapists working in MDHS – Occupational Therapists from Tygerberg Hospital presented a workshop on the *Assessment and Treatment of Neurobehavioural Deficits* (5th August 2011).

Partnerships

National

- National Occupational Therapy Forum
- Occupational Therapy Association of South Africa (OTASA)

Private

- Sanlam and Tygerberg Burn Society

International

- Rangoonwala Foundation/University of the Western Cape (UWC)

Achievements wrt research activities and re-search outputs:

- Research Study completed: *Exploring parents' and Occupational Therapists' perception on the utilisation of the Occupational Therapy service at three paediatric out-patient units in the Western Cape* (Fatima Peters).
- Tygerberg Hospital's Occupational Therapy Department hosted an ethics lecture for all allied health professionals at Tygerberg Hospital and all Occupational Therapy staff in Department of Health Metro District: Presenter: Dr Sharon Kling. Date: 22nd July 2011.
- Tygerberg Hospital's Occupational Therapy Department hosted two workshops on *Making the most of everyday clinical data* for all Occupational Therapy staff in the Department of Health, Metro District. Presenter/s: Prof. Lana van Niekerk (both) and Dr Helen Buchanan (second). Date/s: 24th June 2011 and 28th October 2011.
- Current studies in the Occupational Therapy Department:
 - *Exploring the experience of mothers on motherhood while having a child on the spectrum of autism* (Elana Laminette)
 - *An exploration of burn survivors' experience of pressure garment therapy at Tygerberg Hospital* (Rogini Pillay).
- R Pillay presented at the 4th Pan African Burns Congress (6 to 9 February 2011): *Managing Patient Compliance: Moving away from the medical model.*
- Contribution to Orthopaedics Doctors Research Studies, namely:
 - Dr R King: *Clavicle Fractures* (Assisted with standardized DASH assessments).

Dr Thiaart: Distal Radius Fractures (assisted in developing standard treatment and assessments for patients. Commencement: October 2011 (Ongoing).

- In 2011 the Work Assessment Unit was approached by Dr Shaheed Soeker from the University of the Western Cape to become involved in a post doctorate thesis. The study involves the development of a new theoretical model of Occupational Therapy. Subsequently the Work Assessment Unit could identify assessment clients of the unit, who presented with the potential to be part of the supported employment project which was initiated by Dr Soeker. Subsequently 10 of those candidates were placed back into the open labour market force. They are being supported in their jobs by an Occupational Therapist affiliated with the university.
- The Work Assessment Unit accepted a formal request from Dr Du Toit (Rheumatology Department, Tygerberg Hospital) to become involved in a Medication Trail of selected patients who are preferably still working. The Work Assessment Unit will assist by evaluating change in occupational performance of working clients, liaise with employers, make recommendations and provide feedback.

Teaching and Training

- Teaching and training of Occupational Therapy undergraduate students from UWC and Stellenbosch University.
- Elective students local (Universities of Cape Town, Pretoria) and foreign electives (Germany).
- Foreign student Board Examination (HPCSA) – Zimbabwean Occupational Therapist.

PHYSIOTHERAPY

Department of Physiotherapy**Ms Anne-Marie Swart****Summary**

The job purpose of a physiotherapist is to provide a holistic clinical service consisting of curative, preventative, rehabilitative and health-promotive procedures in the fields of respiratory, neurology and orthopaedic therapy. Physiotherapy procedures cannot be easily allocated according to first grade, second grade or third grade levels of care – all patients are assessed and managed according to their needs. Outcomes are based on the resources available and the patient's medical plan as determined by their first grade, second grade or third grade status.

Clinical services provided by Tygerberg Hospital's Physiotherapy Department:

- Inpatient service to all wards of Tygerberg Hospital (excluding private and KDH wards)
- Limited after-hours and weekend duties
- Outpatient service to clients residing in the catchment area of Tygerberg Hospital
- Outpatient consultation in difficult cases referred from other clinics
- Outpatient monitoring of certain elective procedures e.g. shoulder replacements
- Specialist outpatient clinics: Hands Clinic, Craniofacial (CF), Hypoxic Ischaemic Encephalopathy (HIE) Clinic

The Tygerberg Hospital Physiotherapy Department is involved in education and training of staff, students and the public through various programmes.

Achievements

- Implemented changes to clinical platform – increased number of placements for undergraduate physiotherapy students.
- National Physiotherapy Back Week was conducted in a different manner in 2011 and included some exercise classes Tygerberg Hospital staff could attend. Although fewer participants were reached, the impact was much more effective than with back-care lectures alone.

**Resources**

POSTS (FULL-TIME)	NUMBER	FILLED
Assistant Director	1	1
Chief Physiotherapists	4 and 5/8	4 and 5/8
Senior Physiotherapists	13	13
Community Service Physiotherapist	1	1

Staff Establishment 2011 – changes:

- One internal promotion to Chief Physiotherapist
- One external promotion to Chief Physiotherapist at Khayelitsha District Hospital
- One resignation due to relocation
- All vacant posts were filled – contract workers were appointed during the periods when posts were vacant

Additional Financial Resources for financial year:

- Overtime: budget of R70 000 increased to R182 534 after motivation
- Consumables: R46 000 allocated
- Current Equipment: R58 000 approved
- Capital Equipment: no funding approved
- Mobility Assistive Devices Advisory Committee (MADAC) approved funding for non-tender equipment items to the value of R29 600 from the MADAC extended budget

Output Source

January to December 2011 statistics totalled **44 045** patient attendances by Tygerberg Hospital physiotherapy staff and students – and an additional **2 377** attendances from weekend duty.

Attendances per clinical area

Surgical Inpatients	19 290
Amputations OPD	36
Orthopaedic Inpatients	6 359
Orthopaedic OPD (incl. Hands)	2 250
General Medicine Inpatients	7 351
Adult Neurology OPD	326
Respiratory OPD	2
Paediatric Inpatients	5 452
Paediatric Neurology OPD (incl. CF and HIE)	286

Comments

The total attendances for 2011 have increased when compared to the totals for 2010 (39 450).

The increase in attendances is most probably due to changes in and around Tygerberg Hospital creating a higher demand on the physiotherapy department:

- Since the implementation of the level 2 and 3 wards, there has been an overall increase in physiotherapy referrals and the complexity of cases.
- The OPD clinics are carrying a large number of patients from surrounding areas that cannot be accommodated at their closest Community Health Centre due to limited physiotherapy posts in the community. The main areas affected are: Belhar, Kuils River, Durbanville, Ravensmead, Mfuleni and Blackheath.

Some Concerns

- There is still a significant discrepancy between the Clinicom-captured statistics and the departmental hand-captured statistics.
- High turnover, quick discharges with last-minute referrals due to a high demand for beds cause an increased demand on physiotherapy services.
- Frequent interruption in the supply or availability of mobility assistive devices causes delays in service delivery.

- Increasing MDR and XDR TB exposure.
- The role of Physiotherapy and Nursing with regards to responsibility for routine mobilisation of patients remains unclear.
- Equipment losses due to theft – the orthopaedic OPD had to function without a PACS RIC PC for 10 months after it was stolen during working hours.
- The commissioning of 75 new beds in 2012 will have an impact on physiotherapy services which has not been balanced by additional staff.

Infrastructure development

Departmental:

- Equipment acquisitions:
 - Items on current equipment wish list – to the value of R58 000
 - Two standing frames and three rehabilitation walkers – from MADAC extended budget
- The renovation of the department has been postponed due to other projects in Tygerberg Hospital demanding priority attention.

Partnerships

Private sector

- Tygerberg Hospital has an agreement in place with the private physiotherapist that delivers clinical services to the private ward D4.

Teaching and Training

- The department accommodates undergraduate and postgraduate students from the physiotherapy department of UWC and SU.
- Students from other South African universities are accommodated on elective placements.

STUDENT PLACEMENTS 2011	
UNIVERSITY	NUMBER OF STUDENTS
SU III	35
SU IV	63
SU OMT MSc	0 requested
UWC II	48
UWC III	19
UWC IV	34
Elective placements	2

- A total of 58 undergraduate physiotherapy final clinical tests were conducted in Tygerberg Hospital in a period of three weeks. Physiotherapy staff were involved in patient selection for

evaluation tests and coordinated all logistical arrangements.

- The department coordinated a visit by the University of Cape Town (UCT) physiotherapy students to the Tygerberg Hospital Burns Unit.
- Training was provided to MBChB final year students regarding Orthopaedic Physiotherapy Practice as part of their Orthopaedic Clinical Rotation at Tygerberg Hospital.
- Two open days for scholars interested in studying Physiotherapy were held.
- A Kinetic Handling lecture and demonstration was given to Cape Peninsula University of Technology (CPUT) Radiography students.

Human Resource Development

- Academic activities Tygerberg Hospital Physiotherapy Department – enrolled:
 - 1 x postgraduate (MPhil in Health Sciences Education)
 - 1 x undergraduate (BCom Law)
- A number of lectures or courses were attended by staff:

- Occupational Health and Safety Committee
- Transformation Committee
- Mobility Assistive Devices Committee
- Clinicom Committee
- PACS RIS (digital imaging of X-rays and CT scans)
- Participation in Tygerberg Hospital initiatives: Tygerberg Hospital Open Day and Staff Wellness Day
- The Physiotherapy Department instituted their own Staff Wellness Programme to facilitate a healthy lifestyle for the staff members of the department.
- Occupation Specific Dispensation was implemented after many delays

	NUMBER PRESENTED	OFFICERS TRAINED
Profession-specific CPD activities sponsored by TBH HRD	12	12
Profession-related CPD activities sponsored by SU	1	3
PGWC courses	5	11
Other HRD/ICAS courses	3	7
Other TBH courses	3	4

Special achievements

- The Physiotherapy Department assisted the Department of Human Nutrition in their new venture by providing input to patients attending the Dietetics Diabetic and the Dietetics weight-loss groups.
- Occupational Health and Safety Risk Assessments done in various areas of Tygerberg Hospital to assist with Injury on Duty (IOD) cases and other investigations.
- Representation on committees or portfolios outside Physiotherapy Department:

SPEECH THERAPY AND AUDIOLOGY

Department of Speech Therapy and Audiology

Ms H Elliott

Summary

Assessment and management of adults and children with communication, swallowing and hearing difficulties.

Areas of service delivery include:

Adult and paediatric dysphagia, neurologically based communication disorders, paediatric developmental speech and communication disorders (nil to six years), autistic spectrum disorder, cleft lip and palate, head and neck oncology, fluency disorders, voice pathologies, adult and paediatric diagnostic hearing assessments (including neonatal hearing screening), adult and paediatric hearing aid fitting and rehabilitation, cochlear implant assessments and management, and parent and patient support groups.

Resources

POSTS (FULL-TIME)	NUMBER	FILLED
Assistant Director	1	1
Chief Speech Therapist	1	1
Chief Audiologist	4	3
Senior Speech therapist	2	2
Senior Audiologist	3	3
Community- service	1	1

SESSIONAL POSTS (HOURS PER WEEK)	NUMBER
5/8 (Audiologist)	1
30 hours (Audiologist)	1

Output Source

OUTPATIENT VISITS	NUMBER
Audiology	7 083
Speech therapy	2 831
INPATIENT TREATMENTS	NUMBER
Audiology	933
Speech therapy	1 565
Total Audiology	8 016
Total Speech therapy	4 396



Assistive devices issued:

A total of 380 state-issued hearing aids

A total of 8 state-funded cochlear implants

Comment on output

Increased inpatient speech therapy referrals were felt to be due to increased awareness of speech therapy services within the hospital, and comprised mainly adult neurological communication and swallowing disorders, and infant feeding disorders. Patient statistics for 2011 increased from 2010, despite staff numbers remaining unchanged.

Infrastructure development

Our department acquired a Hearing Aid Verification System which allows for objective and accurate hearing aid fittings in paediatric and 'difficult-to-test' population groups.

Community outreach programmes

- Three speech therapists ran a training programme for caregivers at St Joseph's Home in order to facilitate early communication development in chronically ill, institutionalised paediatric inpatients.
- Our department supported the establishment of a Speech Therapy and Audiology Department at Khayelitsha District Hospital, as well as an Audiology Department at Paarl Hospital this year. This was in the absence of existing services at district and regional levels.
- One audiologist provided support to Ear, Nose and Throat (ENT) outreach services at Stellenbosch Provincial Hospital in the form of a weekly Audiology Clinic.

- We continued to provide supportive speech therapy and audiology services to the Carel du Toit Centre for hearing impaired children.

Partnerships

The Cochlear Implant Unit provides ongoing support and training to cochlear implant satellite clinics in East London, Port Elizabeth and Windhoek.

Academic Activities

Presentations and Posters:

- Cochlear Implantation. Presented on 14 January 2011 by Lida Müller to the ENT Department, Tygerberg Hospital.
- Cochlear Implantation in Children. Presented by Lida Müller on 3 March 2011 to the Hi Hopes group.
- Updates on Cochlear Implants in Children. Presented by Lida Müller on 16 March 2011 to the staff of the Carel du Toit Centre.
- Long-term Cost Implications of Cochlear Implantation. Presented by Gill Kerr on 26 June 2011 at the SACIG meeting in Stellenbosch and 1 September 2011 to the staff of the Carel du Toit Centre.
- Paediatric cochlear implantation. Presented by Lida Müller on 17 July 2011 to the Paediatrics Department at the Faculty of Health Sciences.
- Cochlear implantation. Lecture presented by Lida Müller to the third-year students of the Department of Speech Language and Hearing Therapy on 18 August 2011.
- Referral criteria for cochlear implantation. Presented by Suryn Lombaard to the ENT and Audiology staff members of Worcester Hospital.
- The Usefulness of an Adult Neurological Support Group in a Tertiary Hospital Setting. Presented by Candice Randall, Lize Rooi and Jamie de Grass at National SASHLA/ENT Congress in November 2011.

Publications:

Perold J. *Cochlear implants in South Africa*. **E-Zine, SASLHA**, January 2011.

Courses presented:

- The Cochlear Implant Unit presented the 6th Short Course in Additional Training in Cochlear Implantation from 7 to 18 February and 14 to 17 March 2011. The participants received a certificate of competence from the Department of Speech, Language and Hearing Therapy, Stellenbosch University.

Congresses attended:

The following congresses and symposiums were attended:

- The 10th European Symposium on Paediatric Cochlear Implantation
- Ndiyeva Audiological and Auditory-Verbal Conference
- SASHLA/ENT Congress
- Staff members also attended a variety of short courses throughout the year

Academic Achievement:

- Gill Kerr completed her Master's Degree in Audiology in the Department of Speech, Language and Hearing Therapy, Stellenbosch University. The topic of her dissertation was: Long-term cost implications for cochlear implant recipients.
- Two staff members were busy studying towards a Master's Degree.

Teaching and Training

All staff members were involved in weekly clinical supervision of Speech Therapy and Audiology undergraduate students from Stellenbosch University and the University of Cape Town (UCT). This included UCT Clinical Audiology blocks in electrophysiological procedures and paediatric test procedures, and US speech therapy blocks in early intervention, paediatric speech and language disorders, adult voice and dysfluency. The following lectures were also presented:

- Jenny Perold presented the undergraduate course in Cochlear Implants to the third-year Audiology students of the University of Cape Town.
- Haley Elliott presented the undergraduate course in Cleft lip and Palate to the third-year UCT students.
- Haley Elliott presented an advanced seminar in Laryngectomy rehabilitation to fourth-year US student.
- Candice Randall presented a lecture on Feeding and Swallowing Disorders to Stellenbosch University Occupational Therapy students.
- Ongoing Clinical Audiology lectures to fifth-year Stellenbosch University medical students on ENT rotation.
- All staff members were involved in formal and informal in-service training to Tygerberg Hospital staff.

Special achievements

The Cochlear Implant Unit celebrated its 25th Anniversary in November 2011. The total number of patients implanted is 432.

VOLUNTARY AID SERVICE

Voluntary Aid Service

Chairperson: Ms F MacClune

Committee members

Ms G Scott Vice-chairperson

Ms L Layman

Ms R Rogers

Ms P Oliver

Ms M Rhoode

Ms M Arendse

Ms H Rudman

Ms M Parker Financial Advisor

Ms M de Jager Head of Social Work Unit (officially)

Ms Z Vallie Occupational Therapist (per invitation)

Personnel

The organiser, cashier/stock controller, manager of the catering service, six kitchen staff, one shop assistant at the pharmacy and one shop assistant at the kiosk at exit 1 are all compensated by Voluntary Aid Service.

General

After 38 years the Voluntary Aid Service at Tygerberg Hospital still renders a service to patients and personnel. The volunteers display love and devotion in their work all over the hospital. The qualified and dedicated administrative staff ensures effective service despite a shortage of volunteers.

Services

A total of 60 members at different working points rendered 6 692 hours of service in total. During the school holidays 35 junior volunteers worked 676 hours. The following areas were served:

- Ward visits and wards duty
- Children’s wards
- Hairdressing service: hair care for 1 035 patients
- Shop trolley to wards, clinics and pharmacy
- Gene Louw Building, Radiotherapy Department: catering service and hair wash for patients
- Christmas project: 480 gifts were handed out in the children’s wards including patients in the Gene Louw Building, psychiatric wards and the Burns Unit



- Gift/tuck shop
- Catering service on ground floor, theatres and pharmacy; free refreshments are provided to sixth-year medical students during examinations.
- Uniform shop for nursing and other personnel in the Peninsula and rural districts
- Weekend service: Gift and tuck shop
- Assistance at CSSD and the Milk Kitchen

Need Alleviation

Applications for financial assistance for needy patients are received on a regular basis.

In cooperation with the Social Work Unit, financial assistance and food parcels are given to patients. In addition a number of patients are assisted with transport money.

Petty cash	R24 000.00
Food parcels	R50 000.00
Total	R74 000.00

Special projects

Some of the donations made to the hospital:

Department of Occupational Therapy:

Transport money and sandwiches for work evaluation patients	R7 200.00
Transit lounge: transport money, sandwiches, tea and coffee	R1 100.49
Transport daily: Transit lounge and other patients out of office	R12 000.00
CEO's office: plants-hiring fee per year	R6 075.90
Laundry: hairdressing service (towels)	R1 283.40
Tea and sandwiches to sixth year medical students	R1 370.00
D Ground and D Lower Ground: toiletries and underwear for patients	R1 546.83
Christmas project	R3 238.08
Day Surgery D5: washing machine	R2 298.99
C2A blind waiting room	R1 120.00
Donation Woman's Day	R1 745.10
Curtains ward F ground	R9 861.00
Curtains ward D3	R10 367.00
Curtains ward C2A	R4 095.00
Curtains ward C2A two waiting rooms	R2 180.00
Upgrading ward D6 bathrooms, toilets and kitchen	R17 500.00
Upgrading ward D6 vertical blinds	R19 370.00
PALS office ground floor blinds	R800.00
2 x TV's ward A8 west	R11 397.00
1 x TV ward F2	
Curtains ward C3B	R2 175.00
Donation Tygerberg facility board	R30 000.00
Refreshments Mamma Clinic	R719.97
Prize for Best OT Student of the Year	R500.00
Curtains Gynae outpatients third floor	R393.75
Curtains A ground conference room and office Ms Basson	R3 600.00
Money allocated to two projects (not paid out):	

Janitor project for toilets A and H passage and pharmacy	R23 000.00
Overnight facility for outpatients	R37 000.00
Total amount paid out for Special Projects	R211 937.51
Total amount spent on Hospital Projects	R285 937.51

Fundraising and donations

The Voluntary Aid Service depends on donations and fundraising projects to raise funds.

The constitution of Voluntary Aid Service determines that 75% of the annual net profit to Tygerberg Hospital must be used to improve the health, welfare and comfort of the patients.

Summary

The dedicated work done by the members of the Voluntary Aid Service is appreciated by the patients and staff. Volunteers offer their services with love and interest in the well-being of patients.

The Voluntary Aid Service is thankful towards the CEO and his staff, and the Deputy Director: Nursing and her staff for the friendly cooperation and support received throughout the past year.

HOSPITAL SCHOOL**Tygerberg Hospital School****School Principle: Susan Potgieter****Summary**

The school is going from strength to strength. Our learner numbers are still increasing as we promote the school within the hospital among staff and patients.

It is very important to maintain an environment which is as normal as possible for the child during illness.

Some of the learners miss out on a lot of school during their stay in hospital, and we try to bridge the gap.

The school is a safe haven for the chronic sick child. Socially and emotionally it is good for the learners to come down to the school and have a school day as normal as possible.

Our Ithuba section (high-school section) caters for learners from the Psychiatric Unit. Currently we have 16 learners. We cannot cater for more as we do not have the post provision to do so.



Inpatient statistics per ward 2011

WARD	ACTUAL BEDS	TOTAL ADMIS	WARD INT TRANS IN	CUM. AD-MIS	TOTAL DISCH	DEATHS	DAY PATIENTS	WARD INT TRANS OUT	SEPARA-TIONS	CUM. DISCH	INPATIENT DAYS	PATIENT DAYS	AVG LOS	% OCC (U)
A1 Burns	22	498	154	344	393	78	5	109	476	585	6 578	6 580.5	11.2	81.86%
A1 Surgical ICU	12	732	687	45	53	48	0	677	101	778	4 022	4 022	5.17	91.73%
A10 Metab	14	556	57	499	521	0	32	35	553	588	2 592	2 608	4.44	50.98%
A2 Thoracic Surg High Care	10	949	559	390	570	12	8	383	590	973	5 745	5 749	5.91	157.33%
A2 Thoracic Surg ICU	14	389	374	15	38	18	0	350	56	406	1 558	1 558	3.84	30.46%
A3H Orthopaedics	31	1 784	1 95	1 589	1 650	0	29	129	1 679	1 808	9 986	10 000.5	5.53	88.29%
A3W Orthopaedics	31	1 041	179	862	859	18	8	179	885	1 064	10 241	10 245	9.63	90.44%
A4E Neuro Surg + Thoracic Surg	31	593	363	230	458	34	5	142	497	639	7 389	7 391.5	11.6	65.25%
A4W Neuro Surg High Care	18	1 397	866	531	693	36	7	710	736	1 446	7 970	7 973.5	5.51	121.23%
A4W Neuro Surg ICU	12	251	214	37	63	61	0	185	124	309	1 198	1 198	3.88	27.32%
A5E Respiratory ICU	7	352	275	77	96	91	0	257	187	444	2 291	2 291	5.16	89.57%
A5W Internal Meds High Care	13	866	821	45	289	75	2	578	366	944	3 908	3 909	4.14	82.29%
A6 Cardiology High Care	16	1 400	550	850	1 011	9	14	385	1 034	1 419	4 366	4 373	3.08	74.80%
A6 Cardiology ICU	8	836	324	512	325	49	9	511	383	894	1 961	1 965.5	2.2	67.24%
A7 Renal High Care	6	340	44	296	321	9	8	20	338	358	1 777	1 781	4.97	81.24%
A7 Renal ICU	4	25	12	13	20	1	0	6	21	27	331	331	12.3	22.65%
A8 Internal Medicine	28	1 503	1 481	22	1 358	158	0	129	1 516	1 645	9 497	9 497	5.77	92.82%
A8W Dermatology + Neurology	27	688	326	362	614	16	1	79	631	710	6 098	6 098.5	8.59	61.81%
A9 Neonatal ICU*	8	372	203	169	85	62	0	277	147	424	2 075	2 075	4.89	70.98%
A9 Paediatric ICU*	10	497	326	171	61	47	3	428	111	539	2 163	2 164.5	4.02	59.24%
A9 Paediatric Trachea*	10	23	14	9	17	1	1	1	19	20	1 560	1 560.5	78	42.71%

WARD	ACTUAL BEDS	TOTAL ADMIS	WARD INT TRANS IN	CUM. AD-MIS	TOTAL DISCH	DEATHS	DAY PATIENTS	WARD INT TRANS OUT	SEPARA-TIONS	CUM. DISCH	INPATIENT DAYS	PATIENT DAYS	AVG LOS	% OCC (U)
B5E Day Surgery	15	2 473	40	2 433	2 356	0	2 131	117	4 487	4 604	73	1 138.5	0.25	20.77%
C1D Resus	4	1 098	336	762	227	172	21	869	420	1 289	1 555	1 565.5	1.21	107.11%
C1D Trauma + Surgery	23	6 435	164	6 271	3 924	98	478	2 515	4 500	7 015	12 575	12 814	1.83	152.47%
C2A Labour Ward	19	8 495	1 913	6 582	594	15	130	7 895	739	8 634	8 280	8 345	0.97	120.20%
C2A Labour Ward High Care	4	435	368	67	16	2	0	421	18	439	1 275	1 275	2.9	87.23%
D Ground – Psychiatry	22	334	217	117	270	0	1	55	271	326	6 225	6 225.5	19.1	77.44%
D1 Vascular Surgery	22	1 327	742	585	935	44	14	388	993	1 381	7 522	7 529	5.45	93.66%
D10 Internal Medicine	30	1 645	1 619	26	1 434	130	2	197	1 566	1 763	10 003	10 004	5.67	91.26%
D2 Abdominal Surgery	31	1 489	816	673	995	37	50	490	1 082	1 572	6 948	6 973	4.44	61.56%
D3 Plastic/Reconstructive Surg	25	1 500	308	1 192	1 362	3	34	137	1 399	1 536	5 849	5 866	3.82	64.21%
D4 Private + Cardiology	29	1 325	378	947	1 151	27	81	175	1 259	1 434	5 709	5 749.5	4.01	54.26%
D5 Abdom + Head/Neck and Breast	31	1 380	794	586	1 038	37	3	344	1 078	1 422	8 693	8 694.5	6.11	76.76%
D6 Urology	32	1 278	392	886	1 168	22	9	120	1 199	1 319	8 222	8 226.5	6.24	70.36%
D7 Ophthalmology	32	2 842	107	2 735	2 703	1	180	138	2 884	3 022	7 691	7 781	2.57	66.55%
D8 Internal Medicine	28	1 438	1 007	431	1 297	95	69	142	1 461	1 603	9 189	9 223.5	5.75	90.15%
D9 Internal Medicine	29	1 668	1 645	23	1 450	142	2	209	1 594	1 803	9 557	9 558	5.3	90.20%
DLG Psychiatry (GLG)	20	330	90	240	174	0	0	156	174	330	6 316	6 316	19.1	86.43%
F1 Medical Emergency	20	7 790	468	7 322	1 969	249	374	5 823	2 592	8 415	6 937	7 124	0.85	97.48%
F1 Medical Emergency High Care	6	1 235	357	878	258	211	8	971	477	1 448	929	933	0.64	42.56%
F2M Obstetrics Antenatal	34	3 106	1 518	1 588	1 471	0	50	1 622	1 521	3 143	9 181	9 206	2.93	74.10%
F4 Orthopaedics	32	760	159	601	636	10	18	118	664	782	7 380	7 389	9.45	63.19%
FGR Gynaecology	24	1 793	562	1 231	1 616	33	43	184	1 692	1 876	6 716	6 737.5	3.59	76.83%

WARD	ACTUAL BEDS	TOTAL ADMIS	WARD INT TRANS IN	CUM. AD-MIS	TOTAL DISCH	DEATHS	DAY PATIENTS	WARD INT TRANS OUT	SEPARA-TIONS	CUM. DISCH	INPATIENT DAYS	PATIENT DAYS	AVG LOS	% OCC (U)
G1 Neonatal Medicine	30	1 025	429	596	870	23	16	157	909	1 066	10 648	10 656	10	97.21%
G10 Paediatric Medicine	30	1 215	1 003	212	1 054	10	3	158	1 067	1 225	7 726	7 727.5	6.31	70.49%
G2 Neonatal Medicine	24	1 845	2	1 843	849	59	61	998	969	1 967	11 656	11 686.5	5.94	133.26%
G3 Paediatric Oncology	18	608	111	497	567	8	73	41	648	689	3 821	3 857.5	5.6	58.65%
G4 Paediatric Surgery	25	1 725	323	1 402	1 580	2	88	149	1 670	1 819	6 811	6 855	3.77	75.04%
G5 Ear, Nose & Throat	19	1 464	206	1 258	1 315	6	52	149	1 373	1 522	5 349	5 375	3.53	77.42%
G6LM Paediatric Orthopaedics	25	1 163	55	1 108	1 120	0	47	38	1 167	1 205	7 442	7 465.5	6.2	81.72%
G7 Paed Infectious Diseases	23	693	429	264	435	17	12	248	464	712	6 002	6 008	8.44	71.49%
G8 Neonatology / KMC	30	834	833	1	754	1	0	80	755	835	8 829	8 829	10.6	80.54%
G9 Paed Internal Medicine	30	1 233	357	876	1 067	8	45	168	1 120	1 288	7 691	7 713.5	5.99	70.37%
GG Paediatric Emergency	20	4 233	8	4 225	2 993	11	332	1 241	3 336	4 577	4 452	4 618	1.01	63.19%
H1X Radiation Oncology	21	774	75	699	757	38	10	24	805	829	5 789	5 794	6.99	75.51%
H2X Radiation Oncology	26	864	70	794	839	46	6	29	891	920	6 599	6 602	7.18	69.49%
J2M Obstetrics Post Natal	29	3 072	2 441	631	2 600	0	15	470	2 615	3 085	7 861	7 868.5	2.55	74.25%
J4 Gynaecology	33	2 236	354	1 882	2 056	16	60	184	2 132	2 316	7 243	7 273	3.14	60.32%
J5M Obstetrics Post Natal	23	3 926	3 677	249	3 837	0	219	75	4 056	4 131	4 922	5 031.5	1.22	59.87%
J6 Orthopaedics	29	932	171	761	728	8	6	206	742	948	8 641	8 644	9.12	81.57%
J7 Trauma Surgery	31	1 473	782	691	1 268	29	4	202	1 301	1 503	8 587	8 589	5.71	75.82%
X(Close)-A9 Paed/Neonatal ICU**	28		144	102	49	36	0	217	85	302	2 104	2 104	6.97	81.68%
Report Total	1,310	94,583	33,494	61,335	61,277	2,469	4,879	33,490	68,625	102,115	372,304	374,744	7	78%

* Wards Opened on 1 April 2011 ** Wards Closed 31 March 2011

Service groups visits 2011

SERVICE GROUPS	ANT	ATT	CANAPP	CND	DNA	NREC	WLK
Clinical Psychology	4	1 313		69	135	3	3
Human Nut/Dietetics	71	5 587	28	30	642	2	
Occupational Therapy	294	12 469	184	327	2 612	16	590
Physiotherapy	7	30 169	13	6 004	105	1	5
Podiatry	1	531		29	410		3
Radiotherapy	14	9 620	1	12	17	97	3
Social Work	62	20 291	6	40	193	3	1 209
Speech	18	4 081	2	516	1 536		254
Thy/Audiology		219		11			623
Stomatherapy RN	471	84 280	234	7 038	5 650	122	2 690
Grand Total	942	168560	468	14076	11300	244	5380

ANT: Attended not treated ATT: Attended and treated CANAPP: Cancelled CND: Cancelled on day DNA: Did not attend NREC: Not recorded WLK: Walk-in

Outpatient statistics attendance rates 2011

SPECIALITY GROUP	ATTENDED NOT TREATED	ATTENDED	NOT RECORDED	WALK-INS
Gynaecology	184	15 505	2	9 126
Maternity	191	18 129		26 793
Medicine	770	125 336	48	21 761
Nonspecialist as per DoH	278	45 649	1	74 655
Orthopaedics	361	21 062	1	3 628
Paediatrics	110	15 610		12 140
Psychiatry	19	3 692	1	1 780
Surgery	1 157	62 774	6	26 599
Grand Total	3 070	30 7757	59	176 482

Outpatient statistics 2011 – specialist clinics

	NEW	FOLLOW-UP
Burns	310	345
Cardio Thoracic Surgery	474	999
Cardiology	6 733	19 235
Child Psychiatry	265	1 651
Clinical Haematology	6	251
Dermatology	2 356	9 155
Diagnostic Radiology	26 851	89 263
Ear Nose and Throat	3 119	5 927
Ear Nose and Throat Paed	827	1 390
Emergency Medicine	3 564	928
Endocrinology	541	3 174
Gastroenterology	3 079	10 514
General Medicine	1 456	5 977

	NEW	FOLLOW-UP
General Paediatrics	16	52
General Psychiatry	952	2 624
General Surgery	1 625	2 314
General Surgery Abdominal	28	222
Geriatric Medicine	147	609
Gynaecological Endocrinology	1 600	2 375
Gynaecological Oncology	8 895	10 780
Gynaecology	917	5 512
Head Neck and Breast Surgery	719	19 457
Infectious Diseases	27	151
Maxillo-Facial Surgery	273	1 715
Neonatal Medicine	378	12 249
Nephrology	1 805	3 195
Neurology	905	2 423
Neurosurgery	2 030	2 012
Nuclear Medicine	9 312	35 801
Obstetrics	452	2 243
Occupational Health	4 644	16 997
Ophthalmology	98	986
Orthopaedic Joint Replacement	2 030	9 207
Orthopaedic Trauma	895	4 264
Orthopaedics	1 213	4 477
Orthopaedics Hands	50	677
Paed Allergy	148	937
Paed Cardiology		1
Paed Clinical Haematology	19	160
Paed Clinical Immunology	11 185	1 579
Paed Emergency Medicine	87	1 123
Paed Endocrinology	58	500
Paed Gastro-Enterology	85	292
Paed Human Genetics	291	1 018
Paed Infectious Diseases	81	1 853
Paed Medical Oncology	89	1 133
Paed Nephrology	464	2 393
Paed Neurology	161	1 721
Paed Orthopaedics	101	1 319
Paed Respiratory Medicine	14	147
Paed Rheumatology	691	584
Paed Surgery	480	3 989
Pharmacy – Repeats Scripts	1 309	3 084
Plastic Reconstructive Surgery	2 221	23 984
Radiation Oncology	300	111
Reproductive Medicine	1 226	4 813
Respiratory Medicine	369	3 543

	NEW	FOLLOW-UP
Rheumatology	16 741	4 614
Trauma	2 652	9 268
Urology	883	1 804
Vascular	128 247	359 121
Grand Total	256,494	718,242

2011	TOTAL HEAD COUNTS		TOTAL ATTENDANCES	
DEPARTMENTS	NEW	FOLLOW-UP	NEW	FOLLOW-UP
Clinical Psychology	190	981	248	1 072
Human Nut/Dietetics	228	324	2 531	3 272
Occupational Therapy	2 348	6 624	3 792	11 468
Physiotherapy	1 920	8 919	6 508	34 625
Podiatry	101	426	102	433
Radiotherapy	866	11 383	1 197	15 623
Social Work	4 464	8 813	8 559	16 444
Speech Thy/Audiology	1 363	3 518	1 428	4 778
Stoma therapy RN	96	503	157	681
Grand Total	11 576	41 491	24 522	88 396

	OVER 60 MIN		UNDER 30 MIN		UNDER 60 MIN	
	HOSPITAL	PRIVATE	HOSPITAL	PRIVATE	HOSPITAL	PRIVATE
TBH B1AB Abdominal/Neuro/Reconstructive	886	123	5	1	80	11
TBH B1CD Emergency/Surgery	3 415	1 019	138	28	1 124	229
TBH B1EF Cardio Thoracic	538	69	1	0	25	1
TBH B1GH Adominal/Paeds/Vas/Mamm	982	89	23	0	249	18
TBH B1IJ Shared ENT + Urology	1 055	81	50	2	348	22
TBH B3QR Paeds Surgery/Ortho	166	23	15	1	64	9
TBH B3ST Gynaecology	695	80	10	1	151	12
TBH B3UV Trauma/Ortho	341	147	171	33	329	56
TBH B3WX Orthopaedics	764	285	42	14	238	72
TBH B3YZ Ophthalmology	747	86	289	25	898	79
TBH C1AT Burns Adults	335	20	167	12	230	25
TBH C2AT Obstetrics	982	21	71	1	1 496	20
TBH C4B Theatre	476	36	160	18	369	26
TBH C5BT Day Case Surgery	248	24	676	102	646	66
TBH C6AT Urology/Cystoscopy	196	35	1378	204	594	67
TBH C8DT Cardiology Catheter Lab	259	41	312	43	535	74
TBH CGW Koeberg Theatre	105	22	53	10	151	21
Total	12 190	2 201	3 561	495	7 527	798

NOTES

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The Afrikaans & Xhosa electronic versions are available on request



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Health