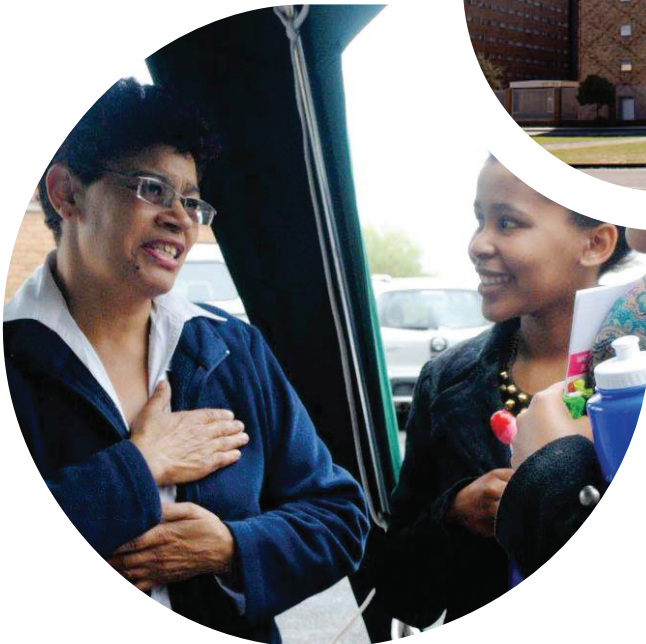




Western Cape  
Government

Health



Annual Report 2014  
Tygerberg Hospital

# Tygerberg Hospital

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Annual Report 2014

# VISION, MISSION & VALUES

## Vision

Access to person-centred quality care

## Mission

We undertake to provide equitable access to quality health services in partnership with the relevant stakeholders within a balanced and well-managed health system to the people of the Western Cape and beyond.

## Values

**The core values of the Department are:**

- Innovation
- Caring
- Competence
- Accountability
- Integrity
- Responsiveness
- Respect

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### Head of Western Cape Health Dr Beth Engelbrecht

We recently concluded the Annual report for 2014/15, analysing our performance against set targets and reflect on areas where we can improve our performance. The Annual report also provides an overarching picture of the health of the organisation, its profile and the landscape impacting on it.

In 2014/15, the Department remained committed to delivering quality health care that is provided by a professional workforce, and health services that are safe, comprehensive, integrated, continuous and respectful of the people we serve. The Province is faced with a quadruple burden of disease, which continues to place enormous strain on the health system. The burden of communicable and non-communicable disease is of particular concern, as increasingly people present with multiple, interacting and compounding health problems. This situation is unlikely to change in the short to medium term, given the trends in the social determinants of health and wellbeing. These trends directly impacts on the services and pressures within Tygerberg Hospital.

In the Western Cape, life expectancy at birth is 66 years, 68 years for women and 64 years for men, which is above the figures for the country as a whole. The infant mortality rate is 19,1 compared to 27 nationally. The maternity mortality ratio is 78 as compared to 269 for South Africa. The provincial health system, in 2014/15:

- Had 14 250 244 Primary Health Care (PHC) contacts
- Had 180 769 patients on ART
- Had a 80,6% TB cure rate
- Delivered 96 750 babies
- Had a mother to child HIV transmission rate of 1,4%
- Immunised 95 393 children under 1
- Transported 515 237 patients, of which 41% were priority 1
- Admitted 540 430 patients to acute hospitals
- Performed 7 929 cataract surgery operations

In the interest of enhancing public participation and the person-centredness of the health system, the Department undertook to revise the Western Cape Health Facility Boards Act 7 of 2001, and a new bill, the Western Cape Health Facility Boards and Committee Bill, 2015, is being prepared for public comment early in the new financial year. The regulations related to the Western Cape Independent Health Complaints Committee Act 2 of 2014, was promulgated on 21 November 2014 and the committee is likely to be established in the first half of the new financial year. In 2014/15, we received 13 580 compliments and 5 528 complaints of which 88,1% was resolved within the target of 25 days.



**Dr Beth Engelbrecht**

## People at the centre

Staff members are the backbone of the healthcare system in the Western Cape. It is crucial that we acknowledge their selfless commitment often under difficult working conditions and a stressful environment.

While the Health Department in the Western Cape is among the best performers in the country, our policies and strategies must change to meet the growing demands of the people we serve. In order to do that, we need to fully grasp the context in which we operate. The public health system services about 74% of the population (uninsured) who live in the province, a figure that continues to rise. We have ascertained that majority of those who use our services are affected by, what we call, the quadruple burden of disease, i.e. infectious diseases such as HIV/TB, -non-communicable diseases such as high blood pressure, diabetes and cancers, maternal and child health conditions and injuries mainly from interpersonal violence and road traffic accidents.

## Enabling Factors

Effective and efficient service delivery is enabled by support services such as finance and supply chain processes, human resources, infrastructure, information management and information and communication technology (ICT).

The Department delivered health services in the Western Cape within 0,2% of its equitable share budget for the financial year 2014/15. The Department is proud of the track record of an unqualified audit for the past 11 years. Robust systems, processes and controls have been put in place, together with an ongoing vigilance, to ensure this outcome is sustainable.

The prototype for 'The Single Patient Viewer' has been completed; it is a web-based viewing application that allows clinicians to access an integrated perspective on patient data available across various, vertical patient information systems in one platform. It provides a consolidated view of patient information along patient encounters, laboratory data, links to electronic radiological files and patient records, as well as pharmacy data. The distinct utility is in assisting the clinician to develop a comprehensive understanding of the client's interactions with the health system across the province and aid towards improved continuity of care.

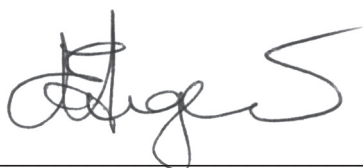
ICT achievement over the last year includes:

- Clinicom and AR billing rolled out in 47 of 54 hospitals
- Primary Health Care Information System (PHCIS) and eKapa implementation in fixed facilities saw 195 install PMI, Appt in 130, eRMR in 50, eHeadcount in 68, MOU in 13 and eReception in 2 facilities
- Picture Archiving System (PACS) and the Radiology Information System (RIS) implementation has been concluded in 4 sites and PACS only in 12 sites
- The Tech Refresh Initiative has now concluded its second year of a 3-year process, 2 500 out of 3 000 (83,3%) computers have been replaced with 500 to be replaced in the next financial year
- Single waiting list system developed for arthroplasties across the province, resulting in public confidence and donations for increasing arthroplasty procedures

The Department has furthermore managed to:

- Maintain its 10-year track record of an unqualified audit
- Build new ambulance stations at Robertson and Heidelberg
- Upgrades and extensions at New Horizon Clinic in Plettenberg Bay and Delft CHC in the Metro
- Build new Emergency Centre at Heideveld CDC to enable work at GF Jooste Hospital Project
- Build new acute psychiatric units at Mitchells Plain Hospital and George Hospital
- Build a new CHC in Table View, Du Noon, a CDC in Hermanus and a clinic in Rawsonville
- Upgrade the OPD and Emergency Centre at Knysna Hospital
- Commission the New Emergency Centre at Karl Bremer Hospital

I wish to take this opportunity to express my sincere appreciation to the staff of Tygerberg Hospital for the dedication to organisational health, organisational reputation and towards patient-centred experience. The resilience of our healthcare system finds its strength in people like you.



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Yours sincerely

Dr Beth Engelbrecht

**Deputy Director General:  
Chief of Operations  
Dr Keith Cloete**

There has been a smooth transition in political and senior management level within Western Cape Government: Health (WCG: Health) during the 2014/15 year. The new leadership team has firmly committed itself to the implementation of the 2030 Road to Wellness strategic vision for the Western Cape. The senior management team of the Department has committed itself to value-based leadership and building a coherent whole systems approach centred around the patients' needs. There is a clear intent to take all WCG: Health staff members along on this exciting journey.

A central hospital such as Tygerberg Hospital is a very important part of the care continuum offered across the health service delivery platform. Tygerberg Hospital is an integral part of the Metro East, West Coast, Cape Winelands and Overberg "healthcare ecosystems". The population growth and the commensurate increase in patient care needs, in especially Metro East, has resulted in significant service pressures in the health facilities in the Tygerberg Hospital drainage area over the past number of years.

Tygerberg Hospital is the single largest hospital in the province, which poses significant management and organisational challenges. The ageing and out-of-date infrastructure adds to this complexity. The re-development project is therefore a very important undertaking, and it provides exciting opportunities to remodel the way services are rendered, in addition to providing a platform for training and research.

The numerous instances of excellent and ground-breaking care that are offered at Tygerberg Hospital make the Department and the Western Cape proud. The commitment and service excellence exhibited by the individual staff members serve as a reminder of the quality of the human resources we command in the Western Cape healthcare system.

The coming years will pose significant challenges in terms of a shrinking budget resource envelope in real terms, in the face of increasing healthcare needs. This will challenge individual staff members, teams of staff members and the entire healthcare system in the Western Cape to intensify our efforts to be more efficient and more strategic in the way we deliver healthcare services.

The emphasis will be on strengthening the capacity of the whole system to deal with patients' need more effectively. This will require a total commitment of all role players to managing patients' needs appropriately at all levels of the healthcare service delivery platform. The specific vital role that Tygerberg Hospital staff members can play to strengthen the capacity of staff members at the other levels of care, need to be harnessed to its full potential.

I wish to express my sincere and humble appreciation to the hospital management, the clinical leadership and each and every staff member of Tygerberg Hospital for the daily contributions they make towards making the Western Cape healthcare system the best in South Africa. I continue to be humbled and amazed by the resourcefulness, ingenuity, high levels of technical skills and the total commitment to the public healthcare system by our staff members. I am proud to be associated with this team.



**Dr Keith Cloete**

### Chief Executive Officer: Dr Dimitri Erasmus

Tygerberg Hospital is the largest hospital in the Western Cape.

The Hospital plays an important role in the delivery of specialised and highly specialised services to the people of the Western Cape and beyond and plays a significant role in system strengthening and outreach and is a referral base for the drainage areas of Metro East, West Coast, Cape Winelands and Overberg.

It is an integral part of the teaching and training platform for the training of health professionals for the four universities, namely, Stellenbosch University, University of Cape Town, University of the Western Cape and Cape Peninsula University of Technology. The Hospital remains an institution of academic excellence through its key strategic partnership with the Faculty of Medicine and Health Sciences of Stellenbosch University.

During the year under review, the hospital faced significant challenges with respect to escalating service pressures as a result of population growth and the burden of disease profile, with particular relevance to Metro East.

This annual report reflects the activities and achievements for the year 2014/15.

The service outputs were as follows:

Inpatient separations = 70 121

Outpatient headcount = 337 551

Bed occupancy rate = 86.5%

Number of operations = 31 145

Number of new-borns delivered = 7 538

The total expenditure for the 2014/15 year amounted to R2 271,6m.

The commissioning of a new magnetic resonance imaging (MRI) scanner and a new linear accelerator (LINAC) were major achievements in health technology and resulted in significant improvement in patient care.

I wish to thank all the staff for their dedication and commitment which has culminated in the achievements and activities as reflected in this annual report.



**Dr Dimitri Erasmus**

### Director: Mr Toufeak Salie

The funding streams for Tygerberg Hospital, the single biggest health facility in the Western Cape, are secured from:

- R1 127 972m NTSG (specialised tertiary services),
- R131 177m HPDTG (professional training), and
- R976 495m Provincial Equitable Share
- R6 750m Special Funding



Mr Toufeak Salie

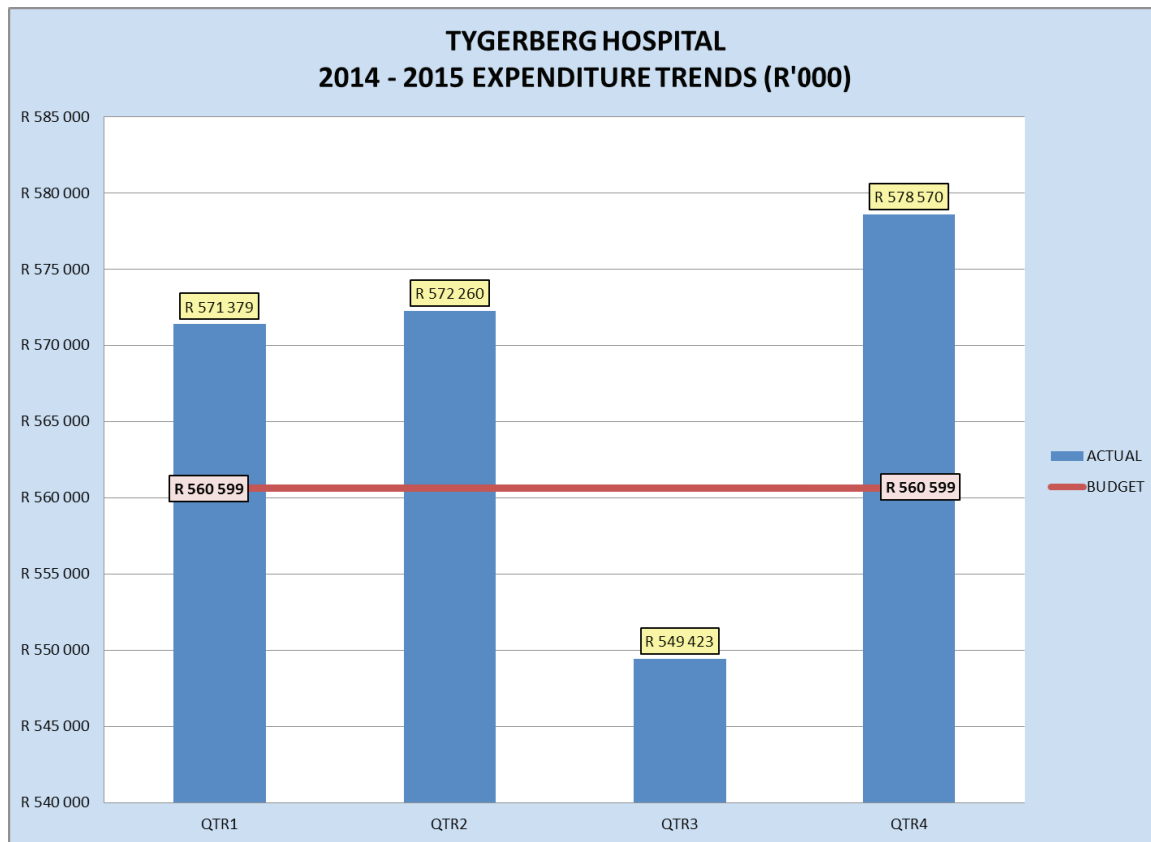
### An overview of the Hospital's Annual Financial Results: 2014/2015

	YR budget	YE actual	Variance	%
Expenditure	R2 242,4m	R2 271,6m	(R29,2m)	(1,3%)

### Expenditure

The results achieved to provide ever demanding patient care (specialist and generalist care), professional training and medical research with the limited financial resources. The actual expenditure was over the budget by **R29,2m**, which is just over a percentage point. Throughout the year, the projection indicated a possible R13m overspent. This was offset by significant underspending in the other programmes within the department. Tygerberg Hospital was allowed to overspend. The reason is the hospital faced major challenges during the year due to continuous patient load pressures, burden of disease and the burden of unfavorable economic factors (international and local), relating to currency exchange rates, interest rates, energy/oil price increases and the high Health Inflation Index.

The graphic displayed indicates the quarterly spent.



## Revenue

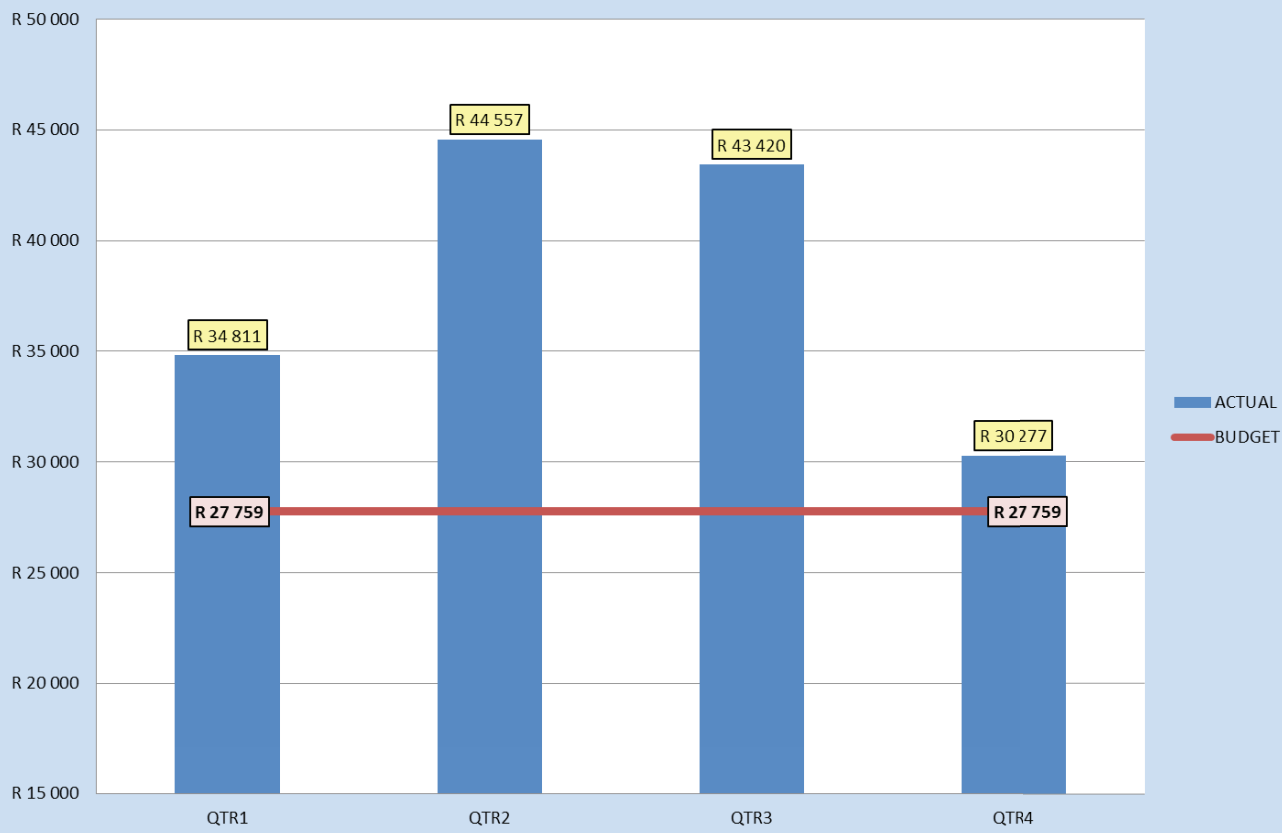
	Target	Achieved	Surplus	%
Revenue	R111,0m	R153,1m	<b>R42,1m</b>	<b>37,9%</b>

The main revenue inflows continues to emanates from the Road Accident Fund, Medical Aid Schemes, state departments and individual patients. The graphic trends of revenue inflows were significantly above target, resulting in a total over-recovery of **R42,1m (37,9%)** against the 2014/2015 target of R111,01m. Tygerberg Hospital realises the most revenue and is the highest achiever in the Department of Health.

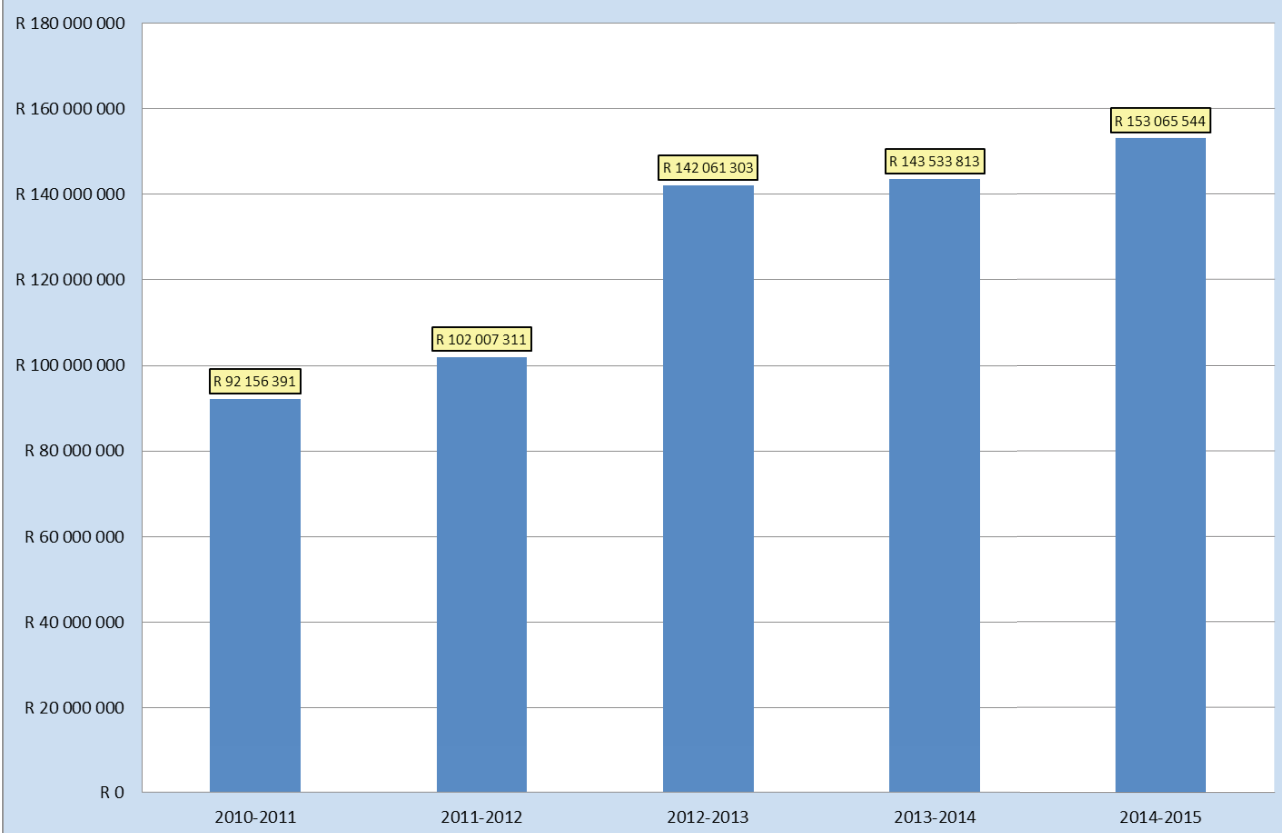
The closing revenue outstanding balance of R194,5m as at 31/03/2015, an increase of only 6,6% due to the significant recovery and also write-offs.



### TYGERBERG HOSPITAL 2014 - 2015 REVENUE TRENDS (R'000)



### TYGERBERG HOSPITAL REVENUE TREND



## An explanation of the expenditure results:

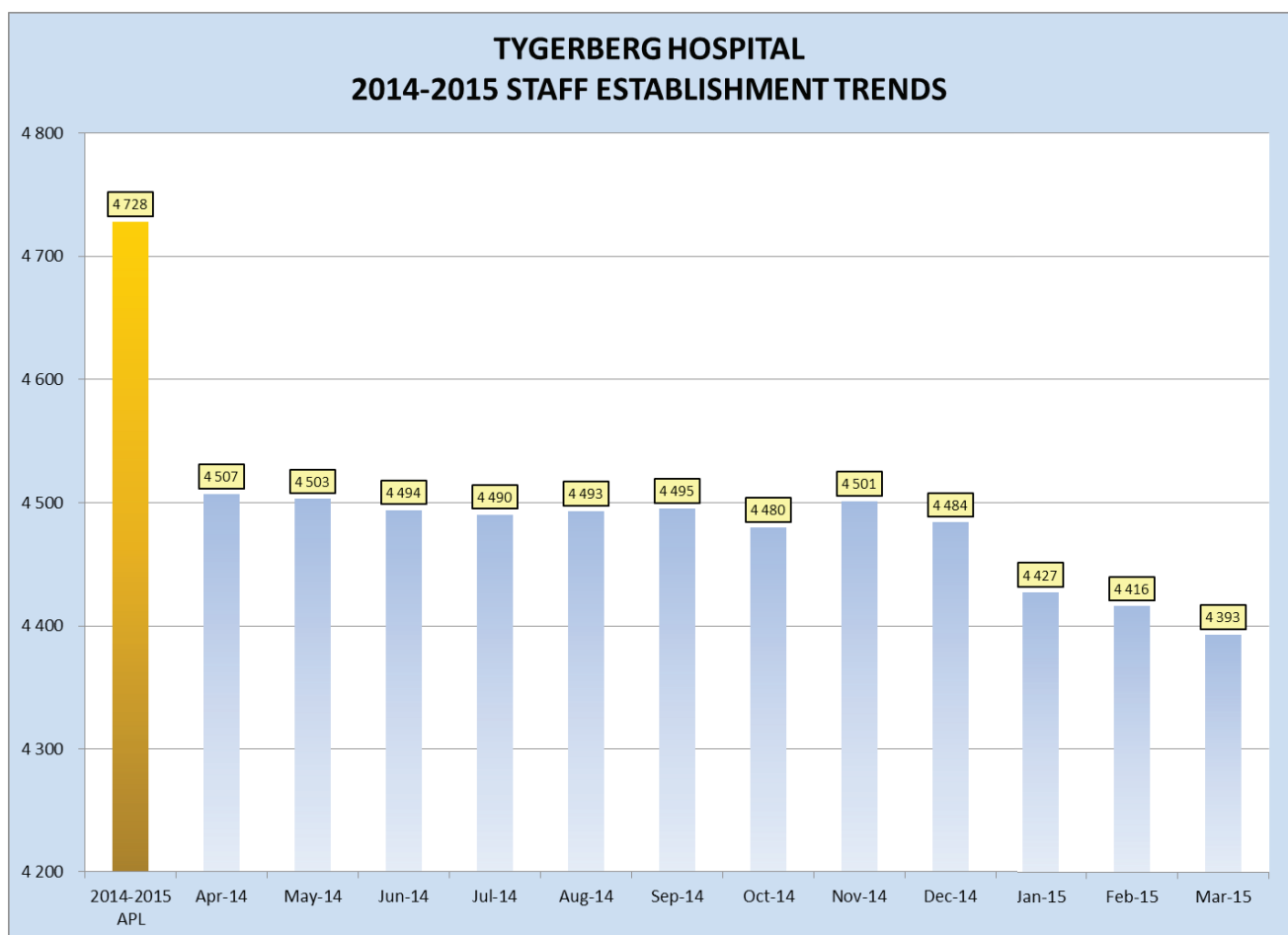
### Staffing and Personnel Expenditure:

Personnel expenditure	YR budget	YE actual	Variance	%
Persal Staff	R1 526,0m	R1 515,5m	R10,5m	0,69%
Joint Staff	R58,0m	R63,8m	(R5,8m)	(10,00%)
Agency Staff	R24,2m	R21,0m	R3,2m	13,13%
<b>TOTAL</b>	<b>R1 608,2m</b>	<b>R1 600,3m</b>	<b>R7,9m</b>	<b>0,49%</b>

Hospital staff stabilised at **4 393** as at year end March 2015. Nursing posts made up **43,2%** and doctors **13,3%** of staff. The APL was managed at a filled post rate of **92,9%** against a target of **95,9%**.

The general salary adjustments had a welcome effect on all staff.

The need to utilise substantial nursing agency staff during the year remains a necessity due to the national shortage of nurses. Nursing utilised a monthly average of **90 FTE's**. The strategic position is rather to have full-time nursing equivalents appointed.



## Goods and Services (excludes agency cost):

	YR budget	YE actual	Variance	%
Goods and Services	R616,8m	R654,5m	(R37,7m)	(6,12%)

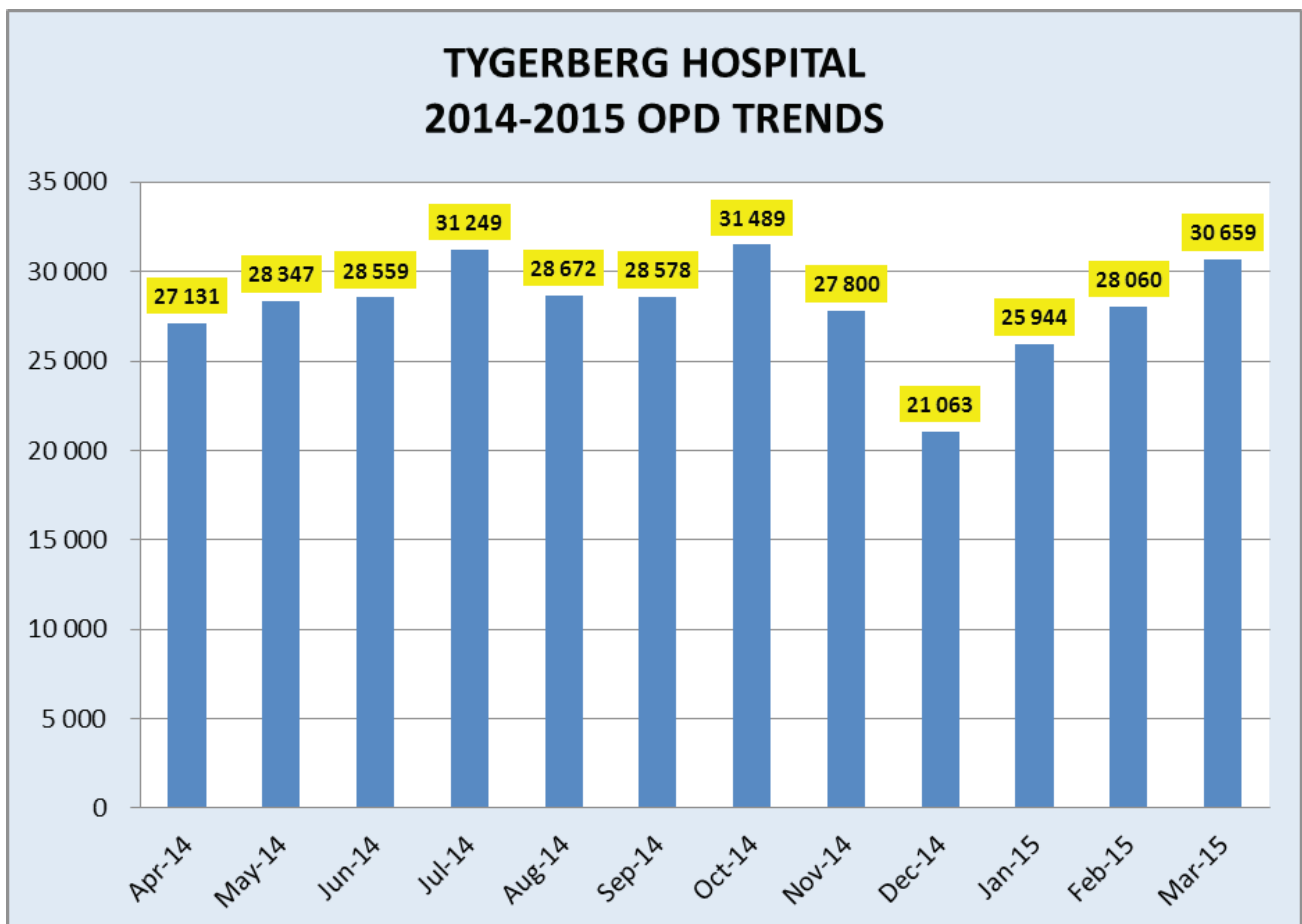
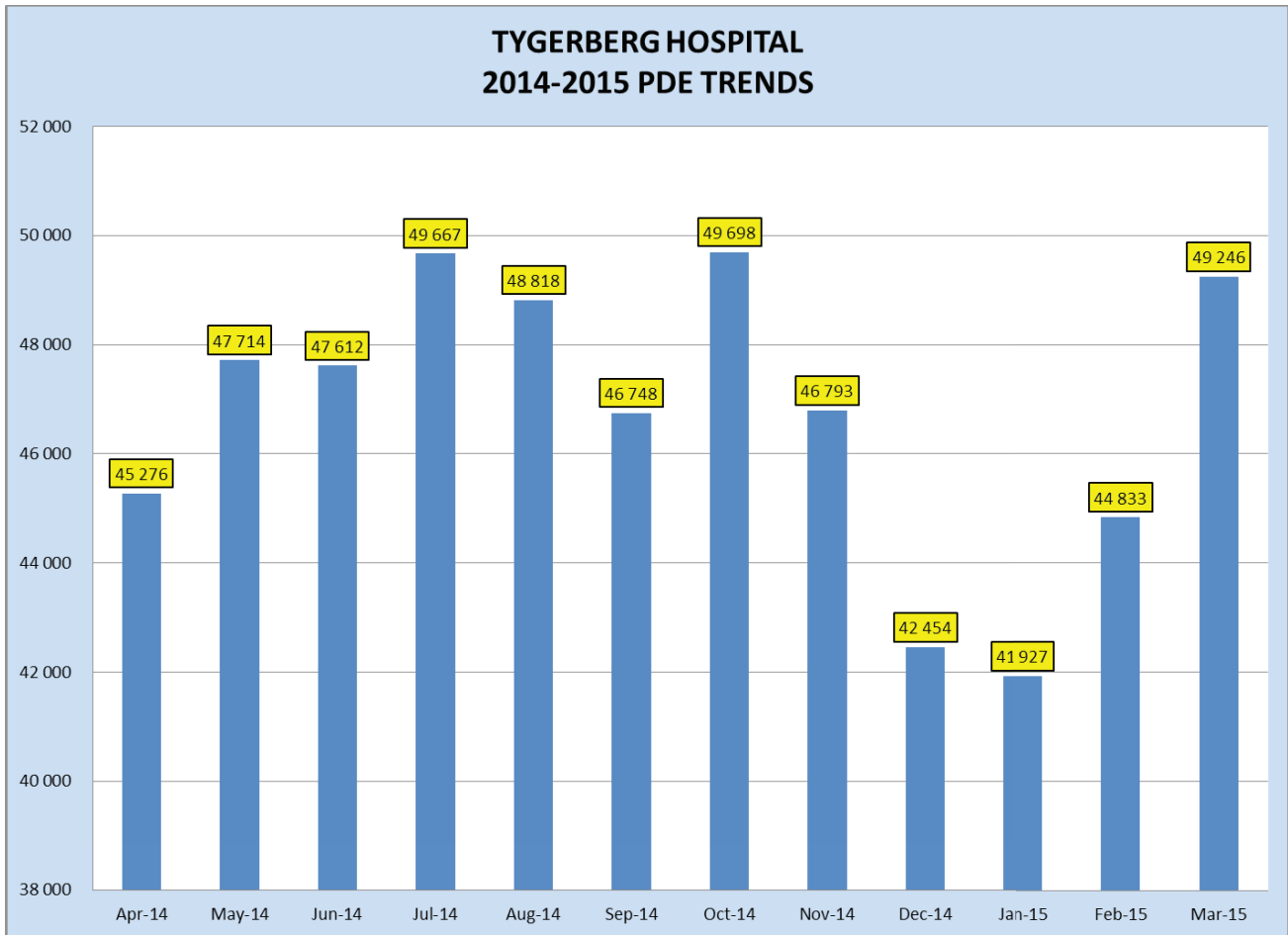
## Major expenditure comparative spending trends:

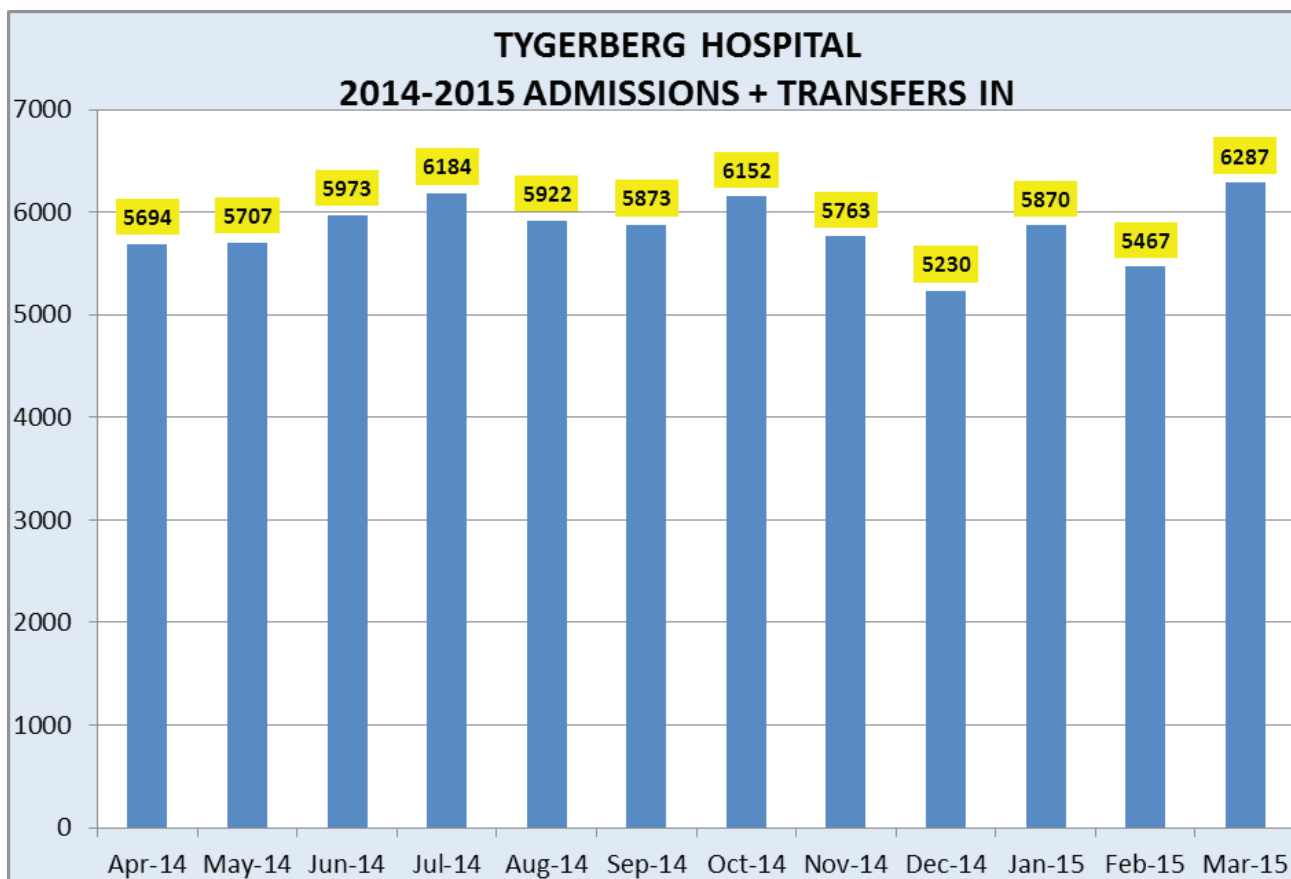
Category clinical consumables	Actual 2013/2014	Actual 2014/2015	% >
<b>Laboratory Service</b>	R79,8m	R87,1m	9,09%
Pharmaceuticals	R59,4m	R74,5m	25,47%
Blood & Blood Products	R53,4m	R68,6m	28,47%
Medical/Surgical Consumables	R200,4m	R208,9m	4,22%
<b>Other Goods &amp; Services</b>			
Support Services	R51,3m	R55,7m	8,66%
Steam, Gas, Energy and Utilities	R57,9m	R66,3m	14,47%
Engineering & Service Maintenance	R40,9m	R45,7m	11,85%
Remainder	R25,1m	R26,7m	6,27%
	<b>R616,8m</b>	<b>R654,5m</b>	

Patient activities increased experienced in relationship to the previous financial year.

Patient activity	2012/2013	2013/2014	2014/2015	% >
PDE's	541 315	561 385	560 784	(0,1%)
Admission	67 596	69 894	70 122	0,3%
Patient Days	408 330	428 703	436 118	1,7%
OPD Headcount	344 031	346 777	337 551	(2,7%)

Cost per PDE concluded at R4 435 against the target of R3 939.





## Capital Equipment:

Tygerberg Hospital Capital Equipment Funding Sources

## Tygerberg Hospital Capital Funds

**R9 878m**

### The main items prioritised for capital equipment:

- Medical and Allied Equipment – R5,17m
- Computer Hardware – R3,27m new and refresh of old IT hardware
- Domestic Equipment and Furniture – R1,2m
- Motor Vehicles – R0,27m – Pallet truck for Pharmacy

## Health Technology (Programme 8)

R41,5m

- Linac – R5m (accrual)
- Biplanar Angiography – R10m (part payment)
- Hermes – R1m (accrual)
- Backup Image Vault – R1,3m
- Holmium Laser – R0,7m
- Theatre Light – R0,7m
- Kitchen Ovens – R1,3m
- Anaesthetic Monitors – R2,2m
- Emergency Trolley complete – R0,6m
- Colour Doppler Ultrasound – R0,5m
- Ventilators – R0,4m
- Multiple sample well counter – R0,5m
- Various ultrasound machines – R1,2m
- Defibrillator – R0,2m
- Flexible pleuroscopy stack – R0,4m
- Cabinet endoscopy dying – R0,4m

A significant amount is carried over to the new financial year.

## Smaller Equipment Items

R4,1m

Mostly medical instruments, office furniture, workshop tools and kitchen appliances

Year after year the hospital is making significant inroads in addressing the replacement of obsolete and outdated equipment with the acquisition of new modern high-tech medical equipment.

## Donation Funding

R2,1m

- GE Ultrasound – R1,8m
- Ultrasound Machine – R0,3m

## Way Forward Financial Year: 2015/2016

The Budget Allocation for the financial year 2015/2016:

	FY: 2014/2015 R'000	FY: 2015/2016 R'000	%
Compensation of Employees	1 584 027	1 678 181	5,9
Goods and Services	641 036	717 624	11,9
Transfer Leave	6 005	6 353	5,8
Machinery and Equipment	11 326	15 035	32,7
<b>TOTAL</b>	<b>2 242 394</b>	<b>2 417 193</b>	<b>7,8</b>

## Sources of Funding Streams

	2014/2015 R'000	2015/2016 R'000	Increase R'000	%
NTSG	1 127 972m	1 153 507m	25 535m	2,3
HPDTG	131 177m	134 755m	3 578m	2,7
Provincial Equitable Share	976 495m	1 117 028m	140 533m	14,4
Special Funding	6 750m	11 903m	5 153m	76,3
<b>TOTAL</b>	<b>2 242 394m</b>	<b>2 417 193m</b>	<b>174 799</b>	<b>7,8</b>

An additional amount of R11,9m was allocated in the budget for Cochlear Implants (R4,5m), Hearing Aids Devices (R1,8m) and Arthroplasty joints (R5,6m).

### A substantial amount has been set aside in Program 8 Health Technology budget:

Ward furniture upgrade	R2,0m
Ophthalmology project	R8,550m
	<b>R10,550m</b>

## Directorate Finance

### Salient features during the year:

The total Finance staff compliment is 462 and the average post filled rate was **97%**.

Tygerberg Hospital, as well as the Department, received an unqualified audit finding for the financial year 2013/2014. The audit categories of **Administrative Matters and Matters Affecting the Audit Report** were clean audits for Tygerberg Hospital. Minimal audit queries are recorded against **Other Important Matters**, with payments over 30 days the most noticeable. Tygerberg Hospital received a Gold Audit Award for a clean Predetermined Objectives audit.

Delegation received from National Health Gauteng to workshop FBU management.

Complex Supply Chain Tenders based on the revised AOS and SCM delegations.

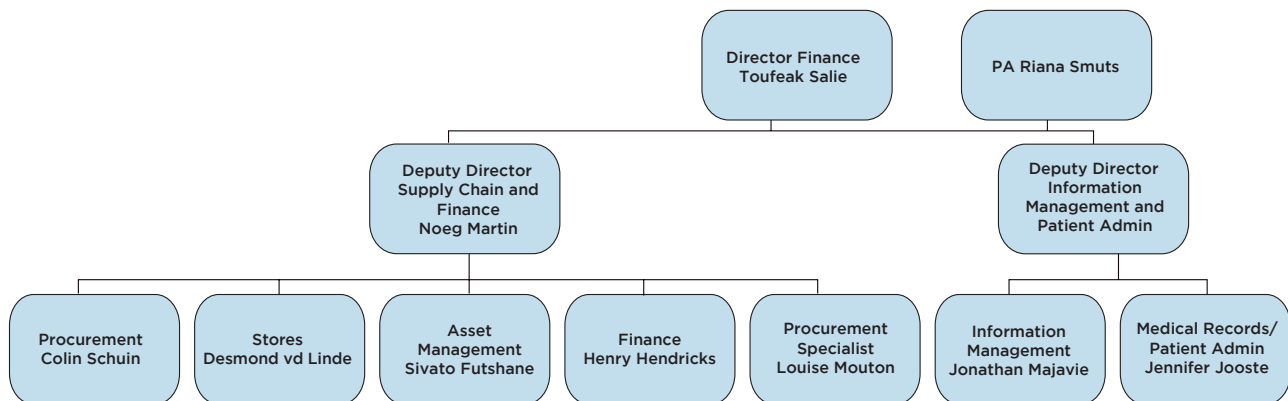
Irregular expenditure remained a challenge to comply with Regulatory Prescripts.

The full implementation of the control measures and tools including the procurement templates, internal assessments by the Devolved Control Unit and the self-assessment Control Management Instrument (CMI) contributed significantly to a higher level of compliance at all times to legislative prescripts and regulations.

Tygerberg Hospital accommodates Finance interns (students) from the colleges, volunteers and EPWP appointments as a training and development centre. Contribution to community upliftment is recognised. For this, Tygerberg Hospital received a Stakeholder Partnership Trophy from the Cape Peninsula University of Technology.



## Finance organisational structure



### Finance section

The Finance Department is increasingly being challenged by the various treasury compliance requirements.

Inadvertently 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 prejudicing the suppliers.

The Finance Department is increasingly being challenged to avoid a build-up of workload causing backlog of payments and to ensure that suppliers are paid within the 30 day prescribed period. Late payments are reported monthly to Head Office. Factors which resulted in late payments were because of documents not submitted in time to the Finance Department.

These challenges were well contained due to staff dedication to maintain an effective work standard. The workforce is 29 staff; only 2 vacancies during the year.

During the year, the **Sundry Creditors section** trained a total of 12 students as Interns, i.e. Financial Interns from CPUT and Northlink Colleges.

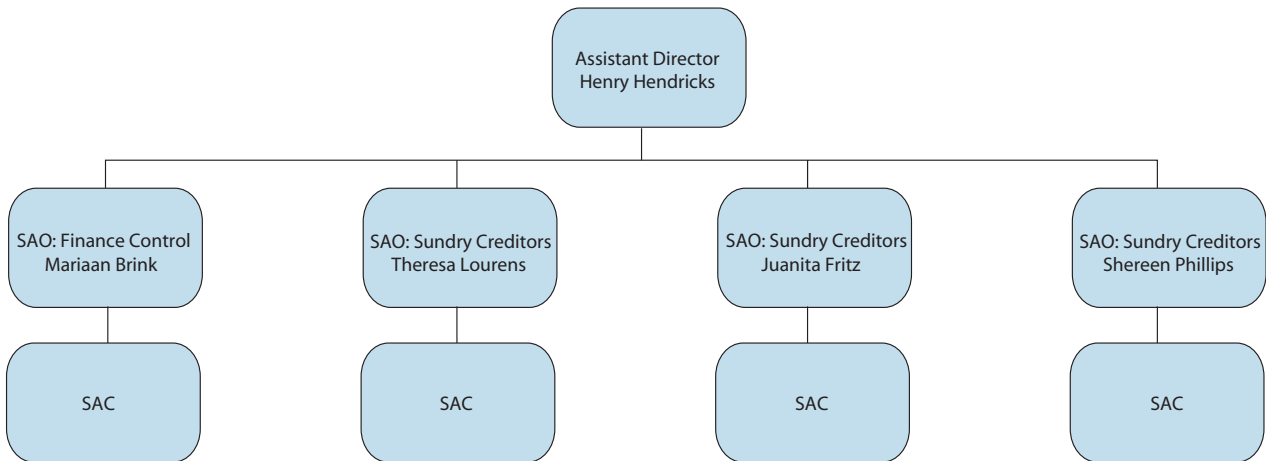
The year-end Accruals reported was R44m. Compared to the previous year (R70m), a decrease of **37,66%** was achieved. The achievement was due to monthly accrual meetings which were in place to follow up on outstanding payments.

## The Financial Control Section

- We have experienced a decrease of 27,87% in the remaining balance of our asset and liability accounts to the value of R959 491 at the end of the financial year.
- The target set to reduce staff debt by 40% was exceeded. There were 126 cases with a monetary value of R684 396 at the start of the financial year. The section cleared 98 cases with a monetary value of R406 449. Only 28 cases with a monetary value of R277 946 remained at 31 March 2015. A clearance rate of 77,78% was achieved.

The Finance Department met its monthly reporting requirements in respect of, amongst other things, the status of the Assets and Liability Accounts, IYM reports, budget loading onto BAS and reclaims from other hospitals and third parties on our premises.

## Structure of the finance unit



## Main stores

The objective of the Stores Management is to ensure the continuous availability of appropriate goods and consumables to render an effective and efficient patient care service all the time.

The challenge to achieve the objective is to overcome Treasury rules and regulations which delay the procurement process to place orders, impacting on consumables availability.

The ten stockholding stores, namely Engineering, CSSD, Bandages, Stationery, Disposable, Provisions, Surgical, Technical, Clinical Engineering and Theatre, plus the two kitchen stores (fresh and dry products), handled purchase orders to the value of R84 million.

The non-stockholding warehouses, including gas and equipment stores, placed purchase orders valued at R388 million. The stock holding level decreased from R19 755 million at the beginning of the financial year to R19 723 (0,16%) as at March 2015.

Although the implementation of the new procurement system, IPS (Integrated Purchasing Solution), resulted in backlogs of obtaining stores stock items, a consistent flow of consumable to all users in the hospital were maintained.

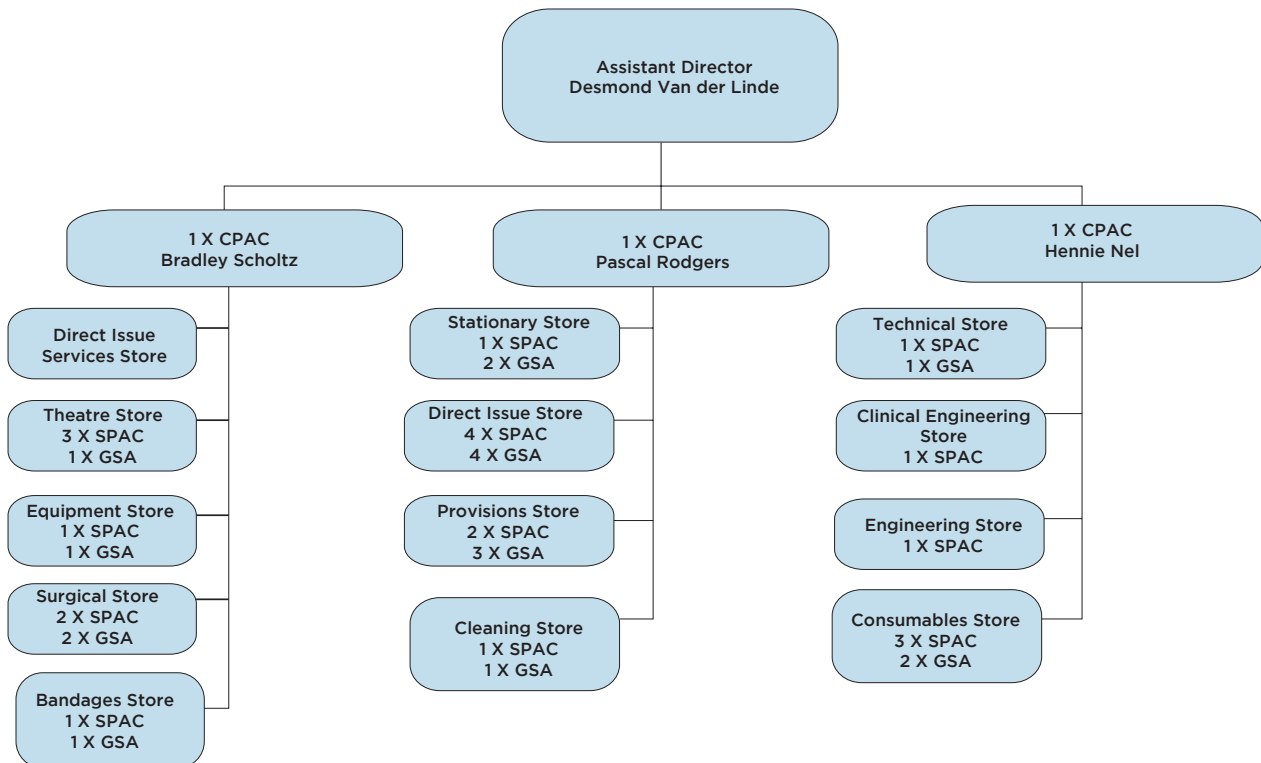
Urgent measures implemented were to borrow from other hospitals, encouraged words to exchange items, contact suppliers for early or partial delivery.

In some cases staff took GG transport as well as their own to collect goods from supplier warehouses. These measures ensured no critical items were out of stock. Additional storage space for bulk

orders was secured at the locations within the hospital to accommodate higher stock volumes.

Two successful stocktake were performed – mid-year and at year-end – with minimal stock variations, as well as perpetual stocktake in the different stores conducted by stores management.

Four students from the Cape Peninsula University of Technology have completed their six-month internship in Office Management and Technology in our various stores, as well as two students from Northlink College.



### Supply chain management: Procurement

The primary function of this Unit is to procure timeously appropriate consumables, services and equipment within the framework of Treasury rules and regulations. Challenges experienced during the year were the inadequate resources and the impact of the new integrated procurement solution, which also had an effect of a three-month backlog of order processing. To overcome this, contract staff was appointed, the Unit was reorganised and lean management was applied. The three procurement sections deal with:

- Equipment contracts (formal and limited) and purchases
- Quotation of consumables and services
- Services contracts (formal and limited) and purchases, SLA's and mini contracts

The total staff establishment for Procurement is 20 and the Unit continuously utilise students.

20 602 orders were placed to the value of R478 million.

## Equipment purchases

A total of 57 bids to the value of R32,1m were awarded during the 2014/2015 financial year.

For equipment items between R100 000 and R500 000, a total of 23 “Mini-Bids” were invited and ordered to a value of R5,6m, and 22 limited bids were invited at a value of R5,3m.

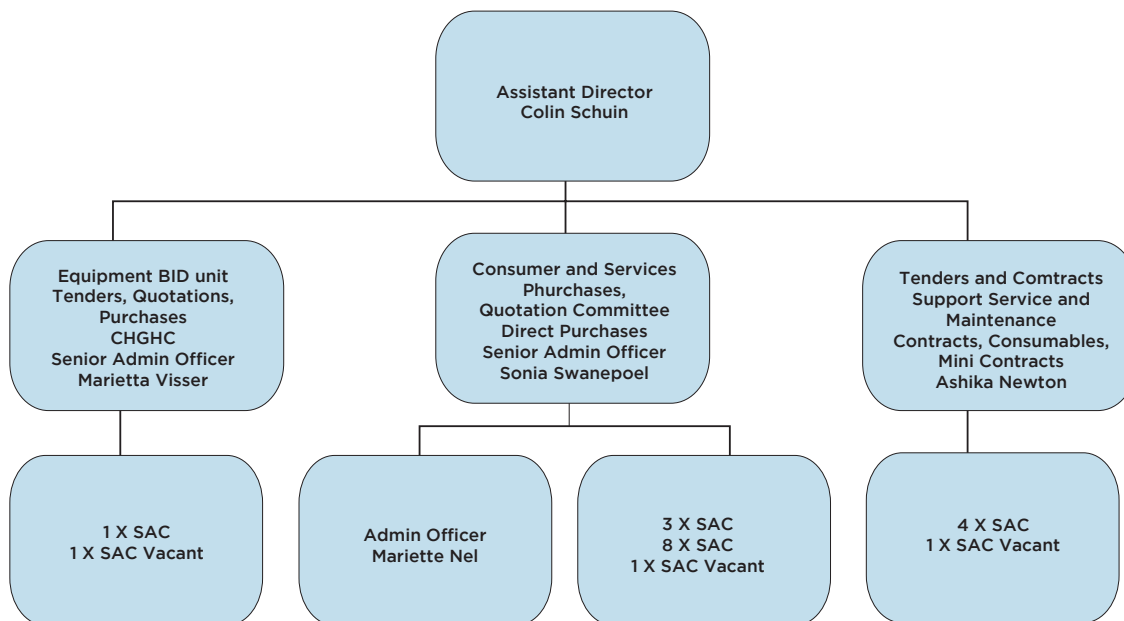
Large capital equipment that was purchased in the 2014/2015 financial year was:

1x Ceiling suspended, digital flat panel Angiography Imaging System = R10 458 237  
6x Anaesthesia Monitors = R1 614 055  
3x Anaesthesia Machines = R1 400 000  
5x 250 Direct Steam cookers (pots) = R1 481 228  
10x Twenty pan Combi Steamer Ovens = R1 714 320

## Goods and services purchased

A total of 20 166 orders were placed in 2014-2015 to the value of R435m.

## SCM: procurement structure



## Asset management

The Asset Unit consists of the ASD, AO and nine Clerks. Since the beginning of 2014/2015 financial year, the Unit worked with the shortage of four Clerks for which their position became vacant due to two dismissals, one resignation and one retirement. This was challenging for the Unit, as it had a number of projects to complete by the end of the financial year.

This was the main challenge because the Unit was without full capacity for the most part of the financial year.

The Assets Operational Plan concluded, the main challenges remains

- To physically verify all assets during the annual asset count and that
- Location Managers in the User Department take full responsibility for safeguarding, optimal use, maintaining and eventual disposal of the obsolete asset
- Control over assets which cannot be barcoded (R24m)

Obsolete assets were sold to a value of R54 594.

A R17m bulk write-off of assets which could not be verified for at least three consecutive years, were removed from the asset register.

The Unit, under the guidance of the Finance Directorate, successfully concluded the opening and closing balances reconciliation for both major and minor assets.

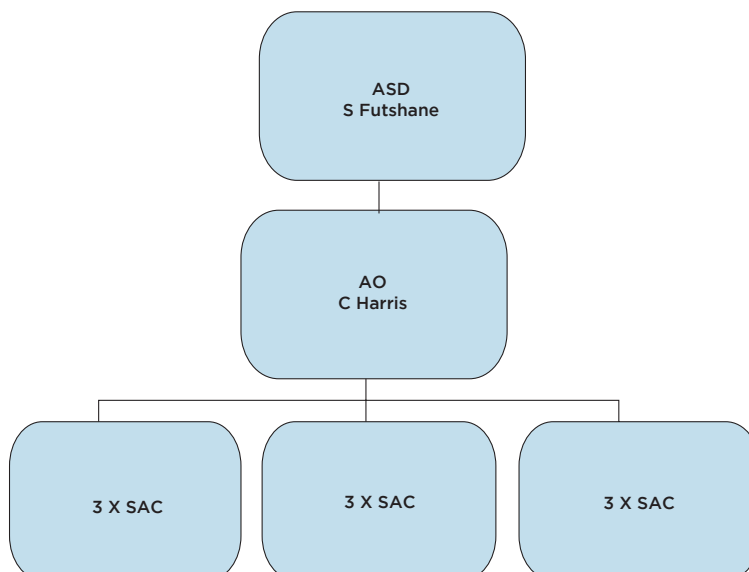
### Assets Value:

Major assets	R494 519 693	Quantity	9 980
Minor assets	R 57 379 720	Quantity	39 183
	<b>R551 899 413</b>	<b>Total</b>	<b>49163</b>

Asset Inventory list - 88% was rolled out to the Location Managers.

For the financial year 2013/2014, no asset audit queries were recorded by the Auditor-General.

### Asset management structure



## Information management unit

The Information Management Unit (IMU) consists of four (4) interlinked components, namely Financial Cost Centres, IT Hardware, Patient Statistics and Gatekeeping. The primary function of the IMU is to manage the information and data of the official systems which run through the “veins” of Tygerberg Hospital and to assist with the planning and roll-out of computer hardware and software. The Unit has a systematic approach to operational challenges and has the ability to analyse, interpret, summarise and present complex financial and non-financial information in a manner which is both understandable and properly supported. This enhances decision making, monitoring and planning at managerial levels.

The following IT hardware/software was procured and rolled out to the respective departments:

- a) Computer - 319
- b) Monitors - 322
- c) Printers - 94
- d) Laptops - 12
- e) Scanners - 7
- f) Data Projectors - 6

The IT hardware/software included projects such as:

- a) Tech Refresh
- b) ECM Refresh

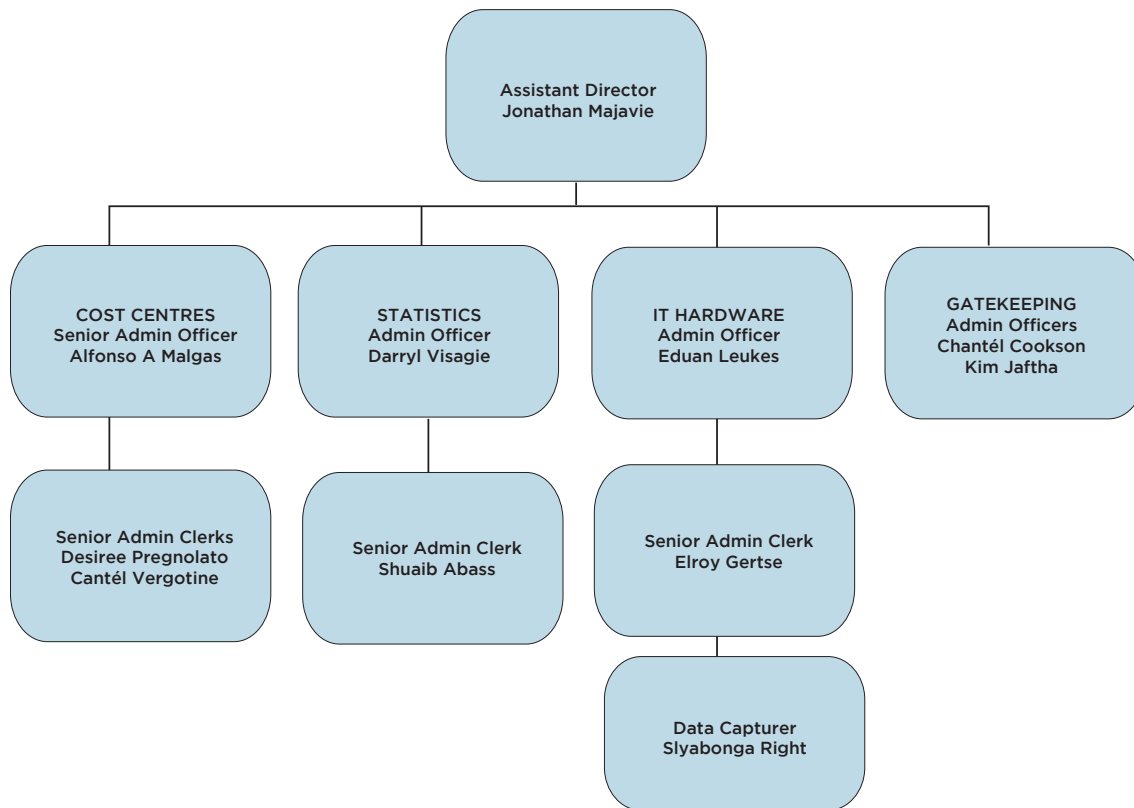
The IMU has engagements with all feeder systems: Clinicom, JAC, Syspro and BAS, but uses FBU Studio as a main source of data for financial and Clinicom for statistical reporting respectively. The reports developed feeds into management committees and meetings: Finance Exco, FFMC, M&E, FBU Exco and NTSG.

Data Avenue can be regarded as the one-stop-shop for Information and Communication Technologies. Relationships with other role players in the Data Avenue passage, namely IT Infrastructure, System Controllers, Desktop Support and System Developers, have been continuously strengthened. The various components provide support to end users and management in order to perform daily duties and to actively participate in critical decisions respectively.

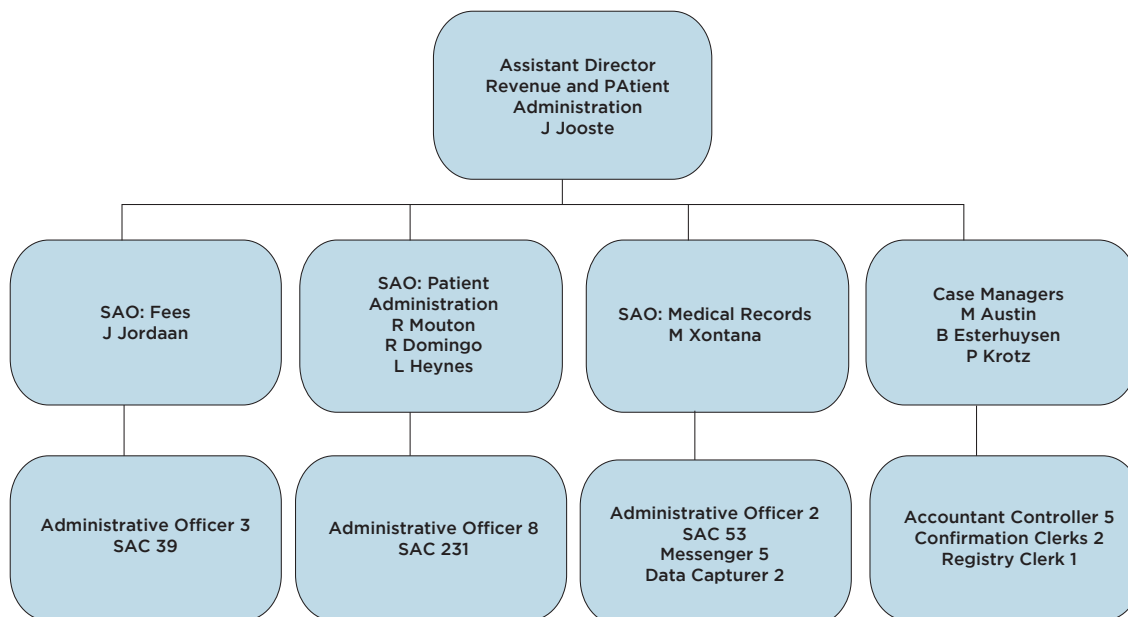
The Unit’s staff complement comprises of 11 members, who are the best assets of the Unit and who are young, dynamic and dedicated in providing a service to Tygerberg Hospital and beyond. After the previous incumbent accepted another position, a new Head of Department has been appointed as at 1 February 2015. Additionally, the temporary ECM Administrator is also currently situated within the IMU, who works closely with Medical Records in liaison with Head Office and Datacentrix.

Delegates from other provinces were received to share best practices with Tygerberg Hospital in respect of Cost Centre Management; NHLS internal control systems and Asset Management, as well as Functional Business Units.

## Staffing establishment of the information management unit



## Revenue and patient administration





## Hospital fees

### Summary of activities:

- Allocation of receipts on BAS and AR
- Clearing of Journals
- Follow-up of outstanding invoices
- Submission of invoices to 3rd Parties

## Resources

Posts (full-time)	Number
Senior Administrative clerks	39
Administrative Officers	3
Senior Administrative Officer	1
Case Manager	4
Confirmation Clerk	2
Account Controllers	5
Registry Clerk	1
Case Managers	4
Account Controllers	5
Confirmation Clerk	2

## Output

- Outstanding balance
- Government Department debt
- Follow-up of invoices outstanding 90 - 120 days (individually liable)
- Write off - bad debt
- EDI challenges and successes
- Allocation of receipts on BAS and AR
- Reconciliation BAS / AR
- Implementation of the electronic summary and breakdown of Nedbank statements
- Refunds
- Fees Complaints (Patient Advisory Services)
- Utilisation of Interns

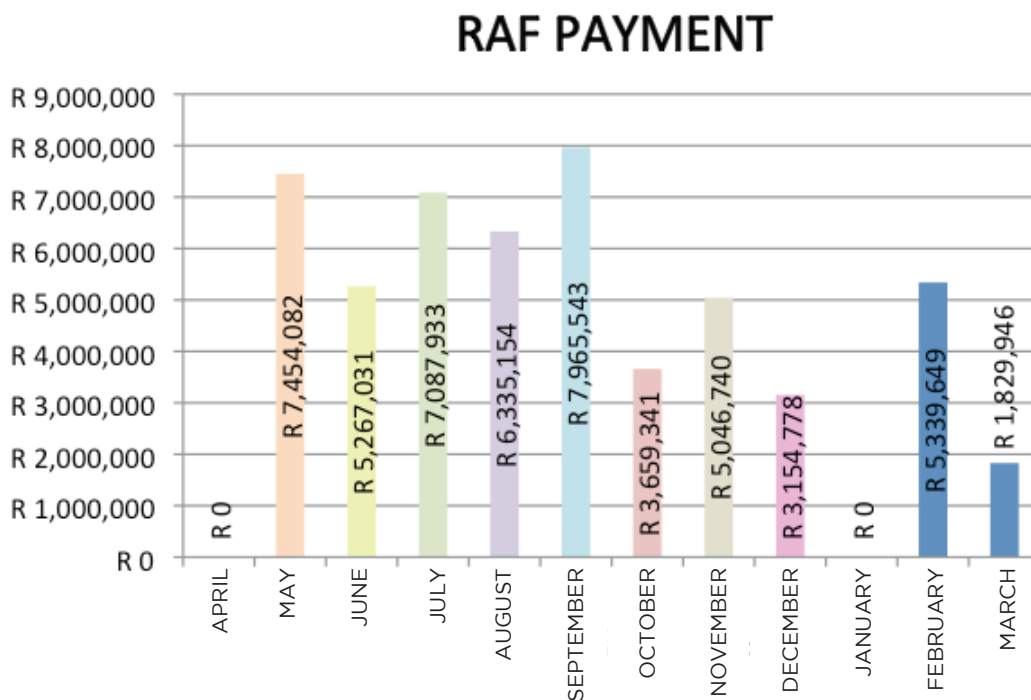
## Comment on output

### Outstanding balance for the financial year

	RAF	Government departments	Medical aid	IND liable	Total
APRIL 2014	R124 524 165	R2 373 590	R9 266 796	R46 319 459	R182 484 012
MARCH 2015	R130 956 979	R2 006 477	R6 988 116	R54 538 243	R194 489 816

Road Accident Fund remains the biggest contributor to the outstanding balance. An amount of **R131m** as at 31 March 2015 reflects as outstanding balance on our system. This represents **75%** of the total outstanding balance for debtors.

### RAF Payments for 1 April 2014 - 31 March 2015



A total of R42 311 261 has been received and allocated to the Road Accident Fund cases for the period April 2014 to March 2015. During March 2015, a total number of 1 790 invoices to the value of R18 763 614 was received from the company involved to be re-assessed from RAF to unsuccessful MVA cases.

## Government department debt: As at 31 March 2015

Department	Outstanding	Payment	Comments
<b>SAPS</b>	R1 156 821	R2 111 391	Invoices outstanding for a period exceeding one year decreased from 15 to 1 case. Continuously follow-up with Regional Office contributed to the success. This case was referred to their Legal Office in Pretoria for payment.
<b>DCS</b>	R625 950	R3 627 005	Payment is successful due to continued follow-up actions to the different Correctional Service Institutions.
<b>SANDF</b>	R223 704	R364 311	Long outstanding invoices were handed over to a Debt Collector for recovery. Invoices raised are monthly submitted for payment. The Subdirectorate Management Account Control is requested to follow up outstanding balances with the SANDF.

- Follow-up of invoices outstanding 90 – 120 days (individually liable)

A special task team followed up on the unsuccessful RAF claims (MVA) exceeding 90 days as well as the PNMA. A HIS report is requested 90 – 120 days and these are followed up monthly. A C.M.I. report is completed monthly and this ensures effective/intense follow-up of debit and credit balances. The result has a positive impact on the income.

The total for these cases followed up are as follow:

### Individually liable (PNMA) Accumulated Outstanding Cases and Balances

	Apr '14	May '14	Jun '14	Jul '14	Aug '14	Sep '14
Amount	R3 238 564	R4 232 399	R7 374 348	R3 516 116	R3 767 713	R4 093 128
Quantity	3 282	2 480	4 877	4 061	2 981	3 931

	Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15
Amount	R3 683 322	R3 790 623	R3 477 828	R5 083 650	R5 528 900	R6 923 707
Quantity	4 791	3 430	4 664	2 757	2 670	2 826

### Unsuccessful motor vehicle accident (MVA) Outstanding Cases and Balances

	Apr '14	May '14	Jun '14	Jul '14	Aug '14	Sep '14
Amount	R601 812	-R773 279	-R849 583	R184 204	R123 856	R32 044

	Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15
Amount	R35 945	R95 842	R84 836	R56 571	R171 500	R1 663 388

## Write-off of outstanding debt

Due to financial constraints experienced by debtors and as per financial delegations, financial relief is applied and debt can be written off. On the other hand, there are debtors that do not respond to final demands, telephonic calls and SMSs, and these bad debts are written off and handed over to the Department's debt collectors. Furthermore and as per agreement, RAF payments are settled at 90% and the 10% balance is waived. The following debt has been written off during 2014/2015 and reflects in the departmental loss control register:

Month	Amount
April	R4 186 081
May	R3 800 546
June	R4 337 488
July	R5 696 995
August	R3 788 513
September	R4 528 076
October	R3 275 488
November	R3 578 896
December	R2 630 413
January	R3 736 976
February	R3 478 759
March	R3 654 056
<b>Total</b>	<b>R39 367 801</b>

## Electronic Data Interface (EDI) Challenges

Outpatient invoices without ICD 10 coding remain the biggest challenge. Case Managers now follow up on these rejections on a daily basis to expedite payment from the Medical Schemes. Membership queries (EDI eligibilities) are followed up by this department and great successes achieved (Rejected cases were as follow).

## Rejected Cases

Supplier Name	Apr '14		May '14		Jun '14		Jul '14		Aug '14		Sep '14	
	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost
Tygerberg Hospital	41	R34 384	39	R156 124	47	R169 067	40	R55 185	37	R117 212	41	R178 638

Supplier Name	Oct '14		Nov '14		Dec '14		Jan '15		Feb '15		Mar '15	
	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost
Tygerberg Hospital	12	R35 902	19	R12 512	30	R59 305	33	R305 477	46	R199 252	28	R56 496

## Top 5 Medical Schemes

Due to the stringent measures of Medical Schemes, these outstanding balances are followed up by a group of personnel on a daily basis and reported to management on a monthly basis. The revenue received as well as the total amount submitted for the top 5 Medical Schemes are as follow:

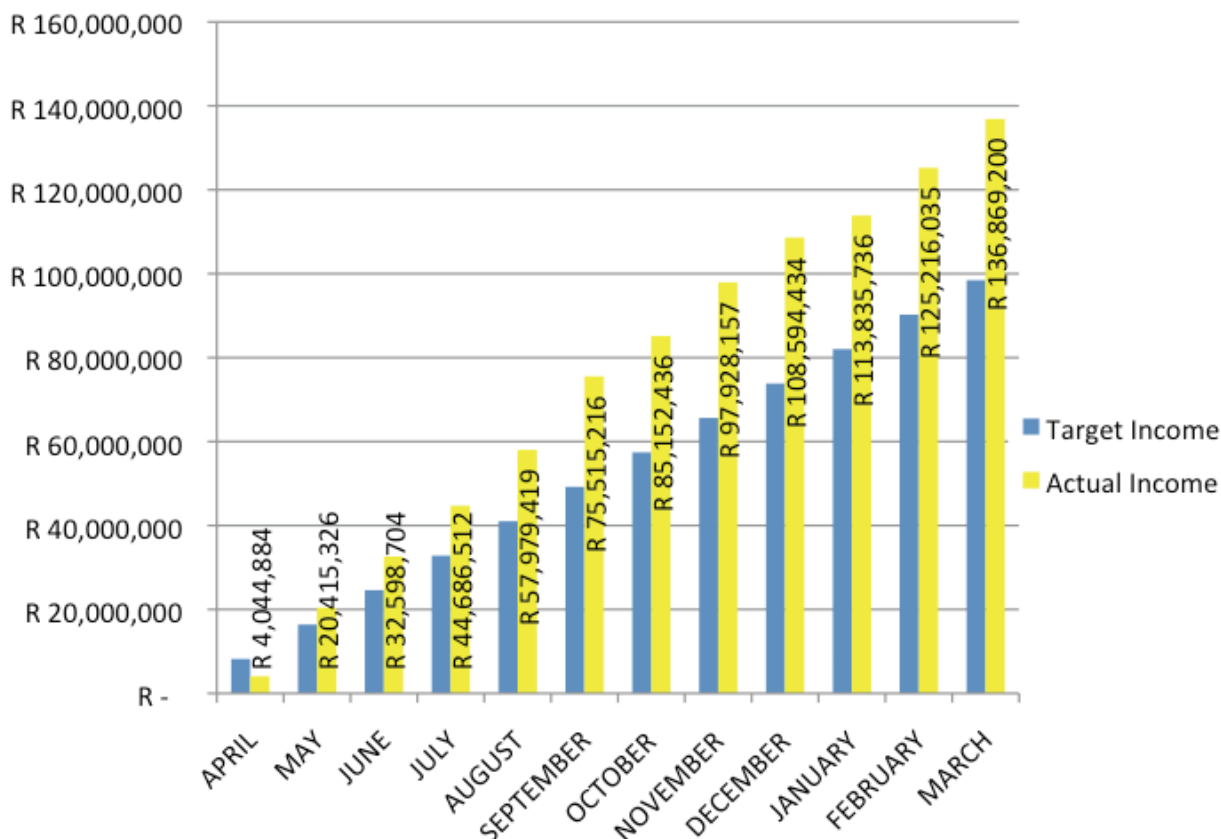
Total Cost (Submitted)	Inpatient	Outpatient	Total	Income
	Current Financial YTD Insured	Current Financial YTD Insured	Current Financial YTD Insured	YTD
35092 TRANSMED	R20 109 291	R3 687 457	<b>R23 796 748</b>	<b>R25 454 139,55</b>
82899 GOVERNMENT EMPLOYEES MEDICAL SCHEMES	R10 770 520	R3 917 201	<b>R14 687 721</b>	<b>R13 956 902,69</b>
66850 DISCOVERY HEALTH ADMINISTERED SCHEME	R4 285 262	R1 703 841	<b>R5 989 104</b>	<b>R4 339 326,64</b>
87327 SAMWUMED NATIONAL MEDICAL SCHEME	R1 923 580	R826 434	<b>R2 750 015</b>	<b>R3 150 409,28</b>
87823 MOTO HEALTH PLAN	R970 998	R641 136	<b>R1 612 135</b>	<b>R1 583 631,08</b>

The revenue received with regards to Medical Aid claims, increased from R45 719 070 for the previous financial year to R57 465 981 for 2014/2015.

- Allocation of receipts on BAS and AR

The following amounts were allocated on the Basic Accounting System for 2014/2015:

### Actual income vs. Target income 2014/2015



The average income per financial year is as follows:

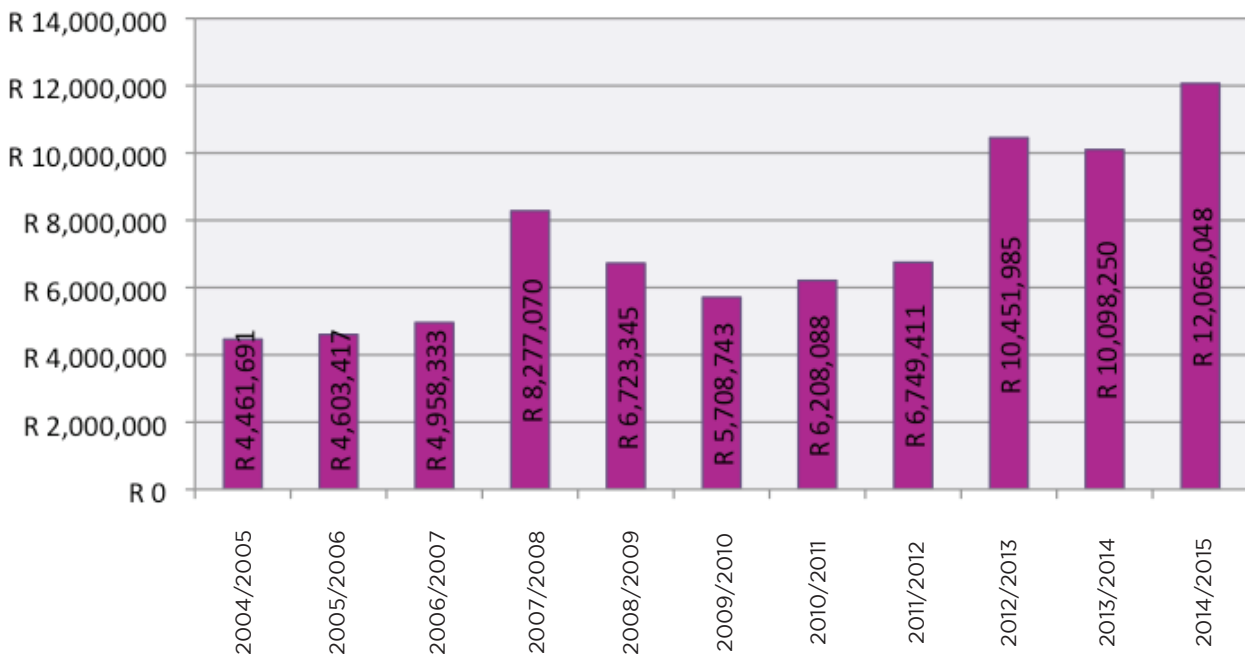
### The average income per month in comparison with the previous financial years

2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
R4 603 416	R4 958 333	R8 277 069	R6 723 345	R5 708 743	R6 208 088	R6 749 410	R10 451 985	R10 098 249	R12 066 048

### Reconciliation: Basic Accounting System (BAS)/Accounts Receivable (AR)

April and May 2014 was reconciled simultaneously as the BAS reports were not available during April. The standardisation of references has ensured that transactions were correctly reconciled. Problems with allocations experienced were discussed with all clerks involved. This also contributed to a reduction of errors. Difficulties experienced with monies received by other institutions for Tygerberg Hospital were also addressed. This was taken up with the Heads of other institutions and this ensured that the reconciliation process was expedited. The monthly reconciliation was successful and certificates were signed by the Director: Finance and submitted monthly. This is an Audit requirement and the Central hospitals are audited on the BAS/AR recon annually. Thus the bi-annual as well as the accumulative annual reconciliations were successful for the financial year.

## Average Income



### Implementation of electronic summary and breakdown of Nedbank statements

Payment transactions are broken down into several predetermined item codes. Payments of the same item codes are programmatically grouped together and summarised as one entry per item per day. This procedure will ensure that the reconciliation process is more efficiently done. Unidentified and unknown payments are allocated against the item code: Rev: Unallocated Credits. If sufficient and correct information is received, the payment is journalised back to the patient fees item code and allocated on the Accounts Receivable system.

### Refunds

Credit balances on the system are closely monitored and refunds effected where overpayment is identified. A register ensures that refunds are reported on.

### Totals refunded from April 2014 - March 2015 are as follow

Month	Number of invoices	Amount
April	6	R4 593
May	0	0
June	8	R16 225
July	12	R75 027
August	21	R43 478
September	18	R41 854
October	9	R5 252
November	6	R18 967
December	3	R9 000
January	3	R1 102
February	12	R27 691
March	21	R26 350



## Fees Complaints (Patient Advisory Services)

Debtor complaints received from PALS Office have to be finalised within 25 days. Many of these complaints are due to dissatisfaction with clinical services. A register monitors these complaints and it ensures that it receives the necessary urgent attention.

This Department endeavours to finalise patient's complaints within one week. An increase is experienced in cases where procedures are postponed due to unforeseen circumstances (Vis Major).

### Complaints received and finalised for the period April 2014 - March 2015

Month	Number of complaints
April	4
May	3
June	2
July	2
August	4
Sept	2
Oct	2
Nov	0
Dec	0
Jan	9
Feb	3
Mar	3
<b>Total</b>	<b>34</b>

## Utilisation of Interns

A total of two Interns were trained and assisted with the following tasks:

Undelivered post - contact debtors for correct addresses, ID numbers and cell numbers and adjust the system accordingly. The hospitals are monitored on their ID performances. TBH has increased the debtor ID success rate of an average of 65% for 2013 to 72% at 30 March 2014. The target set for the hospital is 80%.

## PATIENT RECEPTION SERVICES

### Summary of activities

Patient Reception Services are responsible for the administrative processes pertaining to the appointment, registration, admission and discharge of in- and outpatients on the Health Information System as per financial prescripts, as well as the collection and safekeeping of patient fees and creating of invoices.

### Resources

Posts (Full-time)	Number
Senior Administrative Officer	3
Administrative Officer	8
Senior Administrative Clerk	231

### Outputs

- Admissions and discharges of all outpatients and inpatients
- Ensure ICD10 codes are captured on the Clinicom system of all patients
- Capturing of ID number on the Clinicom system
- Raising of accounts and collection of patient fees

#### Comment on output:

- Capturing of ICD10 codes on Clinicom. The outputs were successfully achieved for the financial year and the progress can be seen on the attached statistical tables:

### ICD 10 coding % for 2014/15

Month	OPD	IPD
April	94,18	90,62
May	96,18	95,18
June	96,18	94,58
July	96,12	97,02
August	95,73	97,73
September	96,50	93,91
October	96,59	95,24
November	97,03	96,34
December	93,66	94,87
January	96,35	95,87
February	97,82	98,11
March	98,87	95,86

**Comments:**

For the annual period, averages of well over 90% were maintained.

**Visit stats April 2014 - March 2015**

	Outpatients		Inpatients
Grand Total	337 158	Grand Total	87 126
Daily average	923	Daily average	238

**Comments**

During the financial year, the Section was incapacitated by personnel shortages due to natural attrition.

Although these positions were mostly filled towards the latter half of the year, the Section mostly had to function despite these demanding conditions.

**Admissions and Receptions cashier Stats**

Month 12	Collections at receptions
April	R363 340
May	R197 829
June	R190 424
July	R243 858
August	R213 653
Sep	R191 826
Oct	R224 549
Nov	R217 645
Dec	R143 818
Jan	R196 047
Feb	R222 059
March	R245 383

**Comments:**

During the financial year, comparisons were drawn between the revenue collection and the visit stats of the various receptions.

These comparative stats were presented during sessions with the staff.

During the sessions, the top three best achievers were congratulated - consequently the achievement was rewarded with small tokens of appreciation.

## Top three achievers for July 2014

Reception	Money taken	Value of visits	% Of revenue generated
TE3 Gynaecology Paediatrics	R30 123	R184 949	16,20%
TH7 Ophthalmology	R24 088	R91 942	13,02%
TE8 Cardiology & Dermatology	R22 163	R219 973	11,90%

## ID Successes

Apr '14	May '14	Jun '14	Jul '14	Aug '14	Sep '14
73	71	72	71	71	72
Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15
73	72	72	69	69	72

### Comments:

ID stats were vigilantly reported and monitored during the annual period.

An average success rate of 72% was maintained during this year – the target for the stats is 80%.

### The challenges for meeting the target are as follow:

- Patients, and especially emergency patients, may arrive without their ID documents
- Patients may not know the debtor's ID e.g. wife, other dependants
- Minors may be accompanied by relatives – debtor ID unknown
- Older kids (e.g. 18 – 21) may not be accompanied by a parent – debtor ID unknown
- Unwillingness to present all information as the hospital cannot refuse services
- Certain debtors do not have proof and cannot remember their ID numbers
- Foreign patients count as visit stats, but do not have ID's

### Actions taken:

- Reports are drawn to check for ID numbers that appears on Clinicom, but not on AR
- The reports are investigated and returned to fees for capturing of the data on AR

## Comments:

In spite of personnel shortages, the supervisors made a concerted effort to ensure that staff went for training sessions to ensure subsequent skills development.

## Special achievements and other highlights not covered by this template

### Highlights:

- The appointment of seven Senior Administrative Clerks
- The appointment of two new Senior Administrative Officers

### Low points:

- The high number of vacancies due to natural attrition

## MEDICAL RECORDS

### Summary of activities

- Scanning of episode folders
- Batching incoming folders
- Merging of folders

### Resources

Posts (Full time)	Number	Filled
SAC	53	51
Messengers	5	5
Data Capturer	2	2
AO	2	2
Posts (sessional - how many hours worked per week)		

### Output

#### Episode Folders Received: Monthly statistics

Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
17 044	32 122	25 229	28 384	29 943	27 493	26 538	25 588	30 543

## Episode Folders Received and Scanned: Monthly statistics

Months	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Folders received	17 044	32 122	25 229	28 384	29 943	27 493	26 538	25 588	30 543
Folders scanned	20 845	31 297	20 920	34 708	26 165	40 705	42 771	29 944	34 942

### Challenges

Regular equipment breakdown was experienced due to the large volumes of documents processed by the scanners. As a result, seven additional high volume scanners were purchased and installed in the Scanning System.

### Highlights:

- As from 1 August 2014, a new ECM server was installed and immediately eradicated constant ECM system-related challenges.
- Due to the above, Records could ensure that information is scanned within three days. The three days starts when Records receive the folders from the service areas.
- Due to the many challenges with prescription charts a register was introduced which effectively monitors prescriptions from Pharmacy to Medical Records.
- Quick scanning of folders – These are folders that are scanned the same day or the next. Reasons for quick scanning are emergency admissions, theatre cases and clinical auditing of accounts. Notwithstanding impediments, Medical Records maintained the quick scanning norm.

### Merging of folders

When a patient has more than one folder number, the folders are merged.

Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
75	0	48	0	0	14	62	0	35

### Challenges

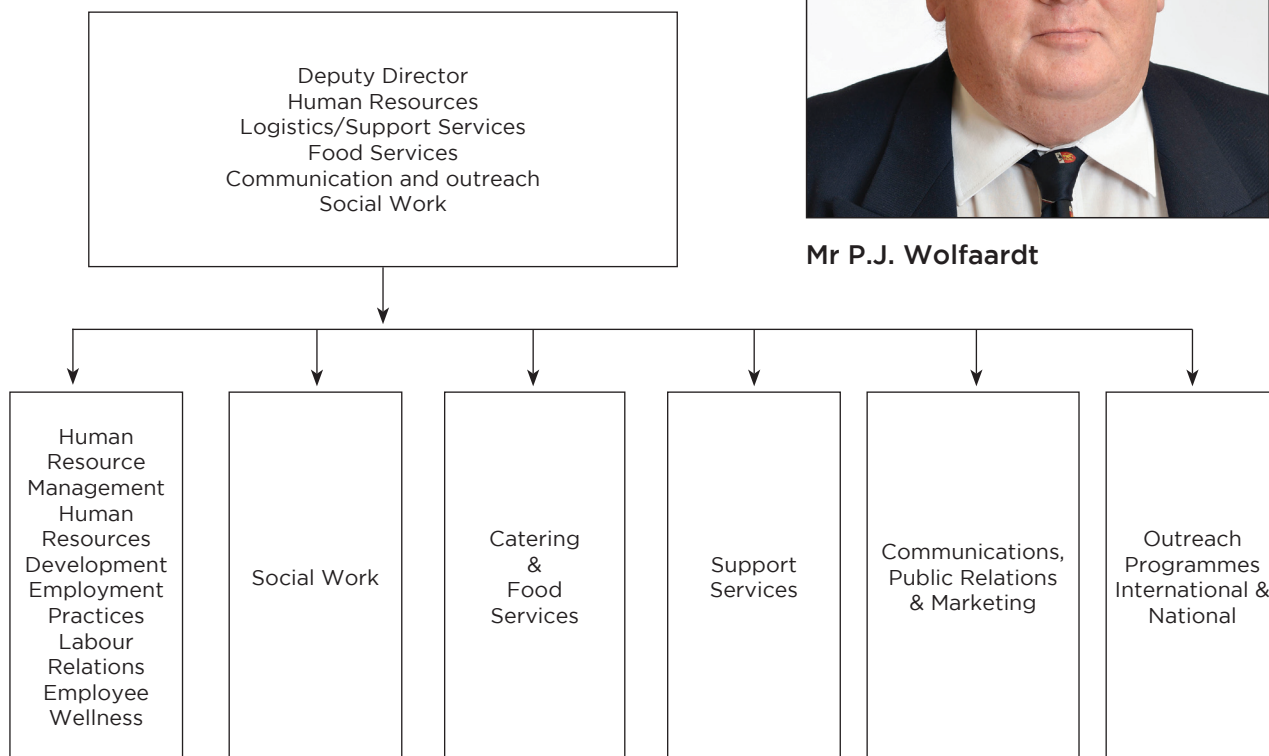
Due to system challenges, the hospital was prevented to merge patient folders from September 2014 – March 2015.

## ADMINISTRATION

**Deputy Director:  
Mr P.J. Wolfaardt**



**Mr P.J. Wolfaardt**



## HUMAN RESOURCE MANAGEMENT

**Assistant Director: Mr E.C. Steyn**

The establishment of Human Resource Management was suitably filled during this period.

Rank	Filled	Vacant	Total
Assistant Director	1	0	1
Senior Admin Officer	5	0	5
Admin. Officer	5	1	6
Senior Admin Clerk	26	1	27
<b>TOTAL</b>	<b>37</b>	<b>2</b>	<b>39</b>

The global personnel statistics turnover of Tygerberg Hospital is listed below:

### Tygerberg Hospital

Nature	Administration	Professionals	Technical	Nursing	General
Resignations	33	47	24	169	78
Dismissals	2	0	0	3	0
Ill Health	2	0	0	6	6
Retirement 65	1	4	1	2	8
Early Retirement	11	0	2	29	20
Deceased	0	0	2	4	0
Transfers out	16	19	0	33	16
Contract expiry	5	188	27	100	5
<b>TOTALS</b>	<b>70</b>	<b>253</b>	<b>56</b>	<b>346</b>	<b>133</b>
Transfers in /					
Appointments	20	172	33	181	104
Difference	-50	-81	-23	-165	-29

The post position of Tygerberg Hospital is as follows:

Institution	Filled	Vacant	Session
Tygerberg Hospital	4 508	240	90

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

A statistical overview of the 2013 - 2015 cycle for period 1 January 2013 until 31 December 2014 for Tygerberg Hospital is as follows:



## Statistical analysis

### Number of Incapacity Leave and Ill-Health Retirement applications

	2007 - 2009 Sick Leave Cycle	2010 - 2012 Sick Leave Cycle	2013 - 2015 Sick Leave Cycle
Short Incapacity	0	0	369
Long Incapacity	0	0	42
Ill-Health Retirement (continue submitting to Head Office)	0	0	14
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>425</b>

	2007 - 2009 Sick Leave Cycle		2010 - 2012 Sick Leave Cycle		2013 - 2015 Sick Leave Cycle	
	Approved	Declined	Approved	Declined	Approved	Declined
Short Incapacity	0	0	0	0	181	168
Long Incapacity	0	0	0	0	36	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>226</b>	<b>168</b>

### Advice from the Health Risk Manager accepted and enforced

#### Deviations from the Health Risk Manager and grievances received from employees for the month

	DEVIATIONS			GRIEVANCES		
	07-09	10-12	13-15	07-09	10-12	13-15
Short Incapacity	0	0	0	0	0	7
Long Incapacity	0	0	0	0	0	0
Ill Health Retirement	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>

## HRM: EMPLOYMENT PRACTICES

Assistant Director: Mr C.A. Lindsay

### Approved Staff Complement

Rank	No of Posts	Filled	Vacant/ Not Funded	Comments
Assistant Director	1	1	0	<b>POSTS IN PRINCIPLE</b> (Not Funded) 1 x Admin Officer (Establishment) 2 x Admin Clerk (R&S Office) <b>POST FUNDED &amp; VACANT</b> 1 x Admin Clerk (R&S Office)
Senior Administrative Officer	3	3	0	
Administrative Officer	3	2	1	
Administrative Clerk	8	5	3	
<b>TOTAL</b>	<b>15</b>	<b>11</b>	<b>4</b>	

### Recruitment and Selection

Statistics for the period 1 January 2014 – 31 December 2014:	
Total posts advertised	111 (excluding block adverts for Nursing, Medical & Allied Health)
Total interview meeting	201

Total appointments made:	
486 (excluding Sessional Appointments)	
01 PERMANENT APPOINTMENTS	1
02 PERMANENT APPOINTMENTS ON PROBATION	324
05 CONTRACT APPOINTMENTS	158
06 PART TIME 5/8	3

## Establishment Control

The Approved Post List (APL) as at 31 December 2014 was as follows:

SubGroup	Cost per post (R'000)	2014/2015 Approved number of Posts	SubGroup	Cost per post (R'000)	2014/2015 Approved number of Posts
Management SL 09-10	383	17	Clinical Psych Comm Serv	469	0
Management SL 11-12	673	6	Clinical Psych Intern	442	3
Management SMS	1 086	2	Clinical Psychologist G1-3	690	5
Medical Clinical Head	1 776	27	Dieticians G1-3	370	15
Medical Clinical Manager	1 296	0	Envir Health Off SL 06-10	324	0
Medical Interns	515	84	Health Promoter SL 03-7	207	0
Medical Non-Clin Man	1 118	6	Occ & Ther Man/ Co-ordinator	440	6
Medical Officer Comm Serv	632	0	Occ Therapy Assistants	229	5
Medical Officer Grade 1-3	921	97	Occupational Therapy G1-3	318	10
Medical Specialist Gr 1 - 3	1 291	92	Optometrist G1-3	320	1
Med Sub-Specialist Gr 1 - 3	1 473	43	Oral Hygienist G1-3	372	0
Pharmacology SL 11-12	1 340	1	Pharmacy Assistants	215	17
Registrar	876	235	Pharmacy Comm Serv	350	2
Registrar Snr	1 134	15	Pharmacy G1-3	577	22.50
Nurses: Prof Gen	293	403	Pharmacy Intern	265	4
Nurses: Prof Gen Comm Serv	206	30	Physiotherapists Assistants	214	0
Nurses: Prof Spec	435	389	Physiotherapists G1-3	319	13
Nurses: Staff	199	427	Physiotherapists Manager	450	6
Nursing Assistants	166	822	Radiographers G1-3	364	91
Allied Health Comm Serv	228	10	Radiographers Manager	451	21

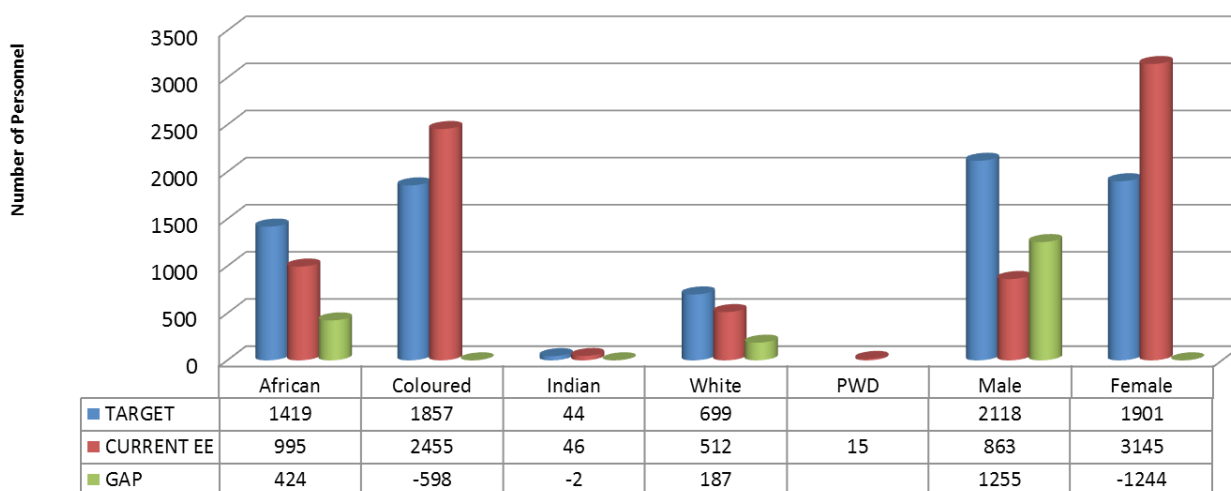
SubGroup	Cost per post (R'000)	2014/2015 Approved number of Posts	SubGroup	Cost per post (R'000)	2014/2015 Approved number of Posts
Social workers Assistant	188	0	Handymen SL 03-6	162	20
Social workers G1-4	340	19	Indust/ Eng Tech Production	352	18
Social workers Manager	509	4	ASOs SL 01-7	203	9
Speech Therapy G1-3	342	9	Domestic SL 01-6	133	496
Speech Therapy Manager	456	5	Domestic SL 07-8	260	1
Clinical Tech Student	120	4	Domestic SL 09-10	351	1
Clinical Technologist G1-3	340	23	Drivers SL 02-6	151	12
Clinical Technologist Man	483	13	FoodService SL 01-6	135	115
Med Tech/Tech Officer G1-3	403	9	FoodService SL 07-8	265	7
Medical Physicist G1-3	710	5	FoodService SL 09	371	1
Medical Tech Manager	496	1	General workers SL 01-6	140	48
Orth & Pros SL06-8	229	0	Grounds SL 01-3	127	5
Orth & Pros SL09-10	459	0	Librarian SL 02-8	266	0
Specialist Scientist G1-3	626	11	Messengers SL 01-4	130	22
Admin SL 01-6	202	504	Operators SL 02-7	171	87
Admin SL 07-8	296	68	Porters SL 01-4	130	135
Registry SL 02-6	202	0	Porters SL 05	180	0
Registry SL 07	223	3	Security SL 03-6	160	27
Secretaries SL 01-7	179	3	Security SL 07-8	265	1
StoresAdmin SL 02-6	175	0	Telephone Exchange SL 02-6	182	17
StoresAdmin SL 07	241	0	Telephone Exchange SL 07	293	1
System Controller SL 08-10	319	0	Tradesmen SL 01-3	121	29
Artisans SL 05-10	266	23	Typists SL 03-6	207	41
Eng Technician Management	660	3			

TBH EMPLOYMENT EQUITY STATS - DECEMBER 2014

Status	Occupational Categories	Occupational Categories: Gap Analysis																								Total	Disabled											
		Designated												Non-designated																								
		Male						Female						White					Male					Foreign Nationals														
		African	Coloured	Indian	African	Coloured	Indian	African	Coloured	Indian	White	White	White	White	White	White	White	Male	Female	Male	Female	Male	Female															
No.	%	Target	Cap	No.	%	Target	Cap	No.	%	Target	Cap	No.	%	Target	Cap	No.	%	Target	Cap	No.	%	Target	Cap	No.	%	Target	Cap	No.	%	Target	Cap							
Permanent	SENIOR OFFICIALS AND MANAGERS	19.1	0	0	239	0	0	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	MANAGER (MEDICAL SERVICES)	19.1	6	5	6	239	7	1	162	0	-1	22.3	7	7	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	PROFESSIONALS	3	19.1	17	14	4	239	22	18	4	0.6	1	3	5	16.2	15	10	14	22.3	20	6	0.5	0	0	0	0	0	0	0	0	0	0	0	0				
	PROFESSIONALS	19.1	1	1	239	1	1	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	PROFESSIONALS	19.1	25	24	6	239	32	26	5	0.6	1	4	2	16.2	21	19	6	22.3	23	8	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	PROFESSIONALS	16	19.1	138	122	39	172	133	0.6	4	4	90	162	117	27	533	22.3	161	-372	1	0.5	4	3	42	8.3	60	18	66	66	66	66	66	66	66				
	PROFESSIONALS	3	19.1	43	40	15	239	54	39	2	0.6	1	8	16.2	36	28	87	22.3	50	-37	6	0.5	1	5	85	8.3	19	466	19	9.1	20	1	225	1				
	PROFESSIONALS	19.1	4	4	1	239	5	4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	PROFESSIONALS	19.1	5	5	1	239	6	5	0.6	0	0	2	16.2	4	2	6	22.3	6	0	5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	PROFESSIONALS	4	19.1	6	2	17	239	7	-10	0.6	0	0	16.2	5	5	22.3	7	7	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	PROFESSIONALS	19.1	3	3	6	239	4	-2	0.6	0	0	2	16.2	3	1	6	22.3	4	-2	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	PROFESSIONALS	1	19.1	6	5	8	239	7	-1	1	0.6	0	0	16.2	5	5	8	22.3	6	-2	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	PROFESSIONALS	19.1	4	4	5	239	5	0	0.6	0	0	5	16.2	3	-2	8	22.3	5	-3	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	PROFESSIONALS	19.1	0	0	0	239	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TECH & ASS PROFES	19.1	3	3	7	239	4	-3	0.6	0	0	16.2	3	3	9	22.3	4	-5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TECH & ASS PROFES	19.1	0	0	0	239	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TECH & ASS PROFES	8	19.1	17	9	25	239	21	-4	0.6	1	1	12	16.2	14	2	41	22.3	19	-22	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TECH & ASS PROFES	19.1	3	3	7	239	4	-3	0.6	0	0	6	16.2	3	-3	3	22.3	4	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLERKS	4	19.1	21	17	35	239	26	-9	0.6	1	1	18	16.2	18	0	37	22.3	24	-13	0.5	1	1	10	8.3	9	-1	5	9.1	10	5	109	17	17	17	17		
	CLERKS	3	19.1	7	4	9	239	9	0	0.6	0	0	9	16.2	6	-3	15	22.3	8	-7	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CLERKS	7	19.1	10	3	24	239	13	-1	0.6	0	0	6	16.2	9	3	13	22.3	12	-1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CLERKS	19.1	1	1	1	239	1	1	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CLERKS	1	19.1	8	7	239	10	10	0.6	0	0	0	16.2	7	7	12	22.3	9	-3	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLERKS	15	19.1	54	39	59	239	67	8	0.6	2	2	53	16.2	46	-7	116	22.3	63	-53	1	0.5	1	0	36	8.3	23	-13	2	9.1	26	24	292	1	1	1		
	CLERKS	19.1	3	2	2	239	4	4	0.6	0	0	2	16.2	3	1	7	22.3	4	-3	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SERV SHOP & MARK SALES WORKERS	19.1	0	0	0	239	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SERV SHOP & MARK SALES WORKERS	19.1	0	0	0	239	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SERV SHOP & MARK SALES WORKERS	19.1	0	0	0	239	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SERV SHOP & MARK SALES WORKERS	19.1	0	0	0	239	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SERV SHOP & MARK SALES WORKERS	16	19.1	219	203	19	239	274	255	0.6	7	7	403	162	186	-217	689	22.3	256	-433	2	0.5	6	4	16	8.3	95	79	2	9.1	104	102	1147	1	1	1		
	SERV SHOP & MARK SALES WORKERS	4	19.1	12	8	5	239	15	10	0.6	0	0	23	16.2	10	-13	31	22.3	14	-17	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SERV SHOP & MARK SALES WORKERS	1	19.1	1	0	2	239	1	-1	1	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SERV SHOP & MARK SALES WORKERS	7	19.1	5	-2	13	239	7	-6	0.6	0	0	1	16.2	5	4	2	22.3	6	4	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SERV SHOP & MARK SALES WORKERS	6	19.1	7	1	4	239	9	5	0.6	0	0	6	16.2	6	0	20	22.3	8	-12	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	PLANT & MACHINE OPERATORS	4	19.1	2	-2	7	239	3	-4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LABOURERS & RELATED WORKERS	72	19.1	136	64	178	239	170	-8	0.6	4	4	163	162	115	-48	280	22.3	158	-122	0.5	4	4	3	8.3	59	56	14	9.1	65	51	65	710	5	5			
Permanent Total	178	19.1	768	590	502	239	961	459	15	0.6	24	9	817	162	681	-166	1953	22.3	896	-1057	31	0.5	20	-11	344	8.3	334	-10	188	9.1	366	198	5	6	4019	15		

SENIOR OFFICIALS AND MANAGERS	SMIS#	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0									
MANAGER (MEDICAL SERVICES)	Managers	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0									
PROFESSIONALS	Medical & Dental	19.1	17	16	3	23.9	21	7	0.6	1	3	162	14	11	18	22.3	19	1	9	0.5	0	-9	21	8.3	7	-14	13	9.1	8	-5	4	8	87	
PROFESSIONALS	Registrar: Medical & Dental	8	19.1	46	38	15	23.9	58	43	1	-15	10	162	39	29	19	22.3	54	35	5	0.5	1	-4	80	8.3	20	-60	82	9.1	22	-60	5	2	242
PROFESSIONALS	Specialist: Medical & Dental	19.1	1	1	23.9	1	1	0.6	0	0	162	1	1	22.3	1	1	1	0.5	0	0	1	8.3	0	-1	3	9.1	0	3	9.1	0	3	4		
PROFESSIONALS	Nursing	2	19.1	7	5	2	23.9	9	7	0.6	0	19	162	6	-13	14	22.3	8	-6	0.5	0	0	8.3	3	3	9.1	3	9.1	3	3	37			
PROFESSIONALS	Allied Health Occupations	3	19.1	6	3	3	23.9	7	4	1	0.6	0	-1	2	162	5	3	6	22.3	6	0	-1	12	8.3	2	-10	1	9.1	3	2	29			
PROFESSIONALS	Social Work Professionals	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	1	8.3	0	-1	9.1	0	0	9.1	0	0	1	1			
PROFESSIONALS	Pharmacy	2	19.1	1	-1	23.9	1	1	0.6	-1	1	162	1	0	1	22.3	1	0	0.5	0	0	8.3	0	0	9.1	1	1	9.1	1	1	6			
PROFESSIONALS	Technical Health Occupations	19.1	1	1	23.9	1	1	0.6	0	0	162	0	0	22.3	1	1	0.5	0	0	8.3	0	0	2	9.1	0	-2	1	9.1	0	3				
PROFESSIONALS	Admin	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0			
PROFESSIONALS	Finance	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0			
PROFESSIONALS	HR	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0		
PROFESSIONALS	Comm & Language	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
TECH & ASS PROFES	Mid Level Worker (Allied Health)	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
TECH & ASS PROFES	Mortuary	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
TECH & ASS PROFES	Operator	19.1	0	0	23.9	0	-1	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
TECH & ASS PROFES	Pharmacy Assistants	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
CLERKS	Finance	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	2	22.3	0	-2	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	2	0	
CLERKS	HR	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
CLERKS	Registry	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
CLERKS	Secretary & Personal Assistant	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
CLERKS	Typing	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
CLERKS	Admin Support	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
CLERKS	Operator	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	
SERV SHOP & MARK SALES WORKERS	EMS Communications	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	EMS Operations: Production	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	EMS Operations: Supervisors	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	EMS Operations: Managers	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	EMS Training	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	Nursing	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	House Supvis	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	Laun & Lin Man & Sup	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	Security Off	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
SERV SHOP & MARK SALES WORKERS	Food Man & Sup	19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
PLANT & MACHINE OPERATORS		19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0
LABOURERS & RELATED WORKERS		19.1	0	0	23.9	0	0	0.6	0	0	162	0	0	22.3	0	0	0.5	0	0	8.3	0	0	9.1	0	0	9.1	0	0	0	0	0	0	0	0

**Table 1: Permanent Personnel: Race / Gender / Disability**



**Table 1: PERMANENT PERSONNEL: Race / Gender / Disability**

CATEGORIES		TARGET	CURRENT EE	GAP
Race	African	1419	995	424
	Coloured	1857	2455	-598
	Indian	44	46	-2
	White	699	512	187
Disability	PWD		15	
Gender	Male	2118	863	1255
	Female	1901	3145	-1244

**Table 1: Permanent Personnel: Race and Gender**

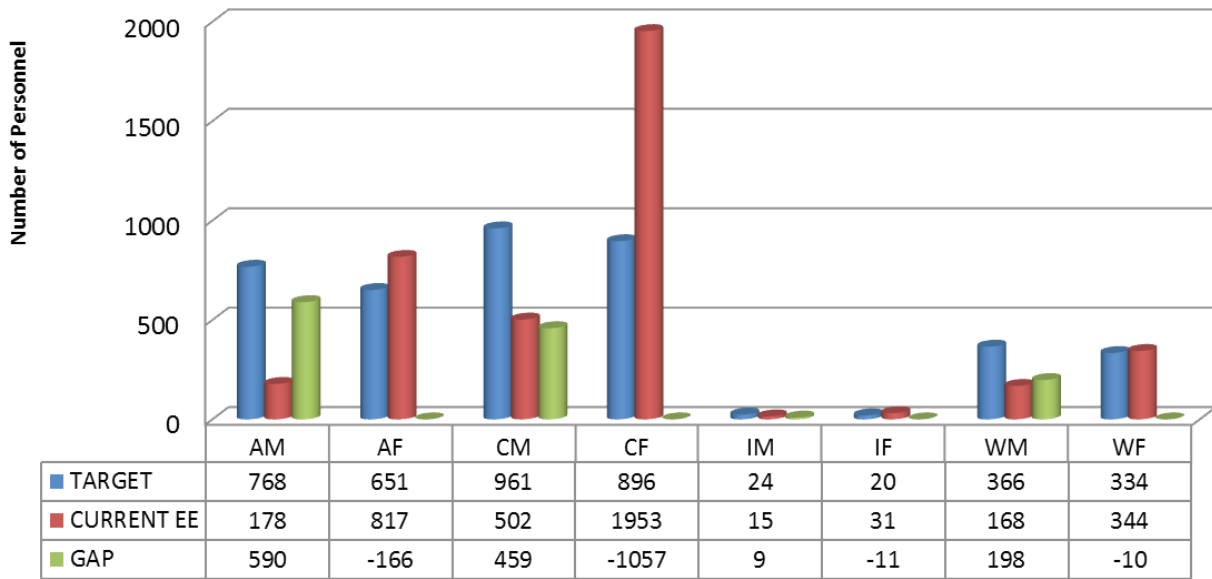


Table 1: PERMANENT PERSONNEL: Race and Gender				
	CATEGORIES	TARGET	CURRENT EE	GAP
R a c e d e n t a r i a n	African Male	768	178	590
	African Female	651	817	-166
	Coloured Male	961	502	459
	Coloured Female	896	1953	-1057
	Indian Male	24	15	9
	Indian Female	20	31	-11
	White Male	366	168	198
	White Female	334	344	-10



## Staff Performance Management System

The results for the 2013/2014 reporting cycle on 1 April 2014 were as follows:

### 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	2	74	382	19,37
Levels 3-5	5	332	1 766	18,80
Levels 6-8	3	237	1 134	20,90
Levels 9-10	2	118	611	19,31
Levels 11-12	0	69	635	10,87
<b>TOTAL</b>	<b>12</b>	<b>830</b>	<b>4 528</b>	<b>18,33</b>

### 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	0	56	579	9,67
Nursing	2	373	1 992	18,72
OSD and Related	5	72	327	22,02
Administration	3	125	610	20,49
Support Services	2	204	990	20,61
<b>TOTAL</b>	<b>12</b>	<b>830</b>	<b>4 528</b>	<b>18,33</b>

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	5	112	536	20,90
Coloured Female	5	462	2 141	21,58
White Male	0	45	275	16,36
White Female	1	91	480	18,96
African Male	1	26	189	13,76
African Female	0	86	816	10,54
Asian Male	0	3	44	6,82
Asian Female	0	5	47	10,64
Persons with Disabilities	0	0	0	0,00
<b>TOTAL</b>	<b>12</b>	<b>848</b>	<b>4 382</b>	<b>18,33</b>

## LABOUR RELATIONS

Assistant Director: Mr R. Japhta

### Informal Disciplinary Action

Disciplinary Action	Male				Female				Total
	A	C	I	W	A	C	I	W	
Correctional Counselling	8	8	0	0	10	11	0	0	37
Verbal Warning	7	14	0	2	4	15	0	0	42
Written Warning	8	13	0	0	5	21	0	1	49
Final Written Warning	5	10	0	0	4	11	0	2	32
<b>TOTAL</b>	<b>28</b>	<b>45</b>	<b>0</b>	<b>2</b>	<b>23</b>	<b>58</b>	<b>0</b>	<b>3</b>	<b>158</b>

### Formal Disciplinary Hearings Finalised

Outcomes of Disciplinary Hearings	Number
Final Written Warning	1
Suspension without salary	5
Dismissals	3
Not guilty	3
Cases dismissed	7
<b>Hearings Pending</b>	<b>7</b>
<b>TOTAL</b>	<b>26</b>
Dismissal appeal applications pending	0

## Types of misconduct addressed at a disciplinary hearing

Type of misconduct	Number	Department
Absenteeism	12	Household Aid/Food Services/Porter/Nursing/ Human Resources
Assault	2	Nursing/Security
Unauthorised removal of state property	2	Supply chain
Dishonesty	2	Household Aid/Finance
Unprofessional Conduct	1	Radiographer
<b>Total</b>	<b>19</b>	

## Grievances Lodged

Type of Grievance	Number
<b>SPMS grievances received</b>	<b>9</b>
SPMS grievances resolved	7
SPMS grievances pending at Head Office/PSC	2
<b>Pilir grievances received</b>	<b>12</b>
Pilir grievances resolved	12
Pilir grievances pending at Institution	0
<b>Other grievances received (not related to SPMS PILIR or OSD)</b>	<b>34</b>
Other grievances resolved (not related to SPMS PILIR or OSD)	29
Other grievances finalised	0
Other grievances pending at institution	4
Other grievances pending at Head Office	1
<b>Total received</b>	<b>55</b>
<b>Total resolved</b>	<b>48</b>
<b>Total pending at Head Office/PSC</b>	<b>3</b>
<b>Total/ Pending / Institution</b>	<b>4</b>
Collective grievances received	4
Collective grievances finalised	4

## Pending Grievances

Level	Number
Pending at Institution	5
Pending at Head Office	1
Pending at Public Service Commission	2
<b>TOTAL</b>	<b>8</b>

## Disputes

Level	Number
<b>Disputes declared</b>	<b>6</b>
Disputes dismissed	3
Disputes withdrawn	0
Disputes deadlocked	0
Agreements reached ( reinstated)	1
Disputes finalised	0
Disputes pending	2

## Training

Number of employees trained	370
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## Precautionary suspensions

Number of employees suspended	3
Number of people whose suspension exceeded 60 days	3
Number of employees still on suspension by 31 December 2014	1

## Various comparisons are as follows:

Informal Discipline	2013	2014
Corrective counselling	27	37
Verbal warnings	49	42
Written warnings	66	49
Final written warnings	31	30

## Formal Discipline

Formal Discipline		
	2013	2014
Final written warnings	3	1
Suspension without remuneration	6	5
Demotion	0	0
Dismissals	11	3
Not guilty	1	3
Cases withdrawn	0	0
Cases dismissed	1	7

Grievances		
	2013	2014
SPMS	17	9
Other grievances	35	34
PILIR	5	12

Disputes		
	2013	2014
Disputes declared	3	6
Disputes dismissed	3	3
Disputes withdrawn	1	0
Disputes deadlocked	0	0
Agreements reached	0	1
Disputes finalised	1	0
Disputes pending	0	2

Precautionary Suspensions		
	2013	2014
Employees suspended	1	3

## Achievements

### Positives

This Office has provided a full employee relations service to the Institution on development, legislation, communication, consultation, interventions, conflict resolution, research and statistics so that relationships between management and employees are maintained at the highest possible level, as well as building constructive relationships between all stakeholders.

On a mission to train staff members on Labour Relations Aspects, this Office has managed to train all employees in the Support Services Department.

## HUMAN RESOURCES DEVELOPMENT

Assistant Director: Ms J. Johnson

### Learnerships

#### Diagnostic Radiography

Six (6) learners: second-year students

Three (3) learners: third-year students

The three (3) students will graduate in 2015, and will start their community services at Health Institutions.

**Funding:** Health and Welfare Seta (HWSETA)

### Pharmacy

#### Basic Pharmacist Assistants

Funding for three (3) 18.1 (employed) and thirteen (13) 18.2 (unemployed) learnerships were received. Training commenced on 1 May 2014 until June 2015. All 16 learners have been registered with the SAPC. Health Science Academy (HSA) is the training provider that is furnishing training.

**Funding:** Health and Welfare Seta (HWSETA)

#### Expression of Interest 2014/15

Funding has been approved by Health and Welfare Seta (HWSETA) for:	
Basic Pharmacist Assistants	Ten (10) 18.2 (unemployed) learners
Post Basic Pharmacist Assistants	Five (5) 18.1 (employed) staff
	Ten (10) 18.2 (unemployed) learners
Nursing Enrolled	Seventeen (17) 18.1 (employed) staff
Nursing Bridging	Five (5) 18.1 (employed) staff
Nursing Clinical Specialisation	Eighteen (18) 18.1 (employed) staff

HWSETA had a site visit on 30 October 2014 where the students were interviewed. Learners had the opportunity to raise concerns / challenges, as well as sharing the success of the Learnership programme. Students' Portfolios of Evidence, attendance registers and progress reports were also verified. A formal report from HWSETA on the outcomes of the visit will be forwarded to Head Office.

## Bursaries

### 2013/14

Thirty-five (35) staff members signed part-time bursary contracts for the financial year 2014-2015. All the proof of payments was forwarded to Head Office for reimbursements of students and universities.

### 2014/15

#### **Admin / Support services / Health Professionals**

Fifty-four (54) bursary applications were received and only one application was declined by HRD due to personal development.

After adjudication, Directorate HRD: Bursary Division approved 43 and 11 unsuccessful bursaries. Status letters have been issued to applicants confirming whether the application is successful or unsuccessful.

#### **Nursing – Study by Assignment (SBA)**

Forty-three (43) nursing staff received approval for Study by Assignment.

Successful letters have been issued to applicants.

#### **Adult Further Education and training (Grade 12)**

Examination results were released by the Western Cape Education Department (WCED) on 13 August. Ten (10) learners completed Grade 12, this was a great achievement and some have applied for bursaries to continue with development.

A new curriculum called Senior Certificate for Adult Learners replaced the old curriculum. Classes commenced from 29 September 2014 at the Protea Hall (lifts to C11 East not in working conditions). The circulation of a Gazette from the Western Cape Education Department indicating subject choice as well as registration had been released. Online applications are open from 1 October 2014 and will close on 15 January 2015. Learners are required to register in order to be recognised as Grade 12 learners by the WCED and to qualify to write their examination in May/June 2015. Learners are welcome to come to HRD for assistance with the online registration.

Seventeen (17) staff members are currently enrolled for SC for adult learners.

## Internship

### Expended Public Works Programme

Nine (9) Data Capture Interns were on an internship at the institution. Directorate HRD Head Office extended the contracts with 12 months.

### Experiential Learners (6 or 18 month)

Further Education and Training College (FET)

Forty-three (43) students are still continuing with their internship.

### Premier's Advancement Youth programme

No intake for this financial year.

### Generic Interns

Twenty-nine (29) unemployed Matriculants were afforded an opportunity for an internship.

### CPUT students

Five (5) students were afforded an opportunity to do a six-month internship. On completion of the internship, they will return to Cape Peninsula University of Technology (CPUT) to continue with their qualification.

The interns are placed in various departments (Patient Admin, Nursing, Social Work, HRD, HRM, Finance, IPC, Physiotherapy, Speech and Hearing, Hospital Fees, Paediatrics, OBS and Gynae, Human Nutrition, Occupational Therapy, Crèche and IMU).

Eighteen (18) interns got permanent employment (8 TBH, 9 other health facilities and 1 private). One (1) intern was dismissed due to absenteeism.

## Training

### Workplace Skills Plan (WSP)

The skills audit period was finalised and the Workplace Skills Plan was signed off. Although Labour Caucus attended all information and discussion sessions, they did not sign the WSP.

A circular informing staff of the Skills Audit 2015/16 run has been distributed.



## Skills fund and Provincial Training Institute (PTI)

PTI training is continuing as normal.

1% skills training was planned with staff attending, training dropped due to:

- lifts 27/28 not working
- duty roster of shift workers not being adjusted when attending training
- treasury instruction where no more refreshments was provided

## Public Service Induction

Training for Salary Levels 6 – 12, specific medical staff, remains a challenge. Salary Levels 1 – 5 has no backlog.

The Compulsive Induction Programme training will be implemented from April 2015	
Total training interventions	2 585
Total employees trained	1 701
Percentage trained	45,50%

## Human Resources Development Committee (HRDC)

The HRDC is functional – meetings took place on a quarterly basis. Attendance has increased resulting in more representatives from most departments being presented. Next meeting is scheduled for February 2015.

## Staff Wellness Programme (EAP)

Internal EAP, together with ICAS, had interventions. ICAS did information sessions per department, which resulted in a higher utilisation. Managerial refer remains a concern.

Training Interventions	Clerks	Craft and Related Workers	Elementary Workers	Plant and Machine Operators	Professionals	Service Workers	SMS	Technicians
13th World Congress in Foetal Medicine					1			
16th Centre for Diabetes and Endocrinology Postgraduate Forum in Diabetes Management					1			
27th Annual Labour Law Conference					1			
5th Pan African Burns Society Congress					1			
9th Annual African Vaccinology Course					1			
A complex adaptive approach to Oncology PET/CT Imaging with the goal to improve Tumour Delineation					1			
Account Management Implementation Session	9		15	3	72	5	1	68
Advance Neonatal Life Support					53			
Advance Radio pharmacy					2			
Advanced Course in Diabetes Care for Healthcare Professionals					1			
Advanced Course in the Surgical Field					1			
Advanced Literature Review					1			
Advanced Paediatric Life Support					1			
African Conference on Emergency Medicine					1			
African Organisation for Research and Training in Cancer					1			
African Regional Co-operative Agreement and SA Society of Nuclear Medicine Congress					1			
Afrikaans for Beginners					1			2
Allergy Society of SA					1			
American Urogynaecologic Society/ International Urogynaecological Association Congress					1			
Anaesthetic Clinical Course					1			
Annual Academic Year Day presentations					3			
Annual Colonoscopy Outreach					1			
Annual Congress of the European Association of Nuclear Medicine					2			
Annual Scientific Symposium of Trans catheter Cardiovascular Therapeutics					1			
Annual Secretaries day conference					1			1

Approach to Vertigo and Balance Disorders + Management of Adult Spasticity					3			
Assessor					1			
Assistant Chef			10					
BAS Cash Receipts	1							
BAS Cash Receipts (Practical)	3							
BAS Cash receipts for Capturers, Authorisers and Supervisors	2							
BAS Debts	1							
BAS Introduction	2							
BAS Journals	3							
BAS Reports								3
BAS Sundry Payments	3							
Basic External Fixation Course					3			
Basic FATE Course					1			
Basic Fire Fighting	1	2	1		2	2		1
Basic Life Support					43			
Basic Surgical Skills Course					5			
Batho Pele	28	2	19	1	3	1		17
Biennial Meeting of the International Gynaecological Cancer Society					2			
Breastfeeding First 1 000 Days					1			
Cardiovascular and Interventional Radiological Society European Congress					1			
Care of Severe Malnutrition on children					1			
CCSSA Ethics Meeting					9			
Centre for Pelvic Floor Competence					1			
Child Abuse					1			
Child nutrition and the identification and management of malnutrition					1			
Child Rights and Child Law					1			
Children and Bereavement					3			
Clinical Course					1			
Cognitive Neuroscience Society Student Association Annual Conference					1			
Communication Skills					1			6
Compulsory Induction Programme Train the Trainer					1			
Computed Tomography and Magnetic Resonance Imaging Seminar					29			
Conflict Management	9	1	6		6	6		10
Congress of Applied and Translational Neuroscience					1			
Continuing Medical Training Conference							1	
Critical Care Refresher Course					1			
Customer Care	33		11	1	1	3		22
Diabetes Research					1			

Drugs for Neglected Diseases initiative Scientific Advisory Committee workshop					1			
Dry Needling Module 1					1			
Ear Nose Throat Congress					1			
EBOLA Mini Course					2			
Ebola Virus training					4			11
Elective Module National Pain Course					1			
Engineering and Solid Waste Technologies				1				
Essential Steps in the Management of Obstetric Emergencies					6			
Ethics in Rehabilitation					2			
Ethics of Patient Centred Care Rehab					2			
Etiquette and Ethics in the Public Sector	14		2	1	3	4		2
European Development Days workshop					1			
European Respiratory Society Annual Congress					2			
Exercise as therapy in pain conditions					1			
FAST and lung Workshop 2014					1			
Federation of Infectious Diseases Society of Southern African					1			
Fellowship of the College of Anaesthetists					1			
Financial Management: Module 1- Intro to Financial Governance and Public Accounting	1				1			
First Aid Level 1	4	8	2		4	3		1
First Aid Level 2	1		2			2		1
First Aid Level 3	1	1	1		1	1		2
Flow Management Learning Session					1			
Foetal Alcohol Spectrum Disorder Prevalence Study					1			
Fraud Awareness Training			1					
From Theory to Practice					5			
Functional Kinesiotaping of the Lower Limb					3			
Functional Kinesiotaping of the Upper Limb					4			
Fundamental Reproductive Health Course					1			
Genk Institute for Fertility Technology Workshop					1			
Government Employee Membership Scheme Information Session	8		3		5			14
Government Employee Pension Fund Information Session	40	6	38	6	73	18		75
Group Dynamics	7		7	1	2	1		4
Haemophilia Course								1
Haemophilia Nursing Training								1

Hands-on Peri-Operative Echocardiography Course					2			
Health Care Risk Waste			14	2	16			23
Healthcare Risk Waste Management			1					1
Hospital Association SA Conference					1			
Induction (Labour Relations Aspect)	26		117	1	46	3		73
Infection Prevention and Control			16					
Infection Prevention Control day					1			
Information Day Paediatric Hearing Loss					8			
Integrated Pollution and Waste Information System			1					1
Intensive Care Unit Congress					4			
Intensive Care Unit Refresher Course					1			
International Association for Child and Adolescent Psychiatry and Allied Professions Congress					3			
International Centre for Theoretical Physics Congress					1			
International Dermatopathology Conference					1			
International Papillomavirus Conference and Clinic Workshop					1			
Introduction to Compilation of the annual financial statements	1							
Introduction to Junior Management	10	7	3		9	4		2
Introduction to Office Management	39			1		1		1
Introduction to Records Management and Registry	10		1					
Introductory Course on assessment and treatment of children with cerebral palsy					1			
Investigating and Presiding Officer					4	2		3
Junior Management Development Programme Block 1	2	3			3			5
Junior Management Development Programme Block 2	2				4	1		2
Juvenile Offenders					2			
Knee Kinematics of total knee replacement Workshop					1			
Know Your Rights and Responsibilities	16		8	3	8	2		13
Labour Relations Act Amendments					1			
Latest amendments to EEA Seminar					1			
Life Skills	9		10		2	2		11
Lifestyle Symposium					2			
LOGIS Module 2	1							
LOGIS Payments	1							
LOGIS Warehouse Management for Clerks	1		1					
Lung Pathologies					1			
Making National Development Plan Work: From Design to Delivery					1			
Management of Shoulder Instability					1			
Managing Absence in the Workplace	12				27	5		10

Managing Incapacity and Poor Performance					4			5
Medical and Scientific Advisory Council Symposium					1			
Mentoring and Coaching Programme					3			
Mentoring Training: PAY Project	1							
Mindfulness Matters 2014					1			
Models Workshop					2			
Moderation Training for CIP Trainers					1			
MS Access 2007 Advanced	1				2			1
MS Access 2007 Basic	1				2			1
MS Access 2007 Intermediate	1				2			1
MS Excel Advanced 2007	6		2		7			1
MS Excel Basic 2007	8		3		8			1
MS Excel Intermediate 2007	7		3		8			1
MS PowerPoint 2007 Basic	4				7			3
MS PowerPoint 2007 Intermediate	2				7			3
MS Word Advanced 2007	1		3		5			2
MS Word Basic 2007	1		3		5			2
MS Word Intermediate 2007	1		3		5			2
Multi-discipline Approach to the neurosurgical Patient					2			
National Incident Management System	3							
National Osteoporosis Foundation of SA Congress					1			
Ndiyeva Conference					2			
Neonatal Nurses Association of SA Midwifery Meeting					1			
North American Spine Society Annual Workshop					1			
NSF Trauma and Orthopaedic Subgroup Seminar					2			
Nursing Incident Management System	1							
Nursing Induction	5	2	2		12			34
Obstetrics and Neonatology					2			
Office Management	6							
Osteoarthritis Spine Principles Course					2			
Paediatric Anaesthesia Congress					8			
Pain Care Management					2			
Parent Workshop					1			
Performance Management	1			1	3	1		1
Performance Management	1				4	1		3
PERSAL Introduction	11							
PERSAL Labour Relations	1							
Persal Leave Administration	2							
Persal Personnel Administration	4							

Persal Salary Administration	4							
PERSAL Service Termination	1							
Pervasive Developmental Disorder in Sedation					1			
Physiotherapy and Rehabilitation					1			
Physiotherapy Clinical Workshop					1			
Postgraduate Course					1			
Practical Course on Cerebral Palsy					1			
Practical Training for Synthetic Module					1			
Presentation Skills	10	1			7			4
Prevention and treatment of acute malnutrition					1			
Professional Educational Development Programme for Academics					1			
Progressive Discipline for Supervisors/Managers	6	1			25	5		3
Project Management	9	1	3		3			
PSETA Capacity Building Workshop					1			
Public Service Induction Programme Levels 1 - 5	27	3	45	2	6	5		106
Public Service Induction Programme Levels 6 - 12		2			83	2		2
Quality Council for Trades and Occupations Workshop					1			
Radiological Society of SA and Breast Imaging Society of SA Imaging Course					2			
Radiological Society of SA/LEUVEN EAR Imaging Course					6			
Radiology Refresher Course					2			
Radiology Specialist Course					1			
Records Management	5							
Recruitment and Selection for Managers					2			
Refrigeration Trade Theory		2						
Rehabilitation Research Conference					1			
Report Writing Seminar					1			
Resilience					2			5
SA Association of Physicists in Medicine and Biology Congress 2014					1			
SA Heart Course					2			
SA HIV Clinicians Society Conference					2			
SA HIV Conference					3			
SA Orthopaedic Association Congress					12			
SA Paediatric Association and SA Association of Paediatric Surgeons Congress					7			
SA Society of Anaesthesiologists (SASA) Congress					6			
SA Society of Nuclear Medicine Congress 16th Biennial Congress					14			
SA Society of Obstetricians and Gynaecologists					3			

SANC Open Day					2			
Secondment Training at Breast Institute					1			
Security Course Grade C						1		
Security Course Grade D						3		
Security Course Grade E						3		
Severe Acute Malnutrition Training					1			
Sexual Harassment Awareness					4			8
Sleep Disorders in Children					4			
Smile Project					2			10
South African Labour Law Report 30th Annual Seminar					1			
South African Nursing Council Seminar					1			
Speciality Forum Workshop					1			
Sports Injuries and Taping					1			
Still the Mind, Open the Heart					2			
Stop Cervical, Breast and Prostate Cancer in Africa Conference (SCCA)					1			
Strategic Leadership, Management and Planning					2			
Stress and Work Life Balance	1				2	2		3
Stress Management	18		8		5	4		7
The European Society for Clinical Nutrition and Metabolism Congress					1			
Thrombocytopenia					10			
Time Management	14		12	1	8	5		3
Towards Excellence in Patient Care					2			
Train the Trainer: Public Service Induction								1
Training on Severe Acute Malnutrition					1			
Training on the Prevention and Treatment of Acute Malnutrition					1			
Treatment Update Schizophrenia					3			
Tygerberg Burns Outreach 2014					1			
Union World Conference on Lung Health					1			
Updates in Infertility Congress					1			
Urology Workshop					1			
Women Empowerment	1				7			4
Women in Management	1				2	1		
World Cancer Congress					1			
World Congress in Foetal Medicine					1			
World Congress of Regional Anaesthesia and Pain Therapy					2			
WSPiR Workshop					1			
Xhosa for Beginners	2		5		3	5		4
<b>Grand Total</b>	<b>469</b>	<b>42</b>	<b>382</b>	<b>25</b>	<b>953</b>	<b>104</b>	<b>2</b>	<b>608</b>
								2 585



## INTERNATIONAL OUTREACH PROGRAMME

### Mr P.J. Wolfaardt

During this reporting, a number of programmes and initiatives were undertaken in terms of the responsibility.

#### Dutch

Co-ordinated two visits by Dutch Health.	
Managers	17
Students	6

#### Gauteng Health

Providing HR documentation

IEC election process May 2014 and planning for 2016 local government elections

Orientation of Ms Nomaxabiso Kweyama: Deputy Director HR and Support Services at Red Cross Hospital

Tygerberg Redevelopment Project: Project team and ARUP environmental planning

## COMMUNICATIONS

### Ms LC Pienaar

The Communications Office continues to play a vital role in internal and external communications, including media liaison, publications, marketing, public relations, special events, receiving of donations, special visits, the local communities, international visitors and celebrities.

#### Special visitors

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

Minister Theuns Botha	20 February, 23 June
Victoria Beckham	24 February
SA Police Band	14 August
Emeritus Archbishop Desmond Tutu	13 November
Mrs Leah Tutu and Reverend Mpho Tutu	17 December

Special events	
Nurses' Day	28 May
Opening of MRI	31 July
Women's Day	14 August
Open Day	9 October
Hartman Lecture Annual Awards	22 October
Launch of SUNHEART	10 November
Smile Week	10- 14 November
Interfaith Service	13 November
Long Service Awards	20 November
Annual Children's Christmas Party	4 December
Toy for Joy with Radio 786	18 December
Staff Wellness Day	9 & 11 September

## SUPPORT SERVICES

**Mr A.J.M. Harmse**

### In-house Security Service:

#### Financial Constraints:

- CCTV cameras still problematic as not all areas are covered
- Current staff allocated to each shift is not sufficient to enable the Security Department to function to its full capacity
- These circumstances place a tremendous strain on the Department, especially in the maintaining of security enforcement against intrusion of any unlawful and unauthorised entries.

Service Delivery	
Currently, the establishment is as follows:	
Supervisor Chief Security Officer:	1
Senior Security Officer	8
Security Officer	15

### Supervision:

### Personnel Management:

#### Positive:

Continuous training, e.g. Human Resource Management, Basic Supervision, Investigating Officers, Health and Safety Officers, SPMS, Computer Literacy, Labour Relations assisted staff within their work environment.

#### Negative:

Absenteeism of staff influence service delivery; listed are few areas that are affected with regard to service delivery: water leakage, electrical problems, runaway patients, open doors and escorting of public from wards.

## General Constraints:

Staff shortage; which causes delay in the performing of security functions.

## Contract Security

### Resources

CONTRACT MANAGER		
Shift x 1: Day Shift		
Supervisor	Grade	Ax2
Supervisor	Grade	Bx3
Reaction Unit	Grade	Bx2
Controller	Grade	Cx1
Motorbike/bakkie		Cx2
Security Guards	Grade	Cx13
Security Guards	Grade	Dx43 [EMS/Laundry x2; U2 x1]
<b>Total</b>		<b>70</b>

Shift x2: Night Shift		
Supervisor	Grade	Ax2
Supervisor	Grade	Bx1
Controller	Grade	Cx1
Reaction Unit	Grade	Bx2
Bakkie Driver		Cx1
Security Guards	Grade	Dx35 [U2 x 1; Laundry x 1]
Security Guards	Grade	Cx11
<b>Total</b>		<b>55</b>

Shift x3: Weekends		
Supervisor	Grade	Ax2
Supervisor	Grade	Bx2
Controller	Grade	Cx1
Reaction Unit	Grade	Bx2
Security Guards	Grade	Dx43
Security Guards	Grade	Cx13 [Laundry x 1]
Bakkie/Motorbike	Grade	Cx2 [U2 x 1]
<b>Total</b>		<b>67</b>

### Mobility

Vehicle	4
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## **Service Delivery:**

- The in-house security is responsible for the internal security functions, while the private security attend to the perimeter security as well as allocated points of access
- Several changes at supervisory and guard levels were made to produce and uplift service delivery
- Weekly meetings between the general manager, hospital admin officer and staff are held to address problematic issues and attitude towards service delivery
- Armed response vehicles are deployed to enhance adequate response and visibility
- Continuous on-site inspections are done to ensure service delivery

## **Findings:**

Although there is still room for improvement, the following have been found:

- The in-house security is responsible for the internal security functions, while the contract security attend to the perimeter security, as well as allocated points of access
- Weekly meetings between the Contract manager, Hospital Admin officer and staff are held to address problematic issues with regard to service delivery
- Extra staff assigned to allocated points to improve service delivery
- Constant after hour inspections done by hospital officials to ensure service requirements are adhered to
- Armed response vehicles deployed to improve response and visibility
- Improvement of the control of private taxis
- Improvement with regard to arrests
- Reduction in vehicle theft
- Reduction of vandalism on the floors

## **Patient Transport**

- Responsible for the booking of rural patients with HealthNET
- One clerk allocated to component, which causes problems when the clerk is on leave or off ill and other components are relied upon to assist, i.e. Tube distribution station and Porters' component.

## **Pneumatic Tube Distribution:**

### **Operators 6**

- Component lacks a post of supervisor to ensure the required level of efficiency
- Reduction in cost for repairs to the system and after hour call outs lessened
- Due to the age of the system, mechanical parts are not easily obtainable
- At times, tube containers slip past destination points. This causes various problems, i.e. delay in specimen delivery, blockage in the system and service delivery with regard to patient results
- Newly appointed staff received geographic and practical induction

## Mortuary:

Senior Admin Clerk	1
Senior Porter	1

Delays in the receipt and dispatch of necessary documentation to be completed by the medical staff has a negative effect on service delivery

## EXTERNAL CLEANING SERVICES

### Ms C.B. Johnson

#### Service Delivery

The removal of medical waste and refuse from the campus has been outsourced to a private contractor.

#### Resources

Supervisor	1 (Principle General Foreman)
Senior General Foreman	1
General Workers	12

#### Personnel Management

- Staff received continuous training on issues related to their work objectives which resulted in the empowerment of staff.

#### Service Delivery

- An average of 9,8 ton of medical waste is generated on a monthly basis and successfully disposed of via Solid Waste Technologies.
- Registration as per the Health Care Risk Waste Management Regulation, 2011 as depicted in the Health Care Waste Management Act of 2007, completed.
- A waste plan for the hospital was developed

## Gardening services

Supervisor	1 (Post still vacant)
Gardening staff	5

## Financial Achievement

A new kudu machine as well as three new brush cutters were purchased, which facilitates in the productivity of service delivery.

## General

Continuous problems with the escalation of moles on the premises have been addressed. However, there is still a considerable amount of alternatives that needs to be viewed.

## Pest control

### 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.

### 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 clean environment.

## Porter services

### Service Delivery

The Smile Foundation scheduled 38 operations for children with cleft palates, and certain Porter staff were identified to assist.

The Department also assisted with the smooth relocation of various wards within the hospital as certain wards were earmarked for upgrades.

## Personnel Management

### Training

The Chief Porter and Porters received continuous training to improve service delivery.

### Monitoring Measures

Programme to monitor absenteeism in the workplace continues, but absenteeism is still an issue.

Quarterly stock-taking of equipment was initiated, and broken or condemned stock could be identified.

### Financial Achievement

The procurement of additional trolleys and wheelchairs contributed with the enhancement of service delivery, although the general shortage of trolleys and wheelchairs still remains a problem.

## LINEN MANAGEMENT

### Assistand Director: Mr F. Malan

#### Resources

Assistant Director	1
Senior Linen Supervisor	4
Laundry Aid III	1
Laundry Aid II	3

### Service Delivery

Approximately 300 000 pieces of linen are processed per month.

### Complaints Recorded

No official complaints were received from the public.

## Annual Audit

BASIC LINEN COUNT	
Count	Value
208 075	R17 267 671,92
LINEN LOSS	
Count	Value
41115	R3 196 094,03

## National Audit Report Feedback

Score	Extreme measures	Vital	Essential	Development
100%	Not available	100%	100%	100%

The overall objective of hospital linen management is to maintain adequate supplies of clean and serviceable linen for the user departments at minimum cost. This can only be achieved through the closest possible co-ordination between laundry operations and linen distribution services, and by adhering to specific control mechanisms.

## TELEPHONE EXCHANGE AND RADIO ROOM

### Mr L. van Renen

#### Telephone exchange:

- Tygerberg Hospitals' Telephone Exchange has a Philips electronic exchange that was upgraded to a business connect system that provides a 24 hour service
- The telephone exchange is manned by 1 X Principle Telecom Operator and 17 X Telecom Operators
- The telephone exchange consists of eight consoles, one of which is used for doctors' enquiries
- Six of the eight consoles are used for the handling of general calls/enquiries on a full-time basis during 07:00 and 16:00
- These 6 consoles manage approximately 4 000 of the 12 000 incoming calls per day
- The outgoing calls amount to approximately 4 000, of which the telephone exchange handles approximately 3 000
- This total includes approximately 2 000 cellphone and trunk calls
- The average cost of cellphone calls per month is R40 000,00
- The average cost of Telkom calls per month is R210 000,00

#### Radio room:

- The two Operators in the radio room handles approximately 3 000 calls for transmission during the following working hours 07:30 to 16:00
- The Operator that mans the console at doctors's enquiries handles approximately 1 000 calls per day.



### Sms message system:

- Tygerberg Hospitals' radio room also uses a SMS message system to contact doctors that have no beepers or beepers that are faulty
- The SMS message system is used to send SMS messages to the personnel that have no beepers
- Approximately 31 000 SMSs are sent per day

## ACCOMMODATION

### Mr E.C. Steyn and Ms C.B. Johnson

Doctors' Quarters	Rooms
Single Rooms	38
One Bedroom Flats	36
Two Bedroom Flats	05

### Protea Court

- Protea Court consists of three Towers that facilitates temporary and permanent housing of staff and students that work/study at Tygerberg Hospital
- There are 479 beds in total and the rooms range from single to 2 bedroom flats
- 111 permanent tenants reside at Protea Court, the majority from the Nursing Department
- The first floor in Tower 3 was allocated to CANSA (Cancer Association of South Africa) to assist in the recuperation of patients
- Two floors in Tower 3 (46 beds) are allocated to the Emergency Services Department (EMS)
- An additional 2 floors in Tower 3 (46 beds) were allocated to EMS for a period of 1 year, i.e. from 1 January 2014 to 31 December 2014
- A total of 22 tenants moved in and 25 moved out of Protea Court from 1 January 2014 to 31 December 2014
- The second floor in Tower 3 is used to accommodate a patient overnight facility
- The night crèche is also accommodated in the Protea Court
- Approval was granted for Forensic Pathology Services to use certain flats as offices

Single Rooms/beds	
(including suitcase rooms)	192
Double Rooms = 127	Total of 254 beds
One Bedroom Flats	06
Two Bedroom Flats = 2	Total of 4 beds
Single Room with sitting room	01

**This component is also responsible to co-ordinate accommodation in Disa Court, UWC and CPUT.**

## REPROGRAPHICS

### 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 ranging from 1 000 – 20 000+ for the stores, wards and clinics
- Photocopies of manuals, memorandums, notices and forms are done on two high volume Minolta Bizhub models; 920 and 1050
- Copying of patient folders is handled with the required confidentiality
- The Department provides other finishing as requested, e.g. sort and stapling, gluing, punching, cutting and laminating
- The ID section handles the taking of personnel identity cards for new appointees, changes in rank and surnames. Lost and damage cards are replaced at a cost
- NHLS is charged for any printing requests via the Finance Department.

### Resources

Chief Clerk	1 x vacant
Principal Operators	4
Typist	1

### Outputs

ID Photos taken	25
Photostat copies	946 160
Copies printed (Riso machine)	2 866 13
Laminating	60

### Service delivery

The Department is at times 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 apply their knowledge and experience of the department and equipment to cover all production points during these times.

## PA TRANSPORT

Mr F.S. Boonzaier

### Overview

- The main function of the component is to provide an effective and efficient motor transport service delivery
- The Department has 26 vehicles and 1 Venter trailer

### Resources

AO	1 (Vacant due to resignation from 30/09/2014)
SAC	1
Drivers	11
Household Aid	1

### Statistics of vehicles utilised

Odometer readings							Mileage usage			
NR	GG NR	20-07-14	20-08-14	22-09-14	22-10-14	20-11-14	Aug 2014	Sep 2014	Oct 2014	Nov 2014
1	GBB302G	15255	15963	16828	17709	17898	708	865	881	189
2	GBD098G	6636	6886	7022	7030	7965	250	136	8	935
3	GBD106G	13924	14274	14691	15045	15371	350	417	354	326
4	GBD277G	8760	8983	9057	9057	9741	223	74	0	684
5	GBD413G	12075	12655	13138	13588	13978	580	483	450	390
6	GBD482G	19898	20409	21026	21492	21976	511	617	466	484
7	GBJ011G	9620	10171	10682	11105	11535	551	511	423	430
8	GBK541G	27150	28040	29372	29757	30450	890	1332	385	693
9	GBL164G	17971	18816	19786	20457	20894	845	970	671	437
10	GBL194G	19576	20772	22116	22733	24177	1196	1344	617	1444
11	GBL219G	15938	16572	16990	17899	18268	634	418	909	369
12	GBN851G	23848	24855	25966	27418	28942	1007	1111	1452	1524
13	GBX619G	4174	4455	4729	4977	5168	281	274	248	191
14	GBX622G	13880	17860	19363	20685	21006	3980	1503	1322	321
15	GBY751G	18584	19799	20795	21380	22033	1215	996	585	653
16	GCG696G	7080	7470	7936	8292	8604	390	466	356	312
17	GCG804G	3739	3979	4203	4370	4594	240	224	167	224
18	GCJ815G	0	0	1936	2706	2721	0	0	770	15
19	GCL310G	0	213	557	878	1621	213	344	321	743
20	GDD325G	38659	38932	39295	40131	41999	273	363	836	1868
21	GDF097G	32640	32678	32969	33269	33531	38	291	300	262
22	GDF109G	34928	36322	38312	39866	40835	1394	1990	1554	969
23	GDG325G	27522	28825	30663	31712	32622	1303	1838	1049	910
24	GDG382G	30126	31857	32957	34205	35244	1731	1100	1248	1039
25	GDG519G	33481	35657	37208	39189	40319	2176	1551	1981	1130
26	GDG534G	30569	31717	33154	34582	36292	1148	1437	1428	1710
27	GCZ717G	81786	84528	86400	0	0	0	0	0	0
28	GVR265G	102364	102645	102724	0	0	0	0	0	0
29	GBK491G	0	31732	0	0	0	0	0	0	0
<b>Total</b>							<b>22127</b>	<b>20655</b>	<b>18781</b>	<b>18252</b>
<b>Average</b>							<b>851,04</b>	<b>794,4</b>	<b>722,3</b>	<b>702</b>

Written warnings	4
Summons	1 (Vehicle borrowed to Khayelistha Hospital since February 2014)
Speeding	10 (R3 000,00)
Damages	8
Losses	6 Tyres, Batteries, Navigators

### Service delivery

- The staff utilises their knowledge and experience of the various transport destinations and the shortest, yet safest possible routes to ensure excellent service delivery
- Various measures are put in place to ensure that the Transport division comply with the National Core Standards
- The main objective of the transport division of Tygerberg Hospital is to provide and maintain an adequate service to individuals and staff
- The transport section endeavour to comply with the prescripts on Circular 4 of 2000

## CLEANING SERVICES (CONTRACT)

Mr F.S. Boonzaier

### Resources

	1 SAO
	1 SAC

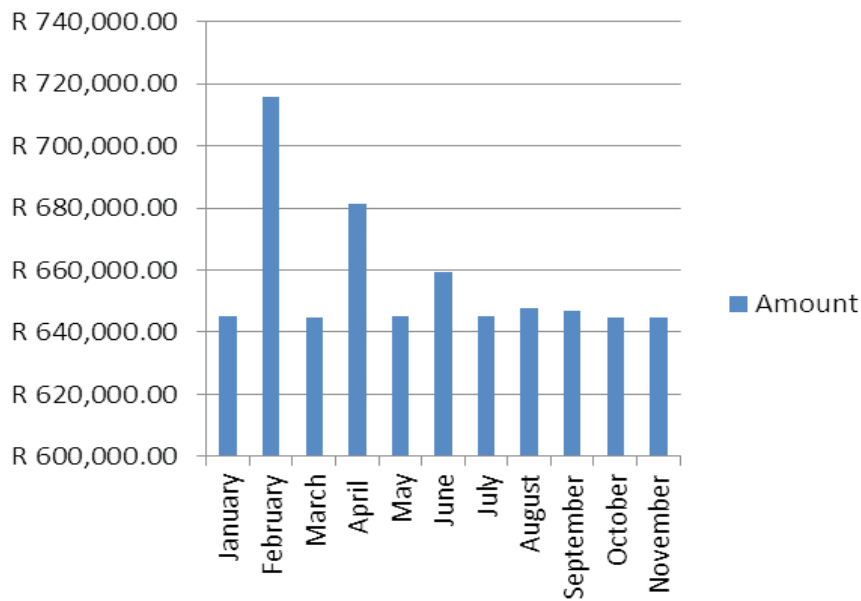
### Overview

The function of this component is to manage the cleaning of the non-core areas in the hospital, as well as the outside perimeters. Various measures have been implemented in an endeavor to curtail expenditure with regard to the cleaning contract.

**The expenditure for the contract cleaning for the period of 01/01/2014 - 30/11/2014 is as follows**

Month	Amount
January	R645 327,61
February	R715 667,69
March	R644 657,20
April	R681 161,91
May	R644 992,41
June	R659 336,42
July	R645 369,52
August	R647 591,12
September	R646 752,25
October	R644 866,71
November	R644 908,60
Total	R5 214 978,94

## Amount



### General constraints

The residents at Disa and Protea courts are problematic with respect to littering. People who visit patients litter the staircases and passages despite bins being available.

### Resources

#### Day shift:

Site Managers 2

Supervisors 2

Contract cleaning staff 156 (Bid expired 30/11/2014)

#### Night shift:

Supervisors 2

#### PUBLIC HOLIDAYS/SATURDAYS/SUNDAYS

##### Dayshift:

Supervisors 2

##### Night shift:

Supervisors 2

## REGISTRY/ARCHIVES /MAILROOM

Mr H.T.M. Mbidlana

### Registry

The Registry Department handles all incoming mail, incoming and outgoing faxes and outgoing telegrams to Tygerberg Hospital.

### Resources

Administration Officer	1
Senior Registry Clerk Grade II	1

### Service Delivery

An average of 3550 faxes is dispatched on a monthly basis bearing in mind that various departments/ components utilise this facsimile machine. Also, as the telegram machine at Tygerberg Post Office had been broken for several months, all telegrams had to be faxed to Johannesburg by this department. Also now the telegram services had been closed. This means more faxes and registered mail.

### Archives

The filing system in this department is done in accordance with rules of the Department of Health. This system is continuously updated as when required.

There is urgent need to start a Record Disposal Programme in this department as there is an urgent need of space.

### Messengers in the mailroom

The messengers service the whole of Tygerberg Hospital, including its surrounding buildings as well as the collection and delivery of documents to Head Office situated in Cape Town city bowl.

## Resources

Chief Messenger	1
Messengers	8 (7 at Tygerberg Hospital and 2 at the Gene Louw Building)

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

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

Ms M. Pypers (Senior Messenger) has been appointed by Department of Health (Tygerberg Academic Hospital) as a Registry Clerk (Medical Records). Her post was filled by Mr J.J. Warwick – appointment date: 01/11/2014. Mr D. Fredericks was transferred from Porters Services on 08/07/2014 to Messengers Services.

## General

There is need to increase funding for this section as prices for both the toner and drum unit for both the facsimile and printer machine is very high. Due to the cancellation of the Telegram Services there is an increase in registered mail and faxes being sent out. There is also an urgent need to fund the Records Disposal Programme in both Archives and Mailroom, since very soon there will be an urgent need for space for records.

## FOOD SERVICES

### Assistant Director: Ms R. Keyser

#### Background

- The Food Service Department at Tygerberg Hospital is the largest self-contained component at a hospital in the Western Cape, South Africa. This unit provide meals to the patients of Tygerberg Hospital
- The equipment used is old and in a state requiring regular repair. Breakdowns are frequent, requiring a hands-on manager on equipment to initiate alternative options and solutions
- Regular interactive sessions and meetings with staff to inform them of audit results, menu changes, training on new recipes and special diets, training of new employees and the status of absenteeism. This resulted therein that all matters were resolved and addressed during these sessions
- The general control measure in the department are functioning well and during a recent stock audit in the Food Service Department, stock items balanced in both warehouses 27 and 28

## Summary of activities

- Meal provision to patients, caregivers and mothers
- **1 613 166** meals were served for the period January to December 2014
- Human capital development, as well as management, including managing performance
- Adhering to all Food Service Guidelines
- Meal provision to patients, caregivers and mothers

## Resources

Food services managers	6 (1 post was advertised and to be filled)
Principal food services supervisors	3
Senior Supervisors	27 (1 post is advertised; 3 positions filled in August)
Food Services Aids level 1 and 2	81 (4 posts were advertised; 7 positions were filled)
SAC	3
PAC	1
Pronto	8 per shift
Intern (for 12 month period)	1



Table 2. Tygerberg Hospital: Department Food Services - Statistics for 2014

A	PREV YEAR TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL YTD
1	PERSONNEL	7 146	7 044	9 672	9 642	9 282	11 835	8 823	8 829	10 851	9 177	8 298	9 777	110 376
2	CRECHE	1 777	2 078	2 065	1 245	1 455	1 689	1 349	1 464	1 838	1 478	1 536	1 155	19 129
3	BREASTFEEDING / KMC	0	0	0	0	0	0	0	0	0	0	0	0	0
4	MOTHERS WITH CHILDREN	480	687	780	921	525	801	525	594	677	477	456	546	7 469
5	OUTPATIENTS	11	9	6	2	3	4	3	3	4	1	3	1	50
6	TRAVELLING PATIENTS	0	0	0	0	0	1	0	0	0	0	1	1	3
7	OTHER MEALS	879	1 065	1 593	1 428	1 430	3 303	1 197	1 302	1 374	1 002	861	954	16 388
	TOTAL A	10 293	10 883	14 116	13 238	12 695	17 633	11 897	12 192	14 744	12 135	11 155	12 434	153 415
<b>B</b>	<b>IN-PATIENTS</b>													
1	FULL MEALS	70 477	73 031	76 381	83 556	83 286	86 471	84 469	78 470	77 062	75 644	75 917	70 330	935 094
2	THERAPEUTIC	35 434	32 196	34 228	36 855	41 684	52 668	41 455	38 052	45 761	37 765	36 429	41 533	474 060
3	PRIVATE PATIENTS	793	1 139	1 294	1 776	1 754	2 227	1 927	1 903	2 008	1 634	2 014	2 093	20 562
4	INFANTS / TODDLERS	1 849	1 996	2 356	3 225	2 596	2 870	2 279	2 299	2 752	2 515	2 521	2 777	30 035
	TOTAL B	108 553	108 362	114 259	125 412	129 320	144 236	130 130	120 724	127 583	117 558	116 881	116 733	1 459 751
	TOTAL A + B	118 846	119 245	128 375	138 650	142 015	161 869	142 027	132 916	142 327	129 693	128 036	129 167	1 613 166
<b>C</b>	<b>IN-PATIENTS</b>													
1	TUBE FEEDS	0	0	0	0	0	0	0	0	0	0	0	0	0
2	INFANTS - MILK FEEDINGS	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL C / TOTAL C	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL A + B + C	118 846	119 245	128 375	138 650	142 015	161 869	142 027	132 916	142 327	129 693	128 036	129 166	1 613 166
	ALLOCATED BUDGET	9 066 000			11 294 000									
	EXPENDITURE TO DATE (BASS)	896 193	797 202	978 778	695 321	790 148	1 184 353	865 522	896 730	1 070 589	853 524	869 076	1 009 250	9 897 436
	% BUDGET SPEND TO DATE	120%	9%	11%	6%	7%	10%	8%	8%	9%	8%	8%	9%	103%
<b>D</b>	<b>AVERAGE FEEDING COST</b>													
	COST / PPD (MEALS & FEEDS)	0	2.23	2.54	1.67	1.85	2.44	2.03	2.25	2.51	2.19	2.26	2.6	2.04
	ACTUAL FEEDING COST	22,63	24,03	25,98	17,13	18,91	21,79	20,72	23,06	22,68	22,37	23,21	23,91	22,20
<b>E</b>	<b>OTHER EXPENSES</b>													
	DOM CONS: CROCKERY													0
	DOM CONS: GAS, HOUSEHOLD													0

A	PREV YEAR TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL YTD
														0
MNT & REP: KITCHEN APPLIANCES														0
MED SER: CATERING FEEDING PATIENT														0
TOTAL OTHER EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL BASS + OTHER	10 842 627	896 193	797 202	978 778	695 321	790 148	1 184 353	865 522	896 730	1 070 589	853 524	869 076	1 009 250	9 897 436
<b>F</b>	<b>EQUIPMENT BUDGET ALLOCATED</b>													
	EQUIP < R5000													0
	KITCHEN APPLIANCES													0
	PUR/CAP/ ASS: KITCHEN APPLIANCES													0
	TOTAL EQUIPMENT	0	0	0	0	0	0	0	0	0	0	0	0	0
	% SPEND EQUIPMENT													
	TOTAL COST PPD	0	7,54	6,69	7,62	5,56	7,32	6,09	6,75	7,52	6,58	6,79	7,81	6,25
<b>G</b>	<b>RATION SCALE</b>													
	MEAT (100 - 250 g)	0,231	0,309	0,323	0,23	0,26	0,279	0,256	0,29	0,294	0,255	0,295	0,249	0,27
	MILK (300 - 500 ml)	0,053	0,057	0,082	0,037	0,031	0,029	0,062	0,067	0,033	0,06	0,042	0,051	0,05
	BREAD (110 - 210 g)	0,164	0,182	0,22	0,104	0,101	0,078	0,099	0,107	0,081	0,109	0,105	0,082	0,12
	VEGETABLES (250 - 400 g)	0,24	0,266	0,286	0,234	0,267	0,271	0,274	0,299	0,304	0,281	0,288	0,259	0,27
	FRUIT JUICE (0 - 150 ml)	0,008	0,015	0,015	0,007	0,008	0,006	0,008	0,011	0,008	0,008	0,004	0,01	0,01
	FRUIT (100 - 200 g)	0,17	0,215	0,203	0,146	0,182	0,279	0,161	0,241	0,187	0,2	0,206	0,202	0,20

### **Infrastructure development:**

- Purchasing of five jacketed kettles and 10 Combi ovens was approved
- The diet kitchen area was painted and all loose and broken tiles replaced
- Minor repairs were done to adhere to the OHS standards and to improve productivity

### **Infrastructure challenges:**

- Age of the kitchen, layout, dated and broken equipment hamper productivity
- In order to maintain the cold chain and to adhere to basic HACCP Principles, the fridges and freezers need to be upgraded
- One dishwasher and all three conveyer belts need to be replaced
- All steam lines need to be inspected and evaluated (still too many steam leakages), to adhere to the OHS standards

### **Production challenges**

- Since we are following a two week Provincial Menu, items out of stock is more often affecting our productivity
- Commitments are sometimes outstanding, because of a continuous delay in receiving the GRN's (orders) to process.
- Achievements with regard to research activities and research outputs:
- An improvement in the costing of meals for TBH and submission to the INP (Integrated Nutritional Programme) office on time every month
- Special achievements and other highlights
- Total cost statistics is monthly submitted on time to the INP Head Office
- A significant improvement in late coming, as well as the general attendance
- Visibility of the managers on the floor during serving to ensure that all meals go out as expected in terms of quality and need
- Surface swabs (Agar samples and the availability of Agar), as well as food samples, are sent to the microbial laboratory on a regular basis to maintain a high level of hygiene and food safety
- Rotation of staff to different areas took place in April 2014 in order to gain complete exposure, has proven to be successful
- Vacant posts advertised and filled within time frames
- Monthly meetings with the Main Stores to ensure optimal stock rotation from their suppliers aided to understand their vetting circumstances thereby ensuring that orders are placed timeously before vetting takes place
- A daily personnel hygiene check sheet ensures that all jewellery that is not applicable in the Food Service Policy and monitoring tool is not worn, and steps are taken to ensure adherence
- A daily check sheet on hygiene is also completed by the supervisor and verified by the hygiene manager, who also conduct a mini audit once a month
- Key control registers are in place to ensure that only supervisors and managers have access to stores and fridges
- Key control registers and temperature log sheets are checked daily by the production manager
- Improved response by Top Management and dieticians in meal evaluation monthly
- One hundred and sixty-one staff members attended different training courses to date to improve service delivery

## In summary as per assessment

- The Department has adopted a positive approach to health and safety issues
- Ensuring that all items are stored and meals are prepared in the most optimal environment as the situation in the kitchen will allow
- Regular interaction with the Engineering Department to ensure the functionality of equipment
- Adopted a positive approach to staff wellness, motivating, managing, training and development of staff knowing the result wishes to achieve
- Initiating action and challenging the best in staff
- Ensuring a sense of shared purpose
- Training on SOP's serving of meals on ward level to newly appointed household aids were done to improve serving of meals to the patients, but also collecting the food trolleys at the Food Service component

## DEPARTMENT OF SOCIAL WORK

Ms M. de Jager

### PART 1

#### Summary of activities

Our greatest challenge has still been to give a true reflection of our work by means of statistics since the Clinicom system does not make provision for any social work intervention rendered to patients and their families once the patient has been discharged.

Among the milestones during the year were the following:

- The weekend social work service has been well established and the utilisation of services proved that this is a much needed service in order to open up beds for critically injured patients and patients presenting with discharge problems, as well as rendering support services to traumatised families
- The discharge problems related to unknown patients also received media attention in The Northern News (community newspaper) with a positive article about the important role of the social work intervention in Tygerberg Hospital
- A social worker, Ms B.H. Steyn, received her PhD in Social Work at the University of Stellenbosch with a dissertation entitled Surviving a Laryngectomy: The experiences of postoperative cancer patients and their families
- The Comfort Bear Project of the TygerBear Foundation received coverage on the kykNET TV programme Kwêla, where the therapeutic use of knitted bears and the support of volunteers were highlighted. The group involved knitted their 10 000th bear over a period of 10 years on 10 October 2014.
- On Sunday 14 December 2014, The TygerBear Foundation again assisted with the Lost and Found service at the Switching on of the Festive Lights in Cape Town. This year an astonishing number of 75 lost children and 4 adults were assisted.

Resources	
Social Work Manager	1
Social Work Supervisors	2 + 1 contract post
Social Workers Production:	16 (one vacant post)
Clerks:	2
<b>Interns:</b>	
Generic Intern:	1
Experiential Interns:	3

## Output:

Social workers render services in the form of individual therapeutic work with patients, group work with patients and families, community outreach programmes, both in the hospital as well as in the community. This amounted to 43 124 attendances of patients and 35 200 service hours. Unfortunately we do not get a true reflection of our statistics from Clinicom as the program does not allow capturing of all our data. These numbers have been verified manually this year and reflect a significant increase.

Time spent on meetings, ward rounds, team discussions, community outreach programmes, training of students, induction of new social workers and staff development cannot be captured on the Clinicom system. The three social work supervisors render services in terms of human resource management, clinical supervision, administration, training and an after hour telephonic consultation service, which also cannot be captured on the Clinicom system.

The impact of poverty, unemployment and the challenging socio-economic environment has further increased referrals for social work services pertaining to domestic violence, teenage pregnancy, substance abuse, family conflict and violence against women and children. When these already highly stressed families are once again confronted with secondary crises caused by illness and trauma, more complex social work interventions are needed. Trauma caused by road accidents and violence in the communities impacts on our services.

At the TygerBear Social Work Unit for Traumatized Children 203 new referrals were received from the community. This shows a decrease in the number of community referrals, which is an indication that our outreach to and training of professionals in the community who work with traumatized children has been successful. These referrals were from social work agencies, Community Health Clinics and schools, forensic social workers and the court requiring specialist therapeutic services. TygerBear provides these specialist services to children due to the fact that there is a lack of resources in the community. Many of these referrals included sexually abused children, children who experienced or witnessed violence in the community, such as family members committing suicide or being killed, and children with behavior and learning problems.

### Group work programmes included:

- Parent Guidance groups for parents of newly referred children
- Support groups for mothers who provide Kangaroo Mother Care
- Support groups for laryngectomy patients
- Fibromyalgia Group
- Parent Guidance groups for parents of traumatized children
- Support groups for mothers providing Kangaroo Mother Care
- Rheumatology support group

Community work programmes will be discussed in Part 2.10.

### Comment on Output:

There has again been an increase in the demand for telephonic consultation from child carers, teachers, parents, neighbours and healthcare professionals from state as well as private facilities, the police and welfare agencies. A lot of time was spent on networking with role players in the community such as police, prosecutors, social workers, teachers and prospective carers to ensure the safety of children at risk. Due to a lack of manpower and in an effort to reach more children as well as to counteract the long waiting list for treatment, we have embarked on seeing children in groups.

The tracing of relatives and the lack of resources in the community is time-consuming. Proper discharge planning is complicated by the above, as well as late referrals to the social worker. Poverty, unemployment, crime and family violence indirectly affects the social work services.

The increase in administrative work (referral reports, child abuse reports, court reports, reports regarding discharge planning and to secure patient after care) is time-consuming.

## Part 2

### Infrastructural development

The compulsory storage of records for at least five years is still problematic due to the lack of safe storage facilities within the Department of Social Work and therefore presents a challenge. We continue to prepare files for the scanning process of the ECM program. Social workers do not have access to information on the system yet. Complaints regarding the accessibility of social work feedback reports which have already been scanned have been received from medical staff.

The fact that social work offices are spread across the hospital makes quality control a challenge. Safety of social workers in their offices has recently presented a challenge and is being addressed. An enclosed area for social work services will serve as a measure of safety and quality control.

### Community Outreach Programmes

- The Department of Social Work runs a 24-hour consultation service for professionals working with children
- An extensive relief programme is providing for all patients in need of transport, food, toiletries, blankets and clothes
- The Food for Thought programme makes provision for parents who sit with their children and outpatients from rural areas who leave their homes very early to reach the hospital in time for their appointments and who often have to wait for long hours until they reach home again
- Volunteers are trained and utilised for administration work, assisting in awareness programmes, the comfort bear project, sorting of toys and clothes, packing of food parcels and toiletries and other general tasks
- 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. Some resources are now available electronically
- Regular telephonic and personal liaison with SASSA, intermediate care facilities, SAPS, and Special Courts for Sexual Offences and the Medical Legal Office in Tygerberg Hospital
- Liaison with different resources in the community regarding discharge of patients in need of care
- Receiving job shadowing students from different schools and universities
- The TygerBear's schools outreach project continues
- Talk on rape and sexual abuse at Kensington Rehabilitation Centre

## Co-operation and partnerships

- Department of Social Development, other welfare agencies, SASSA, Department of Education, intermediate care facilities, rehabilitation facilities, refugee centre, shelters and other specialised service agencies
- The schools outreach programme for services to traumatised learners continues

## Achievements with regard to research activities

- Participation in a study on Home-Based Treatment of Childhood Neurotuberculosis

## Initiatives/achievements pertaining to the educational role of your department

Undergraduate	
Social Work IV, UCT,	1
Social Work II, UCT	4
Social Work IV, UWC,	2
Postgraduate	
M. Diac. Play Therapy, UNISA	1
BA Psychology Hons, UWC	2
Educational Psychology	1
M. Clinical Psychology, UWC	1
Registered Counsellors	
	2

## The following training was done:

- Weekly group supervision with students and social workers focusing on different topics
- such as:
- Bridging the Gap: From Student to Practitioner
- Control over Women's Bodies in Society
- Risky Sexual Behaviour and Substance Abuse
- Psycho-social aspects of Counselling Mothers who experience a Stillbirth
- The Effect of Parents' Divorce on Children
- Social Work Assessment Tools
- Writing assessment reports in Social Work Introduction to Grief Counselling: Different types of Losses
- Caring for the Carer: Understanding the Human Grief Response
- Caring for the Carer: Physical Symptoms of Stress, Trauma and Loss
- Caring for the Carer: Case Study
- Symptoms Social Workers experience when dealing with other peoples' trauma
- Gestalt Therapy: Process and Nurturing
- From Theory to Practice

## Other Training:

- Emotional support for Nursing Staff
- Communication skills presented to Nurses
- The Children's Act (38/2005) and the Health Care Worker presented to different groups of Medical Students
- Resilience skills and Crisis Counselling presented to different groups of Nursing Staff
- The Role of the Social Worker in Rheumatology presented to Medical Students
- Participation in the Rheumatology Open Day
- Participation in the Western Cape Burns Symposium
- An overview of services rendered by TygerBear Social Work Unit for Traumatized children and Families presented to students and visitors to the Unit
- Orientation of new students

## Staff development

- The following staff development sessions were arranged and attended:
- Sexual Abuse: Team Discussions
- Visit to Helderberg Hospice
- Attending case discussions at Department of Child Psychiatry
- Bridging the Gap: From student to Practitioner
- Counselling mothers who experience a stillbirth
- Control over Women's Bodies in Society
- Risky Sexual Behaviour and Substance Abuse
- Grief Counselling: Different types of losses
- Caring for the Carer: Understanding the Human Grief Response
- The therapist's personal Process and Self-Nurturing
- Caring for the Carer: Physical symptoms of stress and trauma – symptoms social workers experience when dealing with other people's trauma
- Gestalt Play Therapy:
- Infection Control Methods
- Xhosa course
- Course in Afrikaans
- Social Work Assessment Workshop
- Monthly staff meetings
- Attendance of Xhosa course
- Power Point Training
- Access Level 3 Training
- Monthly staff meetings
- Gestalt Therapy: The process and Self-Nurturing
- Caring for the Carer: Symptoms of Grief and Loss
- Caring for the Carer: Case Discussion
- Para-Suicide: An Overview of Admissions at Trauma
- Music Therapy presented by Chris Wildman
- Visit to Intermediate Care facility at Karl Bremer Hospital



- From Theory to Practice
- Induction Training done by 1 social worker
- Bereavement in Children
- Schizophrenia in Children
- Visit to Western Cape Rehabilitation Centre
- Visit to Conradie Care Centre
- HIV and Adolescents
- Attachment Theory
- Infant Mental Health
- Tuberculosis Meningitis
- Technology as a Treatment Vehicle
- Elder Abuse

### **Employee Assistance Program**

- One hundred and eighty-seven new staff members were referred for Social Work services constituting 489 consultations

### **Conclusion**

Despite the challenges and barriers the Department of Social Work encounters, it remains our goal to render optimal psycho-social services to the patients of Tygerberg Hospital, their families and staff members.

## NURSING

### Senior Nursing Manager: Ms Rachel Basson

The Department is responsible for the provisioning of nursing and support services within the entire clinical platform of Tygerberg Hospital, which is divided into eight (8) modules, namely Emergency and Orthopaedics, Internal Medicine, Outpatients Department, Obstetrics and Gynaecology, Paediatrics and Neonatology, Surgical Services, Operating Theatres and Intensive Care. Each of these modules is under the Assistant Manager supported by the Deputy Manager Nursing. As at 31 December 2014, the staff compliment for the Nursing and Support Services Department is as follows:



Ms Rachel Basson

Category	Approved Post List (APL)	Filled	Vacant
Senior Nurse Manager	1	1	0
Deputy Nurse Manager	3	3	0
Assistant Nurse Managers	11	11	0
Professional Nurse(General)	403	388	30
Professional Nurse Community Service	30	30	0
Professional Nurse Speciality	389	345	14
Enrolled Nurses	427	386	53
Enrolled Nursing Auxiliary	822	750	72
OTP	5	5	1
POP	3	3	0
Housekeepers	68	60	8
Household Aid	392	357	35
CSSD Operator	58	55	3
Senior Housekeepers	65	3	0
Household Aids	284	35	0

During the period under review, the Department had a total of 155 resignations of nurses (62 Professional Nurses, 32 Enrolled Nurses and 61 Enrolled Nursing Auxiliaries). This had a negative impact in staffing of the wards due to the shortage of nurses, especially those with experience and qualification required in speciality areas such as Operating Theatre, Intensive Care, Trauma and Emergency, Paediatric and Neonatology, and Obstetrics and Gynaecology units. To mitigate this shortage, additional nursing personnel were procured through the nursing agencies. However, nursing agencies were in most instances also unable to provide staff with required experience, skills and competencies, while some of the nursing personnel supplied by the nursing agencies did not honour the scheduled shifts. Implementation of National Core Standards (NCS) was initiated and due to limited resources, full NCS requirements could not be met. As such, some of the activities related to NCS compliance were deferred to the next financial year.

Notwithstanding the challenges above, high patient's turnover and resource constraints, the Nursing Department had some remarkable achievements which are, but not limited to, the following:

- Fifty-five (55) Registered Nurses attended the IPC LINK Nurse training and 284 Nurses attended Ebola awareness training
- Thirty-three (33) Nurses completed post basic nursing training programmes (212)
- Forty-one (41) Nurses completed basic nursing programmes
- Twenty (20) Operational Managers (OMN) attended the training course for Operational Managers
- Improved usage of Transit lounge (+20 00 people used the Transit lounge)
- Commissioning of ward CD 1West. This was a critical milestone in enhancing patient flow and decongesting of patients in ward F1 passages
- Renovations of C2A West and East with successful decommissioning and recommissioning of the whole Gynaecology and Obstetrics module wards

The Nursing Department has played a pivotal role in the commissioning and implementation of the third emergency theatre and Minor Orthopaedic Theatre respectively. Additional nursing staff and resources were provided to ensure the successful implementation of these services. The Nurses and Midwives have worked tirelessly to ensure that the institution maintains its MBFI (Mother-Baby Friendly Initiative) status and various quality improvement initiatives were also implemented which, amongst others, include Best Care Always (BCA). In this respect, Ventilator Associated Infections bundles (VAP-BUNDLE) was implemented in Burns, Neuro and Intensive Care units respectively. The surgical site infection (SSI) bundle was also successfully implemented in Obstetrics.

## INTENSIVE CARE MODULE

**Assistant Manager:**  
**Mrs R. Walsh**

### Services

- A1 W Surgical ICU
- A1 E Burn Unit
- A2 Cardiac Thoracic Surgery
- A4 Neuro Surgery Adults & Paediatrics, Thoracic Surgery
- A5 High Care - Medical & Surgical
- A5 Bronchoscopy theatre
- A5 Medical Unit
- A6 High Care Cardio
- A6 Unit Cardio
- A7 Peritoneal dialysis and Haemodialysis, kidney transplant, Transplants and peritoneal outpatients, follow-up clinics
- Total Parenteral Nutrition Care

## Resources

Assistant Manager Nursing	1
Operational Managers	11
Registered Professional Nurses	156
Registered Staff Nurses	69
Registered Nursing Assistants	82
Nursing Administration Clerks	4

## Number of Beds

174

## Average bed occupancy

100%

## Highlights of the year

- Open Day was held by A7 Nephrology Department on World Kidney Day in March 2014. This function was attended by members of the public
- Open Day was held by A7 Nephrology Department in August 2014 to make public and staff aware of organ donation
- Good progress with Best Care Always bundles – VAP (Ventilated Associated Pneumonia) in A5 Medical Unit, A4 Neurosurgical Unit, A5 High Care Medical and Surgical, A1 Burn Unit and CLABSI (Central Line Associated Bloodstream Infection) A1 West, Surgical Unit and A5 Medical Unit and A1 Burn Unit
- The staff of the Burn Unit nursed the first South African skin autograft patient
- The first successful penile transplant was nursed in the Renal Unit

## Academic

- Four Professional Nurses successfully completed the Diploma in Critical Care during 2014
- Six Staff Nurses successfully completed the bridging course to Professional Registered Nurses
- Three Nurses were awarded Clinical Excellence Awards at the Hartman Memorial Award event in October 2014
- The Area Manager was awarded Excellence in Management Award at the Hartman Memorial Lecture event in October 2014
- Conferences attended by Nursing Staff: National Cardiology Conference in February 2014, Critical Care Conference in August 2014 and Nephrology Workshop in December 2014

## Special events

- The Intensive Care Module participated in the Open Day event of the institution in October 2014.
- Staff celebration functions were successfully held on International Nurses Day 2014 and Women's Day 2014
- Neurosurgical workshop was held on 28 May 2014 (Multi-Disciplinary Approach to a neurosurgical patient)

## INTERNAL MEDICINE

**Assistant Manager:**  
**Ms LA Paterson**

### Services

The Internal Medicine Module consists of Internal Medicine and Psychiatry wards

The Module includes 4 Medical Wards, 1 Metabolic Unit, 1 Dermatology and Neurology Ward

Psychiatry - 3 Inpatient Wards and 2 Outpatients Clinics namely Child Psychiatry and Adult Psychiatry

### Number of beds

Internal Medicine	156
Psychiatry	42

### Resources

Operational Nurse Managers	9
Professional Nurses	56
Staff Nurses	36
Assistant Nurses	65
Administration Clerk	1
Housekeeping Supervisors	6
Household Aids	38

### Average bed occupancy

81%

### Highlights of the year

- The Hartman Award Ceremony took place on 22 October 2014. The Nurses awarded for Clinical Excellence were RN E. Cloete, SN R. Theunissen and NA J. Williams
- Staff development took place amongst all categories of staff
- One Registered Nurse completed her studies in Advanced Psychiatry at Stellenbosch University and 1 Registered Nurse completed her Basic Psychiatry at Stikland Hospital
- One Assistant Nurse qualified as Staff Nurse in 2014
- The wards in the Internal Medicine Department each had their own teambuilding end of year functions.

## EMERGENCY SERVICES

Assistant Manager:  
Ms S Kleinsmith

### Services

Area	Beds	Service
Ward F1 + CID W	27 + 16 Trolleys	Medical emergencies
Ward C1A	20 trolleys	Trauma
Ward C1D East/ West	19	Surgical emergencies <ul style="list-style-type: none"> <li>• 19 beds</li> <li>• 10 chairs</li> <li>• 3 cots</li> </ul>
Ward J7	31	Trauma Ward
Ward: Resus	6 trolleys	Surgical Emergency
Ward: Day Surgery	15	Day ward
Ward J1	32	Medical & Surgical
	Total: 124 (beds only) 42 (trolleys)	

### Resources

Assistant Manager: Nursing	1
Operational Managers	8
Professional Nurses	78
Staff Nurses	37
Nursing Assistants	91
Housekeepers	6
Household Aids	45

### Number of Beds

Emergency: 112+15 beds in Day Surgery = 109 beds

### Average Bed Occupancy

Emergency Services	
F1	185%
C1D	192%
C1AW	199%
J7	86%
C1DR	124%
B5E	23%

## Highlights of the Year

- Commissioning of newly upgraded Trauma Ward in May 2014
- Installation of Lodox machine in Trauma
- Hartman Memorial Award Ceremony: x3 Nurses received awards of clinical excellence
- Installation of security gates in following wards: CIA, CID, J1
- Water coolers received for following wards: CIA x2, CID x1, F1 x1

## Academic

- Three Professional Nurses completed Post Basic Diploma in Trauma and Emergency
- Three Staff Nurse in final stage of training for R683 course

## Special events

- Various wards within the Module hosted teambuilding events throughout the year
- Nursing School Staff reached out to Ward F1 staff
- Healthnicon College reached out to Ward J7

## OBSTETRICS AND GYNAECOLOGY MODULE

**Assistant Manager:**  
**Ms J Sapto**

### Services

Ward	Number of beds
C2A Labour ward	19
C2A East	19
C2A High Care	4
C2A Recovery Ward	2
F2M Antenatal	34
J2 Mothers and Babies	28
J5 Mothers and Babies	23
J4 Gynaecology	33
FG Gynaecology and Oncology	25
Breastfeeding Clinic	
Outpatients: High Risk Clinic, Teenage Clinic, Special Care, New Bookings, Diabetic Clinic, Fetal Evaluation and Sonar	
Family Planning Clinic	

### Resources

Assistant Manager Nursing	1
Operational Manager nursing	8
Professional Nurses	106
Enrolled Nurses	41
Nursing Assistants	95
Administration	2

## Number of beds

185

## Average bed occupancy

80%

## Highlights of the year

- The upgrading and commissioning of C2A West and C2A East
- The staff of the Obstetrics and Gynaecology and Oncology Department reached out to a church in Khayelitsha on Madiba Day, 18 July 2015. Grocery parcels and blankets were handed to representatives of the church

## Academic

- Five Professional Nurses successfully completed the Diploma in Advanced Midwifery
- One Staff Nurse successfully completed the R683 course
- One Nursing Assistant successfully completed the R2175 course; The Hartman Memorial Award Ceremony: Three Nurses were awarded for clinical excellence

## Special donations

- Voluntary Aid Services of Tygerberg Hospital assisted us in creating a patient-friendly environment by sponsoring curtains to C2A East

## Special events

- The Department hosted two successful teambuilding events
- The Department hosted successful programmes on International Nurses Day and International Midwifery Day during May 2014.



## PEDIATRICS AND NEONATOLOGY

Assistant Manager:  
Ms A Jacobs

### Services

Area	Beds	Service	Average Bed Occupancy
Ward GGR	24	Paediatric Emergency	82,1%
Ward G1	30	Neonatology	96,1%
Ward G2	27	Neonatology	103,9%
Ward G3	18	Oncology	62,1%
Ward J3	25	Neonatology	104,35
Ward G4	27	Surgery	83,6%
Ward G6	25	Orthopedics	71,2%
Ward G7	25	General	96,2%
Ward G8	30	Neonatology	89,8%
Ward G9	30	Neurology	75,7%
Ward A9 PICU	10	Paediatric Intensive Care	87,4%
Ward A9 Paeds High Care	4	Paediatric High Care	67,9%
Ward A9 NICU	8	Neonatal Intensive Care	134,6%
Ward A9 High Care	4	Neonatal High Care	62%
Ward A9 Trachea	6	High Care	78,2%
Ward G10	23	Infectious Diseases	69,7%
Provide KMC services	62	Kangaroo Mother Care	95 - 100%
Milk Kitchen		Provide milk and EBM	3 1 500 bottles pm

### Highlights of the year

Hartman Awards for Nursing Excellence awarded to:	
Professional Nurse	Mrs A.B.C. Petersen
Enrolled Nurse	Ms E. Perez
Nursing Assistant	Ms J. Solomons
Elsa Reiner Trophy Recipient	Mrs F. Abrahams

### Podium Presentation at National Conference

Annual Christmas Party was held for close to 350 children and 200 parents.

Lots of visits by various church groups, schools and international celebrities throughout the year, namely

- Stormers rugby team
- Food parcels handed over to Wesbank Educare Centre
- Tygerberg Children's Hospital was visited by Cape Talk Radio 786
- Received Archbishop Desmond Tutu's birthday cake
- Participated in Mandela Day celebrations

## Academic achievements

- Professional Nurses: Bridging Course Staff Nurse to Professional
- Nurse [R683] x1
- Advanced Midwifery and Neonatology x1
- Paediatric Nursing x4
- Nursing Administration x1
- Nursing Assistants: Bridging Course Assistant Nurse to Staff Nurse [R2175] x1

## THEATRE/OPERATING ROOMS

**Assistant Manager:**  
**Mr R Visagie**

### Overview of activities

This Unit renders a competent, safe, compassionate and ethical-based health service to hospitals and clinics in the drainage area.

- The Unit performs in average 90 cases per day in the general theatres, and 25 cases per day in the emergency theatres.

### Resources

Assistant Nurse Manager	2
Professional Nurses	90
Staff Nurses	27
Nursing Assistants	54
Admin Clerks	5
General Assistants	40
Housekeepers	5

### Output

Theatres for elective cases	28
Catheterization Laboratory	1
Radiology Theatre	1
Emergency Theatres	4
Decontamination Theatre for Nuclear Radiation	1

### Comment on output

- 28 810 cases were done in 2014
- The Minor Orthopaedic Theatre function very well, 4 days a week and is very well utilised

## Infrastructural Development

Two sets of theatre lights were installed

## Highlights of the year

### Hartman Awards handed to:

- Mr R.E. Visagie Assistant Manager
- Ms G. Jantjies Professional Nurse
- Ms D. Windvogel Staff Nurse
- Ms C. Kleinsmith Nursing Assistant
- Strategic planning sessions were held in the Module
- Testing the readiness for a Nuclear Decontamination Theatre was held on 5 November 2014 with Eskom

## Conclusion

The planning for upgrading of the third floor theatres and staff rest rooms to uplift the morale is a priority.

## SURGICAL

**Assistant Manager:  
Mr R de Bruyn**

### Services

Area	Beds	Service	Average Bed Occupancy
Ward D1	25	Vascular surgery	99,4%
Ward D2	31	Abdominal surgery	82%
Ward D3	30	Plastic /Max Fac. Surgery	74,3%
Ward D4	28	Private (Medical/Surgical/Orthopedics/ Cardiology)	138,5%
Ward D5	31	Head Neck and Breast surgery	80%
Ward D6	31	Urology	70%
Ward D7	31	Ophthalmology surgery (Speciality)	68%
Ward G5	22	Ear Nose and Throat surgery	74,5%
Ward A3H	31	L 2 - General orthopaedic Ward	89%
Ward A3W	31	L 3 - Orthopaedic Ward (Neck and spine injuries)	86%
Ward F4	32	L 3 - Orthopaedic Ward (Hip and knee replacements)	77%
Ward J6	29	L 2 - Septic Orthopaedic Ward	82%
<b>Total Number of beds: 352</b>			

## Resources

Assistant Manager Nursing	1
Operational Nurse Managers	11
Professional Nurses	71
Staff Nurses	50
Nursing Assistant	126
Housekeepers	12
Household Aids	46

## Highlights of the year

- Hartman Clinical Excellence Awards 2014
- Professional Nurses Award: RPN C.D
- Staff Nurse: REN E. Damons
- Nursing Assistant: RAN C. Pietersen
- Smile Week

The Smile Week outreach programme to children with cleft lips and palates was held on 11 – 15 November 2014. Operations done were 37.

Through the Smile Foundation a wound care workshop was arranged and attended by both Tygerberg Hospital staff and nurses from other hospitals.

## Academic

- One Professional Nurse completed post basic Diploma in Ophthalmology
- One Professional Nurse completed Diploma in Nursing Education
- Two Auxiliary Nurses completed R2175 bridging course

## OUTPATIENTS DEPARTMENT

**Assistant Manager:  
Ms M Majiedt**

### Services Offered

The Outpatients Department (OPD) consists of 23 clinic points.

All the clinics provide level 2–3 services, except for the ARV Clinic and the TOP (termination of pregnancy) Clinic offering 1<sup>st</sup> trimester TOP. The Unit for Infection Prevention and Control is also under the supervision of the Nursing Manager of the OPD.

## The location of the clinics is as follows:

**3<sup>rd</sup> Floor:** Termination of Pregnancy and Gynaecology Clinic. This also includes gynaecologic oncology

**4<sup>th</sup> Floor:** Radiology Department and includes sonar MRI and CT scan

**5<sup>th</sup> Floor:** Head, Neck and Breast Clinic, Pain Clinic, ENT, Stoma Clinic, Collateral Surgical Clinic, Abdominal Clinic – Paediatric Surgery, Burns Clinic, Vascular, Neurosurgery, Facial Maxilla, Plastic surgery and Anorectal Clinic and the dressing room. These clinic services are available three per day all running at the same time. The dressing room is available on a daily basis.

**6<sup>th</sup> Floor:** Trauma Orthopaedic Clinic, specialised Knee, Hip, Back, Hand, Clubbed Feet Clinic, Urology Clinic – male and female

**7<sup>th</sup> Floor:** Specialised Respiratory Clinic, Rheumatology, Nephrology Allergy, Diabetic Neurology, Epileptic Endocrine Nutrition, Ophthalmology

**8<sup>th</sup> Floor:** Internal Medicine, Cardiac, Echo, ARV roll out and Infectious Diseases Clinic, Dermatology Clinic, Occupational Health and Staff Clinic

**9<sup>th</sup> Floor:** Haematology (Bone Marrow Clinic)

**10<sup>th</sup> Floor:** Nuclear Medicine

## Patients seen

### Highlights of the year

1. Nursing staff celebrated nursing excellence at the annual Hartman lecture.
2. Domestic staff was also honoured with a function to honour the nominees and recipient of the Hygea Award for excellence in the housekeeping section.
3. Nursing staff was involved in the outreach programme to the West Coast. This is a combined GSH and TBH initiative of the GIT Clinic.
4. Outreach was also provided to Worcester
5. Colonoscopy surveillance outreach to West Coast Winelands.
6. National Core Standards: The following standards have been implemented:
  - 6.1 Standardised emergency trolley
  - 6.2 AED machines
  - 6.3 Roll out of ECM

**Head of Department:  
Prof. Paul van Helden**

### Summary of activities

#### 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



**Prof. Paul van Helden**

#### Direct patient and community benefit

- CV diseases: Direct DNA-based testing was available for HCM, LQTS and PFHBI. Information is also made available to PACE for patient- and family-based advice and counselling. Information for the lay person is also made available on their website
- The treatment outcome of patients with XDR-TB often leads to a situation of treatment failure, followed by death. In an attempt to improve treatment outcome we have embarked on collaboration with MSF to determine the resistance profile of patients who are therapeutically destitute. This information is used to tailor treatment options and to motivate for the compassionate use of anti-TB drugs, which are still in phase 2 and 3 trials
- We are supporting 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
- We do specialised diagnostics for critical animal species for the National Zoological Gardens (NZG) and SANParks, and advise them accordingly
- The organisation FIND, supported by the Gates Foundation, is working with us in developing new drug-resistant TB diagnostics
- 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 and Overberg and West Coast districts of the Western Cape)
- We are collaborating with the NHLS immunology group at Medical Microbiology (Prof. Esser) on development of immunological assays for evaluation of primary immunodeficiencies

#### Laboratory work

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

PID diagnostics

CV disease diagnostics

## Teaching

MBChB I: 8 lectures in immunology

MBChB I: Extended degree program: 4 lectures in immunology

MBChB II: 6 lectures in immunology

MBChB IV: 1 lecture on TB immunology

MMed Genetics

HONS BSc

MSc

PhD

## Medical Physiology

### Teaching

The Division of Medical Physiology is predominantly responsible for teaching and training of both undergraduate- (MBChB, BSc Physiotherapy, Occupational Therapy, Dietetics: total of approximately 386 undergraduate lectures per year) and postgraduate students (BScHon, MSc, PhD, MMed) studying at the Faculty of Medicine and Health Sciences.

### Research

The three main fields of research include the Cardiovascular Research Group, the Stellenbosch University Reproductive Research Group and Tuberculosis Research.

### Clinical Services

One Respiratory clinic per week

### Clinical Services

- 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

## Anatomy and Histology

Anatomy training for MBChB, BSc Physiotherapy, B.Occupational Therapy, BSc Dietetics, B Speech-, Language and hearing Therapy, MMed Radiodiagnosis/Orthopaedics/ Psychiatry, MChD Orthodontics/ Periodontics/Prostodontics/Maxillo-, Facial Oral Surgery. The cadaver platform is used by Departments/Divisions/Units for training and retraining of specialists in Anaesthesiology,

Orthopaedics (AOTC), Neurosurgery, Obstetrics and Gynaecology.

Anatomy is also involved in the training of Anatomists. The Division now has both an active undergraduate and postgraduate program for BSc (Honours) and MSc. Students taking BSc (Human Life Sciences) can now take Anatomy as a major. To date the Division has graduated 90 BSc majors, with 56 currently enrolled, 10 BSc Honours students and currently a further 7 are enrolled, together with 3 MSc. A further two students enrolled for the BSc (Honours) program in Morphological Sciences (used to be Histology).

## Clinical Genetics and Genetic Counselling

We conduct our clinical work in the prenatal/perinatal, paediatric and adult medicine environment at Tygerberg Hospital. These include:

- Clinical genetic assessment/counselling for fetal anomalies, teratogens and family history of birth defects (Interdisciplinary Clinic with Fetal Medicine)
- Genetic counselling for pregnancies at increased risk of Down syndrome (Interdisciplinary Clinic with Fetal Medicine)
- Perinatal assessment of all stillbirths for birth defects, and counselling of parents
- Paediatric Genetic Clinic and Ward Call service
- Paediatric and surgical specialties: Interdisciplinary Clinics for Haemophilia (together with paediatric Haematology), cleft lip and/or palate (with Plastic surgery), and craniosynostosis syndromes (with Plastic Surgery and Neurosurgery)
- Cancer genetics (currently mainly for familial breast cancer and familial colon cancer) – this is a growing service. The breast cancer service is interdisciplinary, in collaboration with the Mamma Clinic team
- Neurogenetics – a relatively new clinic in collaboration with Adult Neurology

### We conduct outreach services to:

- Level 2 hospitals (Paarl and Worcester)
- Schools for children with disabilities (blindness, deafness, intellectual disability)

## Resources

### Molecular Biology and Human Genetics

Posts (Full-time)	Number	Filled
Professor	8	8

### Clinical Genetics and Genetic Counselling

Posts (Full-time)	Number	Filled
Specialist	1	1 Head of Clinical Unit
Registrar	2	2
Posts (sessional – how many hours worked per week)		
Genetic Counsellor	32 hours/week	Yes
Medical Geneticist	8 hours/week	Yes
Medical Geneticist	4 hours/week	Yes



## Output

### Molecular Biology and Human Genetics

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

#### Consultations:

CLINIC	FREQUENCY	PATIENTS SEEN 2014	PATIENTS SEEN 2013	
TBH Assessment of stillbirths	Daily	701	727	
TBH Prenatal Down Syndrome counselling	1/week (and ward call)	633 54	594	1st visit Follow up
TBH Prenatal Fetal Anomaly Counselling	1/week (and ward call)	194 64	198 112	1st visit Follow up
TBH Prenatal (FH)		32 5	35	1st visit Follow up
TBH Prenatal (Other)		51 7	26	1st visit Follow up
TBH Prenatal TOTAL		1 040	965	
TBH Paediatric Genetic Clinic and ward call out	1/week (EXCLUDING ward call)	362 252	355 299	1st visit Follow up
TBH Paediatric Genetic TOTAL		614	654	First visit + follow up
TBH Haemophilia	1/ month	0	1	
TBH Cancer Genetics	1/month (and ward call)	78 6	83 13	Breast ca Colon ca
TBH Neurogenetic Clinic	1 in 3 months	6	12	
TBH Cleft Palate	2/month	~70	~70	
Outreach to LSEN schools	Regular	118	105	
Outreach to Paarl and Worcester Hosp		36	~40	
TOTAL		2 669	2 670	

## Comment on output:

### Molecular Biology and Human Genetics

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

### Clinical Genetics and Genetic Counselling

Due to the interdisciplinary nature of much of our work, many patients that we see are booked in under other departments, e.g. Fetal Medicine, Mamma Clinic. In addition, we do not have inpatient beds for genetics. For these reasons our work may be significantly under-represented on Clinicom.

Clinical genetic and genetic counselling consultations are long (assessment of a new case takes ~ 45 minutes, and follow-up cases ~30 min). As part of an assessment there may be contact with multiple family members for information, especially in the cancer genetic, neurogenetic and haemophilia clinics. Prenatal clinic involves difficult decision-making, e.g. regarding TOP, and cannot be hurried. Therefore, the patient numbers described represent a considerable workload.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

### 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 WGA, or whole genome amplification, so that we can make maximum usage of minimal samples.
- We have developed a novel method for the detection of transrenal DNA for the diagnosis of TB and are now applying this technique to identify the causative agent of sarcoidosis.
- We developed a transport bottle/medium for the transport of fine needle biopsy aspirates for the diagnosis of TB by either culture or 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 acquired a CFX-90 instrument for the development and evaluation of a novel PCR technology for the rapid detection of mutations conferring resistance.
- 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 are the entity of choice for speciation diagnostics of non-tuberculous mycobacteria.
- We are the centre of choice for TB clinical trials.

## Medical Physiology

The following infrastructural upgrades and laboratory equipment were procured during the course of the year: Fluorescent microscope, ChemiDoc MP Chemiluminescent System, Incubator and Laminar Flowcabinet.

## Community outreach programmes

### Molecular Biology and Human Genetics

#### Public awareness, public engagement and publicity

- World TB Day 2014: On World TB day, the Wits node of the CBTBR conducted an awareness campaign to raise the profile of TB disease in the public consciousness. CBTBR staff and students displayed chest X-rays on their upper bodies in an awareness campaign targeted at higher education learners
- Prof. Gerhard Walzl was interviewed live for 20 minutes on Radio 2000 on 10 March 2014 regarding the TB Awareness Month of March. He answered various questions concerning tuberculosis and the risk factors associated with the disease
- Prof. Sampson wrote two opinion pieces for popular press, including The Sowetan newspaper and spice4life (online lifestyle magazine), for World TB Day, to highlight the urgency of the TB epidemic, to raise public awareness of the drug-resistant TB epidemic and to highlight NRF-funded research efforts towards tackling this problem and impact on society.

#### Outreach activities

- CBTBR SU node staff and students donated bags to Faseka High School in Gugulethu. The learners appreciated it a lot. These were grade 11 pupils from one of their science classes. Khethelo explained where the bags came from and that it is meant to encourage them to study hard for their exams, get good grades and to pursue some kind of tertiary education, especially in the science, technology and engineering fields. The outreach was organised by SU node students Stefanie Malan and Khethelo Xulu.
- Prof. Corfield has continued her involvement in outreach activities that engage the general public in a greater awareness of biomedical science and biotechnology, and in novel ways to communicate these complex sciences through activities with many different audiences, ranging from primary and secondary school learners and their teachers, medical students and genetic counsellors to members of neighbourhood watches, community policing forums and the SA Police Services. Since 1998, she has encouraged many other scientists and postgraduate students to take part in public engagement and has received support and encouragement for this work from different stakeholders – including outreach funding from the CBTBR and the MRC, the DNA project and the Public Understanding of Biotechnology initiative of SAASTA (DST), as well as her pro Deo work and contract work under the name of Scibiolosa (her own initiative setup since retirement- in which she calls herself “a scientist@large”).

#### Work with the DNA project to promote understanding of forensic DNA profiling

The workshops given were sponsored by the DNA project (an NGO promoting awareness of crime scene preservation of DNA evidence). This has become more important with the recent passing of the DNA Forensic Act, which allows the establishment of a DNA forensic database in South Africa. A total of 12 workshops were given, including 9 community workshops, attended by members of Community Policing Forums, Neighbourhood Watches and the SAPS, which were held across the greater Cape Town area, including Khayelitsha and Mitchells Plain (Manenberg and Samora Machel were cancelled due to violence).

## **Contributions to the public understanding of Biotechnology (PUB) initiative a division of SAASTA/NRF/DST**

This initiative raises awareness of Biotechnology amongst various audiences.

In February, a two-day workshop was held in Stanger, KwaZulu-Natal (KZN), for school teachers from the surrounding areas.

In October, a two-day workshop was given in Johannesburg at the SAASTA Observatory Office to facilitator representatives from all the science centres in South Africa.

In October, a book entitled "Blazing a Biotechnology Trail" was launched in Johannesburg. Professor Corfield was one of the featured scientists, nominated in the "communication" category.

## **Medical Physiology**

Various members of staff act as regional finals judges in the ESCOM Expo for Young Scientists, a competition with the aim to create awareness for sciences amongst all school children.

Several members of staff are involved in the Mentor/Tutor programme of the Faculty of Health Sciences.

Prof. Barbara Huisamen is also involved in the Women in Science career development Mentor programme. She and Dr S. Bardien-Kruger are currently lobbying for this programme to also be established on the Tygerberg campus.

Prof. A. Lochner mentor for G Naidoo (Pharmacology)

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 pre- and postgraduate). He also maintains and staffs research clinics at various healthcare facilities and contributes to health care in study participants.

## **Anatomy and Histology**

The Medical Morphology Museum has become the educational excursion of choice for school learners taking life science as a school subject. Guided tours of the museum and dissection halls are conducted by senior Medical students with the total number of learners passing through the portals of the Division exceeding 6 000 in 2014. Over and above being exposed to the marvels of the human body, learners are sensitised as to the dangers of smoking, substance abuse, foetal alcohol syndrome (FAS), organ and body donation and care of their own bodies.

## **Clinical Genetics and Genetic Counselling**

We work with the Foundation for Alcohol-related Research to highlight the problem of FAS.

We work with the Down Syndrome Association - and are currently developing an informational video on Down syndrome.

## Partnerships

### Molecular Biology and Human Genetics

Name	Institution	Nature/purpose, outputs and future direction of collaboration
<b>International (35)</b>		
Dr Helmi Mardassi	Institut Pasteur de Tunis, Tunisia	Characterisation of LAM evolutionary history (2007-present)
Dr Wilbert Bitter	Vrije Universiteit, Amsterdam, Netherlands	The trafficking of the M. tuberculosis PE and PPE proteins (2006 - present). ESX secretion in Beijing genotype strains
Dr Philip Supply,	Institut Pasteur Lille	Evaluation of hypervariable VNTR regions for the discrimination of Beijing genotype strains
Dr Bob Horseburgh	Boston University	Deep sequencing for fluoroquinolone resistance
Prof. Eric Bottger	University of Zurich	Development and evaluation of novel genetic based diagnostics for drug resistance.
Prof. Edward Nardell	AIR facility, Witbank	Transmissibility of drug resistant TB
Prof. Timothy Sterling	Vanderbilt University Tuberculosis Center, Nashville, USA	Fluoroquinolone resistance
Prof. Megan Murray	Florida University Harvard / Broad Institute	Development of a novel TB diagnostic for drug resistance  Various project including the evolution of XDR-TB strains; other mechanisms of drug resistance (in addition to genomic mutations); mechanisms of resistance to second-line drugs; strain fitness; certain strain families may have both increased fitness and increased potential for acquiring drug resistance. All of these projects involve whole-genome sequencing, proteomics and microarray. Prof. Murray is directly involved in project planning, paper writing and funding proposals (NIH and Wellcome Trust).
Dr Karen Jacobson	Harvard University, USA	GIS of drug-resistant TB in the Western Cape  MDR treatment outcome in Brewelskloof Hospital  Treatment outcome of M(X)DR-TB
Prof. Harald Wiker, Dr Gustavo de Souza	Bergen University and Oslo University, Norway	Ongoing collaboration on the M. tuberculosis phosphorylome  New collaboration on the detection of drug resistance by single run multi-locus sequencing  New collaboration on the M. tuberculosis secretome
D. Anita Schurch	RIVM, Netherlands	Ongoing collaboration on M. tuberculosis genome evolution

Dr Hernandez Pando Rogelio	National University of Mexico	Test different drug-resistant strains (MDR / XDR) in a mouse model for strain fitness/virulence. The isolates are the same as described above and will complement the data obtained by molecular investigations  To determine whether reinfection induces reactivation
Prof. Ruth McNerey	LSTHM	Whole genome sequencing of drug-resistant M. tuberculosis strains
Prof. Anab Pain	KAUST	Whole Genome Sequencing of Mycobacterial Species
<b>Prof. Erwin Schurr</b>	McGill University, Montreal, Canada	Genetic epidemiology. Poster outputs; 4 papers published 2009-2010, one paper in 2013, one in 2014.
<b>Prof. Laurent Abel and Alexandre Alcais</b>	INSERM / Université Paris 5, France	Analysis of genetic epidemiology. Poster outputs; 4 papers published 2009-2010, one paper in 2013, one in 2014.
<b>Dr Alkes Price</b>	Harvard School of Public Health, Boston, USA	Computational assistance with analysis of admixture mapping. Paper published in 2013
Dr Brenna Henn	Stony Brook University, New York, USA	Population Ancestry genetic determinations. Paper published in 2013 and 2014
Prof. Stefan Schreiber, Dr Almut Nebel, Dr Andre Franke	Christian-Albrechts University, Kiel, Germany	Investigation of candidate genes in TB. Resulted in 4 publications 2007 - 2009. Manuscript in preparation
Dr Ad Koets	Utrecht University	Host genetics of BTB (WOTRO Integrated program proposal) (2007 - present). Two papers published 2013
Prof. Mary Carrington, Dr Maureen Martin, Dr Xiaojiang Gao	Frederick National Laboratory for Cancer Research, Maryland	Investigation of KIRs as TB candidate genes. Paper published 2014
Prof. Harriet Mayanja	Makerere University, Uganda	Collaborators on BMGF-funded project
Dr Carol Holm-Hansen	Norwegian Institute for Public Health	Collaboration on BMGF Grand Challenge Exploration grant, 2010-2011
Dr Christoph Lange, Dr Barbara Kalsdorf	Clinical Infectious Diseases, Centre for Clinical Studies, Medical Clinic, Research Centre Borstel, Germany	Collaboration on TB diagnostic study 2011
Dr Jeff Boyle	Qiiagen, US	Collaboration on diagnostic TB study
Dr. Mary Jackson	Colorado State University	Screen anti-TB compounds against RIF-resistant M. tuberculosis strains
Dr John Metcalfe	UCSF	Deep sequencing to identify heteroresistance
Prof. Annelies van Rie	UNC	Evaluation of the Xpert MTB/RIF test
Prof. Nalin Rastogi	Pasteur Institute	Spoligotyping TB in Africa

Dr Harald Seitz	Fraunhofer Institute for Biomedical Engineering (IBMT), Potsdam-Golm, Germany	Develop a small microchip device for the simultaneous detection and TB and resistance to a variety of anti -TB drugs
Prof. Kathy Eisenach	University of Arkansas, USA	Rapid detection of M tuberculosis conferring resistance against the antibiotic pyrazinamide in MDR sputum samples
Dr Eva Kolwjick	Department of Medical Microbiology, Radboud University Nijmegen, The Netherlands	Detection of dormant forms of M tuberculosis in sputum samples from TB patients on drug treatment by incubation with early stationary phase supernatant
Prof. Sivaramesh Wigneshweraraj	Imperial College London	Structure-function relationships in Mycobacterium tuberculosis RNA polymerase
Prof. Anne Bowcock	Imperial College London	Exome sequencing of patients with Mendelian susceptibility to Mycobacterial Disease
Dr Lucy Collins	London Research Institute	Investigating difference in autophagy induction by different M.tuberculosis strains using correlative light and electron microscopy.
<b>National (30)</b>		
Dr Helen Cox	UCT	Collaboration on drug resistance in Khayelitsha, Western Cape  Impact of mixed infection on treatment outcome  Evolution of drug resistance in HIV positive and negative individuals
Prof. Keertan Dheda	UCT	Molecular epidemiology of XDR-TB  Whole genome sequencing of XDR-TB
Dr Grant Theron	UCT	Measuring infectiousness through cough aerosol sampling
Prof. Alan Christoffels	SANBI, UWC	Bioinformatic analysis of whole genome sequence data. Wet-lab testing of computationally identified inhibitors
Dr Nazir Ismail	NHLS	Drug-resistant TB in South Africa
Dr Danie Theron	Eben Donges Hospital, Worcester	New project on DOTS programme on farms
Dr Else Marais	Wits/NHLS	Ongoing collaboration on the molecular epidemiology of drug resistant TB in Gauteng
Dr Du Toit Loots	North West University, Potchefstroom	Mouse Macrophage metabolome
Prof. Colleen Wright	NHLS, Port Elizabeth	The diagnostic utility of FNAB
<b>Drs. Peter Buss and Markus Hofmeyr</b>	SA National Parks	Development of a gene transcription assay for lions; ongoing project
Prof. Willem Hanekom	SATVI, UCT	Collaboration on TB vaccine studies
Dr Anita Michel, Jacques Godfroid, Koos Coetzer, Nick Kriek	Onderstepoort Veterinary Institute	Non-tuberculous mycobacteria in wildlife (WOTRO Integrated program proposal) (2007 - present)



Prof. Kelly Chibale	Dept. Chemistry, UCT	Screen antituberculosis lead compounds
Dr Chris van der Westhuyzen	CSIR Biosciences, Pretoria	Screen antituberculosis lead compounds
Dr Richard Haynes Kenyon	North West University, Potchefstroom	Study novel artemisinins for antimycobacterial activity
Dr Gert Kruger	Chemistry, UKZN, Durban	Screen antituberculosis lead compounds
Prof. Ivan Green	Dept. Chemistry, UWC	Screen new compounds and derivatives for antituberculosis activity
Mrs Tania Dolby	NHLS , Green Point	Collaborator on all our projects - provides routine samples
Dr Sias May	TB control programme in Suidkaap/ Lawaaikamp	TB Control strategy
Prof. Willem Hanekom,  Prof. Frank Brombacher	IDM, UCT	Sharing of technology (multicolour FACS, Luminex machine), sharing of samples, manuscript accepted for publication  Sharing of expertise (murine helminth models)
Dr Anneke Hesselning	SU	New collaboration to investigate genotype-immunological phenotype correlations in children
Prof. Keertan Dheda	Lung Institute, UCT	Collaboration in diagnostic/biomarker project
Prof. Muazzam Jacobs	UCT	New collaboration to assess the impact of steroid hormones on protective immunity to M. tuberculosis in a mouse animal model
Dr Elisabetta Walters	Department of Paediatrics and Child Health, Stellenbosch University	Improved detection of M. Tb by Xpert MTB/RIF in gastric aspirates and stool samples collected from children with suspected pulmonary TB
Dr Regan Solomons	Department of Paediatrics and Child Health, Stellenbosch University	Detection of M tuberculosis by PCR-based methods in cerebrospinal fluid from children suspected to suffer from TB meningitis
Dr Anita Michel	Faculty of Veterinary Science, University of Pretoria	Assessment of novel biomarkers for the diagnosis of TB in cattle; this work is ongoing
Dr Monika Esser,	NHLS Immunology Unit, Tygerberg Hospital	Identification of gene mutations that cause Primary Immunodeficiency Disorders
Prof. S. Schaaf and E. Zöllner	Dept. of Paediatrics and Child Health, FHMS, SU	Investigating the genetic aetiology of TB and insulin-dependent diabetes mellitus.
Dr Ben Loos	Dept. Physiological Sciences, SU	Investigating differences in autophagy induction by different M tuberculosis strains using super-resolution confocal microscopy



## Medical Physiology

### National:

The Cardiovascular Research Group, headed by Prof. Hans Strijdom, maintains close ties with the Cape Heart Centre (Hatter institute, UCT), the Disease Signalling Group (Physiological Sciences, US), School of Physiology (University of the Witwatersrand), Department of Medical Biosciences (UWC) and Cape Peninsula University of Technology.

Prof. A. Lochner has ongoing collaborations with Dr Dee Blackhurst of Chemical Pathology (UCT) and Prof. S. Lecour, Hatter Institute (UCT) regarding the effects of melatonin on the heart.

Prof. Huisamen is involved in a study in collaboration with Prof. A.M. Engelbrecht, Department of Physiology, Stellenbosch University, to determine the role of the ATM protein in autophagy. In addition, she is currently setting up collaboration with Dr M. Nabben of the Maastricht University, studying the development of myocardial hypertrophy in the aetiology of obesity-induced diabetes. She is also involved with the studies of Dr R. Johnson of the Medical Research Council (MRC) on the potential of pure aspalathin as a treatment option for type 2 diabetes, as well as with Dr C. Pfeiffer in a study on the anti-obesity properties of Cyclopia. Prof. Huisamen is involved in a collaborative study with Dr S. Barden-Kruger investigating the possibility that Parkinson's disease is partly a mitochondrial disease. In addition, she has formed a collaboration with Prof. S. LeCour at the UCT Cape Heart Centre to investigate the involvement of STAT-3 in one of her ongoing projects.

Dr Derick van Vuuren is currently collaborating with Dr Pieter van Vuuren at the North-West University (Potchefstroom campus) to develop a software package aimed at increasing the automisation of the assessment of infarct size in laboratory animal experiments.

Dr Shantal Windvogel is involved with a collaborative study with researchers at the University of the Western Cape, South African Medical Research Council and the Cape Peninsula University of Technology.

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

Dr John Lopes has an ongoing collaboration with various departments at Stellenbosch University, including Geology, Chemistry, Forestry and Physiology. This is to introduce our students to an interdisciplinary approach in science, which is necessary for the successful application of science in the knowledge economy that South Africa is cultivating.

Dr Erna Marais has entered a collaboration with Dr Dirk Bester from the Faculty of Health and Wellness Sciences, Cape Peninsula University of Technology, on In vitro Cardiovascular, anti-inflammatory and anti-oxidant effects of honeybush and rooibos in male Wistar rat hearts by Ms Ziyanda Zizipho Ntsunguzi, which will lead to the qualification of Magister in Technology.

Prof. Andreas Diacon, together with Dr Sven Friedrich, is running a research platform for molecular TB diagnostics for adult and paediatric tuberculosis. SU collaborates with Task Applied Science (TASK) in conducting clinical trials in Cape Town that focus on new tuberculosis medications, vaccines and diagnostics. This is an ongoing successful collaboration, as is SU/TASK's continued collaboration with the Department of Paediatrics and Child Health (Desmond Tutu TB Centre and FAM Cru, both in-house), that are partners on long-term research projects. Prof. Andreas Diacon is also still involved with clinical research at the Department of Medicine.

## **Private sector:**

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, prepared from *Prosopis glandulosa*. They have concluded their investigations on the anti-inflammatory potential of this preparation in conjunction with effects on muscle injury regeneration. The results from these studies are currently under patent application. In addition, INNOVUS is currently negotiating with a Swiss company to further test and commercially exploit this product. They are currently investigating the anti-hypertensive effects of this drug in a rat model of hypertension induced by a high fat diet.

Prof. Barbara Huisamen forms part of a large collaborative project funded by Cape Kingdom to investigate the anti-diabetic and anti-hypertensive effects of a watery extract of a specific indigenous plant species.

Prof. Andreas Diacon is investigating novel antituberculosis agents and regimens in collaboration with drug manufacturers and international partners, among them the Global Alliance for Tuberculosis Drug Development (New York, USA), the US AIDS Clinical Trials Network and the European Union (EDCTP) in his work with Task Applied Science, a collaboratory of SU.

## **International:**

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 sponsored by a joint research grant under the South African-Norway programme on research co-operation.

Prof. Hans Strijdom has established several international collaborative partnerships, among others with the Medical University of Graz (Austria) and the private research company VITO in Belgium. Furthermore, Prof. Strijdom will serve as the project coordinator of a large, multi-national study involving five different countries (South Africa, Kenya, Ivory Coast, Belgium and Austria) investigating the relationship between HIV and ARV treatment and vascular dysfunction. This three-year study commenced in June 2014.

Prof. Huisamen has been approached by Prof. A. Hamza of the National Organization of Drug control and Research in Giza to get involved in a collaborative project to mine indigenous plants in South Africa (and Egypt) for their anti-diabetic properties.

During the course of 2014, Dr Derick van Vuuren has engaged in discussions with Dr Tzu-Ching Meng with the aim of initiating a collaborative study with Academia Sinica in Taipei, Taiwan. The aim of this study is to investigate phosphoproteome changes during the progression of myocardial ischaemia and reperfusion.

Prof. Stefan du Plessis collaborates extensively with Dr Ashok Agarwal, Director of the Reproductive Research Center, Cleveland Clinic, in Ohio, USA. He is also involved in joint projects with Prof. Diana Vaamonde (Spain), Dr Hans Ingolf Nielsen (Aalborg University, Denmark), as well as Drs Charles Kimwele and Kavoo Linge from the University of Nairobi in Kenya.

Prof. Stefan du Plessis participated as an international faculty member in the Summer Intern program of the Center for Reproductive Research at Cleveland Clinic, in Ohio, USA.

Prof. Andreas Diacon has continued 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 120 members performing tests on sputum samples collected at various research locations in Cape Town such as Delft, Mfuleni, Scottsdene, Brooklyn Chest Hospital and the Task Clinical Research Centre in Bellville. The portfolio now also includes TB vaccine studies. Prof. Diacon is also still involved with clinical research at the Department of Medicine and is rendering clinical services.

## Anatomy and Histology

Anatomy has developed partnerships with most companies which provide training of especially Orthopaedic and Neurosurgeons. The list includes Accumed, Medtronic, Johnson & Johnson, Kyhpomed, Zimmer, Smith & Nephew, Stryker, Storz, Customed, Adcock-Ingram, Bicifix, etc. Anatomy has become a venue of preference for cadaver workshops for the weekly retraining of Specialists in Orthopaedics (shoulders, hips, knees, ankles, elbows), Neurosurgery (brain and spinal reconstruction), Obstetrics and Gynaecology (laporoscopic techniques), Plastic and Reconstructive Surgeons (skin flap reconstruction of the nose for example). The common denominator in all the workshops is that surgeons need to know their anatomy.

## Clinical Genetics and Genetic Counselling

### National:

We work with the Foundation for Alcohol-related Research on joint surveillance, prevention and advocacy projects for foetal alcohol syndrome – given that this is the single most important birth defect in the Western Cape.

We work with colleagues at GSH (Prof. Jonny Peter) regarding primary immunodeficiencies.

### Private:

We advise the Foetal Assessment Centre regarding the relevance of new genomic technology (e.g. non-invasive prenatal testing) and approaches to how this may be implemented in practice.

### International:

Together with Dr Monika Esser in NHLS, and the Division of Molecular Biology and Human Genetics, we work with colleagues at Hospital Necker Enfant Malades in Paris on primary immunodeficiencies.

## Achievements w.r.t research activities and research outputs:

Molecular Biology and Human Genetics	
Publications in peer reviewed research papers	71
Conference Presentations	31
Conference Posters	27
PhD Graduates	10
MSc Graduates	6
Hons Graduates	18

## List of peer-reviewed research papers:

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DELPORT D, SCHOEMAN R, VAN DER MERWE N, VAN DER MERWE L, FISHER L, GEIGER D, KOTZE MJ. Significance of dietary folate intake, homocysteine levels and MTHFR 677 C>T genotyping in South African patients diagnosed with depression: test development for clinical application. *Metabolic Brain Disease* 2014; 29(2): 377-384.

DHEDA K, GUMBO T, GANDHI NR, MURRAY M, THERON G, UDWADIA Z, MIGLIORI GB, WARREN RM. Global control of tuberculosis: from extensively drug-resistant to untreatable tuberculosis. *Lancet* 2014; 2(4): 321-338.

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Medical Physiology	
Publications in peer reviewed research papers	23
Chapters in books	9
Conference Presentations	9
Conference Posters	14
PhD Graduates	4
MSc Graduates	5
Hons Graduates	11

### Peer reviewed publications:

1. AGARWAL A, DURAIRAJANAYAGAM D, DU PLESSIS SS. Utility of antioxidants during assisted reproductive techniques: an evidence based review. *Reproductive Biology and Endocrinology* 2014; 12(112): 1-19.
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5. DE KOCK L, SY SKB, ROSENKRANZ B, DIACON AH, PRESCOTT K, HERNANDEZ KR, YU M, DERENDORF H, DONALD PR. Pharmacokinetics of para-Aminosalicylic acid in HIV-uninfected and HIV-coinfected tuberculosis patients receiving antiretroviral therapy, managed for multidrug-resistant and extensively drug-resistant tuberculosis. *Antimicrobial Agents and Chemotherapy* 2014; 58(10): 6242-6250.
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13. KIBLEUR Y, BROCHART H, SCHAAF HS, DIACON AH, DONALD PR. Dose regimen of Para-Aminosalicylic Acid Gastro-Resistant Formulation (PAS-GR) in multidrug-resistant Tuberculosis. *Clinical Drug Investigation* 2014; 34: 269-276.
14. KOLWIJCK E, FRIEDRICH SO, KARINJA MN, VAN INGEN J, WARREN RM, DIACON AH. Early stationary phase culture supernatant accelerates growth of sputum cultures collected after initiation of anti-tuberculosis treatment. *Clinical Microbiology and Infection* 2014; 20: 3.
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17. SLABBERT M, DU PLESSIS SS, HUYSER C. Large volume cryoprotectant-free vitrification: an alternative to conventional cryopreservation for human spermatozoa. *Andrologia* 2014; xx: 1-6.
18. SOLOMONSR, VISSERDH, FRIEDRICH SO, DIACON AH, HOEK KGP, MARAIS BJ, SCHOEMAN JF, VAN FURTH AM. Improved diagnosis of childhood tuberculous meningitis using more than one nucleic acid amplification test. *International Journal of Tuberculosis and Lung Disease* 2014; 19(1): 74-80.
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### 2014 Proceedings National:

VAN VUUREN PA, VAN VUUREN D. Automatic infarct planimetry by means of swarm-based clustering. Annual symposium of the pattern recognition association of South Africa, Lagoon Beach Hotel Milnerton, Cape Town, South Africa, Pattern recognition association of South Africa 2014: 43-48.

## 2014 Chapters in Books

1. DU PLESSIS SS. Seminal plasma: Constitution, chemistry and cellular content. In Medical and surgical management of male infertility, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, India, 2014: 19-22.
2. DURAIRAJANAYAGAM D, SHARMA RK, DU PLESSIS SS, AGARWAL A. Testicular heat stress and sperm quality. In Male infertility. A complete guide to lifestyle and environmental factors, Sringer, New York, 2014: 105-125.
3. FLINT M, MAARTENS PJ, DU PLESSIS SS. Ionizing radiation. In Male infertility. A complete guide to lifestyle and environmental factors, Springer, New York, USA, 2014: 211-223.
4. GENIS A, SMIT S, WESTCOTT C, MTHETHWA M, STRIJDOM H. Attenuation of eNOS-NO biosynthesis, up-regulation of antioxidant proteins and differential protein regulation in TNF-Alpha treated cardiac endothelial cells: early signs of endothelial dysfunction. In Endothelial dysfunction. Risk factors, role in cardiovascular diseases and therapeutic approaches, Nova Science publishers, Inc, New York, USA, 2014: 169-204.
5. HAQUE O, VITALE JA, AGARWAL A, DU PLESSIS SS. The effect of smoking on male infertility. In Male infertility. A complete guide to lifestyle and environmental factors, Springer, New York, USA, 2014: 9-30.
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8. NDUHIRABANDI F, LOCHNER A. Melatonin and the metabolic syndrome. In Melatonin and Melatonergic drugs in clinical practice, Springer, India, 2014: 71-95.
9. RIZK D, DU PLESSIS SS, AGARWAL A. Environment and male fertility. In Medical and surgical management of male infertility, Jaypee Brothers Medical Publishers (P) LTD, New Delhi, India, 2014: 23-30.

## Anatomy and Histology

Research outputs now include studies in comparative Anatomy, the Anatomy of Human Anatomical Variation, Physical Anthropology, Histology and Histological Techniques, TB with the focus on lung disease, General Pathology of the cadaver specimens.

## Clinical Genetics and Genetic Counselling

### Publications:

URBAN MF, MORRIS S, SCHOEMAN M, GEERTS L, NORMAN K. Appropriate clinical use of non-invasive prenatal testing in South Africa. *Obstetrics and Gynecology* 2014; 24(1): 35-40.

URBAN M, MORRIS S, SCHOEMAN M, GEERTS LTGM, NORMAN K. Appropriate clinical use of non-invasive prenatal testing in South Africa. *Obstetrics & Gynaecology Forum* 2014; 2: 35-40.

## Teaching and Training (undergraduate-, postgraduate- and elective students)

### Molecular Biology and Human Genetics

#### Training courses attended by staff and students:

Participants	Course Name	Venue
Ms G. Borrageiro, Ms T. Olivier, Mr K. Hammond-Aryee and Ms S. Boolay	ROCHE MIQE Gene Expression WORKSHOP 2014	Stellenbosch University
Ms B. Glanzmann	South African Human Genome Project Workshop 1 (Training in NGS analysis)	South African National Bioinformatics Institute (SANBI); University of the Western Cape
Ms B. Glanzmann and Ms C. Ntsapi	South African Human Genome Project Workshop 2 (Understanding and characterising Southern African genomes)	Sydney Brenner Institute for Molecular Bioscience (SBIMB), University of the Witwatersrand
Ms A. Neethling, Ms N. Steyn, Ms H. Visser, Ms J. du Plessis, Ms C. Pule, Ms J. Arries and Dr T. Heunis	EMBO Practical Course on Computational Analysis of Protein-Protein Interactions: from Sequences to Networks	Faculty of Health Sciences Barnard Fuller Building Anzio Road 7925, South Africa
Prof. S. Bardiën and S. Boolay	NIH grant writing workshop	AJ Brink Room, 3rd Floor, Internal Medicine Division, Clinical Building, Tygerberg Campus
Dr C. Swart	Mass Spectrometry Master Class	Institute of Infectious Disease and Molecular Medicine, UCT
Mrs C. van der Merwe	Confocal Microscopy Course	Central Analytical Facility, Mike de Vries Building, Stellenbosch
Prof. G.D. van der Spuy	Bqyesian Statistics	Stias
Dr M. Salie	Confocal microscopy and short introduction to superresolution microscopy	Imaging Unit-Central Analytical Facility, Dept. of Physiological Sciences, Stellenbosch University
Dr L. Kleynhans and Mr L. Lucas	Systems Biology of Disease Course	Institute for Systems Biology
Dr L. Kleynhans and Mr L. Lucas	Systems Biology of Disease Summer Course	Institute of Systems Biology
Prof G.D. van der Spuy	Biostatistics with R	Div. Molecular Biology & Human Genetics
Prof G.D. van der Spuy	Project Management	Stellenbosch University
Ms N. Schleter, Dr M. Daya, Prof. G. van der Spuy, Dr N. McGregor, Ms C. Uren and Dr E. Banda	Next Generation Sequencing Workshop	Seminar Room, 4th Floors, Fisan Building, Stellenbosch University

Dr S. Fortuin, Dr Z. Fang, Dr T. Heunis	IDM Mass Spectrometry Master Class	UCT, Cape Town, South Africa
Ms C. Pule and Ms J. Arries	Mass Spectrometry Based Proteomics Practical Course	CAF, Stellenbosch University
Ms J. Arries, Dr S. Fortuin and Dr T. Heunis	5th ACGT Proteomics Workshop	Stellenbosch University, Cape Town, South Africa
Ms N. Steyn	Software Carpentry Workshop (UCT)	UCT
Mr K. Hammond-Aryee	African Doctoral Academy (introduction to SPSS) SU	Stellenbosch University
Dr J. Mouton	Technical Forum on Microscopy at Microscopy Society of South Africa Annual Conference	Stellenbosch, South Africa
Ms T. Olivier	Short Course in Clinical Research Skills	Stellenbosch, South Africa
Mr M. Theys and Ms J. Arries	Mass Spectrometry of Small Molecules: LC-MS	CAF, Stellenbosch University
Dr M. Williams	Article writing retreat (SU MERC programme)	Stellenbosch, South Africa
Dr M. Williams	SU Mentoring symposium	Stellenbosch, South Africa
Dr S. Fortuin	6th Max Plank Summer school	
Dr T. Heunis	Joint EMBL-EBI/Wellcome Trust Course: Proteomics Bioinformatics	
Ms C. Pule	Science communication: TB awareness and Research workshop at National Science Week	(CT Science Centre)

## Medical Physiology

Dr Shantal Windvogel attended the Oxidative Stress Workshop at the University of Cape Town (6/03/2013).

Dr Shantal Windvogel attended the Spring Teaching Academy at Stellenbosch University (29/10/2013-6/04/2011).

Sonja Alberts attended a workshop "Building Effective Relationships" at Devon Valley, Stellenbosch - (12 - 13/02/2013.)

## NRF Sponsored Research Interns:

**Mr Zibele Ndlovu**

## Career Development of Graduates:

Undergraduate teaching of MBChB first-, second- and third-year students, as well as BChD first- and second-year students. Allied Health second-year students (BSc Physiotherapy, Occupational Therapy, Dietetics students). Postgraduate teaching of BScHon (MedSci) and MMed students. Postgraduate research training for MSc students and PhD students.

Several members of staff act as external examiners and moderators to other universities (both national and international universities) – Prof. Stefan du Plessis – UNAM, UWC, SU; Prof Hans Strijdom – WITS, UCT, UKZN; Prof. Barbara Huisamen – SU, UWC and Dr Shantal Windvogel – UWC, CPUT, Dr Derick van Vuuren – UCT, and Dr Shantal Windvogel – UWC, CPUT, UCT.

Profs Hans Strijdom and Stefan du Plessis act 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.

Dr Derick van Vuuren serves on the MBChB Program committee, as well as the executive council of SASCAR.

Drs Shantal Windvogel, Erna Marais and Derick van Vuuren attended the Introduction to Teaching in the Health Professions Workshop, held at Tygerberg Campus, Faculty of Medicine and Health Sciences (21/02-10/10/2014).

Drs Shantal Windvogel, Amanda Genis and Ingrid Webster attended were awarded certificates of successful completion for the Introductory Course in Laboratory Animal Science: The Ethics and Care of Laboratory Animals in Research. (UCT, Monday 10 November – Friday 14 November 2014).

Prof. Du Plessis hosted an international exchange student from Saxion University in the Netherlands. She had to complete a laboratory research project towards her degree programme.

### Clinical Genetics and Genetic Counselling

- Clinical teaching of undergraduate medical students at our paediatric and prenatal clinics in Clinical Genetics and Genetics Counselling.
- Lecture program for second-year medical students:

Session	Date	Activity	Subject	Lecturer
1	06/10/2014 08:00	Lecture	The nuts and bolts of the genome	Prof. Valerie Corfield
2	06/10/2014 09:00	Lecture	Chromosome concepts and conditions	Dr Heidre Bezuidenhout
3	06/10/2014 11:00	Lecture	Pedigree drawing and inheritance patterns	Dr Emma Krzesinski
4	06/10/2014 12:00	Lecture	Understanding single gene disorders	Dr Emma Krzesinski
5	06/10/2014 14:00	Lecture	Is cancer inherited? Multifactorial and somatic genetics	Ms Mardelle Schoeman
6	07/10/2014 08:00	Lecture	Genetic and genomic testing	Dr Michael Urban
7	07/10/2014 09:00	Lecture	The embryo, alcohol and dysmorphism	Dr Michael Urban
8	07/10/2014 11:00	Lecture	Genetic communication: counselling and ethical issues	Ms Mardelle Schoeman
9	07/10/2014 12:00	Lecture	Living with disability	Ms Tineke Boschoff

- Three lectures to pathology postgraduates (see lectures in bold)

## MOLECULAR PATHOLOGY

### THEME 1: INTRODUCTION TO GENETICS AND THE LABORATORY

Session 1:	Laboratory Safety and Quality Assurance	D Geiger
Session 2:	Transcription, Translation and the Cell Cycle	Dr M. Hoffmann
Session 3:	In Situ Diagnostics	D. Geiger
Session 4:	Epigenetics	Dr J. van Wyk
<b>Session 5:</b>	<b>Genotype and phenotype</b>	<b>Dr M. Urban</b>

### THEME 2: MOLECULAR TECHNIQUES (THEORY AND PRACTICE)

Session 1:	Nucleic Acid Purification and Spectrophotometry	G. Jacobs
Session 2:	Primer Design, Conventional PCR, Electrophoresis and Real Time PCR	G. Jacobs B. van Rooyen
Session 3:	Proteomics	Prof. P. Bouic
Session 4:	Cytogenetics	Theresa Ruppelt
Session 5:	Flow Cytometry	B. Nkambule
Session 6:	DNA sequencing, next generation sequencing + HRM	Dr R. Slabbert

### THEME 3: FROM THE LABORATORY TO THE BEDSIDE

Session 1:	Pharmacogenomics and Nutrigenomics	Prof. M.J. Kotze
Session 2:	Genetic counselling	C. Scott
Session 3:	Clinical/diagnostic genetic testing	Dr M. Urban
Session 4:	Biorepositories, Bioethics and Best Laboratory Practice	D. Geiger

## **Additional lectures to postgraduates and professionals:**

M Urban. Non-invasive Prenatal Diagnosis. Invited presentation, South African Society of Obstetricians and Gynaecologists, Western Cape Provincial Group Annual Meeting. Cape Town International Conference Centre, August 2014.

M Urban. Role of genetics in primary immunodeficiency diagnosis. African School in Primary Immunodeficiency Diseases, Durban, August 2014.

M Urban. New genetic approaches in prenatal diagnosis: the transition to genomics. JN de Villiers Memorial Lecture, Faculty of Medicine and Health Sciences Academic Day, July 2014.

M Urban. New genetic approaches in prenatal diagnosis. Invited presentation, 36th National Congress of the South African Society of Obstetricians and Gynaecologists, Cape Town International Conference Centre, May 2014.

H Bezuidenhout and E Krzesinski: Paediatric Academic Day: clinical genetic case studies

## **Special achievements and other highlights not covered by this template**

### **Medical Physiology**

Prof. Stefan du Plessis was awarded the Fulbright Scholarship in 2014, which allowed him to spend one year sabbatical at the Cleveland Clinic, USA.

Dr Derick van Vuuren was elected to serve on the executive committee of the SA Society for Cardiovascular Research (SASCAR).

Dr John Lopes continued his term as a member of the Physiology Society of Southern Africa (PSSA) council.

### **Anatomy and Histology**

The cadaver platform was used to host the cadaver workshops for the world congress of Aesthetic and Plastic Surgeons as well as the Annual congress of the South African Society of Maxillofacial and Oral Surgeons.



## CLINICAL PSYCHOLOGY

**Head of Department:**  
**Dr Debbie Alexander**



**Dr Debbie Alexander**

### Summary of activities

The Clinical Psychology Department at Tygerberg Hospital provides psychology services to in- and outpatients. Psychology services are provided through Adult Psychiatry (J-LG), Child- and Family Psychiatry (F-LG) and Medical Psychology (A-LG). The Medical Psychology Unit works in collaboration with Liaison Psychiatry and medical departments in the hospital. Staff from the Psychology Department also render services at community clinics. Clinical psychology services include assessment, diagnosis and treatment, as well as referral of patients to appropriate services and agencies.

In addition to clinical service delivery, the clinical psychologists also fulfill supervisory, teaching and research functions. They are also involved in other psychology-related activities in the health, education and sport sectors.

### Resources

Posts (full-time)	Number	Filled
Principal Psychologist	1	1
Senior Clinical Psychologist	3	3
Intern Clinical Psychologist	5	5
Administrative Intern	1	1

Posts (sessional – how many hours per week)	
Senior Clinical Psychologist (External funding) 10:00 – 16:00	6 hours

## Output

Clinical Psychology Services – Statistics			
	Outpatients	Inpatients	Other
Patients	1 191	505	
Consultations	1 594	862	
Hours	2 160	1 108	
Other hours			8 831
Psychometric Evaluations			
	Outpatients	Inpatients	
Patients	106	45	
Hours	693	122	

## Comment on Output

**Physical Resources:** Purchasing and updating test batteries for neuropsychological and psychometric assessment of adults and children remains an ongoing process.

**Information Technology:** The Department has hardware and internet/email access for some, but not at all of the offices at Child, Adult and Medical Psychology. The planned appointment of two 5/8 Clinical Psychologists in the place of Psychology Interns, creates an additional need for hardware and internet/email access. Getting an adequate response to requests for hardware- and internet-related assistance from the IT department remains an ongoing challenge.

**Clinicom System:** Alignment of the captured information on the Clinicom system with the current manual system remains an ongoing challenge.

**Human Resources:** The planned appointment of two 5/8 Clinical Psychologists in the place of two intern psychologists, one in F-LG and the other in J-LG, will have a significant impact on caseload management and will reduce the current long waiting lists. The full-time senior psychologists at these sites stand to benefit by having fewer intern psychologist supervision responsibilities and more time to attend to clinical, academic, research and administrative tasks. Professional development is ongoing. All staff members participate in and attend lectures and presentations to share and refresh knowledge and to remain abreast of new developments.

## Community Outreach Programmes

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

Other projects in which staff members were involved both internally and externally are:

- A. Liaison with different schools districts regarding patient management plans at school and in the community (local, George and Vredenburg)
- B. Services were provided to the following committees:

### **Internal:**

- University of Stellenbosch Medical and Health Sciences Faculty Board
- Postgraduate Committee (Department Psychiatry)
- MBChB Psychiatry Department Training Committee
- Psychotherapy Committee
- Supervisors Committee
- Psychiatry Department Management Committee
- Psychiatry Department Lecturers Committee
- PhD Evaluation Committee

### **External:**

- SASCOC High Performance Advisory Committee
- Triathlon South Africa Executive Board (President)
- International Triathlon Union Executive Board
- Member of the SARU Concussion Working Group
- African Triathlon Union Executive Board

### **Partnerships**

University of the Western Cape – Teaching of Neuropsychology to the Clinical Psychology Master's Students.

2 Military Hospital – Teaching of Neuropsychology to the Clinical Psychology Interns and Clinical Psychologists.

Collaboration and participation in Addictions Forum, academic platform for addictions field in Western Cape.

Susan Bers (Yale Child Study Center, Newhaven, NY) visited Red Cross Hospital – provided training on mentalisation-based therapy as prerequisite for KMC (PIO-ZA) research project.

Drs C. Cluver and C. Groenewald (Prenatal Alcohol in SIDS and Stillbirth [PASS] Network) jointly supported by Eunice Kennedy Shriver National Institute for Child Health and Development (NICHD) and the NIAAA. Research on the effect of in utero alcohol exposure on the early neurocognitive and behavioural profiles of children at four years of age. – Christina van der Merwe

Participation in a study that began in 2013 to provide mentalisation-based therapy to mothers of premature infants is ongoing.

### **Achievements with regard to research activities and research outputs**

#### **Original copy of a book or book chapter published:**

AN OVERVIEW OF PSYCHOTHERAPEUTIC APPROACHES AND DIFFERENT

APPLICATIONS OF PSYCHOTHERAPY - Chapter 28 Debbie Alexander and Melany Hendricks

Textbook of Psychiatry (Third Edition) (Emsley, R., Pienaar, W. and Seedat, S., 2014)

Colin Mitchell, Riaan Olivier and Debbie Alexander

Textbook of Psychiatry (Third Edition) (Emsley, R., Pienaar, W. and Seedat, S., 2014)

### **Complete details of conference outputs:**

Title of paper: Early Adolescent rugby players: Long-term impact of MTBI on neurocognitive and academic performance

Conference: IACAPAP 21st World Congress

Authors: Dr Debbie Alexander, Karen Cloete, Martin Kidd, Ann Edwards and Charles Malcolm

Type: Poster Presentation

Date of conference: 11 to 15 August 2014

### **Academic Presentations:**

Concussion: What can neuropsychology add to the management?

Authors: Dr Debbie Alexander / Invited Speaker

Type: Presentation

Conference: Campus Health Services University of Stellenbosch

Date: 2 October 2014

Presentation of a review of the publication: Working with brain injury: primer for Psychologists working in under-resourced areas by Rudi Coetzer and Ross Balchin. SACNA Western Cape Group (Invited speaker - Debbie Alexander)

Stellenbosch University, Medical and Health Sciences Faculty Academic Day 2014 - oral presentation: 'Neurocognition and thought disorder: its association, temporal stability and treatment outcomes in first-episode psychosis' - Riaan Olivier

SASOP CPT - oral presentation: 'Role of neuropsychological assessment in case management of the neuropsychiatric patient' - Riaan Olivier

SASOP National Annual Meeting - oral presentation: 'Cognitive performance during the first year of treatment in first-episode psychosis: a case-control study' - Riaan Olivier

## Journal Articles:

Mild Traumatic Brain Injuries in Early Adolescent Rugby Players: Long-term neurocognitive and academic outcomes

Authors: Dr Debbie Alexander, Martin Kidd, Ann Edwards and Charles Malcolm

Type: Article

Publications: Brain Injury Journal [article accepted]

Meet and Beat: A retrospective review of group drumming as a means of reducing burnout amongst multidisciplinary team members in a child and adolescent psychiatric unit

Authors: G. F. Newman, C Maggott and D.G. Alexander

Type: Article

Publications: South African Journal of Psychology [article accepted]

## Other Achievements

Dr Debbie Alexander, President of Triathlon South Africa.

Triathlon South Africa walked away with top honours at the South African Sports Awards by being awarded Federation of the Year.

28 November 2014, Gauteng

Dr Alexander, in her capacity as an Executive Board Member of the International Triathlon Union, was invited by the City of Cape Town to be a guest speaker at the launch of the Green Point Athletics Stadium.

Dr Alexander was invited by the publishers to review and comment on the publication: Working with brain injury: primer for Psychologists working in under-resourced areas by Rudi Coetzer and Ross Balchin.

## Research

Completion of PhD in Psychiatry: "Neurocognition and thought disorder: its association, temporal stability and treatment outcomes in first-episode psychosis" - Riaan Olivier

Psychological and cognitive consequences potentially associated with beta-blocker therapy in children and teenagers at risk for sudden cardiac death. The case of the Long QT Syndrome. 2014 - Alexander D., Schwartz P.J., Schwartz L.Z., Brink P.B., Stramba-Badiale M., Goosen R.

## Supervision Doctoral thesis:

Meet and Beat: The effects of group drumming on staff members in a child and adolescent psychiatric unit. **Principal Investigator:** Garth Newman; **Supervisor:** D.G. Alexander

The effect of group drumming on executive functioning in children with ADHD. (PhD thesis). **Principal Investigator:** Garth Newman; **Promoter:** D.G. Alexander

Parenting from the Inside Out (PIO): A mentalisation-based parenting therapy: A pilot study of PIO with mothers providing Kangaroo Care to premature babies at Tygerberg Hospital. **Investigator:** A. Lachman; **Co-investigators:** F. Schulte, C. van der Merwe, C. Mitchell, E. du Toit; **Supervisor:** Prof. S. Seedat; **Co-supervisor:** D.G. Alexander

Effectiveness of prolonged exposure treatment for adolescents with PTSD secondary to early childhood sexual assault or more recent sexual assault, as administered by lay trained counsellors: comparative study trial of supportive counselling. **Principal Investigator:** Jaco Rossouw; **Promoter:** Prof. S. Seedat; **Co-promoter:** Dr D. Alexander (PhD thesis)

Examination of M-thesis in Baromedicine – Riaan Olivier

### Teaching and training (undergraduate-, postgraduate- and elective students)

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-Interdisciplinary Phase, II, III, IV & V (Middle rotation) and (Late rotation); PAT AGB; BSc Dietetics III; M (Physiotherapy); MMed (Psychiatry) Psychology 178 Part 1 and 2 and M Nursing.

The Senior Clinical Psychologists are also responsible for the training and supervision of Intern Clinical Psychologists, Psychiatry Registrars and super-specialists in Psychiatry.

**Head of Department:  
Dr Sydney Carstens**



**Dr. Sydney Carstens**

### Summary of activities

#### Occupational Health Clinic and Minor Ailment Clinic

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

The Occupational Health (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 organisation, 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 patient referrals from within the state sector, who have been diagnosed with occupational diseases or chronic occupational injuries as well as retired mining employees who are entitled to free medical evaluations on grounds of their previous exposure to dust generated by mining activities.

Services rendered by this clinic span the whole spectrum of Occupational Health including workplace hazard identification and risk assessment, risk-based medical surveillance (e.g. blood lead levels in lead workers, pre-placement medical evaluation of workers exposed to ionising radiation, e.g. the Radiographers), managing workers with occupational diseases (especially pulmonary tuberculosis) as well as those with chronic injuries which are occupation related (e.g. Sonographers with carpal tunnel syndrome). It also includes the evaluation of workers with impaired function to establish appropriate work placement or adaptation of work activities. Occupational disease referrals from other specialist outpatient clinics, e.g. the Dermatology and Respiratory clinics, are also seen at the clinic.

All employees with needle stick injuries/splash injuries (during office hours) are 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.

The training of Medical Specialists in Occupational Medicine is also primarily done at this clinic with further practical rotations at Dermatology, Pulmonology, etc.

Professional staff of the clinic also plan and implement research aimed at improving the occupational health wellbeing of all employees at healthcare institutions.

## Resources

### Occupational Health Clinic

*Principal Specialist in Occupational Medicine/Head of Clinical Unit:* Dr S.E. Carstens, MB,ChB; MMed Comm Health; FCPHM (SA) Occ Med

*Specialist in Occupational Medicine:* Dr W.A.J. Meintjes, MB,ChB (Pret), DOM (Stell); FCPHM(SA) Occ Med; MMed (Occ Med)

*Registrars in Occupational Medicine:* Dr B. Andrews (Provincial); Dr U. Obike (Nigeria)

### Minor Ailment Clinic

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

### Nursing practitioners

*Occupational Health Nursing Practitioner:* Sr. D.M. Arendse; Diploma in Nursing; B.Tech (Occupational Health); Diploma in Nursing Management

*Staff nurse:* Ms A.N. Pinto

## Administrative support

Ms L. Tyhhalisu

## Output/Source

### Occupational Health Clinic and Minor Ailment Clinic

*Minor Ailment Clinic visits:* A total of 1999 patients were seen at the Minor Ailments Clinic during 2014



## Occupational Health Clinic visits:

A total of 1 872 persons were seen at the Occupational Health Clinic. The consultations included pre-placement medical examinations, fitness for work evaluations and disability management and management of occupational diseases and injuries (e.g. needle-stick injuries and occupational tuberculosis). All consultations can be broken down as follow:

- Needlestick/splash injury = 314
- Occupational diseases/injuries (staff members) = 98
- Occupational diseases (referrals) = 4
- Radiation worker medical evaluations = 84
- Ex-miner evaluations = 3
- Other = 1 369

## Other activities:

The Occupational Health team successfully combined with the staff at the Unit for Infection Prevention and Control to manage the exposure of staff and patients to hazardous biological agents. The education of staff members regarding the use of N95 respirators (and fit-testing each staff member for specific respirator designs) when dealing with patients with active pulmonary tuberculosis, is a good example of this collaboration. Dr Meintjes is the head of the UIPC, which ensures a strong link between Occupational Health and Infection Prevention and Control in Tygerberg Hospital.

Risk assessments were also conducted in several areas within the hospital.

During the latter part of 2013, the Occupational Medicine Specialists and Registrars were requested by the Provincial Health Department to assist in the development of medical surveillance protocols which will be utilised on the whole Provincial healthcare institution platform. This project is still ongoing.

## Comment on output

The Occupational Health 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. We expect the caseload to increase as a result of more risk-based medical surveillance programmes to be implemented.

## Partnerships

### National

- Dr Meintjes serves on the Diving Advisory Board of the Chief Inspector of the Department of Labour and advises on policy in this field
- A formal partnership exists between Occupational Medicine at Stellenbosch University and the Southern African Undersea and Hyperbaric Medical Association, where Dr Meintjes is acting as Occupational Medicine Consultant
- Dr Meintjes chairs the Diving Medical Panel of Southern Africa

## International

- Dr Meintjes serves as a member of the Diving Medicine Advisory Board ([www.dmac-diving.org](http://www.dmac-diving.org))
- Dr Meintjes serves as a corresponding member of the European Diving Technology Committee ([www.edtc.org](http://www.edtc.org))
- A formal Memorandum of Understanding exists with the Undersea and Hyperbaric Medical Society ([www.uhms.org](http://www.uhms.org)). This involves training of Medical Practitioners in Hyperbaric Medicine

## Achievements wrt research activities and research outputs:

### Publications from the department/division:

- Meintjes W.A.J. Measuring the health status in a community. In: Vlok's Community Health (6th Ed). Clarke M., ed. Juta. Cape Town 2014:59-83
- Van Wijk C.H., Meintjes W.A.J. Subjective narcosis assessment scale: measuring the subjective experience of nitrogen narcosis. *Undersea Hyperb Med* 2014; 41(6): 557-563.
- Van Wijk C.H., Meintjes W.A.J. Nitrogen narcosis and tactile shape memory in low visibility. *Undersea Hyperb Med* 2014; 41(5): 371-377
- Van Wijk C.H., Meintjes W.A.J. Complex tactile performance in low visibility: the effect of nitrogen narcosis. *Diving and Hyperb Med.* 2014; 44(2): 65-69
- Van Wijk C.H., Meintjes W.A.J.
- Ncube N.B.Q., Meintjes W.A.J., Chola L. Knowledge and attitudes of non-occupational HIV post-exposure prophylaxis amongst first and second-year medical students at Stellenbosch University in South Africa. *Afr J Prm Health Care Fam Med.* 2014;6(1), Art. #665, 9 pages. <http://dx.doi.org/10.4102/phcfm.v6i1.665>

### Teaching and Training (under-, postgraduate and elective students).

- Two junior Registrars in the MMed (Occupational Medicine) degree programme worked in the OH Clinic as their first-year practical rotation.
- The BScMedScHons (Underwater Medicine) degree programme and the BScMedScHons (Hyperbaric Medicine) degree programme had a number of successful candidates graduating and their research projects were presented at an international conference.
- A Dutch medical student (Vrije University, Amsterdam) did a four-week elective training period within Occupational Health
- Three University of Stellenbosch students, enrolled for a post basic course in nursing management, were provided with clinical guidance.
- Sr Arendse (Occupational Health Nurse) assisted the Registrars with their research projects.
- She also acted as a mentor to the Occupational Health Nurse Practitioner of Mitchells Plain District Hospital.
- Sr Arendse was also involved in the orientation programme of the hospital for CPUT and UWC nursing students.

**The following student research projects were supervised by staff members of the department:**

- Mangwiro, R. Comparability of the radiological classification of Asbestos Related Disease by two medical panels in Southern Africa. [For the MSc (Clinical Epidemiology) degree]
- Barrion, I.M. Risk factors for work-related noise-induced hearing loss in a cohort of mining and manufacturing industries - in process [For the M (Audiology) degree]
- Douglas V.A. A Retrospective cohort study of recreational divers in Grand Cayman looking at the clinical outcome of Hyperbaric Oxygen Treatment on Decompression Sickness. [for the BScMedScHons (Hyperbaric Medicine) degree]
- Haroun R.E. A retrospective study evaluating the quality of audiograms performed in divers registered at a commercial diving school from January 2011 to December 2013 in Durban, South Africa. [for the BScMedScHons (Underwater Medicine) degree]

**Internal/external examining by staff members:**

- Dr Carstens served as internal examiner for the following candidate:
- Mr F. Burman, Master of Science in Baromedical Sciences (University of Stellenbosch)
- Dr Carstens served as core examiner for the SA Colleges of Medicine Fellowship examination in Occupational Medicine
- Dr Carstens served as member of two PhD proposal evaluation committees
- Dr Meintjes acted as a core examiner for the Colleges of Medicine of South Africa for the FCPHM(SA) Occ Med examination.

**Special achievements and other highlights not covered by this template.**

- Dr Meintjes served as chair of the Infection Control Committee of Tygerberg Hospital
- Dr Meintjes served as a member of the Stellenbosch University Senate Research Ethics Committee
- Dr Meintjes served as a member of the Postgraduate Education Committee of the Faculty of Medicine and Health Sciences
- Dr Carstens served on the Radiation Advisory Committee of Tygerberg Hospital
- Dr Carstens served on the Laser Safety Committee of Tygerberg Hospital
- Dr Carstens served on the Occupational Health and Safety committee of Tygerberg Hospital
- Dr Carstens served on the Infection Control Committee of Tygerberg Hospital

**Head of Department:  
Prof R Pitcher**

**DIVISION: MEDICAL PHYSICS**

**Head of Department:  
Dr Wilhelm Groenewald**

### Summary of activities

During 2014, the Medical Physics Division focused mainly on the commissioning and implementation of the new ELEKTA Synergy™ multimodality linear accelerator (LINAC) in the Division of Radiation Oncology. The unit was purchased at a cost of R30 million early in 2014. Installation and commissioning was complete in September and the first patient was treated in October 2014.



**Prof R Pitcher**

The ELEKTA Synergy™ is a state-of-the-art linear accelerator offering three treatment modalities, viz.: Volumetric Modulated Arc Therapy (VMAT), Intensity Modulated Radiation Therapy (IMRT) and 3D Conformal Therapy. Shaping of the radiation beam is effected by a 160 leaf collimator allowing conformity of the beam to the tumour volume in 5 mm steps. Highly accurate alignment of the patient and the target volume is enabled by a Cone Beam CT scanner mounted on the LINAC gantry and an Electronic Portal Imaging Device (EPID). The LINAC is operated by the new Integrity™ operating system which integrates the variety of systems on the LINAC to provide the operator with a user friendly and logical interface. The Integrity on our LINAC was a first of its kind for South Africa. The Synergy will definitely enable us to move treatment of specific patients to a higher level of conformity and accuracy.

Medical Physics again met the expected teaching outputs. Courses in Radiation Physics and Medical Physics were presented to registrars, BSc(Hons) students and student radiographers. Dosimetry services were rendered to our client divisions, viz. Radiation Oncology, Nuclear Medicine and Radio-diagnosis. We succeeded in providing an effective radiation monitoring service to nearly 500 radiation workers. Licensing of X-ray units and LASER devices was duly maintained.

Our medical physicists again contributed via the programmes of the IAEA (International Atomic Energy Agency) to Medical Physics education on the African continent.

### Resources

Posts (Full-time)	Number	Filled
Senior Manager: Medical Physics	1	1
Deputy Manager: Medical Physics	1	1
Assistant Manager: Medical Physics	1	1
Medical Physicist	2	2
Intern Medical Physicist	1	1
Radiation Laboratory Technologist	1	1
Medical Technologist	1	1
Radiographer	2	2
Auxiliary Service Officer	1	1
Secretary	1	1

## Output

### Medical Physics and Dosimetry

Quality control procedures on radiotherapy units	172
Patient treatment plans checked	2 388
Radionuclide administrations	14
Radiation monitors issued to TBH staff	5 700
In vivo diode dosimetry system calibrations	15
Stability tests on dosemeters	30
Brachytherapy procedures checked	613

### Nuclear Medicine

Stability tests on dosemeters	300
Quality Control Procedures	1 400

### Radiation Technology Laboratory

Alloy shielding filters	88
Bite blocks	100
Wax build-ups	130
Special devices	21
Body Foams/Vacuum Bags	15

### Comment on output

As Medical Physics is a service provider to the Nuclear Medicine, Radiation Oncology and Radio-diagnosis divisions, the number of Medical Physics procedures is in general determined by the activities of our client divisions.

## PART 2

### Faculty of Medicine and Health Sciences

#### Infrastructure development

Medical Physics played a significant role in procuring and commissioning of new radiation equipment. A single head Siemens gamma camera was installed and commissioned in the Division of Nuclear Medicine. The gamma camera started scanning patients in April 2014. As mentioned in the summary of activities above, the new ELEKTA Synergy LINAC was successfully installed and commissioned for treatment of oncology patients. We managed to procure a treatment planning verification system that should relieve the tedious task of manually verifying treatment plans of oncology patients.

## Community outreach and interaction

### *IAEA activities*

In the past year, Medical Physics once again participated in activities of the IAEA under the auspices of AFRA (African Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology).

Mr Elly OKoko OKing, a Medical Physicist from Nairobi, Kenya, joined our division in May 2014. Mr OKing was sponsored by the IAEA to receive training in all aspects of Radiation Oncology Physics during a 10 months fellowship.

Ms Hannah Alobiedy Ibrahim, a Medical Physicist from Libya, completed a brief fellowship at the Western Cape Academic PET/CT Centre in April 2014.

## Partnerships

Medical Physics maintained an involvement in the operation of REMACSA (Radiation Emergency Medical Advisory Centre of South Africa). REMACSA is a joint venture with Escom, the Stellenbosch University Faculty of Medicine and Health Sciences, Western Cape Department of Health, Directorate: Radiation Control and iThemba LABS as stakeholders.

## Research activities and outputs:

### *Publications*

1. **“In-house development of a neonatal chest simulation phantom”**, Journal of applied clinical medical physics, Volume 15, Number 3, 282-296 (2014).
2. **“Reduction of Radiation Dose and Relative Risk of Cancer Induction to Neonates receiving Anterior-posterior Chest X-rays”**, Global Journal of Science frontier Research: Physics and Space Science, Volume 14, Issue 3, Version 1.0, Year 2014.

### *Presentations*

Tumelo Moalosi and Lelanie Nolan presented a poster entitled “Acceptance testing of the SIEMENS gamma camera”, at the SASNM Nuclear Medicine Congress in Durban in September 2014. This poster was also presented at the annual Academic Day of the Department of Medical Imaging and Clinical Oncology in August 2014.

Suné White presented a paper titled “The cross-calibration of contamination monitors” at the annual SAAPMB conference in Pretoria in March 2014. This paper was also presented at the annual Academic Day of the Department of Medical Imaging and Clinical Oncology in August 2014.

## Teaching and Training

Radiation Physics courses were presented to MMed students in Nuclear Medicine, Radiation Oncology and Radio-diagnosis, to M.Sc. students as well as to Diploma and BTech Radiography students studying at Cape Peninsula University of Technology (CPUT). In addition, we lectured to Honours B.Sc. (Medical Physics) students enrolled with the Department of Physics of the University of Stellenbosch.

Three staff members are registered for a M.Sc. in Medical Physics. Ms Monique du Toit enrolled for a Ph.D. degree at the University of Groningen in the Netherlands. Ms Annemari Groenewald, a Medical Physicist with Aqura Health, registered for a Ph.D. degree in Medical Physics at the Faculty of Medicine and Health Sciences, University of Stellenbosch.

## Special achievements

Suné Judith White completed her Medical Physics Internship in December 2014 and applied to be registered with the HPCSA as a clinically qualified Medical Physicist, (Independent Practice).

## DIVISION: NUCLEAR MEDICINE

**Head of Department:**  
**Prof Annare Ellmann**

### Summary of activities

In the past year, the Nuclear Medicine division provided services to in- and outpatients of Tygerberg Hospital, to secondary and day hospitals, and private practices. A wide range of investigations were offered, comparable to that provided in large international Nuclear Medicine departments. Notable contributions included the availability of Ga-68 DOTANOC to image patients with neuroendocrine tumours, and state-of-the-art studies to determine glomerular filtration rate.

Staff members of the division are frequently approached by colleagues in other departments, both inside and outside of Tygerberg Hospital, to give invited lectures, participate in joint clinical meetings and to give opinions on clinical matters related to Nuclear Medicine. While taking significant staff time, these activities play an important role in sensitising clinical colleagues to the ways in which the speciality can provide a cost-effective service to patients.

Nuclear Medicine forms part of several multi-disciplinary teams to ensure quality and continuity of patient care. There is progressive initiation and collaboration with colleagues in other specialities at Tygerberg Hospital, at other state hospitals, in the private sector and internationally. This includes colleagues in Radiology, Haematology, Radiation Oncology, Pulmonology, Endocrinology, Paediatrics, Cardiology, Surgery and Psychiatry. These meetings, while being work-intensive, contribute significantly to the optimal and cost-effective utilisation of PET-CT and other Nuclear Medicine investigations.

Nuclear Medicine's location in Tygerberg Hospital makes it vulnerable both from a staff safety perspective and regarding illegal access. A female staff member was mugged at the end of a working day. Luckily she was not hurt, but she was severely traumatised. This also led to anxiety amongst other staff members. Measures have been put in place in an effort to protect staff.

### Resources

Posts (Full-time)	Number	Filled
Professor / Chief Specialist	1	1
Specialist	2	2 (funded) + 1 (PhD scholar)
Registrar (Number only)	3	3 (funded) + 4 (supernumerary)
Radiopharmacist	1	1
Radiographers		
Assistant director	1	1
Chief	3	3
Grade 2	1	1
Grade 1	6	6
Community service	3	3
Nursing:		
Registered nurse	2	2
Staff nurse	1	1
<b>Posts (sessional – how many hours worked per week)</b>		
Specialist	1	1 (39 hours)
Locum radiographers	1	40 hours per week

Comment: The radiography PET/CT manager resigned in December 2014, but could be replaced by the radiographer second in charge in the PET Centre, which ensured continuity of the excellent service provided by the PET radiographers.

## Clinical output

Study	
Cardiac: GSPECT	960
Cardiac: Myocardial Perfusion Scintigraphy	839
Cardiac: Ventricular Function	141
Cerebral Perfusion Studies and Receptor Imaging	46
Flow Studies	115
Gastrointestinal and Hepatobiliary studies	59
Haematologic studies	8
Infection Imaging	27
Lung Scintigraphy: Perfusion	60
Lung Scintigraphy: Ventilation	62
Lymph Imaging	320
Miscellaneous Scintigraphy	25
PET/CT studies all hospitals	1 102
Renal Scintigraphy	23
Renal: GFR Measurement	124
Renography	341
Renography: Transplant	40
Skeletal Scintigraphy	1 286
Skeletal SPECT	632
Thyroid Clinic First Visit	243
Thyroid Clinic Follow-up	500
Thyroid I-131 Therapy	185
Thyroid Scintigraphy	251
Thyroid Uptake	251
Thyroid: Whole Body Iodine Scintigraphy	26
Endocrine (other)	75
Single Photon Emission Tomography (SPECT) (miscellaneous)	327
Computer Tomography accompanying SPECT	1 721
<b>TOTAL</b>	<b>9 789</b>



## Comment on clinical output

In line with international trends, PET/CT is emerging as an important and rapidly growing aspect of the division's work. The Division plays a central role in managing its optimal clinical utilisation. A number of consultants in the Division are involved in the collaborative development of extensive guidelines on appropriate indications for PET/CT in South Africa. This document is close to completion and is expected to be published in the first half of 2015. These guidelines will have a direct bearing on PET/CT request approvals at TBH, as well as other private and public centres. They are also expected to be of value to medical aids.

At the end of July 2014, NTP was unable to produce Mo-99 for Mo-99/Tc-99m generators and I-131 at Pelindaba, leading to severe limitations regarding availability of radionuclides over the following 2 months. Tc-99m is the backbone of conventional Nuclear Medicine and I-131 is used for treatment of hyperthyroidism for several patients each week. Although Prof. Rubow, radiopharmacist, very effectively intervened to minimise the impact of the lack of available radioactivity, it did impact on the number of studies that were performed. As imported generators were much more expensive than locally produced generators, several measures had to be put in place to make it as cost-effective as possible. Weekly schedules of optimal use of Tc-99m were made available and staff were advised on optimal booking of patients.

The Division continues to be one of a few centres in SA providing complex studies, including SISCOB brain imaging for epilepsy, dopamine transporter brain scans and complex haematological studies to measure red blood cell and platelet sequestration. This not only provides a valuable clinical service, but also provides hands-on training for registrars in these techniques. There was an extensive updating of red cell volume measurement studies, bringing these in line with international best practice. This is expected to lead to improved interpretation of studies that recently have started to show increasing clinical applications.

Knowledge gained from clinical research directly improves the quality of service delivery in the division. The most recent example of this was initiating a modification of PET/CT reconstruction in children and emaciated adults with suboptimal image quality following the guidance of Prof. Michael Mix of the University of Freiburg, Germany. This has led to significantly improved image quality in these cases.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

A significant event was the renewal of the HERMES reporting network in May 2014. This was a major project involving a complete overhaul of hardware and applications, which required coordination across all three academic hospitals in the Western Cape. This provides state-of-the-art reconstruction, processing and viewing software for Nuclear Medicine. In addition, it provides a powerful tool for joint reporting with colleagues at other hospitals, and secure study storage and retrieval for both service delivery and research.

A new multiwell sample counter was delivered in March 2015. This counter will be of significant value in the counting of samples of the many in vitro studies currently performed in the division. The requests for glomerular filtration rate determinations have grown significantly during 2014, and are expected to grow even more in 2015.

The Division started using a second-hand Technegas generator, donated by AEC-Amersham, for lung ventilation studies. The availability of this equipment leads to better quality ventilation studies, with resultant easier interpretation of the studies.

## Community outreach and interaction

As Nuclear Medicine is a tertiary specialty, there are limited outreach possibilities locally and in South Africa. We, however, have an active training programme for students from the rest of Africa. Requests are regularly received through the International Atomic Energy Agency (IAEA) for official Nuclear Medicine training of physicians and other scientists from Africa, but also directly from students themselves. In 2014, four physicians from Africa were enrolled for the MMed (NucMed) programme, while one radiopharmacist continued her MSc studies. Two IAEA fellows busy with their MMed studies at another South African university requested extra training time in our division.

Opinions of staff are frequently sought by the divisions of Nuclear Medicine at RXH and GSH, but also by Dr Max Adams from the Nuclear Medicine service at the Provincial Hospital in Port Elizabeth for advice on management issues as well as clinical cases. Opinions are also sought from time to time by colleagues working in private practice in the Western Cape and elsewhere in the country.

Members of staff in the Division participated in two multidisciplinary workshops during the past year, namely a Lung Cancer Workshop in August 2014, and a CME Workshop on PET/CT in Oncology in November 2014. This workshop was primarily aimed at oncologists and other clinical colleagues referring patients to the PET/CT centre.

## Partnerships

### National:

Several members of the division were involved in national activities. Prof. Ellmann and Prof. Warwick served on the Council of the College of Nuclear Physicians (CNP) of the Colleges of Medicine of South Africa (CMSA), with Prof. Warwick also serving on the Senate of the CMSA and as a member of the Finance and General Purposes Committee of the CMSA. They were also involved as examiners, conveners and moderators for the fellowship exams of the CNP. Prof. S. Rubow served on a committee of the Medicines Control Council.

Prof. Warwick was elected president of the South African Society of Nuclear Medicine (SASNM), while Dr Nisaar Korowlay's term as president of the Association of Nuclear Physicians, a subsidiary body of the South African Medical Association, ended in September 2014. He was elected as a council member of the Association of Nuclear Physicians. Mrs Bejai served as Secretary/Treasurer of the SASNM until September 2014, and was also involved in the Bellville branch of the Society of Radiographers of South Africa.

Prof. Warwick remains a member of the Directors Advisory Committee for iThemba LABS. This board is responsible for providing strategic advice to the Director of iThemba LABS, which is an important role player in both Nuclear Medicine and Radiation Oncology in South Africa.

Both Prof. Rubow and Prof. Ellmann were involved in training of radiography students at CPUT.

Prof. Ellmann, Prof. Warwick, Prof. Rubow and Dr Doruyter participate in the activities of the Nuclear Technologies in Medicine and the Biosciences Initiative (NTEMBI), an initiative of the Department of Science and Technology operated under the aegis of the South African Nuclear Energy Corporation (Necsa). This has resulted in significant funding towards both student research and equipment, which is expected to benefit both research and service delivery.

Tygerberg Hospital Nuclear Medicine continues to be primarily responsible for driving and coordinating the administrative aspects of generation of private revenue for the Western Cape Province from Nuclear Medicine studies at Tygerberg, Groote Schuur, and Red Cross hospitals. Proposals from the Division are an important driver of billing systems accepted for Nuclear Medicine at the level of the National Department of Health.

## **Private:**

The good interaction between NM and the private NM practices continues. The Division's consultants, including the radiopharmacist, were consulted from time to time by private nuclear medicine physicians for opinions on some of their difficult cases. Members of the Division attend regular meetings of a multi-disciplinary group of doctors from the private and public sectors with a special interest in neuroendocrine tumours. Imaging of patients with neuroendocrine tumours has grown significantly, because the radiopharmacy at the Western Cape Academic PET/CT Centre is the only facility in the Western Cape providing the radiopharmaceutical used in these patients, namely Ga-68 DOTANOC.

## **International:**

Prof. Ellmann continued her work for the Standing Advisory Group on Nuclear Applications (SAGNA) of the International Atomic Energy Agency (IAEA), contributing to strategic advice to the director-general of the IAEA concerning the planning and implementation of Major Programme 2 activities in terms of their relevance to member states' needs and potential for contributing to national and development priorities. Prof. Ellmann also served as a member of an expert team to revise the programme on Quality Management in Nuclear Medicine (QUANUM), which supports quality management audits in Nuclear Medicine practices.

Prof. Ellmann was also involved in other IAEA activities. She was the team leader of an IAEA Quality Assurance in Nuclear Medicine external audit visit to the Nuclear Medicine Department at the Ocean Road Cancer Institute in Dar es Salaam, Tanzania. Mr Hilton Thomas, radiography assistant director, was also a member of the team. The other team members were from Vienna, Macedonia and Singapore. Prof. Ellmann also attended a project coordinators' meeting of the IAEA project RAF/06/37 on Clinical Nuclear Medicine in Algiers, Algeria, in June 2014. She was also an invited speaker at the AFRA Conference of NM, Algiers, Algeria, in June 2014.

Mr Pravin Meyer, radiographer, attended an IAEA training course in Mauritius in February 2015.

Prof. Rubow was nominated as South African Project Coordinator for the IAEA project RAF6049 "Strengthening and Improving Radiopharmacy Services in Africa". She was also requested to represent South Africa at a project coordination meeting for regulators at the IAEA, Vienna, in May 2014. She chaired the meeting, and also presented several lectures at the meeting.

Both Prof. Patrick Dupont of the Laboratory for Cognitive Neurology and Medical Imaging Center, Catholic University, Belgium and Prof. Jan Pruim of the Department of Nuclear Medicine and Molecular Imaging, University Medical Centre Groningen, Groningen, The Netherlands, continued to serve as extraordinary professors in nuclear medicine. There is continuous close collaboration with Prof. Dupont, amongst others, giving advice on several physics-related aspects and with postgraduate supervision. During 2014, there was a scientific visit to the Division by Prof. Patrick Dupont as part of this collaboration in research related to brain imaging analysis. Prof. Pruim again visited the division in 2014, lecturing to the postgraduate students and supporting collaborative research programmes.

Prof. Warwick and Dr Jen Holness presented papers at the Annual Congress of the European Association of Nuclear Medicine in Gothenburg, Sweden, in October 2014. Dr Holness' poster was included in a select group of posters included in a "poster walk" programme. Both were fortunate to be invited to receive intensive training on reporting amyloid PET/CT scans of the brain at this meeting. Prof. Ellmann attended the congress of the World Federation of Nuclear Medicine and Biology (WFNMB) in Cancun, Mexico, and presented two posters. This was her last WFNMB responsibility as past-president of the WFNMB.

Prof. Ellmann was invited to serve as member of the International Advisory Panel of the American Society of Nuclear Cardiology. She was also invited to represent the SA Society of Nuclear Medicine during a meeting to compile South African guidelines for management of thyroid disease organised

by Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA) and Association of Clinical Endocrinologists of South Africa.

A physics trainee studying at the Ecole des Mines de Saint-Étienne, France, visited us for an internship as part of his physics training, as he had an interest to further his studies in Nuclear Medicine physics.

Dr Shelton Mariga from Prof. Albert Gjedde's group from the BRAINLab in the Department of Neuroscience and Pharmacology of Copenhagen University, Copenhagen, Denmark, and a colleague visited us in December 2014. They expressed interest in possible collaboration on the development of PET brain tracers.

## Research activities and outputs

The Division is actively involved in research. Staff are currently involved in the supervision of five doctoral students, including three in the Division itself, and several Masters students. Staff are sought after both as supervisors and examiners, playing these roles for numerous students at Stellenbosch University as well as other South African universities.

The year 2014 was a particularly intensive research year with the initiation of 15 new projects, including the registration of 2 new PhD students in the division, probably the first time in its history.

The Division has been awarded research funding for 2014 of R2,7 million, and almost the same amount of funding has already been secured for work in 2015. This funding comes from a diverse group of funders including the Medical Research Council, National Research Foundation and the NTeMBI initiative of the Department of Science and Technology. The funds go towards equipment, consumables, travel and researchers' remuneration. This not only allows the research to proceed, but provides essential specialist support in the Division which has outgrown its current compliment of 1 sessional and 3 fully funded specialist posts.

There is growing research collaboration with other national and international institutions, including the following:

- Functional Brain Imaging Analysis – Medical Imaging, Catholic University of Leuven, Belgium
- Image reconstruction – optimising brain PET/CT reconstruction – Medical Physics, University of Freiburg
- Anxiety Disorders – Psychiatry, University of Cape Town
- Substance Abuse – Psychiatry, University of Cape Town
- Anxiety Disorders – Psychiatry, University of Stellenbosch
- PET-CT in Lung Cancer – Pulmonology, Stellenbosch University
- PET-CT in tuberculosis – Pulmonology, Stellenbosch University
- PET/CT in latent tuberculosis in HIV positive patients – Pulmonology, University of Cape Town
- PET-CT in carcinoma of the cervix – Radiation Oncology, Stellenbosch University

Thirty staff members of the Division attended the congress of the SA Society of Nuclear Medicine in September 2014 in Durban, KwaZulu-Natal. Through the College of Nuclear Physicians, Prof. Warwick organised continuing education sessions for registrars at the congress. Ten research papers and posters were presented by members of the Division at the congress. The prize for best oral presentation was awarded to Dr S. Malherbe and co-workers, for the research presentation titled Evaluating Tuberculosis patients' response to treatment using quantified analysis of 18F FDG-PET/CT imaging. The PET studies were done at the Western Cape Academic PET/CT Centre, with Prof. Warwick and Prof. Ellmann as co-workers.

## **Publications from the division for 2014 are as follows:**

### **Book Chapter**

Doruyter AGG, Stein DJ, Warwick JM. Neurobiology of Posttraumatic Stress Disorder: The role of nuclear neuroimaging. In: PET and SPECT in Psychiatry Eds Dierckx, Otte, Vries, Waarde, Boer. Springer 2014

### **Paper**

Doruyter AG, Hartley T, Ameyo JW, Davids MR, Warwick JM. Hybrid imaging using low-dose, localizing CT enhances lesion localisation in renal hyperparathyroidism. Nuclear Medicine Communications 2014;35:884-889.

### **Abstracts**

Ten abstracts of the presentations at the SASNM congress were published in Clinical Nuclear Medicine volume 39 of 2014. Three abstracts presented at the congress of the European Association of Nuclear Medicine were published in the European Journal of Nuclear Medicine and Molecular Imaging, volume 40 of 2014.

### **Teaching and Training**

Postgraduate students include those enrolled for the MMed (NucMed) and MSc in Nuclear Medicine.

Two registrars obtained the MMed (NucMed) and one registrar passed the final fellowship examinations of the College of Nuclear Physicians of the CMSA.

A Nuclear Medicine registrar from the University of Cape Town rotated through the division, specifically for extra PET training. Two registrars from Bloemfontein also spent several weeks in the division.

Two students registered for a PhD in Nuclear Medicine, with three others working on research proposals for PhD studies.

Radiography students enrolled for the National Diploma in Radiography - Nuclear Medicine as well as for the BTech degree from the Cape Peninsula University of Technology (CPUT) do their clinical training in the division. Some staff members are also involved in their theoretical teaching.

Three radiographers enrolled for the PET/CT certificate course offered by the CPUT.

One of our nursing sisters obtained a BTech degree in oncologic nursing.

## DIVISION: RADIATION ONCOLOGY

Acting Head of Department  
Dr Magda Heunis

### Summary of activities

A year of increased resources and technology in radiation delivery

### Resources

Posts (Full-time)	Number	Filled
Professor/Chief Specialist	1	6 months
Head of Clinical Unit	1	1
Specialist	4	2
Registrar	5	5 + 6 supernumerary
Medical Officer	6	6
Radiographer	21 (full-time); 3 (3/8)	20 (full-time); 3 (3/8)
Social worker	3	3
Pharmacist	2 (full-time); 3 (rotate main pharmacy)	2 (full-time); 2 (rotate from main hospital)
Pharmacy assistant	0	0
Nurses	43 + 3 oncology nurses in training	
Secretary	1	1
Typists	3	3
Clerks	9	9
Porters	10	8
Messengers	1 (shared with Nuclear Medicine)	1

### Clinical output

New patients	2 130
Outpatient visits	150 248
Speciality Clinics	7
Admissions	1 473
Theatre procedures	Brachytherapy: 613; Other: 134
3-d conformal planned patients	760
Simulated patients	1 980
Planning scans	797
Number of treatment fields	17 900
Chemotherapy administrations	11 062

### Comment on clinical output

There was an increase in the number of new patients in 2014. The clinical, physics, radiographer and chemotherapy staff worked exceptionally hard to treat these patients timeously despite the challenges of a resource limited setting. The reduced specialist staff complement was particularly challenging and will be addressed in the new year.

## **PART 2**

### **Faculty of Health Sciences**

#### **Infrastructure development**

Installation and implementation of the new Elekta Synergy Agility high energy LINAC with cone beam CT imaging capabilities: This will allow more precise therapy with improved dose and reduced effects of radiation. It will hopefully also lead to improved throughput on the machine and a reduced waiting list.

Installation and implementation of the MOSAIQ patient management system: There will be an electronic patient pathway through the radiotherapy department. Statistics will be more readily available leading to research opportunities in the future.

#### **Community outreach and interaction**

- International co-operation with training of supernumerary registrars from Uganda, Zambia, Nigeria and Namibia
- IAEA-sponsored short course in radiation planning and treatment (3-6months) for delegates from Nigeria and Zimbabwe
- Proteahof hostel facility continues providing accommodation for 20 rural radiotherapy patients. This initiative is sponsored by CANSA.

#### **Partnerships**

National: Continued collaboration with iThemba laboratories, including initiation of a joint specialist appointment between Stellenbosch University and iThemba.

National: Collaboration with the African Cancer Institute, in the establishment of international co-operative research projects and the development of the MPhil program in cancer research

#### **Research activities and outputs**

- 4 international publications
- 1 registrar completed an MMed research assignment
- 2 registrars passed the FC (Rad Onc) SA Part II examination
- A number of divisional representatives presented at the Stellenbosch Academic Year Day

#### **Teaching and Training**

There were 5 registrars in training posts and 6 supernumerary trainees. A number of international fellows attended the IAEA-funded short course in radiotherapy.

Dr Heunis was an examiner for the FC (RadOnc) SA Part II and represented the Division as Secretary on the SASCRO committee.

#### **Special achievements**

Prof. Hannah Simonds was appointed Head of Division in December 2014.



## DIVISION: RADIODIAGNOSIS

**Head of Department:**  
**Prof Richard Pitcher**

### Summary of activities

A comprehensive, 24-hour tertiary-level diagnostic imaging service was maintained in the period under review, with 183 180 radiological examinations performed. Approximately 40% of examinations (69 397; 38%) were performed after hours, a third (58 444; 31.9%) were specialised radiological investigations, and paediatric imaging represented one-fifth of the workload (34 544; 19%).

A new 1.5 Tesla state-of-the-art MRI unit was commissioned in March 2014. The MR scanner was operational for 62 hours per week for most of the period under review.

A new digital, low-dose, whole-body X-ray unit, the Lodox Statscan, was commissioned in the Trauma Unit in November 2014. This will facilitate the triage of polytrauma cases.

Regular clinical radiology multi-disciplinary meetings were maintained with colleagues in general surgery, paediatric surgery, orthopaedic surgery, neurosurgery, neurology, thoracic surgery, breast surgery, urology, nephrology, otorhinolaryngology, adult and paediatric pulmonology, nuclear medicine, neonatology, rheumatology and endocrinology.

### Resources

Posts (Full-time)	Number	Filled
Associate Professor/Chief Specialist	1	1
Supernumerary Associate Professor	1	1
Clinical Unit Head	0	0
Specialists	8	8
Registrars	20	20
Supernumerary Registrars	5	5
Assistant Director Radiography	1	1
Chief Radiographer: Supervisor	15	15
Diagnostic Radiographer: Grade 3	15	15
Diagnostic Radiographer Grade 2	8	8
Diagnostic Radiographer Grade 1	21	21
Chief Sonographer: Supervisor	1	1
Sonographer: Grade 1	1	1
Contract Sonographer	1	1
Community Service Radiographer	4	4
PACS-RIS Co-ordinator	1	1
PACS-RIS Administrator	1	1
Registered Nurse	1	1
Staff Nurse	1	1
Enrolled Nurse	1	1
Medical transcriptionist	2	2
Clerical Assistant	2	2
<b>Posts (sessional – how many hours worked per week)</b>		
Specialist (DoE funding – 20 hours)	1	1



## Clinical output

Examination	2011	2012	2013	2014
Chest X-ray:	60 488	62 546	63 464	59 951
General X-ray:	67 057	69 311	69 437	64 785
Ultrasound:	11 773	11 812	12 910	12 662
CT	18 144	20 702	22 956	24 073
MRI	2 960	3 208	4 005	3 461
Mammography	3 159	3 378	4 023	4 240
Fluoroscopy/Angiography	8 712	9 425	9 657	10 053
Cardiac Theatre	3 005	3 556	3 827	3 938
<b>Total</b>	<b>175 298</b>	<b>183 938</b>	<b>190 279</b>	<b>183 180</b>

### Comment on clinical output

Since 2008, the number of specialised radiological exams has increased by 36% (42 867 – 58 444). Some modalities have shown a higher percentage increase: mammography 130% (1 841 – 4 240); MRI – 57% (2 200 – 3 461); CT – 50% (16 080 – 24 073); cardiac catheterisation – 50% (2 634 – 3 938). During the same period, general exams increased by 16% (107 397 – 124 736).

The increased clinical outputs were achieved with the same staff complement, which speaks to increasing year-on-year efficiency, attributable to a digital environment, equipment upgrades (mammography, MRI, ultrasound), and experienced and dedicated staff.

The 6% decrease in plain-film examinations reflects an improved digital imaging infrastructure in District Hospitals in the Tygerberg Hospital drainage area, particularly Khayelitsha District Hospital and Karl Bremer Hospital.

The decrease in MRI examinations can be attributed to “down-time” (two months) during installation of the new 1.5T MRI unit.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

A new 1.5 Tesla Siemens Magnetom Aera MRI unit was commissioned in Tygerberg Hospital in March 2014. This will introduce operational efficiencies, allowing an estimated 20% greater throughput of patients. It will also allow a more comprehensive clinical service, with a greater variety of examinations, including brain spectroscopy, the full range of paediatric examinations, including MR urography, as well as cardiac, prostate and breast imaging. Whole-body diffusion weighted imaging, which is assuming increasing importance in clinical oncology, will also be performed.

A new digital, low-dose whole-body X-ray unit, the Lodox Statscan, was commissioned in the Trauma Unit in November 2014. This should facilitate the triage of polytrauma cases.

A new software package “Insight” was introduced, for data-mining of imaging reports, to facilitate retrieval of clinical data.

The Division ran a Provincial Government tender for the acquisition of a second Vascular and Interventional Unit, which will be commissioned in the TBH C4B Theatre in March 2015. The new unit will have state-of-the-art functionality that will significantly enhance service efficiencies and decrease the radiation exposure to both patients and staff.

## Community outreach and interaction

### Africa collaborations

Drs Patrick Ngoya (Registrar) and Tashinga Maboreke (Registrar), supervised by Prof. Pitcher, established collaborative MMed research projects with partners in Tanzania (Wilbrod Muhogora – Director Tanzanian Atomic Energy Commission) and Zimbabwe (Josephat Banhwa, Chair of Radiology, University of Zimbabwe) respectively to assess national radiological resources in those countries.

Our Division has five international supernumerary registrars: Drs Joseph Kabongo (Zambia), Patrick Ngoya (Tanzania), Tashinga Maboreke (Zimbabwe), Fatmatu Bah (Sierra Leone) and Archan Patel (India).

### Radiological Society of South Africa (RSSA)

Prof. Pitcher is Secretary of the Committee of Academic Radiology (CAR), a standing Committee of the RSSA Council which includes the heads of all academic radiology departments in South Africa.

Dr Willie Cilliers (Registrar) is a student representative on the RSSA Council.

The Division has benefitted enormously by the extremely generous RSSA donation of staff licences for access to the StatDx and Radprimer teaching material.

### South African Journal of Radiology (SAJR)

Dr Razaan Davis is the Editor-in-Chief of the SAJR. Prof. Richard Pitcher and Dr Christelle Ackermann serve on the journal's Editorial Board.

### Insights into Imaging Journal

Dr Christelle Ackermann serves on the Editorial Board of "Insights into Imaging", a publication of the European Society of Radiology.

### Annual Radiology Refresher Course for Medical Officers and General Practitioners:

Our Division presented its third annual Radiology Refresher Course on 27 September 2014, convened by Prof. Jan Lotz and Dr Stephanie Griffith-Richards, entitled: "The adult chest radiograph". Approximately 300 delegates attended.

### Cape Universities Brain Imaging Centre (CUBIC)

Prof. Pitcher (Chairman) and Dr Christelle Ackermann serve on the Board of Management of CUBIC, the 3-Tesla Magnetic Resonance Imaging Centre for collaborative interdisciplinary research, which is based on the Tygerberg Campus.

### South African universities

Prof. Pitcher gave two invited lectures at the "Update '14" National Paediatric Conference, at the University of Pretoria on 28 February 2014 and was an External Examiner for the MMed (Radiological Diagnosis) degree at Free State University in May 2014 and at University of Limpopo in October 2014.

### Western Cape Government: Health

Prof. Pitcher served on the Radiology User Group of the Department of Health (DoH), looking at the provision of a seamless radiology service across the province.

## Partnerships

The Division was fortunate to have the continued services of Dr David Legge, a retired Irish interventional radiologist, whose invaluable supervisory role in the vascular and interventional theatre received DoE funding throughout the period under review.

Our Division enjoys close ties with, and generous support from, private sector radiologists by way of the Imaging Benefit Company, a registered non-profit organisation established to further the education and training of radiologists in Southern Africa. We gratefully acknowledge the company's private funding of the supernumerary Ad Hominem appointment of Associate Professor Jan Lotz, whose academic mentorship continues to afford our Division immense benefit.

## Research activities and outputs

The Division had 15 publications in accredited national or international peer-review journals and presented 13 papers at national or international congresses. In addition, 4 research projects are in the final stages of manuscript preparation and 16 projects are underway.

## Teaching and Training

### Registrar Training Programme:

The registrar training time was extended to five years from 2014. This includes an initial 29-month structured rotation through all major imaging modalities. In-course assessments are conducted at the conclusion of initial training in each modality. The course includes a structured weekly Modular Academic Programme, which systematically covers the postgraduate curriculum in a five-year cycle.

### College of Radiologists of the Colleges of Medicine of South Africa (CMSA):

Drs Razaan Davis and Christelle Ackermann were FCRad(Diag) SA Part II examiners in the first and second semesters of 2014 respectively.

Prof. Richard Pitcher was elected President and Dr Christelle Ackermann a Councillor of the College of Radiologists for the 2014-2017 triennium.

Prof. Pitcher will also serve as a CMSA Senator and a member of the Finance and General Purposes Committee of Senate for the 2014-2017 triennium and will be Convenor of the FCRad(Diag) SA examinations in the first semester of 2015.

Prof. Lisa Lowe, Program Director and Academic Chair in the Department of Radiology at the University of Missouri, Kansas City, visited South Africa as a guest of the College and gave an invited lecture to our Division on 4 August, entitled: "Current classification and terminology of paediatric vascular anomalies".

The Fellowship of the College of Radiologists of the Colleges of Medicine of South Africa FCRad(Diag) SA was conferred on Drs Michelle da Silva, Francois van Schouwenburg and Jeanne-Marie Brocker.

### Master of Medicine (Radiological Diagnosis)

The degree of MMed (Radiological Diagnosis) was conferred on Dr Francois van Schouwenburg.

## **RSNA Visiting International Professor Programme**

Following representation by Prof. Pitcher, the Division was chosen to host the 2014 RSNA International Visiting Professor Programme. Prof. Rebecca Hullet and Prof. Anil Khosla (Mallinckrodt Institute of Radiology) visited the Division from 4 – 14 August 2014 and presented a series of 10 lectures, attended all multi-disciplinary clinical meetings and participated in the annual Academic Day of the Department of Medical Imaging and Clinical Oncology.

All the lectures of Prof. Hullet and Prof. Khosla were broadcast to other Radiology Departments at SA universities as a national webinar teaching programme.

## **Medical Imaging Partnership**

In collaboration with the Radiological Society of South Africa (RSSA) and the Medical Imaging Partnership (MIP), Prof. Leslie Quint (University of Michigan) presented an extremely informative Thoracic Imaging workshop on 11 February 2014.

## **Elective students**

The Division hosted 6 local and 2 international elective students in 2014.

## **Special achievements**

Dr Christelle Ackermann (Consultant) was granted sabbatical leave from January to March to pursue her PhD research.

Dr Razaan Davis (Consultant) visited Philadelphia Children's Hospital (CHOP) in May to be mentored in magnetic resonance urography (MRU) by Prof. Kassa Darge, Head of Abdominal Imaging.

Dr Asif Bagadia (Consultant) was invited to attend the Cardiovascular and Interventional Radiological Society of Europe (CIRSE) Workshop in Glasgow from 13 – 17 September.

Prof. Pitcher was the International Keynote Speaker at the 24th Annual Meeting of the Society of Radiologists in Ultrasound (SRU), in Denver, Colorado, from 22 – 24 October 2014, with a talk entitled: "Southern Sound: Sonography at the southern tip of Africa".

Prof. Pitcher was the guest of Prof. Ted Dubinsky and Visiting Professor at the University of Washington School of Medicine, Seattle, in October 2014, and participated in the Abdominal Imaging Fellowship teaching programme.

Dr Fourie Bezuidenhout (Registrar) received the Radiological Society of North America's 2014 IRIYA Award (Introduction to Research for International Young Academics).

Dr Fourie Bezuidenhout (Registrar) won the prize for the best poster presented at the RSSA's annual congress in August 2014.

### Head of Department: Prof M Moosa

The Department of Medicine has enjoyed a very productive year with a range of activities that has increased to make it one of the premier departments in the country. We have excelled at the clinical level and academic levels. There have also been the appointments of key personnel that have been important to ensure that we improve both the quantum and the quality of our core activities.



Prof M Moosa

### Some highlights

The appointments of Drs Brian Allwood and Karen Barnard were major coups for the Department as it brought new vitality to bear, with both having great potential to assist in developing the Department in all aspects. Long overdue, as well, were the promotions of Prof. Moodley to full professor and Prof. Carr to Head: Clinical Unit.

On the undergraduate side, the extension of the teaching platform to the Mediclinic Durbanville was an important pilot project – the first of its kind in South Africa. The project was an unmitigating success at all levels and was endorsed by the MEC for Health in the Western Cape. The plan is to roll out the project to include all Mediclinic group hospitals in the Metropole.

Our postgraduate students also did us proud with all who sat for the Colleges of Medicine exit examinations passing; we were able to graduate 11 MMed students and 3 PhD students. The doctoral students who graduated from Stellenbosch University were Dr Lucille Wood, Prof Razeen Davids and Dr Charles Awortwe. Dr Brian Allwood was awarded a PhD by the University of Cape Town.

The clinical services continue to function under enormous pressure. Innovations in screening outpatient using faxed referrals has effectively reduced the numbers of patients seen and minimised the waiting times, resulting in an overall improvement in services. Another innovation has been the placement of medical students in outpatients, which has had the salutary effect of reducing pressure on the inpatients and wards, while exposing the students to a spectrum of patients they would ordinarily not see.

Tygerberg Hospital has been providing a 24-hour Poisons Information Centre (PIC) for the country for several years with, the numbers of calls increasing progressively. The Red Cross Children's Hospital has also been providing a service and after many years of attempting to do so, the after hours service has now been consolidated into a single service – the only one in the country. The PIC is a unique entity and provides training for Clinical Pharmacology and Emergency Medicine Registrars. The Department is only the second one in the country after UCT to provide training in Clinical Pharmacology, with two Registrars currently registered.

The first successful penile transplant in the world was performed at Tygerberg Hospital in December. Prof André van der Merwe, the Head of Urology performed the 9-hour operation, but the nephrologists ably supported the historic event by taking care of the immunosuppression of the patient.

The nephrologists were also involved at the international level with the hosting of the very successful World Congress of Nephrology, which was hosted jointly by the International Society, the South African Society of Nephrology, the African Society of Nephrology and the Renal Care Society. The meeting was held in Cape Town 13 – 17 March 2015. In terms of recognition, the good work done in Cardiology was recognised by Parliament.

In terms of wider departmental recognition, Prof Moosa served as external examiner for other Internal Medicine departments but also had the privilege of acting as external examiner for the University of Zimbabwe. Prof Moosa was appointed to the Ministerial Committee for Transplantation. Prof Davids's South Renal Registry Annual Report 2012 was a landmark publication in South Africa appearing after a hiatus of almost two decades. The report triggered the “Ministerial Summit on an Effective Approach to Chronic Kidney Disease in South Africa”, which was held in Johannesburg in March 24- 25, 2015 and was co-chaired by Prof Moosa. The summit culminated in a national declaration. Prof Moosa also served as a member of the HPCSA panel responsible for the accreditation of the University of Pretoria, September 14-17, 2014.

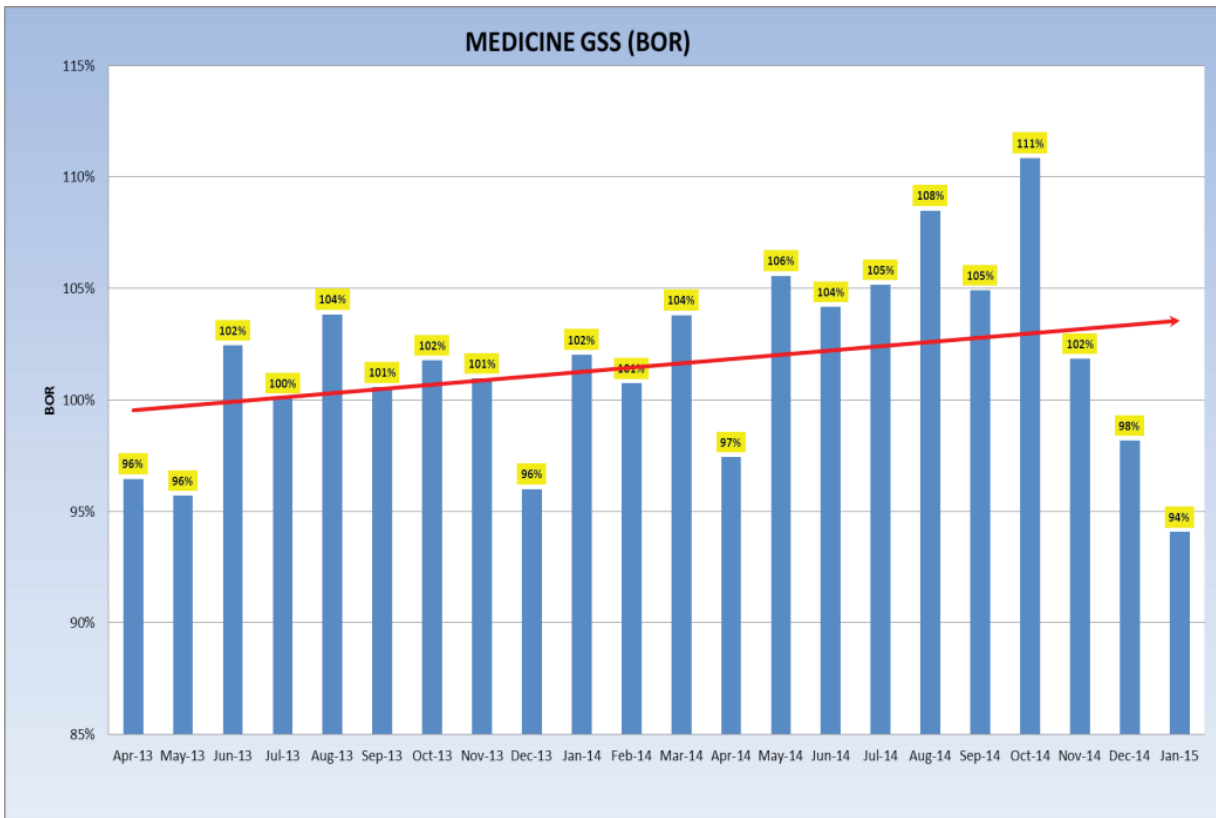
In terms of commitment to Africa, the Department serves as host to some 12-14 doctors from various African countries who are being trained as Supernumerary registrars in the Department in either general medicine or subspecialties. The Department has also signed a memorandum of agreement with the University of Botswana whereby up to two of their registrars will spend two years in the Department, mostly rotating through the subspecialties. No distinction is made between the supernumerary registrars and their local counterparts in terms of requirements, rotation and assessment.

## Ongoing Challenges

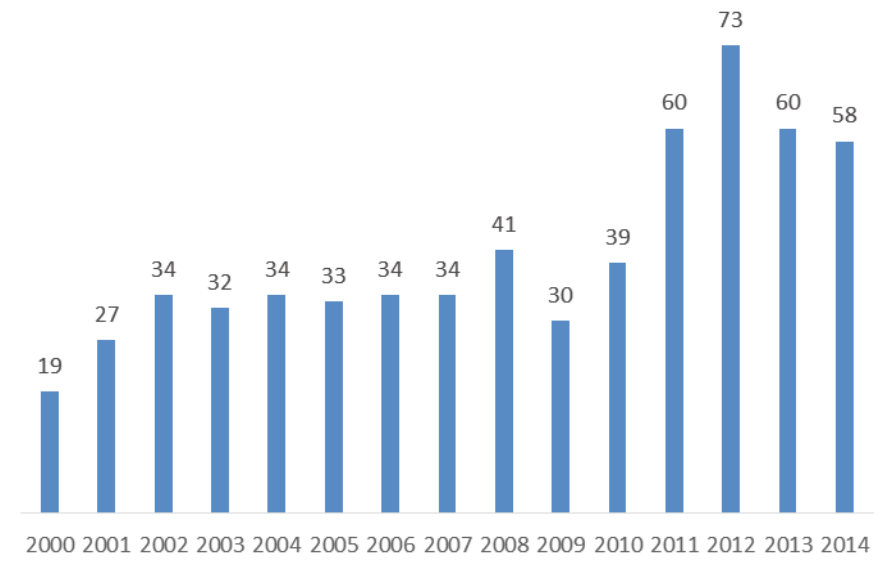
The great burden of non-communicable diseases, but especially of HIV and TB, takes a heavy toll on the population we serve and requires upstream solutions to effectively deal with the challenges. The steadily increasing numbers of patients as well as the increasing severity of the illnesses places current resources under severe strain. The unacceptably high turn-over of patients in the Medical admissions /Emergency Ward (Table) and the very high bed occupancy rate (Fig. 1) in General Medicine required urgent attention to ameliorate the situation, which is moving to a crisis. Following successful negotiations with hospital management, several changes and plans were implemented in the emergency/admissions area that ameliorated the situation. Combined with this is the constant refrain from medical staff that the student numbers are burgeoning placing additional strain on the whole system.

**Table 1. Bed occupancy rates and average length of stay of patients in General Medicine.**

<b>F1 Medical Emergency</b>													
Type	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15
Average length of stay (ALOS)	1	1	1	1	2	2	1	2	2	2	1	1	1
Bed Occupancy Rate (BOR)	181%	165%	174%	162%	187%	190%	192%	203%	193%	215%	177%	181%	190%
Admissions	1 010	912	975	896	952	1 017	1 048	1 048	988	1 083	969	1 012	1 073
Patient days	1 462	1 204	1 400	1 262	1 508	1 486	1 544	1 637	1 504	1 729	1 378	1 462	1 535
Beds in use	26	26	26	26	26	26	26	26	26	26	26	26	26
Inpatient days	1 425	1 171	1 370	1 234	1 480	1 454	1 510	1 607	1 469	1 692	1 340	1 429	1 499
Day Patients	74	66	60	56	55	63	67	60	69	74	76	66	72
Deaths	54	40	75	50	71	77	85	73	60	77	42	65	66
Separations	998	936	967	878	981	985	1 071	1 038	976	1 093	987	1 010	1 062



**Fig. 1 Bed occupancy in the general medicine wards for April 2013 - January 2015**



**Fig. 2. Research output of the Department of Medicine (2000 - 2014)**

The use of consultants appointed using funds from the Department of Education and the extension of the teaching platform alluded to above has brought some relief. The research output has been of concern, failing to maintain the promising trajectory of previous years (Fig. 2). Part of the explanation is the large clinical and teaching load shouldered by the Department alluded to above. Strategies to improve the situation are to be investigated.

While the Department faces several challenges the strong sense of pride that the whole team takes in all its activities and the excellent relationships it enjoys with both Hospital and Faculty managements, ensures smooth and effective functioning of the Department and there is no reason it cannot make even greater strides in the coming year.



## CARDIOLOGY

### Head of Department: Prof. A.F. Doubell

MBChB, BSc Hons, FCP (SA), MMed, PhD

### Summary

The Cardiology Unit is an integral component of Tygerberg Hospital and the Faculty of Health Sciences, Stellenbosch University. The clinical activities of the unit centres around the 25 bed intensive care unit, the cardiac catheterisation laboratory, the echocardiography laboratory and the outpatient clinic (4 clinics per week: 3 general cardiology clinics and 1 focussed cardiology clinic: Lipid disorders – first and third Monday of the month; GUCH [Grownup Congenital Heart Disease] – second Monday of the month; Advanced heart failure – last Monday of the month). The service rendered and the teaching platform provided is very dependent on the ECG, Holter ECG, stress ECG, pacemaker, echocardiography and catheterisation service.

Critical nursing staff shortages continue to hamper our service. As reported last year, the unfunded Chief Technologist post is impacting negatively on the motivation and aspirations of the technologists. The lack of echocardiography facilities in the emergency areas in the hospital continues to hamper service delivery and patient care. As noted last year, the cardiac catheterisation laboratory (Cath Lab) installed in December 2011 (West side Cath Lab) is still fully functional, but it must be noted that the East side Cath Lab is now 14 years old and we are experiencing problems maintaining it in service. Planning must be initiated to replace this system as we depend heavily on this facility for pacemaker implantations and for emergency cases when the West side theatre is in use.

Despite the challenges we face, we can once again report:

- Cardiology has maintained its service excellence (recognition must go to the staff's dedication and willingness to sacrifice)
- Good student teaching remains a hallmark of the unit
- The unit has managed to maintain a reasonable academic output with 14 publications
- The unit has remained an important role-player amongst academic cardiology centres in the country with Prof. Doubell being on the executive committee of the South Africa Heart Association and also the editor of SA Heart, official journal of the South Africa Heart Association
- Our outreach programmes, previously involving Paarl Hospital, has been expanded to include Worcester Hospital and Karl Bremer Hospital. We launched the Echo in Africa project amongst schoolchildren from Ravensmead and Khayelitsha and more than 1500 were screened last year. The project continues this year (2015) and children in whom heart disease was detected will also be seen in follow-up in 2015.
- The Echo in Africa programme, a collaborative project with the British Echocardiography Society, is part of a larger initiative undertaken by SUNHEART. SUNHEART, a newly established centre of the Division of Cardiology, has the objective of improving access to advanced cardiac care for all patients.



## Staff

### Professors

Prof. A.F. Doubell

### Specialist Cardiologists

Dr H. Weich

Dr P. Herbst

Dr Pecoraro

Dr Kyriakakis (research post)

### Cardiologists in training

Dr Mwazo (supernumerary trainee from Kenya – training completed in August 2014)

Dr P. van der Bijl (training to be completed in February 2015)

Dr P. Rossouw (training cycle started 1 December 2012)

Dr J. Moses (training cycle started 1 January 2013)

Dr A. van Rensburg (training cycle started 1 January 2014)

### Medical Officers

#### Dr H.P. Cyster

Medical Officer post in echocardiography vacant (this post is currently used to fund the post Dr Kyriakakis is appointed in – supplemented with a Discovery grant awarded to Dr Kyriakakis)

### Research Staff – University of Stellenbosch appointments

Prof. L. Burgess

Ms M. Carstens (retired in 2014)

### Technical Staff

Control Technologist	1 (Hamzah Kathree) – joined us in 1 December 2013
Technologists	4 (Jorandi Loubser, Lusanda Matyeni, Inayaat Mahomed, Alet Meiring)
Technical Assistants	5 (M. Africa, C. Faroe, S. Baron, H. Charles, E. Kainda)
Technology students	4 (Sharlini Subramoney, Bathabile Mogaladi, Tiffy Wiggel, Menzi Maphumuno)

## Administrative Staff

Secretary	Ylana Waller
Typist	Erika Burger

## Registrars

### Rotated for periods of six months

Dr Rida Elarbi  
Dr Du Toit van der Merwe  
Dr Brentia Sonnekus  
Dr Elisma Wilken  
Dr Dewald Barnard  
Dr Cornel Engelbrecht  
Dr Mahmoud Al Naili  
Dr Irfaan Hargey

### Senior Registrars from UCT rotating for Echocardiography training

Rotated for periods of six weeks  
Dr Shaheen Pandie

## Emergency medicine registrars

### Rotated for periods of three months

Dr Derick Evans  
Dr Sebastiaan de Haan  
Dr Waseela Khan  
Dr Johard Beukes

## Number of beds

Coronary intensive care unit	8
Cardiac high care	17
D4 (elective admissions):	5

## Number of patient-care chairs in the cathlab (radial suite)

A radial suite was put into service in November 2014. The radial suite allows us to provide a same-day coronary angiography service. The service is structured around six monitored dialysis-type chairs.

## Factors impacting negatively on services in the unit

### Staff shortages

#### Medical Officer

In order to create an additional research/training post in cardiology, it was agreed with management to keep a post in echocardiography (Medical Officer post) vacant in the short term in order to utilise this post to appoint Dr Kyriakakis in a research post to enable him to complete his PhD.

#### Technologists

There is an urgent need to have the capacity to promote one of our Technologists to a Chief Technologist post. Although the post exists, it is currently unfunded. This has to be addressed as a priority.

#### 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.

## Lack of Equipment

#### Monitors

We have targeted 2014 – 2015 to optimise the monitors in A6. This did not occur in 2014.

#### Echocardiography machine

There is a growing need to provide echocardiography service at the point of contact in the emergency areas of the hospital, particularly in the CCU. This service is currently provided by transporting very expensive equipment from the echocardiography unit to the emergency area. 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

### a) Inpatients

A6 admissions	
Unit	1 089
Ward	799
D4 elective admissions	456
<b>Total</b>	<b>2 344</b>

Patients seen in the emergency room	984
Resuscitations	51
Streptokinase administered	120

### b) Inpatient consultations

Written interdepartmental consultations	1 320
Direct consultation of doctor on call	2 729

### c) Outpatients

<i>Cardiac Clinic</i>	
New patient consultations	814
Follow-up patient consultations	3 009

<i>Lipid Clinic</i>	
New patient consultations	44
Follow-up patient consultations	246

#### *GUCH Clinic*

New patient consultations	14
Follow-up patient consultations	115

#### *Cardiomyopathy Clinic*

New patient consultations	7
Follow-up patient consultations	29

Adult cardiology total	4 278
Paarl outreach clinic	174
Paediatric cardiology clinic	53

### d) Electrocardiography

Standard ECG	14 291
Exercise ECG	1 007
Holter recordings	158
<b>Total</b>	<b>15 456</b>

### e) Echocardiograms

TTE (adult)	5 170
TTE (paediatric)	363
TEE	152
TEE (under sedation – incl. above)	123
Dobutamien stress echo	71
Exercise stress echo	24
<b>Total</b>	<b>5 780</b>

<b>f) Cardiac catheterisation</b>	
Left and coronary	1 430
Femoral (incl. conv. from rad.):	290
Radial:	1 219
Grafts	66
Aortograms (incl. in coronary stats)	6
Pulmonary arteriogram (incl. under MVP)	10
Right heart studies	41
<b>Total</b>	<b>1 471</b>
<b>g) Coronary interventions</b>	
PCI (number of patients)	630
PTCA balloons	656
Bare metal stents	346
Drug eluting stents	420
Drug eluting balloons	28
Direct stents (incl. above)	111
Coronary aspirations (incl. above)	138
FFR (incl. above)	69
Intravascular ultrasound (IVUS) (incl. above)	33
Optical coherence tomography (OCT)	20
<b>h) Intra-aortic balloon pump (IABP)</b>	24
<b>i) Percutaneous Mitral Balloon Valvuloplasty</b>	10
<b>j) Divers cardiac interventions</b>	17
ASD closure	4
PFO closure	1
PDA closure	1
Aortic valvuloplasty	6
Pulmonary valvuloplasty	1
Mitral valve replacement	1
Trans Ao. Valve impl. (TAVI)	2
Coarctation stent	0
Myocardial biopsy	1
IVC stent	0
Renal denervation	0
AV fistula coiled	0
<b>k) Valve screening (fluoroscopy)</b>	62*
<b>l) Pericardial aspirations</b>	46
Pericardioscopy	1
<b>m) Pacemaker implantation</b>	
New	99
Replacement	27
Lead replacement	5
Lead extraction	0
Epicardial lead	0
<b>Total</b>	<b>124</b>
VVIR	66
VDD	0
DDDR	33
CRT	9
ICD	5
Loop recorder	3

n)	<b>Temporary pacing</b>	199
	A6	49
	Cathlab	150
o)	<b>Pacemaker follow-up</b>	945
p)	<b>ICD insertion</b>	5
q)	<b>Swan Ganz catheters</b>	0
r)	<b>Arterial lines</b>	17
s)	<b>Ventilation</b>	59
t)	<b>Streptokinase administration</b>	120

## 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 chairmanship of Prof. Doubell. The module continues to receive high praise from participants. 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)
- Training of Technologists (4 posts) accommodates the curriculae of both the Central University of the Free State and the Durban Institute of Technology

### Postgraduate

- A structured teaching programme was presented for Registrars rotating through Cardiology for six months at a time
- The registrar training programme is the only programme in the country that includes structured and supervised echocardiography training
- One Senior Registrar completed his cardiology training (Dr Mwazo, a supernumerary from Kenya)

### Continued medical education

- An outreach programme for Paarl Hospital was presented to and accepted by the management of Tygerberg Hospital in 2013. During 2014, the service was expanded to include Karl Bremer Hospital. In 2015, Worcester Hospital will also be included.

## Outstanding achievements in 2014

- **C. Kyriakakis, P.G. Herbst.** Approach to balloon mitral valvuloplasty in a challenging case. AfricaPCR, Cape Town, March, 2014.  
*\* This presentation won the award for best clinical case presentation at the meeting*
- The Division of Cardiology successfully competed for a **Discovery Award** (Discovery Subspecialist Award received by Prof. Doubell [candidate **Dr A. van Rensburg**])
- **Rector's award:** Prof. Doubell received the Rectors award for General Performance in 2014
- **Prof. Doubell** served on the **exco of the South African Heart Association** and continues to serve as the Editor of SA Heart, the official Journal of the South African Heart Association
- The National Assembly of Parliament passed a motion of congratulations recognizing the Division of Cardiology as a centre of excellence: **"The Assembly recognizes Professor Anton Doubell, who set up the non-profit organization SUNHEART, for being at the forefront of this service and congratulates Tygerberg Hospital and all its partners for setting up this state-of-the-art service for the benefit of patients"**

## Research output

### Journal articles – Subsidised

1. **Weich H.** and Ackermann C. Closure of pulmonary arterio-venous malformations in a patient with a novel form of Hereditary Haemorrhagic Telangiectasia. *SA Heart* 2014; 11(1): 34-35
2. **Pecoraro A.J.K.** Management of aortic stenosis in pregnancy. *SA Heart* 2014; 11(2):76-79
3. **Van Rensburg A.** and **Herbst P.G.** Image in Cardiology – Left ventricular pseudoaneurysm. *SA Heart* 2014; 11(2): 88-89
4. **Moses J., Kyriakakis C., Weich H., Rossouw P., Herbst P. and Doubell A.** Persistent left superior vena cava – the value of an agitated saline contrast study. *SA Heart* 2014; 11(3): 152-153
5. **Van der Bijl P.,** Van der Bijl P. Infective endocarditis and antibiotic prophylaxis - an update for South African dental practitioners. *South African Dental Journal* 2014; 69:118-121
6. **Van der Bijl P.,** Doruyter A, De Decker R., **Lawrenson J.,** Comititis G., Hewitson J. Chest Pain on Exertion After the Takeuchi Repair of Anomalous Origin of the Left Coronary Artery: Right Ventricular Ischaemia Due to Severe Pulmonary Outflow Tract Obstruction. *World Journal for Pediatric and Congenital Heart Surgery* 2015; 6:90- 92
7. Raal F.J., Stein E.A., Dufour R., Turner T., Civeira F., **Burgess L.,** Langslet G., Scott R., Olsson A.G., Sullivan D., Hovingh G.K., Cariou B., Gouni-Berthold I., Somaratne R., Bridges I., Scott R., Wasserman S.M., Gaudet D; for the RUTHERFORD-2 Investigators. PCSK9 inhibition with evolocumab (AMG 145) in heterozygous familial hypercholesterolaemia (RUTHERFORD-2): a randomised, double-blind, placebo-controlled trial. *Lancet.* 2014 Oct 1. pii: S0140-6736(14)61399-4. doi: 10.1016/S0140-6736(14)61399-4. [Epub ahead of print]
8. Blom D.J., Hala T., Bolognese M., Lillestol M.J., Toth P.D., **Burgess L.,** Ceska R., Roth E., Koren M.J., Ballantyne C.M., Monsalvo M.L., Tsirtsonis K., Kim J.B., Scott R., Wasserman S.M., Stein E.A; DESCARTES Investigators. A 52-week placebo-controlled trial of evolocumab in hyperlipidemia. *N Engl J Med.* 2014 8; 370(19):1809-19.

9. McMurray J., Packer M., Desai A., Gong J., Greenlaw N., Lefkowitz M., Rizkala A., Shi V., Rouleau J., Solomon S., Swedberg K., Zile M.R., Andersen K., Arango J.L., Arnold M., B Iohlávek J., Böhm M., Boytsov S., **Burgess L.**, et al. A putative placebo analysis of the effects of LCZ696 on clinical outcomes in heart failure. *Eur Heart J.* 2014 Nov 21. pii: ehu455. [Epub ahead of print]
10. Schumm-Draeger P.M., **Burgess L.**, Korányi L., Hrubá V., Hamer-Maansson J.E., De Bruin T.W. Twice-daily dapagliflozin co-administered with metformin in type 2 diabetes: a 16-week randomized, placebo-controlled clinical trial. *Diabetes Obes Metab.* 2015;17(1):42-51. doi: 10.1111/dom.12387. Epub 2014 Oct 16.
11. Packer M., McMurray J.J.V., Desai A.S., Gong J., Lefkowitz M.P., Rizkala A.R., Roulea J.L., Shi V., Solomon S.D., Swedberg K., Zile M.R., Andersen K., Arango J.L., Arnold M., Belohlavek J., Bohm M., **Burgess L.J.**, et al. Angiotensin Receptor Nepilysin Inhibition Compared with Enalapril on the Risk of Clinical Progression in Surviving Patients with Heart Failure. *Circulation.* 2015;131(1):54-61. doi: 10.1161/CIRCULATIONAHA.114.013748. Epub 2014 Nov 17.
12. Van der Merwe J., Hall D., **Herbst P. and Doubell A.** Patient profile of a tertiary obstetric-cardiac clinic. *SA Heart* 2014; 11(2): 80-85
13. **Van Rensburg A. and Kyriakakis C.** A tale of a cobra and an octopus: Takotsubo Cardiomyopathy following a snake bite. *American Journal of Medicine.* In Press
14. **Weich H., Van Wyk J., Pecoraro A.J.K. and Mabin T.** Hybrid internal mammary to left anterior descending bypass and trans-aortic transcatheter aortic valve implantation: A new treatment option for patients with complex disease. *Journal of Heart Valve Disease.* 2014. In press.

#### Proceedings National and International

1. **C. Kyriakakis, K. Mwazo, A.B. Adeniyi and H. Weich.** Left main stem coronary (LMS) thrombosis in a teenager with nephrotic syndrome (NS). *SA Heart* 2014, 11(4);184
2. **Jane Moses, Philip Herbst, Anton Doubell and Alfonso Pecoraro.** Criss-cross heart with double-outlet right ventricle: untwisting a previously incorrect diagnosis by transthoracic echocardiography. *SA Heart* 2014, 11(4); 193
3. S. Koegelenberg, C. Scheffer, M.M. Blanckenberg and **A.F. Doubell.** Application of laser Doppler vibrometry for human heart auscultation. 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2014), 26 - 30 August 2014, Chicago, USA, p. 4479 - 4482

#### Presentations at the Annual Academic Day of the Faculty of Health Sciences, Stellenbosch University.

1. **A. van Rensburg, A.F. Doubell and P.G. Herbst.** Distance learning modules as an educational tool. 2014
2. **C. Kyriakakis, K. Mwazo, A.B. Adeniyi, H. Weich:** Left Main Stem coronary thrombosis in a teenager with nephrotic syndrome 2014



## Other Presentations at National and International Congresses (abstracts not published).

1. **Jane Moses, Anton Doubell, Alfonso Pecoraro, Jacques Janson, Hellmuth Weich.** Mitral stenosis post mitral valve replacement. Case presentation at SA Heart Congress. Durban. October 2014
2. **Jane Moses, Alfonso Pecoraro.** Chronic cyanosis with a normal heart? Case presentation at SA Heart Congress. Durban. October 2014
3. **Weich H.** Degenerative Aortic Stenosis: Lessons learnt from the local TAVI programme. SA Heart Congress. Durban. October 2014
4. **C. Kyriakakis.** A near catastrophe – restrictive cardiomyopathy complicated by a massive aortic bifurcation saddle embolus. SA Heart Congress, Durban, October 2014.
5. **Van Rensburg A. and Kyriakakis C.** A tale of a cobra and an octopus: Takothsubo cardiomyopathy following a snake bite. SA Heart Congress, Durban. October 2014.
6. **Pecoraro A.J.K.** Evaluation of the tricuspid valve. SA Heart Congress, Durban, October 2014.
7. **C. Kyriakakis, P.G. Herbst.** Approach to balloon mitral valvuloplasty in a challenging case. AfricaPCR, Cape Town, March, 2014.  
  
*\* This presentation won the award for best clinical case presentation at the meeting*
8. **C. Kyriakakis.** Primary PCI for antero-lateral STEMI: complex lesion. AfricaPCR, Cape Town, March, 2014.
9. **C. Kyriakakis.** Catheter thrombosis one day after primary PCI for STEMI. AfricaPCR, Cape Town, March, 2014.
10. **C. Kyriakakis.** Complication during PCI for NSTEMI-ACS. AfricaPCR, Cape Town, March 2014.
11. **Weich H.** Management of STEMI patients in Cape Town, South Africa. Africa PCR, Cape Town, March 2014
12. **C. Kyriakakis, H. Weich.** Unexpected left main stem mass in a teenager. EuroPCR, Paris, France, May 2014
13. **Weich H.** Percutaneous closure of a paravalvular leak in a patient with dextrocardia. EuroPCR, Paris, France, May 2014
14. **Weich H.** Closure of a large coronary AV-malformation. EuroPCR, Paris, France, May 2014
15. **Weich H.** Significant paravalvular leak after transcatheter aortic valve implantation. TCT, Washington DC, USA, Sept 2014
16. **Weich H.** Transcatheter implantation in bicuspid aortic valve stenosis. TCT, Washington DC, USA, Sept 2014
17. Blom D., Hala T., Bolohnese M., Lillestol M.J. Toth PD, **Burgess L,** et al. Long-term Tolerability and Efficacy of Evolocumab (AMG 145) in Hyperlipidemic Subjects: A 52-week Phase 3 Double-blind, Randomized, Placebo-controlled Study. American Cardiology congress, 29-31 March 2014, Washington, USA
18. Raal F.J., Dufour R., Turner T., Civeira F., **Burgess L,** et al. The Addition of Evolocumab (AMG 145) Allows the Majority of Heterozygous Familial Hypercholesterolemic Patients to Achieve Low-density Lipoprotein Cholesterol Goals - Results from the Phase 3 Randomized, Double-blind, Placebo-controlled Study. American Cardiology congress, 29-31 March 2014, Washington, USA

## Degrees obtained

1. Cassimjee Z. Assessing the diagnostic accuracy of commissural fusion as an early sign of rheumatic heart disease. Completed.
2. Van Deventer J. Evaluation of the SUNHEART Cardiology Outreach Programme. Submitted for examination.

## Other ongoing research

### Pericardial disease

- The role of pericardioscopic percutaneous pericardial biopsies in the management of tuberculous effusions
- The diagnosis and natural history of effusive-constrictive pericarditis

### Valve disease

- Predicting the outcome of balloon mitral valvuloplasty
- 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
- Assessing the mitral valve in patients with bicuspid aortic valve

### New technology

- Developing a blood culture device to improve the yield of positive blood cultures in infective endocarditis

### Contract research

- The unit has an active drug-trial unit and continues to be a leader in this field in the Faculty

### National and International co-operation and partnerships

- An echocardiography training platform has been established to assist with the training of Cape Town University cardiology trainees
- We also accommodate training of candidates from other institutions on an ad hoc basis when requested. In August 2014, we took on Dr Derick Aucamp in his last year of training due to a temporary inability of the University of Free State to continue with this training
- Echo in Africa, this collaborative project with the British Echocardiography Society, is part of a larger initiative undertaken by SUNHEART. During 2014, Echo in Africa screened 1500 underprivileged schoolchildren to detect subclinical heart disease, in particular rheumatic heart disease. SUNHEART is a newly established centre of the Division of Cardiology that has the objective of improving access to advanced cardiac care for all patients

## DERMATOLOGY

**Head of Department:**  
**Dr W.I. Visser**

### Summary of activities

The missions of the Division, namely effective administration, basic research, excellent service delivery, undergraduate- and postgraduate teaching and outreach were achieved satisfactorily.

### Resources

Posts (Full-time)	Number	Filled
Head of Division	1	1
Consultant	1	1
Registrars	4	4
Supernumerary Registrars	4	3
Posts (sessional – how many hours worked per week)		
Specialist	4 hrs per week	1

### Output

Outpatient visits	10 260
Admissions	300
UV therapy	80
Patch tests	50
Theatre procedures	1 300
Biopsies	1 200

### Comment on output

- The Division of Dermatology delivers a comprehensive and efficient clinical service at specialist level
- Both in- and outpatients are referred from general practitioners, specialists (dermatology and other), community health centres and from other departments
- Consultation with other departments takes place virtually on a daily basis. Contact with the Department of Medicine, the Department of Paediatrics and Child Health, the Division of Rheumatology and the Division of Infectious Diseases from the bulk of these consultations
- Daily performance of skin biopsies, curettage and cautery, and surgical excision of benign and malignant skin neoplasms. Only local anaesthetic is administered and surgery requiring flaps is not performed.
- Providing teledermatology consultations to Dermatologists and other doctors

The commonest conditions admitted are the following:

- o Patients with erythroderma
- o Patients with widespread plaque psoriasis. These patients are admitted for treatment consisting of topical steroids, ultraviolet light and systemic immunosuppressants
- o Patients with autoimmune blistering disorders (bullous pemphigoid, pemphigus, dermatitis herpetiformis)
- o Patients with severe cutaneous adverse drug reactions, including Stevens-Johnson syndrome and toxic epidermal necrolysis
- o Patients with complicated skin cancer
- o Patients with leg ulcers
- o Patients with complicated retroviral disease affecting the skin
- A quarter of patients seen at OPD are under the age of 12 years.
- A dedicated paediatric dermatology service is provided, in a specific child friendly area, in the dermatology clinic
- A weekly interdisciplinary skin cancer meeting and Kaposi sarcoma clinic, as well as a combined Rheumatology clinic are attended
- We continue our close relationship with Anatomical Pathology with weekly CPC's and biweekly consultations to maximize clinicopathological correlation. A Pigmented Skin Lesion group convenes monthly

## **PART 2**

### **Faculty of Health Sciences**

#### **Infrastructure development**

- Two new surgical beds and theater lights have been installed in the clinic. This has dramatically improved our surgical management of patients.

#### **Community outreach programmes**

- Monthly outreach clinic at Worcester Hospital
- Quarterly outreach clinic at Brewelskloof Hospital
- Primary healthcare support to Khayelitsha Hospital
- Regular presentations to private practitioners and specialists, namely oncologists, physicians, paediatricians
- Educational talks to members of the public
- Radio interviews – four per year
- Advice to public in popular magazines
- Three annual training workshops for nurses
- Prof. H.F. Jordaan presents a Dermatopathology seminar at Medunsa
- Dr S. Kannenberg presents a HIV and the skin course at the University of Fort Hare, East London Campus, as part of an Advanced HIV certificate for nurses
- Six lectures to the South-to-South Partnership for Comprehensive Paediatric HIV Care and Treatment Programme – Dr I. McLachlan

## Partnerships

### National:

- Monthly interdepartmental meetings with Dermatology at UCT
- Close relationship with Divisions of Dermatology at other South African universities
- Dr W.I. Visser and Prof. H.F. Jordaan plays an active role in the College of Dermatology – Convener and moderator for examinations
- Dr W.I. Visser was the external moderator for the Nursing diploma in Dermatology at UCT
- Dr W.I. Visser is the vice president of the Dermatological Society of South Africa (DSSA)
- Prof. H.F. Jordaan is on the EXCO of the DSSA

### Private:

- Weekly journal club meetings with private dermatologists
- Monthly Problem Clinic with private dermatologists
- Cosmetic dermatology workshop for private dermatologists
- Dr W.I. Visser – advisory board for Eucerin, Immunology/Oncology advisory board for Bristol-Myers Squibb and Novartis

### International:

- International visitors during 2014: Prof. Eckart Haneke (nail expert from Germany); Prof. Wollenburg (atopic dermatitis expert from Germany); Dr Alison Bruce (from Mayo clinic)
- The Division has numerous international contacts and experts in specific fields are electronically consulted regularly

## Achievements w.r.t research activities and research outputs:

Number of publications from the Department/Division: 10

Textbooks and contributions in textbooks: 2

## Teaching and Training

- Two hundred and forty undergraduate students were accommodated in groups of 12 throughout the year in OPD as part of their clinical/practical rotation. A 2-week lecture block, 40 lectures, was well attended by students. In 2014, this lecture block was presented in the form of podcast and contact sessions and was a huge success. The focus of the Division is to enhance web-based learning and practical teaching methods. A surgical skills workshop form part of student teaching. Student feedback for both the clinical and theoretical rotations was outstanding
- Currently there are seven Registrars in training. The Division prides itself in a well-structured and comprehensive postgraduate teaching programme. Registrars work under direct consultant supervision. Newer teaching modules in cosmetic dermatology and dermatological surgery are continued
- Two Registrars qualified in 2014 – Dr Bianca Tod and Dr Matete Mathobela
- Two new Registrars were appointed – Dr Gcina Mahlangeni and Dr Jacques van Wyk

- Two new outside lecturers were appointed – Dr Izolda Heydenrych (Cosmetic dermatology) and Dr Dagmar Whitaker (Phototherapy)
- A new Short Course in Cosmetic Dermatology is presented twice a year; Dr Izolda Heydenrych and Dr S. Kannenberg are leading these courses
- There are a large number of European elective students visiting our division – 10 students in 2014, mostly from Europe
- Registrars from Oral pathology, Family Medicine and Pharmacology are visiting our clinic on a rotational basis

### Special achievements and other highlights not covered by this template

- Dr W.I. Visser attended ‘Dermatological Advances in acne and rosacea’ symposium in Monaco
- Dr W.I. Visser was an invited speaker at the Annual South African Society of Obstetrics and Gynaecology (SASOG) congress, The Annual Symposium on Diseases Relevant to South Africa in Potchefstroom; invited speaker and chair of session at the seventh Annual National Congress of the South African Society for Dermatological Surgery in Sun City; invited speaker at the eighth International Child TB Training Course at Goudini; invited speaker and session chair at the Annual Congress of the Dermatological Society of South Africa in Cape Town
- Dr S. Kannenberg attended an Advanced Paediatric Dermatology Course in Dundee, Scotland, and was an invited speaker to The Annual Symposium on Diseases Relevant to South Africa in Potchefstroom
- Dr A. Parker and Dr L. van Deventer presented cases at the Annual Congress of the Dermatological Society of South Africa in Johannesburg
- Prof. H.F. Jordaan conducted a dermatopathology session at the Annual Congress
- Dr W.I. Visser was an invited speaker for the John Moche memorial lecture at the Annual Congress of Dermatological Society of South Africa
- Dr Jacques du Toit was an invited speaker to the 31st Annual Congress of the Medical Association of Namibia in Windhoek
- Dr Linda van Deventer was awarded the Galderma grant of R45 000 for her MMED research project

## ENDOCRINOLOGY

**Head of Department:**  
**Prof. B.H. Ascott-Evans (BAE)**

### Summary of activities

Consolidation of teaching, training and outreach programmes for clinicians.

Basic science (Endocrinology) – Stephen Hough Research Laboratory; Head: Prof. W. Ferris (WF)

### Resources

Posts (Full-time)	Number	Filled
Specialist	3	2
MO (x2), Sen. Reg. (x1), Med tech (x1)	4	4
Posts (sessional – how many hours worked per week)		
2 x Consultant ( x 4 hrs)	2 x MO ( x 4 hrs each)	16 hrs/wk

## Output

Admissions	338
Referrals	2 408
DEXA's	895
Out Patients - New	342
Out Patients - Follow ups	2 152

## Comment on output

- Our numerous forms of outreach have allowed a number of referrals to be sorted out at levels below tertiary care. This has also allowed us to down refer for longer periods (or even discharge) many long-attending stable patients. The spinoff is that appropriate new referrals are seen more speedily.
- The rapidly escalating costs of state hospital care, frequently results in patients of limited financial means not being able to be admitted or investigated in depth (according to guidelines) because they cannot afford it.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

- New DXA machine installed in A10 at beginning of 2014
- Prof. W Ferris now has six students (including three post-docs) working in his lab
- Prof. F.S. Hough – Member of Scientific Advisory Committee of the International Osteoporosis Foundation – represents the whole Africa region
- William Ferris elected onto the Human Research Ethics Committee (HREC)

#### W. Ferris et al: Collaborations

Prof. Nigel Crowther, NHLS labs, University of Witwatersrand, Johannesburg

Dr Carola Niesler, Department of Biochemistry, University of KwaZulu-Natal, Durban

Dr Johan Louw, Diabetes Discovery Platform, MRC, Tygerberg

Dr Venant Tchokonte-Nana, Department of Anatomy and Histology, Stellenbosch University

#### Partnerships

##### National:

- SEMDSA councillors – WF
- FS Hough re-elected chairman of NOFSA
- Private: Multiple CMEs at all levels throughout Western Cape, Eastern Cape, etc.
- On many advisory boards – BAE, FSH

## **International:**

- FSH - Member of the Membership Committee of the International Bone and Mineral Society (IBMS)
- Member of the Advisory Committee of the American Paget's Foundation
- W Ferris - International research Collaboration: Dr Wendy Macfarlane and Prof Adrian Bone, Diabetes Research Group, Brighton University, UK

## **Number of publications from the department/division**

- 5 papers published.
- Presentations at national (13) and international (3) conferences
- 7 abstracts published in JEMDSA (for SEMDSA conference)

## **Teaching and Training (under, postgraduate and elective students)**

- FSH : Promotor of 5 Ph.D students
- WF : Promotor for 3 Ph.D and 3 post-doc students

Various grants and funding successfully applied for by FSH and WF

## **Special achievements and other highlights not covered by this template**

- Basic labs personnel awards :
- Alex Jacobs : Best Poster presentation (Basic Science), SEMDSA 2014
- Ingrid Cockburn : Best Oral presentation (Basic Science), SEMDSA 2014
- Clinical award:
- Ankia Coetzee won LASSA (lipid society) Travel Grant to attend International Lipid congress, SEMDSA 2014

## **CENTRE FOR MEDICAL ETHICS & LAW, DEPARTMENT OF MEDICINE**

**Head of Department:**  
**Prof. Keymanthri Moodley**

### **Summary of activities**

#### **Teaching:**

Undergraduate (MBChB 1, 2, 5)

Postgraduate (Postgraduate Diploma Health Research Ethics)

#### **Research:**

Projects, Publications, Supervision, Journal reviews

#### **Consultancy Services:**

Tygerberg Clinical Ethics Committee

Private practitioners



## Resources

Posts (Full-time)	Number	Filled
HOD	1	1
Posts (sessional – how many hours worked per week)		
Administrative assistant	40	1
Research assistant	40	1
ARESA programme	40	1
Co-ordinator		

## Output

Prof. Moodley supervised two PG diploma students. Seven trainees graduated from the third cohort of ARESA trainees. The two remaining students from the second cohort have all graduated.

NIH (ARESA) grant of R12 million secured from 2011 to 2016.

NIH (HIV Cure) grant of R5,5 million secured from 2013 to 2018.

GCP training and online GCP Refresher program: 70 + 77 researchers trained

Online CPD program: 20 doctors completed training in 2014

Third stream income raised: **R2 672 750 .46 (GCP + ERECCA + CPD + Bioethics Seminar + ARESA short courses + Grants)**

## Comment on output

The Centre for Medical Ethics and Law is partially funded. Considerable effort is required to raise additional funds to sustain the Centre with skeleton staff. The output is generated by one full-time partially funded academic post and two partially funded administrative posts.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

For 2014 – new equipment purchased: 1 desktop computer, data projector, voice recorder

#### Community outreach programmes

Please focus on initiatives in 2014, especially w.r.t. MDG and projects in Africa

**Ethics Hotmail and Ethics Hotline** – queries on ethical issues from general practitioners and other healthcare providers are answered either via e-mail or telephonically by the Centre. The number of queries received increased substantially over the past year. Details are available on request, within the limits of confidentiality.

## Second Annual Bioethics Seminar- 24 October 2014

### Topics and speakers:

Malcolm de Roubaix – Reconciling the irreconcilable

Prof. K. Moodley – Pluralistic Perspectives on HIV Cure in Africa

Ciara Staunton – Intended and unintended consequences of proposed HIV cure research: Empirical data from Cape Town, South Africa

Prof. Marc Cotton – Cure research in children – an update

## ARESA and ARESA Seminar 2014:

Trainees that were trained in our Capacity Development Programme and delegates attended the Seminar from the following countries in 2014:

- South Africa
- Malawi
- Kenya
- Uganda
- Botswana
- Zimbabwe

To date, 30 mid-career professionals from the following countries have been trained in health research ethics:

- South Africa
- Malawi
- Kenya
- Uganda
- Botswana
- Ethiopia
- Zambia
- Zimbabwe

## Partnerships

### National:

1. **Principal investigator** – An exploration of the ethical complexities inherent in the collection, use, storage and export of biological samples in research – perspectives from the Western Cape, South Africa. – Research Assistance Grant R20 000 and Strategic Funding grant R100 000.

**Co-investigators:** Dr Theresa Rossouw, Dr Ronell Leech and Nomathemba Sibanda, University of Pretoria

**Phase 1** – semi-structured interviews of 200 research participants in Western Cape and Pretoria

**Phase 2** – interviews of REC members, Western Cape and Gauteng, completed

**Phase 3** – interviews of researchers/pathologists, Western Cape and Gauteng, awaiting publication – pending funding.

2. **Principal Investigator** – The experience of Research Ethics Committees (RECs) with using an accessible short form self-assessment tool. Collaborators: Prof. Henry Silverman, University of Maryland, Prof. Sue Naidoo, University of the Western Cape – awaiting publication.

### **International:**

#### **Collaboration in grant applications:**

1. **NIH R01 grant:** Ethical and social implications of HIV cure research – R24 million – to be shared amongst three sites: China, South Africa and USA.
2. **NIH Biorepository grant:** 1UH2HG007092 – H3Africa Biorepository at Tygerberg Hospital, Pi: Dr Akin Abeyomi Phase 1 in progress, provisional approval of Phase 2 2014 to 2019. Prof Moodley involved as co-investigator for oversight of ethics and governance.

#### **Achievements w.r.t research activities and research outputs:**

#### **Number of publications from the Department/Division:**

##### **Prof Moodley**

Moodley K, Sibanda NB, February K, Rossouw T. “It’s my blood”:ethical complexities in the use, storage and export of biological samples: perspectives from South African research participants. BMC Medical Ethics. 2014; 15: 4.

Juergens C, de Villiers PJT, Moodley K, Jayawardene D, Jansen KU, Scott DA, Emini EA, Gruber WC, Schmoele-Thoma B. Safety and immunogenicity of 13-valent pneumococcal conjugate vaccine formulations with and without aluminium phosphate and comparison of the formulation of choice with 23-valent pneumococcal polysaccharide vaccine in elderly adults: a randomized open-label trial. Human Vaccine and Immunotherapeutics. 2014; 10(5).

Tucker JD, Rennie S, and the Social and Ethical Working Group on HIV Cure. Social and ethical implications of HIV cure research. AIDS. 2014

Beyer C, Staunton CS, Moodley K. The implications of methylphenidate use in healthy medical students and doctors in South Africa. BMC Medical Ethics, 2014, 15: 20.

Silverman H, Sleem H, Moodley K, Kumar N, Naidoo S, Jaafar R, Moni M. Results of a Self-Assessment Tool to Assess Operational Characteristics of Research Ethics Committees in Developing Countries”. Journal of Medical Ethics, 2014.

##### **Journal Reviews**

Journal of AIDS (JAIDS) – Paediatric HIV Disclosure in Namibia (2014)

BMC Medical Ethics – Toward an integrative patient-inclusive approach: bridging the macro-micro gap in healthcare governance (2014)

African Journal of Health Professions Education – An Ethical Dilemma: A case of Intermittent Services, Student Training and its impact on Service Delivery (2014)

## Dr Staunton

Contributed to the PROTECTION OF LIFE DURING PREGNANCY ACT 2013, No 35 (Ireland)

## Prof. Kling

Kling S Danger at the frontier – Social media and Ethics. *Current Allergy and Clinical Immunology* 2014; 27(3):196-199.

Kling S. Ethics and allergy practice. *Current Allergy and Clinical Immunology* 2014; 27(4):268-270.

Kling S. Is it OK to accept gifts from my patient? *Current Allergy and Clinical Immunology* 2014; 27(4):318-321.

## Newsletter

Two ARESA Newsletters, Vol. 4 No 1 & 2, were circulated to all Research Ethics Committees in SA in July and December 2014. The newsletter is also circulated internationally via the NIH list serve.

1. Text books and contributions to text books:
2. Moodley K, Kling S, Roussouw T. Ethics in “Handbook of Internal Medicine” (2014) – Editor Prof R.M. Moosa – (submitted for editing)

## Teaching and Training (undergraduate-, postgraduate- and elective students)

### MBCHB 5

#### Ethics Module

The undergraduate teaching programme in Medical Ethics and Law was offered to 215 fifth-year medical students in March 2014 for the 12th time since its inception. Tutors: Keymanthri Moodley, Willie Pienaar and Sharon Kling. Four additional lecturers were invited to assist with tutorials and marking – Dr Malcolm de Roubaix, Dr Chris Verster and Dr Mariam Navsa. The invited lecturer on Medical Law was Nicola Caine and Karin Zybrands (MacRoberts Attorneys). Students completed a **SUNlearn** test and written exam with short modified essay questions. The final ethics marks ranged from 50% to 75%, with an average of 62%. Matthew Murray received the Ethics Prize sponsored by Mediclinic during the Oath taking ceremony in December 2014. He achieved the highest mark for the module in 2013.

### MBCHB 1

#### Medical Ethics Lectures – Theme 3 in Health in Context Module

Six lectures were presented to 384 first-year health science students on ethics, law and human rights in April 2014. A range of topics was discussed and included:

1. Why is ethics important in healthcare?
2. Introduction to Health Law
3. Introduction to Health and Human Rights
4. The Health Professions Council of South Africa (HPCSA)
5. Scientific Integrity
6. Ethical Dilemmas in healthcare

The team was led by Prof. Moodley. Three hundred and eighty-four students wrote a WEB CT test, with 20 Ethics MCQs. Results: 25% to 100%, with an average of 77%. Class attendance improved in 2014 compared to 2013. Ethics is part of the Personal and Professional Development Module.

## **MBChB 2**

### **Medical Ethics Lectures – Introduction to Clinical Medicine**

Five lectures were presented to 286 second year medical students:

1. Ethics and professionalism in the hospital
2. Resolving ethical dilemmas
3. Philosophy and Medicine
4. Introduction to moral principles and theories
5. Ethical dilemmas – case studies

## **Postgraduate teaching**

### **ARESA Postgraduate Programme:**

**2014 intake – Postgraduate Diploma in Health Research Ethics** – 33 applications were received. Twelve applicants met the eligibility criteria. These NIH sponsored trainees will attend module 1 of the programme in February 2015.

### **Short Course:**

**Introduction to Bioethics, Health Law and Human Rights:** 4 students

**Dual Review of Research:** 3 students

**Vulnerability in Research:** 6 students

## **Supervision**

### **PROMOTER:**

#### **DPhil – Applied Ethics – University of Stellenbosch**

Dissertation: Reviewing the theory and practice of professional nursing ethics education in Namibia and South Africa

Mrs E.J. de Villiers, Centre for Applied Ethics, Department of Philosophy, University of Stellenbosch

Student graduated in March 2015

## CO-PROMOTER:

### DPhil – Applied Ethics – University of Stellenbosch

Dissertation: Clinical Ethics Consultation in South Africa: A Critical Appraisal of their Structure and Functioning

Prof. Sharon Kling, Centre for Applied Ethics, Department of Philosophy

### Postgraduate Diploma in Health Research Ethics – University of Stellenbosch

**Mr George Chingarande** – A comparative narrative of the compensation policies for research-related injury in Brazil, Russia, India, China and South Africa (BRICS)

**Dr Sunita Potgieter** – Issues in Public Health Ethics: Advancing the public debate on the “low carbohydrate, high fat” dietary approach as a case study

7/10 trainees graduated in 2014. 2/10 students were deferred during 2014. One student graduated in March 2015.

## APPOINTMENTS 2014

### National appointments:

- Board member – South African Medical Research Council (MRC) – appointed by the Minister of Health (four Board meetings in Cape Town )
- Member – Audit, Risk and IT Committee, MRC (five meetings at MRC Cape Town)

### International appointments:

- African Data Safety Monitoring Board (DSMB) of the National Institutes of Health (United States) – 2013 to 2014
- International AIDS Society (IAS) HIV Cure International Scientific Working Group, the IAS Towards an HIV Cure Initiative
- Strategic Advisory Group of Experts (SAGE) Working Group on Ebola Vaccines and Vaccinations by the World Health Organization (WHO)

### Third Annual ARESA Research Ethics Seminar 2014

Ninety-six delegates attended this annual seminar from various South African institutions, as well as from Malawi, Kenya, Uganda, Botswana and Zimbabwe. A wide range of stimulating talks was delivered by South African speakers (Prof. Himla Soodyall, Ms Ann Strode, Dr Laila Asmal and Dr Stefan du Plessis). International speakers hailed from the University of North Carolina (Prof. Arlene Davis, Prof. Dan Nelson and Prof. Stuart Rennie) and Uganda National Council for Science and Technology, Uganda (Dr Julius Ecuru). Prof. Sharon Kling, Dr Lesley Henley, Prof. Jacquie Greenberg and Dr Theresa Rossouw contributed to lively panel discussions along with some of the other speakers. On day one of the seminar, session one focused on Research on Children and session two focused on Ethics and Genetic Research.

On day two, biobanking and neuroethics was discussed and debated with Prof. Dan Nelson (UNC) providing key REC considerations – A US perspective, Dr Ciara Staunton (Stellenbosch University) discussing community engagement and biobanking in Africa, Dr Julius Ecuru (Uganda National Council for Science and Technology) giving an REC review of Biobanking protocols in Uganda.

Dr Laila Asmal (Stellenbosch University) gave an overview on the advances in neuroimaging, Prof. Keymanthri Moodley (Stellenbosch University) discussed neuroethics as an emerging discipline in Africa and Dr Stéfán du Plessis (Stellenbosch University) debated the ethical challenges. Dr Tina Malan (ARESA graduate 2013) presented a quick review of empirical research in neuroimaging.

### **Third income stream 2014:**

1. **Good Clinical Practice (GCP) Training Courses** – both basic and refresher courses were presented. These courses in responsible research and technical issues related to research are deemed compulsory by the Medicines Control Council (MCC) for all investigators involved in clinical trial research.

### **Attendance courses:**

**Three** courses were offered and **70** investigators, site co-ordinators and research ethics committee members were trained.

Income generated: **R178 200**

### **ERECCA programme**

Number of delegates completed: **77**

Income generated: **R89 000**

### **Online Ethics CPD Programme:**

Number of delegates completed in 2014: **20**

Income generated: **R16 716,46**

### **Research Ethics (ARESA) Short Courses:**

Module 1 = R20 875

Module 2 = R10 500

Module 3 = R42 000

**R73 375,00**

### **Bioethics Seminar**

Fifty-two delegates attended the second Annual Bioethics Seminar, which was held on 24 October 2014.

Income generated: **R8 850**

## GRANTS = R2 306 609:

- Fogarty International Centre, NIH R25 grant – to develop a Postgraduate Diploma in Health Research
- Value of grant over five years = **\$1,2 million (R 12 million)** awarded.
- For 2014: R2 216 112 – R550 000 (UNC) = **R 1 666 112**
- NIH R01 HIV Cure grant: Ethical and social implications of HIV cure research involving three sites: China, South Africa and USA: reviewer’s score 18
- Value of grant over five years: **\$550 000 (R 5,5 million)** awarded.
- For 2014: **R500 497**
- 17820+NRF Funding – R40 000
- Mediclinic – R100 000

## Total third income stream generation via grants and courses:

Gross Income = R 2 672 750.46 plus carry over of R 500 000 on HIV Cure Grant = R3 172 750.46 (was R 2 511 450.90 at the end of 2013).

NB: This funding covers all the expenses associated with presenting the courses, university fees for the 9 PG Diploma trainees for 2014, flights, accommodation and subsistence for trainees, allowance 8%-12% to main campus and part payment of salaries of current employees.

Source	Rand
GCP Training (attendance)	178 200
ERECCA	89 000
CPD Online	16 716
ARESA Short Courses	73 375
Bioethics Seminar	8 850
NIH R25 Grant	1 666 112
NIH HIV Cure Grant + Carryover	1 000 497
NRF Funding	40 000
Mediclinic	100 000
<b>Total Gross Income</b>	<b>R3 172 750.46</b>



## GASTROENTEROLOGY AND HEPATOLOGY

**Head of Department:  
Prof CJ van Rensburg**

### Summary of activities

#### Service Delivery:

- Consultation of patients referred with Gastrointestinal and Liver Disease
- Diagnostic and therapeutic endoscopic service
- Capsule endoscopy procedures since 1 February 2013
- Liver biopsies under ultrasound guidance
- Oesophageal and anorectal manometry and oesophageal pH and impedance studies
- Outreach programmes – media (radio and press) interviews and colorectal carcinoma surveillance programmes

#### Teaching and training:

- Undergraduate- and postgraduate students in Gastrointestinal and Liver Disease and Diploma in Sedation and Pain management – conscious sedation (both local and international students).
- Speaker at the Gastro update for healthcare providers organised by StellMed.
- Participate in local and national undergraduate- and postgraduate examinations for degree and certification purposes with the HPCSA and the CMSA.
- Colorectal disease management workshop was held at Tygerberg Hospital for gastroenterology nurses on 21 June 2014.

#### Research and Publications:

- Collaborative projects with the Division of Colorectal, the International Centre for Genetic Engineering and Biotechnology, UCT and the Division of Infectious Diseases
- Supervise research projects by postgraduate students for Masters degrees (Stellenbosch University) and certification purposes (CMSA).
- Colorectal workshop attended by Medical and Nursing staff: Crystal Towers, Century City, Cape Town.
- Research on “The role of transient elastography (Fibroscan®) in patients at risk of liver fibrosis”. Dr P.J. Badenhorst and Prof. C.J. van Rensburg
- Research on “Effect of Helicobacter pylori eradication on gastro-oesophageal reflux disease response to proton pump inhibitors”. Dr E.M. Murunga. Ethics No. S14/07/151
- Dr E.M. Murunga received financial support from the Harry Crossley Foundation for 2015 for project S14/07/151. Amount awarded = R16 100

## Committee obligations:

- Departmental: Management Committee, Continued Professional Development, Human Resources and Postgraduate
- National: HOD and SAGES (President)
- Co-chairman ISUCRS Congress 2014, Cape Town, South Africa, September 2014
- National: SAGINS – Area Representative RPN S Mostert

## Resources

Posts (Full-time)	Number	Filled
Head of Clinical Division	1	1
Senior Consultant	1	1
Senior Registrar	1	1
Supernumerary Fellow in Training for the period: April 2013 – May 2015	1	1
Rotating Registrar	2	2
Posts (sessional – how many hours worked per week)		
Specialist	1	4 hours per week
Medical Officer	1	8 hours per week

## Output

### Outpatient Visits

New patients	2 090
Follow-up patients	9 197
Total	11 195

### Theatre procedures

Gastrosopies	4 088
Colonoscopies	1 736
Flexible sigmoidoscopies	149
Interventional ERCP's	427
Capsule endoscopies	1
Endoscopic dilations	64
Oesophageal Manometry studies	107
pH studies	46
Stent placements (oesophagus, duodenum and colon)	162
Polypectomy (upper and lower GIT)	72
Double balloon enteroscopy	1

Inpatient referrals and telephonic consultations: 1 500

Inpatients: 2 beds with 80% occupancy

## Comment on output:

The Division of Gastroenterology experienced a significant increase in patient numbers (3 20%) compared with 2013, partly ascribed by the diversification of the service. This includes much-improved patient palliative care (stent placement for malignant obstruction) and the re-introduction of gut motility services and the examination of the small bowel by double balloon enteroscopy. There was also a significant increase in patients with liver disease seen at the Hepatology Clinic on Wednesdays.

An additional ERCP list was incorporated to alleviate the need for ERCP procedures.

A Gastroenterology Surgeon with subspecialty registration, is currently performing this list.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

- We have resumed the service of capsule endoscopy and double balloon enteroscopy for evaluation of the small bowel significantly improved the diagnostic yield to find a cause in occult gastrointestinal bleeding, thereby improving morbidity and cost-effective patient care.
- Highly skilled and motivated nursing personnel that contributed to efficient service delivery and improved patient care.
- The availability of biologics, pegylated interferon and ursodeoxycholic acid facilitated improved patient care and health-related quality of life in individual cases selected on merit.
- During the year, the Unit received a Fibroscan device as a donation. The device is useful for the non-invasive evaluation of chronic liver disease by measuring liver fibrosis non-invasively. It has spurred both clinical applications in the liver clinic, as well as research projects within the Division.
- We have acquired four new endoscopic storage and drying cabinets.

#### Community outreach programmes

- West Coast and Northern Cape Colon Cancer Surveillance and Awareness Week – a joint initiative by the Divisions of Gastroenterology Stellenbosch University and Colo-rectal surgery of the University of Cape Town – took place during August 2014.

#### Partnerships

##### National:

Research: Division of Colorectal, The International Centre for Genetic Engineering and Biotechnology, UCT and the Division of Infectious Diseases. The African Cancer Institute

##### Private:

Quintiles – a selected partner site for conducting contract pharmaceutical research (gastroenterology)

## **Achievements w.r.t research activities and research outputs:**

Number of publications from the Department/Division

Journals Accredited by the Department of Education: 2

Textbooks and contributions to textbooks:

One chapter on Alcoholic and Non-alcoholic Liver Disease

Other peer-reviewed journals: 5

## **Abstract presented:**

One at the ISUCRS 2014 on the Identification of Serrated Polyps of the co

## **Teaching and Training (undergraduate-, postgraduate- and elective students)**

- Tutorials and post-intake ward rounds – undergraduate- and postgraduate students and elective students (3 6 per year)
- Practical learning experiences in the Outpatient department, Endoscopy theatre and Motility laboratory of the division of Gastroenterology
- MB ChB II Digestive 271 lectures
- Supervision of research projects postgraduate students (MMed and CMSA Certificate in Gastroenterology)
- Serve on committee for undergraduate- and postgraduate teaching (locally) and Heads of Departments Committee (nationally)
- Examiners undergraduate- and postgraduate students (Stellenbosch University and CMSA)
- External examiner for MPhil and PhD candidates
- Dr E.M. Murunga registered for the MPhil (Gastroenterology & Hepatology)

## **Special achievements**

- President: South African Gastroenterology Society (SAGES) (Prof. C.J. van Rensburg)
- Editor: Gastro Review – official journal of SAGES (Prof. C.J. van Rensburg)
- Member of the Editorial board of World Journal of Gastroenterology (Prof. C.J. van Rensburg) and the World Journal of Gastrointestinal Pharmacology and Therapeutics (Prof. C.J. van Rensburg)

## **GENERAL INTERNAL MEDICINE**

**Head of Department:  
Dr Neshaad Schrueder**

### **Summary of activities**

Provision of General Specialist Services in Internal Medicine

Teaching and Training in Internal Medicine of Stellenbosch University Undergraduate- and Postgraduate students

Outreach and Support to the east Metro Health District

## Resources

Posts (Full-time)	Number	Filled
Specialist	7	7
Registrars	17	17
Medical Officers	7	7
Interns	13	13
Posts (sessional – how many hours worked per week)		
Sessional Specialist	20 sessions	20

## Output

Admissions:	
F1 Emergency Unit	11 910
Medical wards	6 970
Total for Gen Med	18 880
MOPD visits	5 679

## Comment on output

The pressure on the medical emergency ward continued with F1 seeing an increased number of patients over the calendar year. Most of the efforts over the year have been to stabilise the operational environment of F1 with streamlining of systems and patient flow management. The successful motivation for additional resources for the medical emergency ward saw several new nurses and three additional doctors appointed. This assisted tremendously with workload and improved morale amongst the staff in F1.

The medical outpatient department screening system for new appointments has positively impacted on the clinic. The overall clinic numbers have reduced over the last year. This has been achieved by booking appropriate patients, as well as increasing the down referral of stable patients. Despite the smaller patient numbers, the clinic waiting times have not increased.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

Motivations for additional space for the medical emergency ward were successful. The funding for the development and construction of additional clinical space was allocated. The planning of the project and appointment of a contractor has been taken over by the Department of Public Works. A start date of the construction is awaited. It is expected that the project will be completed with commissioning in 2016.

The commissioning of ward D10 was completed in January 2014. This provided source isolation facilities for infectious patients helping to protect staff and other patients. However, the efficiency and bed utilisation of D10 fell. This prompted several successful interventions to improve bed utilisation.

Additional medical and Information Technology equipment was procured for the wards to assist with streamlining patient management and electronic discharge summaries.

## Community outreach programmes

The outreach and support to the east Metro district continued to increase in 2014. Eerste River Hospital and Helderberg Hospital were the recipients of a sessional specialist from Tygerberg Hospital to assist with the clinical load at these hospitals.

Khayelitsha Hospital outreach was increased to full leave cover of the physician at Khayelitsha Hospital. This was to support the efforts of the Khayelitsha Hospital physician's international trip to support the Ebola epidemic in Liberia.

Delft CHC was supported with visiting physicians attending the academic programme several times in 2014.

## Partnerships

### Teaching and Training (undergraduate-, postgraduate- and elective students)

The total number of undergraduate students rotating through General Medicine has increased year on year. This continues to challenge the Division at the main hospital. However, the teaching of students at the peripheral hospitals has increased and is supported by General Internal Medicine consultants.

The student numbers rotating through General Internal Medicine are as follows:

MBChB II:	284
MBChB III:	260
MBChB IV:	244
MBChB V:	217
MBChB VI:	187

### Postgraduate:

Seventeen rotating Registrars on the MMed programme are supervised in Gen Med on a continuous basis.

The teaching programme involved registrar-led presentations weekly at a dedicated teaching slot. Dedicated clinical bedside teaching also happens on a weekly basis with rotating consultants. The Division continues to contribute to the Departmental Academic meeting as per roster.

## CLINICAL HAEMATOLOGY

**Head of Department:**  
**Dr Fatima Bassa**

### Summary of activities

We have an extremely busy unit, with referrals from various hospitals and clinics throughout the metro east. We are one of only two referral centres in the Western Cape for management of haematological disorders, the other being a unit at Groote Schuur Hospital (GSH). We are also receiving an increasing number of referrals for haematological problems in HIV positive patients, many of whom are critically ill with complex problems.

We run outpatient clinics every weekday and see between 20 – 40 patients a day. Due to the nature of the problems our patients face, we admit patients on a daily basis, many of them being haematological emergencies.

Our inpatient load is considerable and we have an average of 25 – 30 inpatients at any one time, many of whom are critically ill. The severely immune compromised and ill patients are admitted to the special care unit in D8.

We try our best to provide a comprehensive service with limited staff. We have three Medical Registrars rotating through the unit for three months at a time. They are inexperienced with regard to haematological disorders and therefore require close supervision by the consultants and our Senior Registrars when he is with us (he rotates between our Unit and the Haematology laboratory).

In addition, we are involved with undergraduate- and postgraduate teaching and training and with research as alluded to below.

### Resources

Posts (Full-time)	Number	Filled
Consultants	2	2
Senior Registrar	1	1
Posts (sessional - how many hours worked per week)		
NIL		

### Output

Outpatients seen in 2014:	
New outpatient referrals	455
Follow-up visits	7 026
Chemotherapy administrations	1 400
No of patients admitted from the clinic	629

## Inpatients

Average number of patients at any one time: 25 inpatients in D8. This number excludes consultative services throughout the hospital.

## Comment on output

We have ongoing challenges with ensuring optimal care of both inpatients and outpatients with existing staff complement. Further exacerbated with opening of the special care ward as these patients are entirely managed by Haematology with no assistance from an intern. This is difficult, especially in view of the distance between D8 and the Outpatient Clinic, particularly when patients are unstable. Procuring the services of an intern or Medical Officer would greatly improve inpatient care and also allow Registrars to spend more time performing appropriate duties.

Administration of blood products remains an issue and hopefully the creation of a day unit will alleviate this and assist towards alleviation of the bed crisis we continually have to deal with.

## PART 2

### Faculty of Health Sciences

#### Partnerships

##### National:

Dr Bassa member of national pharmaceutical advisory boards: Key Oncologics, Bayer, Novartis

##### Private:

We are involved with clinical trials with various pharmaceutical companies. Currently, four ongoing trials:

- A comparative, randomised, parallel-group, multicentre, phase IIIb study to investigate efficacy of subcutaneous (SC) rituximab versus intravenous (IV) rituximab both in combination with CHOP (R-CHOP) in previously untreated patients with CD20 positive diffuse large B-cell lymphoma (DLBCL)
- A randomised, double-blind, phase III study comparing Biosimilar Rituximab (RTXM83) plus CHOP chemotherapy versus a Reference Rituximab plus CHOP (R-CHOP) in patients with Diffuse Large B-Cell Lymphoma (DLBCL) given as first line
- A Randomised, Open-label, Phase 3 Trial of A+AVD Versus ABVD as Frontline Therapy in Patients With Advanced Classical Hodgkin Lymphoma
- A randomised, controlled, double-blinded phase III trial to compare the efficacy, safety and pharmacokinetics of GP2013, plus COP vs Mabthera, plus COP followed by GP2013 or Mabthera maintenance therapy in patients with previously untreated advanced follicular lymphoma



## Achievements w.r.t research activities and research outputs:

Number of publications from the Department/Division

### Co-author publications 2014:

- N A Alli, M Patel, H D Alli, **F Bassa** et al: Recommendations for management of Sickle cell anemia in South Africa. SAMJ;104:11:743-750
- Flepisi BT, Bouic **P, Sissolak G**, Rosenkranz B. Drug-drug interactions in HIV positive cancer patients. Biomed Pharmacother. 2014: Vol 68(5): p 665-77. PMID: 2486353
- Flepisi BT, Bouic **P, Sissolak G**, Rosenkranz B. Biomarkers of HIV-associated Cancer. *BIOMARKERS IN CANCER* 2014:6 p 11-20. PMID: 25057241
- Catteeuw J, Koegelenberg CF, Bruwer JW, **Sissolak G**, Schroeter L, Mohamed N, Irusen EM. [A 54-year-old man referred with nonresolving pneumonia](#). Chest 2014:146(3):e92-6.

### PhD supervision 2014: Dr G. Sissolak

- Co-promotor for B. Flepisi's PhD "Biomarkers of HIV associated malignancies and of drug interaction between anti-retrovirals and chemotherapy"
- Promoter for D. Kotze's PhD "Prospective Analysis of Activation-induced Cytidine Deaminase Levels and EBV infection in Patients with HIV-related Lymphoma"

### Textbooks and contributions to textbooks

Dr Bassa submitted sections towards the Handbook of Medicine, and it is being compiled by Prof. M.R. Moosa.

### Ongoing research:

- PhD: Dr F. Bassa: Management of lymphoma in a centre with high HIV and TB prevalence
- MPhil: Dr M. Cass: A retrospective review of Hodgkin lymphoma at TBH
- MMed: Dr Z. Solomon: A retrospective study of the clinical features of patients with Plasmablastic Lymphoma at Tygerberg Hospital
- Collaboration with African Cancer Institute: creation of a cancer registry for TBH
- Research being done with the Tygerberg lymphoma study group:
  - Impact of HIV on the incidence and pattern of lymphoma cases at Tygerberg Academic Hospital. A five-year retrospective study: Tygerberg Lymphoma study group.
  - A multidisciplinary prospective study on HIV-related Lymphoma in the Western Province of South Africa: Tygerberg lymphoma Study group

### Teaching and Training (undergraduate-, postgraduate- and elective students)

- Continued teaching / assessment of undergraduate medical students
- Supervision / training / assessment of Registrars from the Department of Medicine
- Participation in postgraduate academic programme - Department of Medicine/ Haematopathology
- Supervision and training of subspecialist Registrar
- Supervision / training of rotating Registrar from the Division of Haematopathology, NHLS
- Dr Bassa: module chair: late clinical rotation: Internal Medicine and member of undergraduate committee
- Dr Sissolak: chair - Haematology module

## INFECTIOUS DISEASES

Head of Department:  
Dr Jantjie Taljaard

### Summary of activities

#### Outpatient service:

The Tygerberg Hospital Infectious Diseases Clinic (IDC) has prepared and initiated more than 5 000 patients on 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. During 2013/2014, several new ART clinics started in the subdistrict, making it possible to down refer patients from TBH - IDC. During the last 2 years, more than 800 patients were down referred.

The clinic currently functions mainly as a level 2/3 referral and assessment unit (RAU). Specific patients referred to the RAU include viral hepatitis/HIV co-infected patients, HIV patients with renal disease, Kaposi's sarcoma patients, second-line ARV failure patients, all HIV patients with difficulty to manage/diagnose conditions or complications, primary immunodeficiency patients and patients with infections that need tertiary care services, e.g. non-TB mycobacterial infections, echinococcal disease follow-up, severe malaria follow-up and complicated infective endocarditis follow-up.

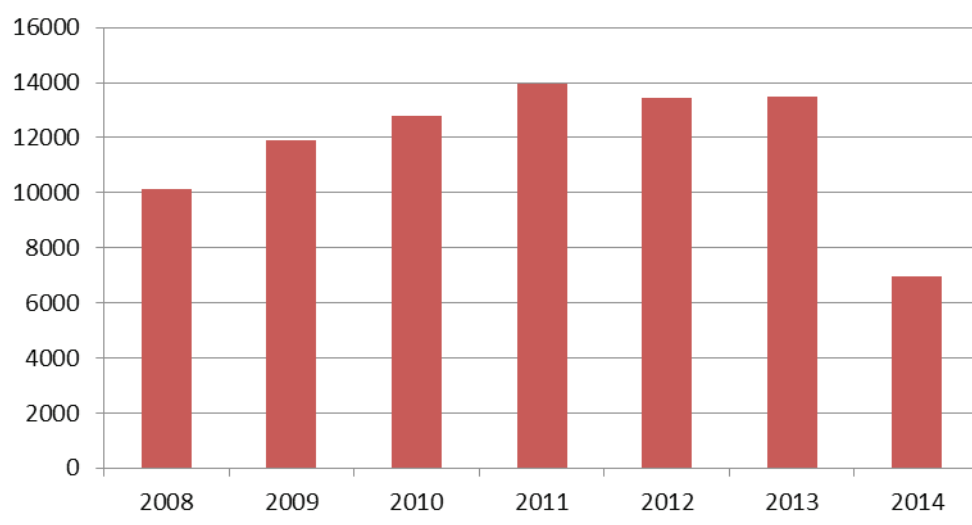
Third-line ART was accessed for two patients with resistant HIV infection during 2014.

The electronic database facilitating patient care and follow-up contributes significantly toward faster consultations, better communication with clinics and ability to audit output.

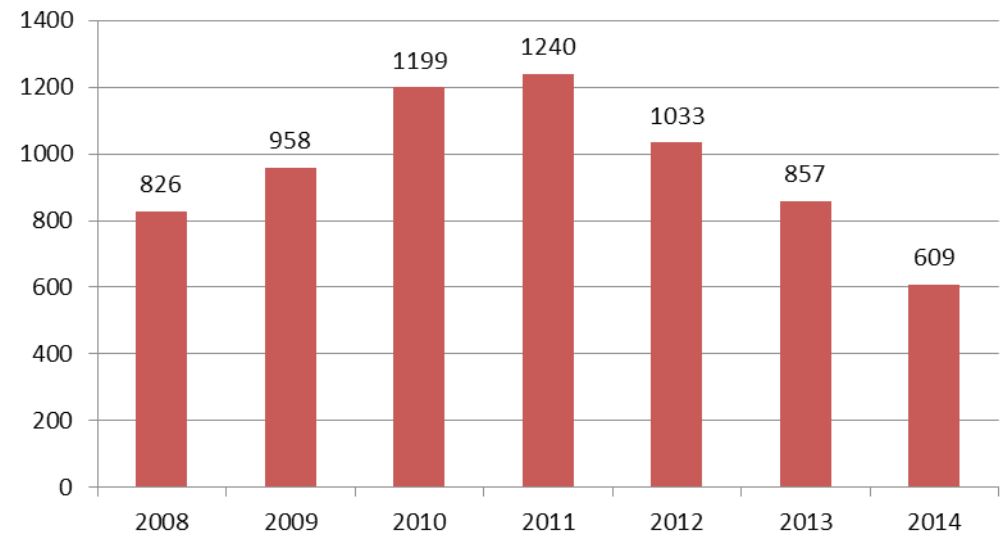
#### Antibiotic Stewardship

The Tygerberg Antibiotic Stewardship Committee continued with its work. An antibiotic restriction policy was developed to streamline access to broad spectrum antibiotics and a new antibiotic prescription chart was developed for implementation in 2015. Projects on vancomycin treatment guidelines, infection outbreak investigations and C. diff guidelines are either completed or in process.

#### Number of patients visiting the IDC per year (2008 - 2014)



## Number of patients remaining on ART at TBH IDC (2008 - 2014)



### Inpatient service

Infectious diseases inpatient services are delivered on a consultative basis. Registrars will 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. Antibiotic stewardship rounds in surgical and medical ICU's and the internal medicine wards, in collaboration with Medical Microbiology, take place on a weekly basis.

Weekly ID Ward rounds in the Divisions of Nephrology and Haematology are led by Dr Philip Botha.

### Outreach and Support service

Monthly clinical outreach visits to TC Newman, Paarl, Worcester and Brewelskloof hospitals continued.

Weekly outreach activities to Eersteriver Hospital also continued. This included HIV clinic support by Dr Zahiera Ismail and afternoon medical ward round by Dr Tabie Greyling.

Antibiotic stewardship rounds also occur on the outreach platform at Karl Bremer, Paarl and Helderberg hospitals.

## F3 High Risk Isolation Unit

### Viral Haemorrhagic fever

One case of Crimean-Congo haemorrhagic fever (CCHF) was admitted to F3 in 2014. A farmer from the Northern Cape Province was transferred from Mediclinic Vergelegen to Tygerberg Hospital after his clinical condition deteriorated. CCHF was confirmed, but unfortunately the patient did not survive. There were in total six cases of CCHF diagnosed in South Africa during 2014, of which only three survived.

## **Ebola Outbreak**

The devastating Ebola virus disease (EVD) outbreak in West Africa reached its peak during 2014. The division of Infectious Diseases at Tygerberg Academic Hospital was the designated unit for the management of EVD in the Western Cape Province. In cooperation with the Provincial EVD committee, TBH management, the Academic Unit for Infection Prevention and Control at TBH, Cape Town Metro Emergency Medical Services and Port Health, comprehensive preparations were undertaken. The departments of Obstetrics and Gynaecology, Surgery, Paediatrics and Anaesthesiology were officially briefed and incorporated into the management plans. Staff and emergency medical personnel were trained in correct donning and doffing of personal protective equipment and protocols were set in place. Mock operations were undertaken to test and improve protocols. The facility's readiness was evaluated on site by national health officials and found to be "excellent and above average".

The Division was inundated by telephonic consultations from the private and public sector, especially during July to November. Only one patient returning from Sierra Leone was admitted to ward F3 for further investigation to rule out EVD. The patient was diagnosed with malaria and discharged after two days.

Although the outbreak is still ongoing, numbers of new cases are declining rapidly. No cases of EVD have yet been diagnosed in South Africa during this outbreak.

### **Teaching:**

Dr Arifa Parker and Dr Tabie Greyling continued with subspecialisation training. Both attended the Tropical Medicine and Parasitology master Class Course at the NICD in Johannesburg. Exit exams are in August 2015.

Dr Taljaard was secundus for the Infectious Diseases and Immunology theoretical module for fourth-years.

All the members of the Division, Drs Botha, Prozesky, Hugo, Van Schalkwyk, Ismail and Greyling, were involved with undergraduate teaching.

All the members of the Division were involved in CME activities during 2014, including STD management courses for nurses and HIV management courses for doctors, nurses and pharmacists.

Elective medical students from the Netherlands, Germany, China, USA and UK are exposed to HIV care and assist with research projects. This has been an enriching experience for staff and students alike.

Monthly clinical meeting with HAST subdistrict doctors continued.

The University of Fort Hare collaboration continued in 2014. The group of 45 registered nurses were the seventh 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 and October. This course aims to prepare and empower nurses to initiate antiretroviral therapy in the communities they serve, and is aligned to the National initiative, NIM-ART.

## Research:

The HIV Research Unit located within the clinic, has been incorporated into the Paediatric Clinical Trials Unit (KIDCRU) and been accepted as an Aids Clinical Trials Group (ACTG) site for research into adult HIV, TB and Viral Hepatitis. This marriage of research and clinical care benefits patients by offering additional procedures and treatment, and provides funding for additional healthcare team members. Most of 2014 went into preparing the site and deciding on prospective studies. The first ACTG studies that will start in 2015, are the A5288: MULTI-OCTAVE, Management Using the Latest Technologies in Resource-Limited Settings to Optimize Combination Therapy After Viral Failure and the A1438-047: A Multi-Arm Phase 3 Clinical Trial to Investigate the Efficacy and Safety of BMS-663068 in Heavily Treatment Experienced (HTE) Human Immunodeficiency Virus-1 (HIV-1) Infected Subjects Infected with Multi-drug Resistant (MDR) HIV1.

Dr Prozesky remained local PI of the highly successful leDEA database project.

## Resources

Posts (Full-time)	Number	Filled
Infectious Diseases Subspecialist	2	2
Principle Medical Officer	3	3
Subspecialist Registrar	1	1
Data Capturer	2	2
Posts (sessional – how many hours worked per week)		
Infectious Diseases OPD	6 hours	6 hours

## Output

### Number of patients attending newly established level 2/3 ID clinics during 2014

Clinic	2014
Viral Hepatitis/HIV co-infection clinic	402
HIV associated renal disease clinic	406
Kaposi's sarcoma clinic	146
Second-line ART failure clinic	not captured
Pregnant HIV patients	not captured
General Infectious Diseases clinic (non HIV)	589
Total	1 543

## Antiretroviral data for 2014

Adult art stats	2008	2009	2010	2011	2012	2013	2014
Started on ART	368	399	511	491	465	290	183
Transfer out	192	170	202	409	480	313	287
Transfer in	18	38	56	86	44	20	21
Lost to follow	12,5%	11,5%	11,5%	14%	14%	15%	20%
Total on ART	826	958	1 199	1 240	1 033	857	609

Adult IDC visits	2008	2009	2010	2011	2012	2013	2014
Total clinic visits	10 140	11 888	12 791	13 971	13 424	13 492	6 977

### Comment on output

As planned, the outpatient visits has decreased dramatically. This reflects increased out-referral of primary care patients. The specialised clinics consult between 10 and 40 patients per month depending on the type of clinic. Although less patients, they are more complex and take more time to manage.

Lost to follow-up numbers have increased to 20%, which is a phenomenon seen in more mature ARV programmes (>10 years).

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

The Division was very privileged to receive a Fibroscan Machine donated via the University of Utrecht. This enables non-invasive measurement of liver elasticity in the management of chronic viral hepatitis. Until recently it was the only fibroscan machine in South Africa.

A new procedure room is being constructed that will house the clinic ultrasound machine and the Fibroscanner.

#### Partnerships

##### National:

- University of Fort Hare, School of Nursing – Diploma in HIV Management for Nurses
- SAASP – South African Antibiotic Stewardship Programme – Division of FIDSSA

## International:

- Dr Taljaard: Stellenbosch University Rural Medical Education Initiative (SUR-MEPI) a multinational initiative including universities in KZN and Uganda.
- Dr Prozesky: Principle investigator (TBH site) for leDEA-SA - International Epidemiological databases evaluating AIDS - Southern Africa
- Drs Taljaard and Van Schalkwyk: Adult HIV clinical trials unit, FAMCRU – ACTG-funded studies.
- University of Utrecht (Netherlands) – Viral Hepatitis – Prof. Andy Hoepelman.
- The Tropical Institute, Antwerp (Belgium) – Rabies – Dr Patrick Soentjens
- Ohio State University (USA) – Antibiotic Stewardship – Prof. Debbie Goff.
- Fonds Wetenschappelijk Onderzoek – Vlaanderen – “Optimizing diagnostics of Emmonsia and other deep fungal infections” – Prof. Chris Kenyon and Prof. Bob Colebunders.

## Achievements w.r.t research activities and research outputs

### Number of publications from the Division of Infectious Diseases:

1. An emmonsia species causing disseminated infection in South Africa. **Heys I., Taljaard J.**, Orth H.N. *Engl J. Med.* 2014 Jan 16; 370(3):283-4.
2. Immunodeficiency at the start of combination antiretroviral therapy in low-, middle-, and high-income countries. leDEA and ART Cohort Collaborations, Avila D., Althoff K.N., Mugglin C., Wools-Kaloustian K., Koller M., Dabis F., Nash D., Gsponer T., Sungkanuparph S., McGowan C., May M., Cooper D., Chimbete C., Wolff M., Collier A., McManus H., Davies M.A., Costagliola D., Crabtree-Ramirez B., Chaiwarith R., Cescon A., Cornell M., Diero L., Phanuphak P., Sawadogo A., Ehmer J., Eholie S.P., Li P.C., Fox M.P., Gandhi N.R., González E., Lee C.K., Hoffmann C.J., Kambugu A., Keiser O., Ditangco R., **Prozesky H.**, Lampe F., Kumarasamy N., Kitahata M., Lugina E., Lyamuya R., Vonthanak S., Fink V., d’Arminio Monforte A., Luz P.M., Chen Y.M., Minga A., Casabona J., Mwango A., Choi J.Y., Newell M.L., Bukusi E.A., Ngonyani K., Merati T.P., Otieno J., Bosco M.B., Phiri S., Ng O.T., Anastos K., Rockstroh J., Santos I., Oka S., Somi G., Stephan C., Teira R., Wabwire D., Wandeler G., Boule A., Reiss P., Wood R., Chi B.H., Williams C., Sterne J.A., Egger M. *J Acquir Immune Defic Syndr.* 2014 Jan 1;65 (1):e8-16.
3. HIV provider-patient communication regarding cardiovascular risk: results from the AIDS Treatment for Life International Survey. Sherer R., Solomon S., Schechter M., **Nachega J.B.**, Rockstroh J., Zuniga J.M. *J Int Assoc Provid AIDS Care.* 2014 Jul-Aug;13 (4):342-5.
4. Emerging antiretroviral drug resistance in sub-Saharan Africa: novel affordable technologies are needed to provide resistance testing for individual and public health benefits. Van Zyl G.U., Frenkel L.M., Chung M.H., Preiser W., Mellors J.W., **Nachega J.B.** *AIDS.* 2014 Nov 28; 28 (18):2643-8.
5. Southern Africa consortium for research excellence (SACORE): successes and challenges. Mandala W.L., Cowan F.M., Lalloo D.G., Wilkinson R.J., Kelly P., Chidzonga M.M., Michelo C., Gomo E., Bailey R., Simuyemba M., Musonda R., Nyirenda M., **Nachega J.B.** *Lancet Glob Health.* 2014 Dec; 2(12):e691-2.
6. Tuberculosis in the intensive care unit: a prospective observational study. Balkema C.A., Irusen E.M., **Taljaard J.J.**, Koegelenberg C.F. *Int J Tuberc Lung Dis.* 2014 Jul;18(7):824-30.
7. Guiding the development of family medicine training in Africa through collaboration with the Medical Education Partnership Initiative. Mash R.J., De Villiers M.R., Moodley K., **Nachega J.B.** *Acad Med.* 2014 Aug; 89(8 Suppl):S73-7.
8. Academic Medicine. Foreword. Medical Education Partnership Initiative Principal Investigators. *Acad Med.* 2014 Aug; 89(8 Suppl):S1-2.
9. Depression and adherence to antiretroviral therapy in low-, middle- and high-income countries: a systematic review and meta-analysis. Uthman O.A., Magidson J.F., Safren S.A., **Nachega J.B.** *Curr HIV/AIDS Rep.* 2014 Sep; 11(3):291-307.
10. Addressing the Achilles’ heel in the HIV care continuum for the success of a test-and-treat strategy to achieve an AIDS-free generation. **Nachega J.B.**, Uthman O.A., Del Rio C., Mugavero M.J., Rees H., Mills EJ. *Clin Infect Dis.* 2014 Jul; 59 Suppl 1:S21-7.



11. Tenofovir or zidovudine in second-line antiretroviral therapy after stavudine failure in southern Africa. Wandeler G., Gerber F., Rohr J., Chi B.H., Orrell C., Chimbetete C., **Prozesky H.**, Boulle A., Hoffmann C.J., Gsponer T., Fox M.P., Zwahlen M., Egger M.; leDEA Southern Africa. *Antivir Ther.* 2014; 19(5):521-5.
12. HIV provider-patient communication regarding cardiovascular risk: results from the AIDS Treatment for Life International Survey. Sherer R., Solomon S., Schechter M., **Nachega J.B.**, Rockstroh J., Zuniga J.M. *J Int Assoc Provid AIDS Care.* 2014 Jul-Aug; 13(4):342-5.
13. Editorial commentary: Risks and benefits of tenofovir in the context of kidney dysfunction in sub-Saharan Africa. Estrella M.M., Moosa M.R., **Nachega J.B.** *Clin Infect Dis.* 2014 May; 58(10):1481-3.
14. Combination antiretroviral therapy reduces the detection risk of cervical human papilloma virus infection in women living with HIV. **Zeier M.D.**, Botha M.H., Engelbrecht S., Machekano R.N., Jacobs G.B., Isaacs S., **Van Schalkwyk M.**, Van der Merwe H., Mason D., **Nachega J.B.** *AIDS.* 2015 Jan 2; 29(1):59-66.
15. Lower pill burden and once-daily antiretroviral treatment regimens for HIV infection: A meta-analysis of randomized controlled trials. **Nachega J.B.**, Parienti J.J., Uthman O.A., Gross R., Dowdy D.W., Sax P.E., Gallant J.E., Mugavero M.J., Mills E.J., Giordano T.P. *Clin Infect Dis.* 2014 May;58(9):1297-307.
16. High HIV, HPV, and STI prevalence among young Western Cape, South African women: EVRI HIV prevention preparedness trial. Giuliano A.R., Botha M.H., **Zeier M.**, Abrahamsen M.E., Glashoff R.H., Van der Laan L.E., Papenfuss M., Engelbrecht S., Schim van der Loeff M.F., Sudenga S.L., Torres B.N., Kipping S., Taylor D. *J Acquir Immune Defic Syndr.* 2015 Feb 1; 68(2):227-35.
17. CD4(+) T-cell recovery after initiation of antiretroviral therapy in a resource-limited setting: a prospective cohort analysis. Kanters S., **Nachega J.**, Funk A., Mukasa B., Montaner J.S., Ford N., Bucher H.C., Mills E.J. *Antivir Ther.* 2014; 19(1):31-9.
18. Incidence rate of Kaposi sarcoma in HIV-infected patients on antiretroviral therapy in Southern Africa: a prospective multicohort study. Rohner E., Valeri F., Maskew M., **Prozesky H.**, Rabie H., Garone D., Dickinson D., Chimbetete C., Lumano-Mulenga P., Sikazwe I., Wyss N., Clough-Gorr K.M., Egger M., Chi B.H., Bohlius J. *J Acquir Immune Defic Syndr.* 2014 Dec 15; 67(5):547-54.
19. Kaposi's Sarcoma in HIV infected patients in South Africa: Multicohort study in the antiretroviral therapy era. Bohlius J., Valeri F., Maskew M., **Prozesky H.**, Garone D., Sengayi M., Fox M.P., Davies M.A., Egger M. *Int J Cancer.* 2014 Dec 1; 135(11):2644-52.
20. The combination of pill count and self-reported adherence is a strong predictor of first-line ART failure for adults in South Africa. Wu P., Johnson B.A., **Nachega J.B.**, Wu B., Ordonez C.E., Hare A.Q., Kearns R., Murphy R., Sunpath H., Marconi V.C. *Curr HIV Res.* 2014; 12(5):366-75.

### Textbooks and contributions to textbooks:

1. MIMS Handbook of Infectious Diseases, Chapter: Tick Bite Fever. J.J. Taljaard

### International Congress Posters / Presentations:

1. Schwartz I. et al. Emmonsiosis in South Africa – Clinical and Laboratory Features of 27 Cases. Poster #0067 / P48. Association of Medical Microbiology and Infectious Disease Canada Annual Conference 2014. Victoria, British Columbia, Canada. 02-05 April 2014.
2. Cornell M., Tanser F., Maskew M., Wood R., **Prozesky H.**, Giddy J., Stinson K., Johnson L.F., Schomaker M., Boulle A. and Myer L. for the leDEA-Southern Africa Collaboration. Aging and ART in South Africa. Oral Presentation Southern African HIV Clinicians Society second Biennial Conference 2014. Cape Town, South Africa. 25 September 2014.
3. Sengayi M. et al for the leDEA-Southern Africa Collaboration and the NHLS. Malignancies in HIV-infected adult and paediatric patients on ART. Oral Presentation Southern African HIV Clinicians Society 2nd Biennial Conference 2014. Cape Town, South Africa. 24 - 27 September 2014.



## Other research activities:

1. 2014 – Current: ACTG – A5288: MULTI-OCTAVE, Management Using the Latest Technologies in Resource-Limited Settings to Optimize Combination Therapy After Viral Failure – (PI – Dr M v Schalkwyk)
2. 2014 – Current: GSK ING117175: A Phase IIIb, randomized, open-label study of the safety and efficacy of dolutegravir or efavirenz each administered with two NRTIs in HIV-1-infected antiretroviral therapy-naïve adults starting treatment for rifampicin-sensitive tuberculosis – (PI – Dr J Taljaard)
3. 2013 – Current: IMPAACT - Protocol 1026s: Pharmacokinetic Properties of Antiretroviral and Related Drugs during Pregnancy and Postpartum - (Dr M. van Schalkwyk – investigator and protocol team field representative)

## Teaching and Training (undergraduate-, postgraduate- and elective students)

### Undergraduate:

- Most divisional members were involved in PACK training for the fourth-years during their Infectious Diseases module
- Dr Taljaard was secundus for the Infectious Diseases and Clinical Immunology theoretical module for fourth-years

### Postgraduate:

- Diploma in HIV Management for Nurses – University of Fort Hare
- Rotating general medicine registrars (3 month ID rotation)
- ID subspecialist training

### Elective students:

Eight elective undergraduate students rotated through the division most for a period of four weeks at a time

## Special achievements

Dr Marije van Schalkwyk completed the CLIC course for Principal Investigator training.

## NEPHROLOGY

**Head of Department:**  
**Prof MR Davids**

### Resources

\* Prof. Moosa (Executive HOD) still in nephrology post

\*\* Unfilled from June to December after resignation of Dr Cassimjee

Posts (Full-time)	Number	Filled
Nephrologists	3	2*
Medical Registrars	3	3
Nephrology Registrars	1	0**
Posts (sessional - how many hours worked per week)		

### Output

Admissions:	363
Ward A7	
Patients on chronic dialysis at year-end	
Haemodialysis	67
peritoneal dialysis	55
Visits for the year	
Nephrology OPD	2 104 (new 341, follow-up 1763)
Peritoneal Dialysis Clinic	1 000
Transplant Clinic	2 465
Haemodialysis Units	8 682
Procedures:	
Haemodialysis: Chronic	7 814
Acute	1 100
Plasmapheresis	169
Charcoal haemoperfusion	1
Kidney biopsies	168
Kidney Transplants	
New renal transplants	19
Living donor transplants	- 9
Surviving pts followed up at TBH	164
Cumulative total transplants	952
Patients assessed for dialysis/transplant programme:	
Total assessed	181
Accepted	36
Not accepted	143
No final decision	2

## Comment on output

Large increases in the demand for services experienced. For example, ward admission increased by 60, procedures performed in our dialysis units increased by almost 1 000 and renal biopsies increased by 20 from the previous year. This output was only possible due to hard work by a committed team and, on the medical side, assistance from supernumerary staff and DoE-funded staff.

## PART 2

### Faculty of Health Sciences

#### Community outreach programmes

Nephrology training of fellows from the developing world continues: Dr Kapembwa from Zambia completed his two years of nephrology training, passing his College exams. He is sponsored by the International Society of Nephrology (ISN). Drs Elliot Tannor (Ghana) and Mathew Koech (Kenya) started their training – both ISN Fellows.

PPIs with Paarl and Vredenburg Units of National Renal Care, and Hermanus Unit of Fresenius Medical Care continues successfully. Improves access to dialysis and improves QOL of patients involved.

#### Partnerships

##### National:

Collaboration with CID and others on HIV and renal disease project – Prof. Moosa, Dr Adeniyi.

Prof. Davids leading the national renal registry.

#### Achievements w.r.t research activities and research outputs

##### Number of publications from the Department/Division

1. Davids M.R., Chikte U.M.E., Halperin M.L.  
Effect of improving the usability of an e-learning resource: a randomized trial. *Advances in Physiology Education*, 2014; 38: 155-160. DOI:10.1152/advan.00119.2013.
2. Doruyter A.G., Hartley T., Ameyo J.W., Davids M.R., Warwick J.M.  
Hybrid imaging using low-dose, localizing computed tomography enhances lesion localization in renal hyperparathyroidism. *Nuclear Medicine Communications*, 2014; 35:884–889. DOI: 10.1097/MNM.0000000000000131.
3. Chothia M-Y., Halperin M.L., Rensburg M.A., Hassan M.S., Davids MR.  
Bolus administration of intravenous glucose in the treatment of hyperkalemia: a randomized controlled trial. *Nephron Physiology*, 2014;126: 1-8. DOI: 10.1159/000358836.
4. Davids M.R., Chikte U., Grimmer-Somers K., Halperin M.L.  
Usability testing of a multimedia e-learning resource for electrolyte and acid-base disorders. *British Journal of Educational Technology*, 2014; 45:367-381. DOI: 10.1111/bjet.12042.
5. M.R. Davids, N. Marais, J.C. Jacobs.  
South African Renal Registry Annual Report 2012. SA Renal Society, Cape Town 2014. ISSN 2311-0023. First report from the new South African Renal Registry.

6. Estrella M.M., Moosa M.R., Nachege J.B.  
Risks and benefits of Tenofovir in the context of kidney dysfunction in Sub-Saharan Africa. *Clinical Infectious Diseases* 2014; 58(10): 1481-1483.
7. Bapoo N.A., Nel J.D.  
New onset diabetes after transplantation in renal transplant recipients at Tygerberg Hospital. *African Journal of Nephrology* 2014; 17(1): 11-20.

### **Supervision of Masters research projects completed:**

1. Dr Karla Bezuidenhout (Supervisor Prof. M.R. Davids). MMed (Internal Medicine) at Stellenbosch University, 2014. Project title: The influence of storage time and temperature on the measurement of serum, plasma and urine osmolality.
2. Dr Elmo Pretorius. (Co-supervisor Prof. M.R. Davids). MMed (Internal Medicine) at Stellenbosch University, 2014. Project title: Oral versus pulse intravenous cyclophosphamide: a retrospective analysis of adverse events in a high infectious diseases burdened setting. Related publication: *South African Medical Journal*, 2015; 105(3):209-214. DOI:10.7196/SAMJ.8785.

### **Teaching and Training (undergraduate-, postgraduate- and elective students)**

Dr Nabeel Bapoo and Dr Kenneth Kapembwa completed their subspecialist training and passed the College Certificate examinations. Dr Bapoo achieved a mark of >75%.

Internal Medicine Registrars trained in nephrology: Mohammed Hassan, Mabrouk Alafshuk, H.W. Snyman, Denzil Schietekat, Khalid Coovadia, Elize Louw, Elisma Wilken, Aziza Masoet and Jocelyn Hellig.

Good pass rate in nephrology maintained for undergraduate MBChB students. Assessment method changed to MCQ format – more objective, more efficient.

### **Special achievements and other highlights not covered by this template**

Prof. Davids completed his PhD titled “Development and usability evaluation of a multimedia e-learning resource for electrolyte and acid-base disorders”. This PhD study has yielded four publications, a fifth paper still in press and an e-learning artifact, which has been accepted for inclusion into an international peer-reviewed repository of learning resources (MedEdPORTAL).

We had strong involvement at the recent World Congress of nephrology: - Prof. Moosa served on the Local Organising Committee, was co-chair of the abstracts committee, was Chair of the committee for the satellite Conference on Kidney Diseases in Disadvantaged Populations, and had two abstracts at the WCN. - Prof. Davids organised a pre-conference workshop on Renal Registries for delegates from Africa, Co-chaired sessions at the WCN, had two oral presentations and had two poster presentations (with registrars Dr Karla Bezuidenhout and Elmo Pretorius) - Dr Chothia had a poster presentation (with registrar Dr Sajith Sebastian)

A national Ministerial Summit on “An effective approach to chronic kidney disease in South Africa” was also held in March. This was a first and very important event for the South African nephrology community. Prof. Moosa was on the core Organising Committee, and Prof. Moosa and Prof. Davids delivered presentations.

## NEUROLOGY

Head of Department:  
Prof J Carr

### Resources

(Please adapt this to your dept. e.g. if you don't have Radiographers, but have e.g. Pharmacists on your establishment, please substitute accordingly)

Posts (Full-time)	Number	Filled
3	3	3
Posts (sessional – how many hours worked per week)		
1		10

### Output

Buitepatiënt-besoeke / Outpatient visits	3 564
Toelatings / Admissions	523
EEG	1 238
EMG	746
Sleep Studies	25

### Comment on output

Output unchanged compared to previous years.

## PART 2

### Faculty of Health Sciences

#### Community outreach programmes

Ongoing outreach to Worcester and Helderberg hospitals.

Establishment of video link with Mediclinic Constantiaberg for purpose of exchanging academic information and “virtual” attendance of neuroscience meeting held weekly at Mediclinic Constantiaberg.

Professor Carr organised and participated in the Parkinson's Disease Nurse Specialist Course for Southern Africa training programme held in Johannesburg from September 18 – 21, sponsored by the Movement Disorders Society and the Edmund Saffra Foundation: <http://www.movementdisorders.org/MDS/Regional-Sections/Task-Force-on-Africa/Task-Force-on-Africa-Education/Parkinsons-Disease-Nurse-Specialist-Course-for-Southern-Africa.htm>

## Partnerships

### International:

GEO-PD (Genetic Epidemiology of Parkinson's Disease Consortium)

Movement Disorders Society: Task Force on Africa

## Achievements w.r.t research activities and research outputs:

### Number of publications from the Department/Division

1. Blanckenberg J, Ntsapi C, Carr JA, Bardien S. EIF4G1 R1205H and VPS35 D620N mutations are rare in Parkinson's disease from South Africa. *Neurobiology of Ageing* 2014 Feb; 35(2):445.e1-3.
2. Van der Merwe C, Loos B, Swart C, Kinnear C, Henning F; van der Merwe L, Pillay K, Muller N, Zaharie D, Engelbrecht L, Carr J, Bardien S. Mitochondrial impairment observed in fibroblasts from South African Parkinson's disease patients with parkin mutations. *Biochemical and Biophysical Research Communications*. 2014 May 2; 447(2):334-40.
3. Geldenhuys G, Glanzmann B, Lombard D, Boolay S, Carr J, Bardien S. Identification of a common founder couple for 40 South African Afrikaner families with Parkinson's disease. *S Afr Med J*. 2014; 104(6):413-9.
4. Carr J, Van Coller R. A putative founder effect for Parkinson's disease in South African Afrikaners. *S Afr Med J*. 2014; 104(6):411-2.

Textbooks and contributions to textbooks

## Teaching and Training (undergraduate-, postgraduate- and elective students)

Professor Carr is chairperson of the Neuroscience block.

## Special achievements and other highlights not covered by this template

Dr F. Henning commenced his PhD at the Sports Science Institute of the University of Cape Town.

Professor Carr ran the annual Neurology Registrar Weekend held in November at the University of Pretoria.

Professor Carr is a Co-PI on the MRC Flagship project: Understanding the SHARED ROOTS of Neuropsychiatric Disorders and Modifiable Risk Factors for Cardiovascular Disease.

## CLINICAL PHARMACOLOGY

**Head of Department:  
Prof Bernd Rosenkranz**

### Summary of activities

#### Services:

The service function of the Division of Clinical Pharmacology includes Therapeutic Drug Monitoring (TDM, 32 drugs) and the operation of the nationwide Tygerberg Poison Information Centre. A total number of 25 410 samples (drug assays and drugs of abuse) were analysed in the Clinical Pharmacology Laboratory in 2014, of which 50% were for Tygerberg Hospital as the main customer. The remainder of laboratory analyses was for other provincial hospitals, NHLS, clinics and for various outreach services.

The Tygerberg Poison Information Centre provided 6 701 telephonic consultations; 42% of the cases were related to non-drug chemicals, 40% to drug overdoses, 12% to biological exposures and 6% were non-patient related calls. Thirty-six per cent of the calls came from the Western Cape, whereas – as in previous years – most calls came from other provinces, some even from outside the country.

Members of the Division actively participated in the Tygerberg Pharmacy and Therapeutics Committee, the Provincial Pharmacy and Therapeutics Committee, Medicines Control Council (MCC) activities and the Health Research Ethics Committee of the Faculty of Medicine and Health Sciences.

In addition to the on call toxicology service, the Division started a Clinical Pharmacologist on call service for the hospital in 2014 to deal with consultations related to polypharmacy with potentially multiple drug interactions, dosing in special populations and adverse drug reaction (ADR) assessments. A regular newsletter covering clinically relevant issues around drug prescribing is prepared for hospital doctors and pharmacists by the Division.

#### Teaching:

Undergraduate- and postgraduate programmes for medical and physiotherapy students were offered by the Division of Clinical Pharmacology.

One PhD student, 4 BSc Hons students and 4 students in the Postgraduate Diploma in Pharmaceutical Medicine programme graduated in the Academic Year 2014. In addition, three CPUT students who performed their practical training in the Division, graduated in this year.

Eleven pharmacist interns received two weeks training in the Poison Information Centre from February to June 2014. A fifth-year medical student from Stellenbosch University did her elective module at the Poison Information Centre in July 2014.

## Research

Research activities performed in the Division focussed on interactions between traditional medicines and conventional drugs (drug metabolism and transporters), pharmacokinetics of drugs in special patient populations (including children), biomarkers (HIV associated malignancies), pulmonary surfactant, drug discovery and biological fuels cells.

Altogether, 2 postdoctoral research fellows, 4 PhD students, 4 MSc students, and 3 student interns were actively engaged in these research projects.

## Resources

Posts (Full-time)	Number	Filled
Professor (Head)	1	1
Senior Specialist / Researcher / Lecturer	3	2
Principal Pharmacist / Scientist / Researcher	3	3
Medical Officer (5/8)	1	1
Registrar	1	2 (including 1 supernumerary)
Technologist	6	6
Administrative assistant	1	1
Technical assistant	1	1
Posts (sessional)		
Specialist (Poison Information Centre)	3	3

## Output

The service output of the Tygerberg Poison Information Centre and the Clinical Pharmacology laboratory was as follows:

- Consultations provided by the Tygerberg Poison Information Centre (24x7 service): 6 701
- Clinical Pharmacology laboratory services: 25 410 analysed samples (drugs and drugs of abuse)

## Comment on output

The Tygerberg Poison Information Centre provides a national service as shown in the high number of calls (64%) received from outside the Western Cape, although funding comes solely from provincial sources and private donors.

The Clinical Pharmacology laboratory offers fast turnaround of test results (TDM drug levels) on 7 days a week. Although in 2014 the night shift was abandoned, this did not result in any compromise in service delivery. As a novel component of the TDM service, a Clinical Pharmacologist and two Registrars offer clinical advice in difficult cases.

The newly established Clinical Pharmacologist on call service has been well received and supports rational prescribing in the hospital.



## Part 2

### Faculty of Medicine and Health Sciences

#### Infrastructure development

- Upgraded the HPLC and LC/MS equipment and software
- Added IT desk space for new and additional students

#### Community outreach programmes

- Kalksteenfontein: Stay in school project, drugs of abuse awareness and life skills coaching
- Ruyterwacht Senior Sentrum, Cape Town. Presentation on snake and spider bites, scorpion stings (CA Wium)
- Mail and Guardian Article: Medicinal use of cannabis (Dr G.J. Muller)
- RSG radio interview: Medicinal use of cannabis (Dr G.J. Muller)
- RSG radio interview: Drug-drug interactions (Dr E.H. Decloedt)
- RSG radio interview: Rational antibiotic use (Dr E.H. Decloedt)
- Franschhoek Style Article: The dagga debate: Weeding out the fiction (Dr G.J. Muller)
- SABC2 TV Bonita's House Call: medical talk show with Dr Victor Ramathesele (5 April 2015): Poisoning (Dr G.J. Muller and C.J. Marks)
- SABC e.tv: Interview: Acid attacks in the country (Dr G.J. Muller)
- International Labour Organization's (ILO) World Day for Safety and Health at Work: Seminar conducted by Occupational Health and Hygiene, City of Cape Town: "Safety and Health in the use of chemicals at work": Toxicology, common poisoning cases and first aid measures (Dr G.J. Muller)
- Die Burger Article: Dagga as medisyne vereis ook beheer (Dr G.J. Muller)
- Ruyterwacht Senior Sentrum, Cape Town: Presentation on Plants and Mushrooms (C.A. Wium)
- Mini Safety Expo: Table View Pick 'n Pay Centre (27 June 2014): Participation in the safety expo by providing educational information on exposures to poisonous substances
- Child Magazine Article: Cape Town's best guide for parents - Quicksilver (C.A. Wium)
- CME talks by Dr E.H. Decloedt:
  - Treatment of pain - Mediclinic Clinical Pharmacy CME
  - Drug-drug interactions - UCT Psychopharmacology update for General Practitioners
  - Rational medicine use - Provincial RMU workshop
  - Rational pain management - UCT General Practitioner refresher course
  - Debate on the Ethics on the pharmacological management of uncomplicated Major Depressive Disorder: monotherapy versus multiple antidepressant use (proponent of monotherapy) - SASOP
  - High cost drugs: innovative ways in gaining access to all - PCMA
  - The use of pain medication in adults and children - Stellmed
  - Efavirenz neurotoxicity - SU Child Psychiatry Academic Meeting

## Partnerships

### International:

- Prof. Hartmut Derendorf, College of Pharmacy, University of Florida, Gainesville FL, USA (pharmacometrics)
- Prof. Larry Walker, School of Pharmacy, University of Mississippi, Oxford MS, USA (herb-drug interaction)
- Prof. Simon Lovestone, Department of Psychiatry, Oxford University, United Kingdom (HIV associated cognitive impairment)
- Prof. Eleni Koutsilieri, Institute of Virology and Immunobiology, University of Wuerzburg, Germany (HIV associated cognitive impairment)
- Prof. Awewura Kwara, Brown University, Providence RI, USA (Fogarty programme)
- Department of Pharmacy and Pharmacology, University of Bath, UK (Global Partnership Research Scholarship was awarded by the University of Bath to one PhD student to spend six months at this institution)
- Prof. Junshen Li, Head of School of Biological and Chemical Engineering, Guangxi University of Science and Technology, China (research cooperation)
- PharmaTrain Federation, Brussels, Belgium (postgraduate programme in pharmaceutical medicine)
- Joanna Tempowski, World Health Organization, Geneva, Switzerland (Poison Information Centre)

### National:

- Prof. Gary Maartens, Department of Medicine, Division of Clinical Pharmacology, University of Cape Town
- Prof. Patrick Bouic, Synexa Life Sciences, Cape Town
- Dr Haylene Nell, Tiervlei Trial Centre, Cape Town
- Prof. John Joska, Division of Neuropsychiatry, Department of Psychiatry and Mental Health, University of Cape Town
- Prof. Leslie Petrik, University of the Western Cape, Environmental and Nanoscience Unit
- Prof. Thavi Govender, University of KwaZulu-Natal

### Private:

- Boehringer Ingelheim (Pty) Ltd South Africa
- Janssen Pharmaceutica South Africa
- Glaxo Smith Kline South Africa
- Novartis
- Crop Life AVCASA

## Achievements w.r.t research activities and research outputs:

### Publications:

1. Von Bibra M., Rosenkranz B., Pretorius E., Rabie H., Edson C., Lenker U., Cotton M., Klinker H. Are lopinavir and efavirenz serum concentrations in HIV-infected children in the therapeutic range in clinical practice? *Paediatrics and International Child Health* 2014; **34**(2): 138-141.
2. Awortwe C., Bouic P.J., Masimirembwa C.M., Rosenkranz B. Inhibition of Major Drug Metabolizing CYPs by Common Herbal Medicines used by HIV/AIDS patients in Africa - Implications for Herb-drug interactions. *Drug Metabolism Letters* 2013; **7**: 83-95.
3. Flepisi T.B., Bouic P., Sissolak G., Rosenkranz B. Drug-drug interactions in HIV positive cancer patients. *Biomedicine & Pharmacotherapy* 2014; **68**(5): 665-77.
4. Fasinu P.S., Bouic P., Rosenkranz B. The inhibitory activity of the extracts of popular medicinal herbs on cyp1a2, 2c9, 2c19 and 3a4 and the implications for herb-drug interaction. *Afr J Tradit Complement Altern Med* 2014; **11**(4): 54-61.
5. Manda V.K., Dale O.R., Awortwe C., Ali Z., Khan I.A., Walker L.A., Khan S.I. Evaluation of drug interaction potential of *Labisia pumila* (Kacip Fatimah) and its constituents. *Frontiers in Pharmacology* 2014; **5** (178): 1-13.
6. De Kock L., Sy S.K.B., Rosenkranz B., Diacon A.H., Prescott K., Hernandez K.R., Yu M., Derendorf H., Donald P.R. Pharmacokinetics of *para*-Aminosalicylic Acid in HIV-Uninfected and HIV-Coinfected Tuberculosis Patients Receiving Antiretroviral Therapy, Managed for Multidrug-Resistant and Extensively Drug-Resistant Tuberculosis. *Antimicrobial Agents and Chemotherapy* 2014; **58**(10): 6242-6250.
7. Awortwe C., Manda C.K., Avonto C., Khan S.I., Khan I.A., Walker L.A., Bouic P.J., Rosenkranz B. Echinacea purpurea up-regulates CYP1A2, CYP3A4 and MDR1 gene expression by activation of pregnane X receptor pathway. *Xenobiotica* 2014; **7**: 1 - 12.
8. Flepisi B.T., Bouic P., Sissolak G., Rosenkranz B. Biomarkers of HIV-associated cancer. *Biomark Cancer* 2014; **6**: 11 - 20.
9. Awortwe C., Fasinu P.S., Rosenkranz B. Application of Gaco-2 cell line in herb-drug interaction studies. Current approaches and challenges. *J Pharm Pharm Sci* 2014; **17**(1): 1 - 19.
10. Sy S.K., Innes S., Derendorf H., Cotton M.F., Rosenkranz B. Estimation of intracellular concentration of stavudine triphosphate in HIV infected children given a reduced dose of 0.5 milligrams per kilogram twice daily. *Antimicrob Agents Chemother* 2014; **58**(2): 1084-91.
11. Asiedu-Gyekye I.J., Mahmood S.A., Awortwe C., Nyarko A.K. A Preliminary safety evaluation of Polyhexamethylene Guanidine Hydrochloride. *Int J Toxicol* 2014; **33**(6): 523-31.
12. Asiedu-Gyekye I.J., Frimpong Monso S., Awortwe C., Antwe D.A., Nyarko A.K. Micro- and Macro elemental composition and safety evaluation of nutraceutical maringa oleifera leaves. *J Toxicol* 2014.
13. Awortwe C., Asiedu-Gyekye I.J., Nkansah E., Adjei S. Unsweetened natural cocoa has anti-asthmatic potential. *Int J Immunopathol Pharmacol* 2014; **27**(2): 203-12.

14. Asiedu-Gyekye I.J., Antwi D.A., Awortwe C., N'guessan B.B., Nyarko A.K. Short-term administration of an aqueous extract of *kalanchoe integra* var. *crenata* (Andr.) Cuf leaves produces no major organ damage in Sprague-dawley rats. *J Ehhnopharmacol* 2014; **151**(2): 891-6.
15. Bekker A., Schaaf H.S., Seifart H.I., Draper H.R., Werely C.J., Cotton M.F., Hesselning A.C. Pharmacokinetics of isoniazid in low-birth-weight and premature infants. *Antimicrobial Agents and Chemotherapy* 2014; **58**(4): 2229-2234.
16. Garcia-Prats A.J., Willemse M., Seifart H.I., Jordaan A.M., Werely C.J., Donald P.R., Schaaf H.S. Acquired drug resistance during inadequate therapy in a young child with tuberculosis. *Pediatric Infectious Disease Journal* 2014; **33**(8): 883-885.
17. Rosenkranz B., Nachega J.B. Diagnosis and management of malaria: An updated report on a deadly disease of global impact. *Infectious Disorders - Drug Targets* 2014; **13**(4): 215-216.
18. Zvada P.Z., Denti P., Donald P.R., Schaaf H.S., Thee S., Seddon J.A., Seifart H.I., Smith P.J., McIlhleron H.M., Simonsson U.S.H. Population pharmacokinetics of rifampicin, pyrazinamide and isoniazid in children with tuberculosis: *in silico* evaluation of currently recommended doses. *Journal of Antimicrobial Chemotherapy* 2014 DOI 10.1093/jac/dkt524
19. B. Rosenkranz, J. Nachega: Guest editors of special issue (malaria): *Infectious Disorders - Drug Targets* 2014; **13**(4)

### Conferences and workshops:

1. B. Rosenkranz: Pharmacokinetics of drugs in the paediatric patient population. IIR Workshop "3rd Annual Clinical trials Forum", Johannesburg (24 - 26 June 2014)
2. B. Rosenkranz: Acute toxicity testing TOXSA Training Workshop "In vivo and in vitro methods to identify and evaluate chemical health hazards: Establishment of laboratory facilities and provision of training in the Risk Assessment of chemicals in South Africa", Cape Town (11 - 12 July 2014)
3. B. Rosenkranz: Chronic toxicity testing TOXSA Training Workshop "In vivo and in vitro methods to identify and evaluate chemical health hazards: Establishment of laboratory facilities and provision of training in the Risk Assessment of chemicals in South Africa", Cape Town (11 - 12 July 2014)
4. B. Rosenkranz: Chair of plenary lecture session "Oncology" (14 July 2014). 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
5. B. Rosenkranz, P. Thuermann: Chair of session "Advances in clinical pharmacology" (15 July 2014). 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
6. B. Rosenkranz: Chair of session "Epigenetic mechanisms of cell- and drug-based heart failure therapies" (18 July 2014). 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
7. S. Kerpel-Fronius, B. Rosenkranz: Co-organisers of Workshop "Training of Medicines Development and Regulation in Emerging Economies", Fundisa African Academy of Medicines Development and Hungarian Society for Experimental and Clinical Pharmacology, Cape Town (12 July 2014)

8. B. Rosenkranz, H. Nell: Regional experience and needs for teaching medicines development in Africa Workshop "Training of Medicines Development and Regulation in Emerging Economies", Fundisa African Academy of Medicines Development and Hungarian Society for Experimental and Clinical Pharmacology, Cape Town (12 July 2014)
9. B. Rosenkranz: Organiser and co-chair of 2nd Regulatory Workshop "New Developments in Drug Regulation", organised by Fundisa African Academy for Medicines Development and South African Medicines Control Council, Pretoria (9 - 10 October 2014)
10. C. Awortwe, P. Bouic, B. Rosenkranz, C.M. Masimirembwa: Application of parallel artificial membrane permeability assays (PAMPA) in P450 mediated herb-drug interaction screening 20th International Symposium on Microsomes and Drug Oxidations, Stuttgart, Germany (18 - 22 May 2014)
11. P. Fasinu, C. Awortwe, P. Bouic, B. Rosenkranz: Inhibitory activity of three herbal products in HIV/AIDS on major drug metabolizing enzymes. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
12. C. Awortwe, P. Fasinu, P. Bouic, C. Masimirembwa, B. Rosenkranz: Integration of parallel artificial membrane permeability assays (PAMPA) into high throughput screening of medicinal herbs for potential inhibition of drug metabolizing enzymes: Focus on CYP1A2 and CYP3A4. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
13. C. Awortwe, P. Fasinu, P. Bouic, C. Masimirembwa, B. Rosenkranz: Risk-assessment of two medicinal herbs used in HIV-infected patients for potential inhibition of CYP3A4. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
14. P. Fasinu, C. Awortwe, P. Bouic, B. Rosenkranz: The inhibition of CYP1A2, 2C9, 2C19 and 3A4 activity by the extracts of popular medicinal herbs - Implications for herb-drug interaction. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
15. B. Flepisi, P. Bouic, G. Sissolak, B. Rosenkranz: Antiretroviral therapy down-regulates the expression of CD38 on CD8+ T lymphocytes. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
16. M. Kruger, S. Ramoroka, M. Makiwane, B. Rosenkranz: Unlicensed and off-label drug use in the ambulatory clinics in a large central hospital in South Africa. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
17. C. Marks, N. Edwards, J. Tempowski, D. Tagwireyi, T. Menge, C. Nyadedzor, C. Roberts, D. Kapindula, H. Senkoro, C. Kanama: Feasibility for a sub-regional Poison Centre in the east Africa sub-region. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)
18. L. van Rensburg, J. van Zyl, J. Smith, I. Wiid: Drug susceptibility testing of *Mycobacterium tuberculosis* to isoniazid and fluoroquinolone entrapped 1,2 dipalmitoyl-L- $\alpha$ -phosphatidylcholine liposomes. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 - 18 July 2014)

19. J.M. van Zyl, J. Smith, G. Maritz: Surfactant treatment for respiratory distress syndrome in extremely preterm lambs: comparison of a peptide-containing lung surfactant with bovine-derived surfactant. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 – 18 July 2014)
20. E. Visser Kift, K. Barnes: The parenteral artesunate access initiative. 17<sup>th</sup> World Conference of Basic and Clinical Pharmacology WCP2014, Cape Town (13 – 18 July 2014)
21. C. Awortwe, V.K. Manda, C. Avonto, S.I. Khan, I.A. Khan, L.A. Walker, P.J. Bouic, B. Rosenkranz: Prediction of reversible and time-dependent inhibition of CYP3A4 by *Lessertia frutescens* fractions and possibility of herb-drug interactions with anti-retrovirals. Annual Meeting of the American Society of Pharmacognosy, Oxford (Miss., USA) (2 – 6 August 2014) (abstract published in *Plant Medica* 2014; 80 - PU8)
22. C. Awortwe, P.S. Fasinu, P.J. Bouic, C. M. Masimirembwa: Risk assessment of two medicinal herbs used in HIV infected patients for potential inhibition on CYP3A4. 58<sup>th</sup> Annual Academic Yearday, Faculty of Medicine and Health Sciences, Stellenbosch University (13 August 2014)
23. B.T. Flepisi, P. Bouic, G. Sissolak, B. Rosenkranz: Biomarkers of B cell activation in HIV associated non-Hodgkin lymphoma and the effect of antiretroviral therapy. 58<sup>th</sup> Annual Academic Yearday, Faculty of Medicine and Health Sciences, Stellenbosch University (13 August 2014)
24. D.J. Francis, B. Rosenkranz, C.A. Wium: Methamphetamine abuse – The Clinical Pharmacology Laboratory (CPL) experience. 58<sup>th</sup> Annual Academic Yearday, Faculty of Medicine and Health Sciences, Stellenbosch University (13 August 2014)
25. S. Kumar, D. Mariswamy: Phytochemical analysis of cow's urine for detection of phenols, flavonoids, antioxidants, steroids and diastase. 58<sup>th</sup> Annual Academic Yearday, Faculty of Medicine and Health Sciences, Stellenbosch University (13 August 2014)
26. J.M. van Zyl, J. Smith, G. Maritz: Surfactant treatment for respiratory distress syndrome in extremely preterm lambs: comparison of a peptide-containing lung surfactant with bovine-derived surfactant 58<sup>th</sup> Annual Academic Yearday, Faculty of Medicine and Health Sciences, Stellenbosch University (13 August 2014)
27. C.J. Marks: South African data on pesticide exposures. WHO – Poisons centre data collection projects, Cardiff (25 – 26 November 2014)
28. C.J. Marks: Epidemiology of Snake Bite in South Africa. WHO – Poisons centre data collection projects, Cardiff (25 – 26 November 2014)
29. C.J. Marks: Evidence for the cost-effectiveness of poison centres. WHO – Poisons centre data collection projects, Cardiff (25 – 26 November 2014)
30. C.J. Marks: Poisoning in special populations: Infants. WHO – Poisons centre data collection projects, Cardiff (25 – 26 November 2014)
31. G.J. Muller: Management of Scorpion sting and spider bite. Venomous Bites and Stings Course by J. Marais, Stellenbosch University, Faculty of Medicine and Health Sciences, Tygerberg (10 April 2014)
32. C.J. Marks: Drugs of Abuse. StellMed Refresher Course for GP's, Spier, Stellenbosch (28 May 2014)
33. G.J. Muller: Diagnosis and Management of spider bite. Spider bite course: A. Dippenaar – Schoeman, Division of Clinical Pharmacology, Stellenbosch University, Faculty of Medicine and Health Sciences, Tygerberg (28 October 2014)

## Teaching and Training (undergraduate-, postgraduate- and elective students)

### Undergraduate

The Division was involved in its academic lecturing to undergraduate MB and ChB medical students beginning from the foundation phase (first year) and throughout the curriculum. This included second-year extended degree programme (EDP2) students preceding their incorporation in the mainstream MB, ChB first-year programme. During the second semester, the first-year MB, ChB student teaching block included 307 students in “Principles of Therapy” and “Basic Therapeutic Principles” (chair: Prof. J.M. van Zyl). The fifth-year three-week “Clinical Pharmacology” block (chair: Dr E.H. Decloedt) included training in the hospital wards, as well as student tutorials. Members of the Division also provided lectures on drug treatment to second to forth-year students, as well as to physiotherapy and molecular biology students.

### Postgraduate

#### The following postgraduate programmes were offered in 2014:

- PhD in Pharmacology
- MMed in Clinical Pharmacology
- MSc in Pharmacology
- PG Dipl Pharm Med
- BSc honours programme in Pharmacology (1 year)

### Special achievements

Members of the Division were involved in the organisation of the World Congress of Basic and Clinical Pharmacology (WCP 2014), which was held in July 2014 in Cape Town, the first time that this prestigious international event was held on the African continent. Prof. Rosenkranz was chair of the Finance Committee.

Prof. Rosenkranz was elected as Secretary of the College of Clinical Pharmacologists (CMSA) and as President of Fundisa African Academy of Medicines Development, Cape Town.

In December 2014, a memorandum was signed between the university and Modern Medical Technologies (Switzerland) with regards to further development of the lung surfactant Synsurf developed in the Division of Clinical Pharmacology (Prof. Van Zyl).



## PULMONOLOGY

**Head of Department:**  
**Prof. E.M. Irusen**

### Summary of activities

#### A5ICU

This is a seven bedded unit dedicated primarily to the care of critically ill medical patients. The patient: nursing ratio is for the majority of the time (approximately 80%) 2:1.

In 2014, there were 318 patients admitted to the Unit with a mean age of 43 and a mean Apache score of 17. The average length of ICU stay was five days. The mortality rate improved from 21% in 2013 to 11% in 2014 (36 deaths).

Three new ventilators were obtained for the Unit and plans to acquire three more to meet the increasing demands are in place.

The pursuit for excellence in infection prevention continued in 2014. Programmes to highlight prevention measures and adherence to both the Ventilator Associated Pneumonia bundles and Catheter-related infection bundles were emphasised, with significant reduction in both these infections in the Unit.

This dedication to infection prevention in A5ICU was recognised with the award of the Best Practice in Infection Prevention and Control and the Hand Hygiene award, as well as the Antibiotic Stewardship reward.

#### Bronchoscopy Theatre

In 2014, the bronchoscopy service at Tygerberg continued to deliver a world-class service with an exceptionally high turnover. The effective “same day” diagnostic service utilising transthoracic biopsy that was initiated in 2010, continued to flourish, allowing for the outpatient management of many patients with lung cancer and TB. This service continued to be of great benefit to Tygerberg Hospital, reduced the burden on our Radiology Department and reduced cost. Moreover, the Unit pioneered an approach to undiagnosed effusion (based on ultrasound and closed biopsy), thereby dramatically reducing the need for thoracoscopy (by 90%), thus reducing cost and waiting times. The Unit also trained numerous local and international fellows, confirming its status as a training facility of international standing. The Unit is also a pioneer with endobronchial ultrasound, the use of which has dramatically reduced the number of patients referred for mediastinoscopy.

#### Lung Function Laboratory and Technical Staff

Edwin Neuhoff joined the team from Parexel, London.

Seven of the technologists were able to attend congresses during the year. Three technologists attended the SATS congress in Durban and four technologists attended the Critical Care Congress in Cape Town.



## Resources

Posts (Full-time)	Number	Filled
Professor – Head of Unit	1	1
Specialist	3	3
Registrars	4	4
Senior Registrars	2	2
Assistant Director Clin. Tech	1	1
Chief Clinical Technologist	2	2
Clinical Technologist	5	5
Posts (sessional – how many hours worked per week)		
Specialist	3	3 (20 hrs)

## Output

### Lung Function Lab – Total procedures 6 675

Primary evaluations	4 686
Paediatric lung function	881
Plethysmography	532
Helium dilution lung volumes	12
Diffusion capacity	484
Exercise Studies	80

### Intensive Care – Total Procedures 122990

	Adult	Paediatric	Total
Blood gasses	15 085	13 709	28 794
Haematocrits	15 085	13 709	28 794
Ventilator circuits	56	308	308
Ventilator calibrations	1 806	4 065	5 871
Arterial line placement/repair	22 95	3 258	5 553
P A catheter placement/repair	39		39
CVP placement/repair	1 004	25	1 029
Haemodynamic studies	95		95
MIP & MEP procedures	19		19
Assistance with ventilation	4 274	8 729	13 003
Electrolytes/metabolites (Na,K,Ca,Cl,Glu&Lac)	15 085	13 709	28 794
Monitors assembled	2 345	8 119	10 464

Respiratory Outpatient Clinic Numbers		
Follow up	New	Totals
1 755	1 014	2 769

## Bronchoscopy Theatre

Bronchoscopy	Rigid Bronchoscopy	Forceps Biopsy	Foreign body	Bronchial lavage	TBNA	EBUS -TBNA	Abrahms needle biopsy	TTNA	Thoracic ultrasound	ICD	Total
596	7	113	25	295	163	52	32	313	470	53	2 119

## PART 2

### Tygerberg Hospital

#### Infrastructure development

Seven new ventilators were purchased.

#### Community outreach programmes

Clinical and bronchoscopy service at Paarl Hospital.

#### Partnerships

##### National:

##### Prof. E.M. Irusen:

South African Thoracic Society: Council Member, Scholarship reviewer

College of Medicine examiner

##### National examiner:

Masters and PhD dissertations

CPD outreach: about 30 lectures/year on all aspects of Resp. Disease

## National:

### Prof. C. Koegelenberg:

SA Thoracic Society treasurer

Chairman of the executive committee of the “Assembly on Interventional Pulmonology of the South African Thoracic Society” or IPSA

## International:

### Prof. Irusen

- GOLD National Leader (GOLD-Global Initiative for Chronic Obstructive Lung Disease)
- SA National representative: European Respiratory Society
- 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

Respiration

## International:

### Prof. C. Koegelenberg:

Assistant Editor of the journals Respiration and SARJ, and editorial board member of Respirology Case Report Journal

Reviewer for Thorax, ERJ, IJTL, Respirology, Respiration

## Achievements w.r.t research activities and research outputs:

### Journal Articles (subsidised)

1. **AZZOPARDI M, PORCEL JM, KOEGELENBERG CFN, LEE YCG, FYSH ETH.** *Current controversies in the management of malignant pleural effusions. Seminars in Respiratory and Critical Care Medicine 2014; 35(6): 723-731.*
2. **BALKEMA C, IRUSEN E, TALJAARD JJ, KOEGELENBERG CFN.** *Tuberculosis in the intensive care unit: a prospective observational study. International Journal of Tuberculosis and Lung Disease 2014; 18(7): 824-830.*
3. **KOEGELENBERG CFN, BRUWER JW, BOLLIGER CT.** *Endobronchial valves in the management of recurrent haemoptysis. Respiration 2014; 87: 84-88.*

4. **KOEGELENBERG CFN, CALLIGARO G.** *Transthoracic ultrasound for the categorization of pleural effusions as malignant: an adjunct, but not the answer?* *Respiration* 2014; **87**: 265-266.
5. **KOEGELENBERG CFN, NOOR F, BATEMAN ED, VAN ZYL-SMIT RN, BRUNING A, O'BRIEN J, SMITH C, ABDOOL-GAFFAR MS, EMANUEL S, ESTERHUIZEN TM, IRUSEN E.** *Efficacy of Varenicline combined with nicotine replacement therapy vs Varenicline alone for smoking cessation: A randomized clinical trial.* *Jama-Journal of the American Medical Association* 2014; **312**(2): 155-161.
6. **VAN RENSBURG A, NEETHLING GS, SCHUBERT PT, KOEGELENBERG CFN, WRIGHT CA, BOLLIGER CT, BERNASCONI M, DIACON AH.** *Impact of routine sputum cytology in a population at high risk for bronchial carcinoma.* *International Journal of Tuberculosis and Lung Disease* 2014; **18**(5): 607-612.
7. **ZÖLLNER EW, LOMBARD CJ, GALAL U, HOUGH S, IRUSEN E, WEINBERG E.** *Screening for hypothalamic-pituitary-adrenal axis suppression (HPAS) in asthmatic children is not possible when employing clinical and biochemical parameters.* *Current Allergy & Clinical Immunology* 2014; **27**(3): 236-237.

#### Journal Articles (Non-subsidised)

1. **CALLIGARO G, KOEGELENBERG CFN.** *Pleural ultrasound-guided interventions: advances and future potentials.* *Current Respiratory Care Reports* 2014; **3**: 45-51.
2. **OZOH OB, DANIA MG, IRUSEN E.** *The prevalence of self-reported smoking and validation with urinary cotinine among commercial drivers in major parks in Lagos, Nigeria.* *Journal of Public Health in Africa* 2014; **5**(316): 47-50.

#### Masters completed

**DU TOIT HR.** *The diagnostic accuracy of PET/CT in the evaluation of pulmonary mass lesions in a tuberculosis-endemic area.* *MMed*, 2014. 26 pp. *Studieleier: Koegelenberg CFN.*  
*Medestudieleier:*

#### Teaching and Training (undergraduate-, postgraduate- and elective students)

Prof. Irusen is Head of the Respiratory Module and Chairman of the undergraduate programme in Internal Medicine. Prof. Koegelenberg is the Chairman of the Committee of Postgraduate Training and Research of the Department of Medicine, and both Prof. Irusen and Prof. Koegelenberg are members of the Departmental Resources and Management Committees. Prof. Koegelenberg is currently the supervisor of seven MMed (Internal Medicine) students.

A number of postgraduate students train in pulmonology and intensive care during their physician training.

## RHEUMATOLOGY

**Head of Department:**  
**Dr M Manie**

### Summary of activities

This Division continues to face the challenge of having to run one side of the Thursday firm in addition to our running the Division of Rheumatology. We were sad to lose Dr Cooper, our Career Registrar, who completed his rheumatology training at the end of January 2015. We were pleased to appoint a new Career Registrar, Dr F. Bouwer, with effect from February 2015.

With respect to service delivery, we expanded the valued biologics programme. Initially only patients with ankylosing spondylitis were able to enter the programme, but subsequently patients with rheumatoid arthritis and other conditions, such as Takayasu's disease, were also included.

The Division was pleased to acquire the services of Mrs Rust as a part-time secretary.

### Resources

Posts (Full-time)	Number	Filled
Head of clinical unit	1	1
Senior Specialist	1	1
Posts (sessional – how many hours worked per week)		
2		8 hours/week

### Output

Outpatient visits: 3 705, of which 303 were new patients

Admissions: 279

### Comment on output

The outpatient numbers are slightly down to the previous year. This is in keeping with a trend which largely reflects the active efforts made to down the number of patients referred to primary and secondary level care.

The admissions are slightly higher. The reason for this is not too clear, but may be due to increased awareness of rheumatic diseases from the primary care and secondary hospitals as a result of our active outreach programme.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

The Division was pleased to be the beneficiary of a new state-of-the-art ultrasound machine for the examination of the musculoskeletal system donated by the pharmaceutical company Abvie.

#### Partnerships

##### National:

Our Division is collaborating with Groote Schuur and other hospitals nationally in the “RAIN” research project, which is aimed at upskilling our specialised rheumatology sisters in assessing disease activity in patients with rheumatoid arthritis.

##### International:

Achievements w.r.t research activities and research outputs:

Our Division was well represented at the recently completed rheumatology congress in which the division presented five papers.

##### Dr Manie: Study leader for two papers:

- Childhood stress as a risk factor for developing adult lupus
- A descriptive study of chloroquine associated maculopathy at Tygerberg Academic Hospital

##### Dr Du Toit: Study leader for two papers:

- An analysis of lupus myocarditis at Tygerberg Academic Hospital
- Comparing the safety of oral vs IVI cyclophosphamide at Tygerberg Academic Hospital

##### Dr Whitelaw presented a paper:

- Gout: “A new look at an old disease”

#### Teaching and Training (undergraduate-, postgraduate- and elective students)

The Division is actively involved in the undergraduate teaching of the musculoskeletal system with a group of 15 students rotating through the module every 5 weeks. The Division has one full-time Career Registrar and also accommodates a new rotating Medical Registrar every 3 months. We accommodate an average of three elective students per year.

Drs. Manie and Du Toit attended our university’s teaching course: “Introduction to teaching in the Health Professions”.

Dr Manie attended the CANMEDS leadership course of the well-known and respected Dr Jason Frank.

Special achievements and other highlights not covered by this template.

**Head of Department:**  
**Prof. Gerhardus Barnard Theron**



**Prof. Gerhardus Barnard Theron**

### **Brief 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 Hospital (TBH) 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 the Department of Obstetrics and Gynaecology at Tygerberg Hospital (TBH) and Stellenbosch University. Prof. Theron succeeded Prof. Kruger in March 2010.

### **Our mission**

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 an 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.

TBH serves as a level 2 and 3 referral hospital to Metro East, with a population of about 2 million people. Karl Bremer, Khayelitsha, Helderberg and Eerste River hospitals are the four district hospitals rendering a level 1 service in this urban area. In addition, TBH serves as a level 3 referral hospital to the West Coast, Winelands and Overberg. Winelands West and West Coast regions are served by Paarl Hospital, and Overberg and Winelands East regions are served by Worcester Hospital.

Generation of external funds for research and subspecialist fellowships is a priority for the Department. Fellows doing subspeciality training in Reproductive Medicine, Gynaecological Oncology and Maternal and Foetal Medicine, will also register for Masters in Philosophy degrees in 2015

Posts (full-time)	Number on establishment	Number Filled
Head of Clinical Department	2	2
Head of Clinical Unit	5	5
Natural Scientist (Specialist)	3	2
Subspecialist	3	3
Specialist	8	8
Registrar (1 each at Worcester + Paarl Hosp.)	22	22
Medical Officer	15	15
Intern	13	13
Technologist	1	1
Radiographer	2	2
<b>Posts (sessional)</b>		
Specialists and Medical Officers 5 persons 35 hours/week	Filled	Filled
<b>Part-time posts</b>	2	2
2 specialist posts with 5/8th appointments		
<b>Number of beds</b>	<b>Obstetrics</b>	<b>Gynaecology</b>
	126	46

<b>OBSTETRICS EMERGENCY CENTER</b>	<b>2013</b>	<b>2014</b>
Visits to Obstetrics Emergency Centre Triage Area	9 792	9 894
Total number of deliveries	7 855	7 546
Normal vaginal deliveries	3 735	3 991
Forceps deliveries	23	33
Vacuum extractions	103	125
Breech deliveries	131	125
Caesarean section rate	45,2%	47,1%
Twins	403	382
Number of low birth weight babies < 2 500 g	3 188 (40.6%)	3 145 (39.3%)
Very low birth weight babies < 1 500 g	1 074 (13.7%)	1 113 (13.6%)
Extremely low birth weight babies < 1 000 g	476 (6.1%)	512 (6.4%)
Perinatal Mortality Rates ( $\leq$ 500 g - < 1 000 g)	413,9/1 000	234/1 000
Perinatal Mortality Rates ( $\geq$ 000 g)	29,3/1 000	16,8/1 000
Maternal deaths	26	14
<b>EMERGENCY OBSTETRIC PROCEDURES</b>		
Caesarean sections	4 080	3 555
Manual removal placenta	82	39
Postpartum sterilisations	332	53
Emergency hysterectomy	14	10
Laparotomy for acute abdomen	79	55
Re-look laparotomy	7	7
Repair of third degree tears	134	147
Removal of retained products	96	99
Wound debridement	13	4
Vacuum aspiration of pregnancy products	15	14



<b>OUT PATIENTS</b>		
Second visit and high risk patients	2 529	24 587
New patients	61	53
Post-natal patients	438	323
Diabetic clinic	1 268	1 109
Special care clinic	941	1 188
Cardiac clinic	-	281
<b>FETAL EVALUATION CLINIC</b>		
<b>Antenatal foetal heart rate monitoring:</b>		
Total number of patients	1488	1456
New patients	1141	1084
Follow-up patients	347	372
Twins	134	144
External cephalic versions	24	18
Dopplers:		
Total number of patients	5 213	5 736
Follow-up patients	3 488	3 551
Foetal evaluation referrals (back to AN clinic, HRC or C2A)	653	355
<b>IN PATIENT WARDS</b>		
Admissions to acute labour ward	11 156	10 339
Bed occupation rate labour ward	151%	118%
Admissions to antenatal ward	3 558	3 070
<b>GYNAECOLOGY</b>		
<b>EMERGENCY CENTER</b>		
Visits to Gynaecology Emergency Centre Triage	3640	3288
<b>ELECTIVE SURGERY</b>		
Operative hysteroscopies (general theatre)	53	54
Vaginal hysterectomies	74	64
Abdominal hysterectomies (including bilateral salpingo-oophorectomies)	231	171
Radical hysterectomies	12	14
Laparotomies	60	73
Vaginal repair (anterior/posterior)	22	28
Laparoscopic surgical cases	215	232
<b>OUTPATIENTS</b>		
Follow-up patients (General Gynaecology)	4 359	4 377
New patients (General Gynaecology)	2 617	2 482
Endocrinology	569	490
Colposcopy clinic	2 099	1 935
Andrology	374	407
Oncology	1 823	1 720
Cytology	167	185
Urogynaecology clinic	1 118	1 157
TOP (evaluations seen at Gynaecology)	1 425	1 278
<b>GYNAECOLOGY DAY THEATRE:</b>		
Terminations of pregnancies	1 132	834
Day theatre cases	125	114
Hysteroscopies	440	452
Family Planning clinic	7 622	7 586

**Head of Department:  
Dr GS Gebhard**

## Summary of activities

The General Specialist Services (GSS) is the largest service division within the Specialised and Highly Specialised Obstetric and Gynaecology (O&G) Services and oversees the complete acute service within Tygerberg Hospital (TBH) and the clinical governance of all O&G services within the Metro East.

## Resources

Posts (Full time)	Number	Filled
Chief Specialist/Head Clinical Department	1	1
Medical Specialist grade 1-3	6	6
Specialist District Obstetrician	1	1
Medical Officer	14	14
Registrars	16	16

Current O&G bed status	Number
Total maternity beds:	145 (includes 19 labour ward delivery beds)
Currently designated and utilised at tertiary	28
Currently designated and utilised as regional	98
Total Gynaecology beds	46
Currently designated and utilised as tertiary	15
Currently designated and utilised as regional	21

## Output

The GSS manages the acute O&G emergency areas (the 19 bed labour ward, obstetric triage, gynaecology triage, elective Caesarean section theatre and 24 hour emergency theatre), as well as 113 ward beds: 42 antenatal; 44 postnatal and 21 gynaecology. This platform manages the service in which all undergraduate- and postgraduate training, (apart from the registrar subspecialist training) takes place and all the general specialists are senior lecturers on the joint Stellenbosch University platform and share in the teaching, training and research activities of the Academic Department.

## Comment on output

The biggest challenge for 2014 was the refurbishment of the new labour ward. Decanting already started at the end of 2013, and for most of 2014 we functioned with reduced beds and space in decanted wards. This affected the whole service, as the gynaecology wards had to be relocated as well. Several of the functional areas were split between decanted areas. The post-caesarean section ward (J2) was fragmented into four different wards spaces. This put immense pressure on the personnel responsible for these patients as they had to do ward rounds in different wards. The clinical governance and management of the decanting was challenging, but the reward was the move back to a brand new, refurbished labour ward. For the first time since the opening of Khayelitsha Hospital, all our dedicated labour ward beds (19) were within the labour ward. The labour ward was now planned around a central nursing station with 7 single room delivery beds, 2 large 4-bedded rooms for admission and stabilisation of medical conditions in pregnancy and a further 2 smaller 2-bedded rooms for less acute admissions. The final phase of the refurbishment will be the installation of a central foetal monitoring system, expected in April 2015.

The emergency O&G triage area was redeveloped to have a separate obstetric triage area with four beds. Women are now triaged according to the South African Triage System (SATS), adapted for local maternity use. Patients are triaged within 20 minutes and then appropriately allocated to a bed to reduce waiting times and to allow the intern to work in the labour ward to do the clinical skills training required for their logbook. Redevelopment of the current gynaecology triage area is planned for 2015/2016.

## Community outreach programmes

The general specialist services do outreach to the surrounding district hospitals and Midwife Obstetric Units (MOUs) within the eastern half of Cape Town metro; an area which encompasses the Helderberg area in the east (up to Grabouw), the whole of Khayelitsha and the Tygerberg/Northern substructure. There are 4 large district hospitals and 8 Midwife Obstetric Units in this area. The filling of the national ministerial District Specialist post at Tygerberg allowed a full-time equivalent (FTU) consultant to be available every week to fulfil the mandate of the district specialist teams as envisaged by the Minister of Health. This task is shared between all eight General Specialists and allows for interaction with the district hospitals and MOUs (distinct from the regular support and outreach provided).

Due to the demand for colposcopy services, we doubled the number of patients seen at the outreach clinic in Helderberg by stepping up clinic time to a weekly clinic with a Registrar and Consultant from Tygerberg visiting the hospital. The outreach service at Helderberg also now includes a two-weekly academic consultant ward round on Tuesday mornings, as well as Essential Skills in the Management of Obstetric Emergencies (ESMOE) fire drills. The GSS also offers a monthly two-day ESMOE course at Tygerberg.

There is a two-weekly gynaecology clinic, colposcopy outreach service and a monthly theatre list at Eerste River Hospital and a weekly colposcopy clinic, as well as a Thursday sterilisation list at Khayelitsha Hospital. There is also a weekly academic ward round at Khayelitsha Hospital. Outreach to Karl Bremer includes an academic ward round every second week, which was very well received.

The regional and district outreach activities in Metro East are planned and governed by the Geographical Services Area (GSA) meeting; an important interface where senior management from the Health Department (at all levels of care), hospital Specialists, Family Physician Specialists, District Managers, and Allied Health Care and Nursing Personnel meet to plan service delivery and clinical governance issues. A smaller O&G technical work group monitors the outreach activities that also include intra-uterine contraceptive device training (including outreach to West Coast and Winelands), the termination of pregnancy services at the community health centres, clinical governance issues such as risk reduction during obstetric surgery, colposcopy outreach services and family planning.

## FAMILY PLANNING UNIT

Head of Department:  
Dr J Kluge

### Summary of activities

Provision of family planning services including male and female methods, the Unit serves as a referral centre for peripheral clinics in the Metro East and the Greater Western Cape Province.

Training of nursing staff, medical students and Registrars in the provision of family planning and outreach training of nursing staff is done.

### Resources

Posts (Full-time)	Number	Filled
Specialist	1	1
Registrar	1	1
Nursing Manager	1	1
Senior Nursing Staff	2	2
Senior auxiliary nursing staff	1	1
Secretary	1	1

### Output

Female Programme:		
Year	2013	2014
Patients counselled		
In Family Planning clinic	10 117	9 083
Doctor consultations	548	796
Sterilizations performed at time of c/s, postpartum & interval	1 548	1 160
Hysteroscopic sterilisation (ESSURE)	0	8
Failed sterilisation (pregnancies)	2	2
Female condoms issued	2 760	1 370
Emergency contraceptive use	62	31
Intrauterine Contraceptive device (IUD) insertions	1 310	257
Implanon® inserted (contraceptive implant)	56	1 991
Implant (Jadelle/ Implanon® removals)	18	88
<b>Cervical Smears</b>		
Total taken	259	178

Male Programme		
Consultation before vasectomy	563	526
Vasectomy done (service provided by the urologists)	226	216
Male condoms issued	212 840	214 400

## Comment on output

### Hysteroscopic sterilisations (ESSURE®)

A promising development within the Tygerberg Family Planning service is the ability to provide patients with the option of a hysteroscopic sterilisation. This is obtained by the hysteroscopic placement of flexible micro-inserts (Essure®) via the ostia into the fallopian tube. A hysteroscopic sterilisation is performed as an outpatient procedure under minimal or no anaesthesia. Patients with severe comorbid conditions, for example those with severe cardiac conditions, were previously excluded from having a sterilisation due to the risks associated with a general or regional anaesthesia, are now able to have the option of a sterilisation procedure performed hysteroscopically. This helps prevent unplanned pregnancies, which can be especially life threatening in this group of women. Eight hysteroscopic sterilisations were performed in 2014.

### Provision of Long Acting Reversible Contraceptive (LARC) Methods

LARC methods are methods that require administration less than once per cycle or month and rely less on user compliance than other short-term methods. As a result, these methods are highly effective with good continuation rates and have the greatest potential in decreasing unplanned pregnancies. The National Contraception Clinical Guidelines© (Department of Health, RSA, 2012) state that “priority should be given to expanding the range of LARC methods available in the public health sector”.

The Tygerberg O&G Department has continued to train healthcare providers to provide all these methods, but the emphasis of 2014 was on Implanon® (the single rod contraceptive subdermal implant) training and provision, which was officially launched by the Minister of Health in February 2014.

### Intrauterine device

There has been a decrease in copper intrauterine device (IUD) insertions from 1 310 in 2013 to 257 in 2014. This can be attributed to several factors. It appears that many patients choose the new contraceptive implant, Implanon®, rather than the IUD. The previous years' significant increase in IUD insertions was due to postpartum insertion at the time of the caesarean section or post normal vaginal delivery. In 2013, 745 IUDs were inserted postpartum. This service was halted in March 2014 as there were two cases of women presenting pregnant due to their oblivious expulsion of the IUD. In addition, less than 20% of patients returned for their six-week follow-up at the family planning clinic. An audit into the post placental IUD service is being done to ascertain the reasons for poor follow-up and to ensure patient safety before reimplementation of the service.

## **Implanon® insertion and Training**

The training focus of the Unit in 2014 was that of training healthcare providers in Tygeberg Hospital and the Metro East in the counselling, provision and safe insertion of the Implanon® contraceptive subdermal implant. Since its official launch in the public sector, the uptake was satisfactory with 1991 implants inserted in TBH. Only 88 women were seen at TBH for removal of their implants. Training on the removal of implants has not been as extensive as that of insertion due to the limited numbers of removals, and most patients are referred to TBH for removal. This small number of removals reflects well on the acceptance and continuation of the implant amongst South African women so far as one can expect 18% of women requesting their implants be removed for various reasons. The one-year continuation rates of implants are 82%. Implant contraceptives have the highest continuation rates amongst all the reversible contraceptive methods.

### **Training**

#### **Implanon® training provided by Dr Kluge**

- theory and practical training on insertion and removal to doctors from community health clinics from the Tygerberg/ Northern substructure
- theory and insertion training to doctors from Khayelitsha District Hospital and Paarl Hospital
- theory training to doctors and nurses from Karl Bremer Hospital and Eben Donges Hospital, Worcester
- theory and insertion training for doctors and nurses from KIDCRU, TBH

#### **Family Planning Training provided by Sr. Naude and Sr. Cupido:**

- Nursing students from the Advanced Midwifery course rotate through the Family Planning clinic

#### **Obtained by Sr. Cupido**

- Strategic Leadership and Planning course
- Nursing Information Management Systems

#### **Obtained by Sr. Naude**

- Infection prevention and control centre

## **PART 2**

### **Faculty of Health Sciences**

#### **Community outreach programmes**

As a secondary and tertiary referral hospital, our focus is on providing training for personnel, both doctors and nurses, who will subsequently strengthen contraception provision and services within communities. This was achieved by performing outreach Implanon® training to nurses and doctors in community health clinics, level 1 and 2 hospitals in the Metro East as mentioned in the section on training provided.

#### **Teaching and Training (undergraduate-, postgraduate- and elective students)**

Both undergraduate and elective students have to attend sessions at the family planning clinic as part of their rotation within O&G. The Registrar in O&G conducts two clinics a week where complex contraceptive problems are addressed.

Dr Kluge provided implant insertion training to staff of the Clinical Skills Laboratory, Stellenbosch University, who provide clinical skills training to undergraduate medical students, namely fourth years, before they perform their clinical rotations within the hospital.

### **Publications**

Grossman D, Constant D, Lince-Deroche N, Harries J, Kluge J. A randomized trial of misoprostol versus laminaria before dilation and evacuation in South Africa. *Contraception* 2014; 90(3):234-41

## GYNAECOLOGICAL ONCOLOGY

**Head of Department:  
Prof MH Botha**

### Summary of activities

The year 2014 was a productive and exciting year for the Unit of Gynaecological Oncology. The first priority remains patient-centred clinical service delivery to women with gynaecologic cancers. Patients presenting to the unit were 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 Gerald Paris of Radiotherapy, Dr Pieter Barnard of Chemotherapy, as well as the departments of Anatomical Pathology, Urology, General Surgery and Radiology. Due to the impact of the HIV epidemic in our population, there is still pressure on the colposcopy service. However, due to increased clinics in level 1 and 2 facilities, the waiting time for appointments have decreased.

Important priorities of the Unit include teaching, training and research. Dr M Dlamini successfully passed his exams as subspecialist in gynaecological oncology and Dr J Butt continues as part-time Fellow in the Unit. Dr M Feketschane joined the team in 2014 on a Discovery Fellowship.

A large multi-centre study on vaccination and screening to prevent cervical cancer was completed. The community benefited directly from the study. More than 1 000 primary school girls received HPV vaccines and their mothers were screened for cervical cancer. The results of the study were reported in three journal articles and an editorial in S. Afr Med J. The results of the EVRI HPV vaccination trial in co-operation with an international team led by the well-known Prof. Anna Giuliano, has now been published in an international journal. Dr Michele Zeier completed her PhD study in the Unit, which also led to publications in international journals.

### Resources

Posts (Full-time)	Number	Filled
Head of Clinical Unit	1	1
Senior Specialist	1	1
Fellow Gynaecologic Oncology	2	2
Registrar	1	1
Chief Professional Nurse	1	1
Typist	1	1
Clinic Clerk	1	1

## Statistics

New patients managed by the Unit for Gynaecologic Oncology:	2013	2014
Carcinoma cervix	251	298
Carcinoma endometrium	54	64
Carcinoma ovary	31	61
Benign ovarian tumours	18	8
Carcinoma vagina	6	8
VAIN III	2	5
Carcinoma Fallopian tube	-	2
Uterine sarcoma	-	12
Carcinoma vulva	17	29
VIN III	-	10
Choriocarcinoma	-	6
Gestational trophoblastic disease	7	11
Other: Unknown primary	-	4
Unknown diagnosis	2	6
Fibroid uterus (complicated)	5	2
Dermatofibro sarcoma	-	1
Hydrosalpinx	-	1
Lymphoma	2	2
Peritoneal pseudocyst	2	2
Pancreas carcinoma	-	1
Rectal carcinoma	2	1
Colon carcinoma	2	4
Gall bladder carcinoma	-	1
Breast carcinoma	1	1
Stomach carcinoma	-	2

	2013	2014
<b>Total cancer patients:</b> New	339	494
Follow-up	1 477	1 407
<b>Colposcopy clinic:</b> New	1 053	1 181
Follow-up	1 074	758
<b>Cytology clinic:</b> New	21	20
Follow-up	169	158
<b>Staging clinic</b>	618	599

Procedures		
LLETZ	743	855
Cervical biopsies	785	628
Cytology cervix	1067	645



## **Outreach programmes**

### **Gynaecological Oncology**

- The Unit for Gynaecological Oncology visits Worcester and Paarl hospitals on a fortnightly rotation. The aim of the visits are:
  1. Training of Specialists, Registrars and Medical Officers working in these hospitals
  2. Evaluation of new patients in order to ascertain management in the 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 (CME) remains a priority of the Unit and outreach programmes towards the rest of the public sector in the Province in terms of CME activities were an important focus
- The team continues outreach visits to the referral hospitals in East London

### **M.H. Botha and F.H. van der Merwe**

- Prof. Botha was elected to serve on the council of the International Gynaecological Cancer Society  
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

### **Collaboration**

- The Unit collaborates in research projects with the University of Pretoria and the University of Cape Town
- Dr M. Zeier (Principal investigator) from the Infectious Diseases Unit at Tygerberg Hospital received a PhD degree in April 2014 on work that was performed in the colposcopy clinic

### **Public-Private Cooperation**

- Dr Feketshane has been appointed in a Discovery Fellowship

## REPRODUCTIVE MEDICINE

**Head of Department:**  
**Dr T Matsaseng**

### Summary of activities

Micro surgery is performed on Level II and Level III platforms in the S & T theatres and our unit is one of the few in the country performing advanced endoscopic surgical services in an academic hospital.

We have an outpatient theatre for endoscopic procedures (3 40 hysteroscopies per month), which results in a huge saving to the hospital [3 450 cases done for 2014].

The Andrology laboratory provides a service for the region and helps patients with infertility problems, cancer patients, family planning patients and urology patients. Freezing of semen is also offered for cancer patients requiring this service. The In Vitro Fertilisation (IVF) Unit also offers a low-cost assisted reproduction service to patients, reaching out to the needy and the marginalised.

The Unit provides a specialised endoscopic surgery outreach programme in Paarl Hospital to take service to the community and to train and develop skills at regional hospitals. We also support and continue development of skills amongst private Gynaecologists in the Western Cape.

The Unit is also an accredited HPCSA training facility for Clinical Technologists and Medical Biological Scientists in Reproductive Biology, and Subspecialist Fellows in Reproductive Medicine. Each year, two to five students undergo theoretical as well as practical training in assisted reproduction techniques (ART) in both the Andrology and Fertility laboratories. Besides training in ART techniques, they also enrol as Honours or MSc students under the guidance of Chief- and Senior Specialist Scientists in this unit.

### Resources

Posts (full-time)	Number	Filled
Head of Unit	1	1
Senior Specialist	1	1
Senior Specialist 5/8 post	1	1
Fellows	4	4
Registrars 1 (general gynae, 3 monthly) and 1 special rotation, 2 monthly)	1	1
PhD students	1	1
Chief Specialist Scientist	1	1
Senior Specialist Scientist	1	1
Special Technologist	1	1
Clinical Technologist	1	1
MSc students	2	2

## Assisted Reproduction

Andrology	2013	2014
Number of semen analyses	654	614
Number of patients consulted at Andrology lab	650	
Number of post-vasectomy patients (Included in total)	239	180
Wet semen preparations examined	654	614
Semen counts performed	415	414
Samples examined after centrifugation	239	200
Supravital semen stains evaluated	16	29
Semen morphology smears prepared	1 121	1 230
Semen morphology smears stained	1 121	1 230
Sperm morphology evaluations performed	2 181	2 500
Antispermatozoa antibody tests performed	329	310
Reports placed on computer system	654	614
Fructose tests (Azoospermia samples)	34	33

In vitro fertilisation (IVF)		
Patients aspirated	78	108
Number of ova and embryos handled	216	750
Number of frozen embryo transfers	-	2
Semen samples prepared for ova inseminations	72	107
Number of patients receiving embryo transfers	51	70
Semen samples prepared for IUI	52	33
Number of Testisbiopsies done	-	7
Number of semen samples frozen	-	20
Number of embryo freezings done	-	6

## Output

### Comment on output:

In 2014/2015 there was a slight increase in total semen analyses performed and more morphology evaluations were performed. Due to the increased activity of the IVF programme (public / private partnership), there were remarkably more IVF patients treated and that lead to a high increase in the number of ova and embryos handled in the laboratory. This has led to more testis biopsies performed, semen samples frozen and embryo freezing. The Andrology laboratory has also been involved in a study of Dr Spies, from Urology where semen is examined before and after a surgical procedure.

The laboratory is currently engaging in a research possibility with an institution on semen analysis of men infected with HIV. Similar interaction might develop with the University of Munster in Germany.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

The Unit (IVF laboratory) managed to acquire a much needed ICSI machine to service men with severe male infertility. The machine was generously donated by Drs Aevitas Clinic. This will further enable teaching and training of fellows and Reproductive Biology postgraduate students over and above service delivery obligations.

#### Community outreach programmes

The Unit provides a specialised endoscopic surgery outreach programme at Paarl Hospital to take service to the community and to train and develop skills at regional hospitals. We also support and continue development of skills amongst private Gynaecologists in the Western Cape. The effort has and continues to improve overall women's health.

#### Partnerships

##### National:

- Dr M.L. de Beer served as the secretary for the South African Society for Reproductive Sciences and Surgery (SASREG)
- Dr Matsaseng is a member of SASREG
- Prof. Menkveld works in collaboration with Prof. Ralf Henkel, Department of Biomedical Sciences, University of the Western Cape
- Prof. Siebert chairs the endoscopic section of the Southern African Society of Reproductive Medicine and Gynaecological Endoscopy (SASREG)
- Prof. Kruger serves as a member and scientific program director of SASREG

##### International:

- Prof. Kruger works with Dr Oehninger of the Howard Jones Institute, Norfolk, Virginia
- Prof. Menkveld works with Dr J. Rhemreve, Bronovo Hospital, The Hague, The Netherlands  
Dr L. Bjorndahl, Karolinska Institute, Stockholm, Sweden
- Prof. C. Barratt, Reproductive and Developmental Biology Group, Division of Medical Sciences, University of Dundee, Scotland, UK
- Dr D. Mortimer, Oozo Biomedical Inc., Vancouver, Canada
- Dr Matsaseng and Prof. Kruger work with Prof. Ombelet from the Genk Institute in Belgium
- The Unit was involved with a successful SASOG congress hosted by the department of O&G. Prof. Kruger, Prof. Siebert and Dr Matsaseng were members of the local organising committee. Prof. Siebert and Dr Matsaseng were convenors of laparoscopy and hysteroscopy workshops respectively

### **Number of publications from the Division:**

- Peer reviewed 9
- CME 2

### **Textbooks and contributions to textbooks:**

Prof. Kruger and Dr Matsaseng are currently involved as editors of the prescribed gynaecology book for the undergraduate- and postgraduate students. Prof. Siebert and Dr Matsaseng are also contributing authors.

### **Teaching and Training (undergraduate-, postgraduate and elective students):**

The Unit is training four Subspecialist Fellows, Dr V. Molelekwa from Botswana (Botswana Government scholarship) emphasising our mission to build and strengthen capacity in the neighbouring countries. Dr Gumata successfully completed her training and passed her CMSA exams in March/May 2014, and is due to establish a training unit in the Pretoria Academic Hospital. Drs Maria Viola and Kobus Coetzee also completed their training and succeeded in the CMSA exams. Dr Chris Venter (self-funded, Rustenburg) and Dr Pieta Gyser (self-funded, Klerksdorp), are part-time Fellows doing training over four years. Dr Mmaselemo Tsuari (self-funded, Johannesburg) is another new part-time Fellow who has just joined the programme.

The Unit also continues to provide a high standard of teaching and training to undergraduate- and postgraduate (MMed) students.

### **Special achievement and other highlights not covered by this template:**

The Unit received a lot of media attention for our work in making treatment affordable and accessible through our low-cost IVF programme. As part of MDG, we aim to improve equal access to health and the overall health of women, hence the global interest.

## **OBSTETRIC CRITICAL CARE UNIT**

**Head of Department:  
Dr E Langenegger**

### **Summary of activities**

The renovations in the Obstetrical Critical Care Unit (OCCU) and the Acute Postnatal step-down unit (APN) were completed and the new area is fully operational.

OCCU admitted 613 critically ill patients during 2014 and provided effective critical care services for these patients, preventing long-term morbidity and mortality. Compared to 2013, there was a decrease in OCCU availability and the incidence of antenatal admissions decreased. One hundred and fifty-six patients received non-invasive ventilation support and 88 patients were intubated and ventilated. The availability of surgical and medical ICU beds further decreased. Only 13 intubated patients could be transferred to these units. There exists an urgent need to increase critical care capacity at TBH.

OCCU availability decreased in spite of early step-down to APN (four-bedded unit). Eight hundred and fifty patients were admitted to the APN Unit. Only 264 patients were step-down patients. The majority of admissions to APN were from labour ward or theatre. Common indications were acute severe hypertension, post emergency hysterectomy or after large transfusions. A satellite emergency two-bedded Obstetric Emergency Unit will be established in Worcester, the equipment arrived in South Africa with European and Royal Phillips funding. The newly established Maternal Cardiac Clinic provides an effective outpatient service to patients with cardiac disorders in pregnancy.

## Resources

Posts (Full time)	Number	Filled
Senior specialist	1	1
Medical Officer	2	2

## Output

	2013	2014
OCCU		
Admissions	554	613
Non-invasive ventilation	100	156
Invasive ventilation	93	88
Intra-arterial lines placed	450	530
Central venous lines placed	409	141
APN Step-down unit	141	116
Admissions	950	850
A lines	180	422
Intravenous labetalol infusions	90	253
Central venous lines	50	63

## Comment on output:

There is a serious lack of critical care resources at TBH and in Metro West. By managing both OCCU and APN efficiently, additional critical care support could be provided. The APN Step-down Unit is currently being used as a step-down and high care area when no OCCU beds are available. This area must be strengthened in terms of human resources and infrastructure. The interventions reflect the frequency of acute severe morbidity at TBH and the referral area.

## PART 2

### Faculty of Health Sciences

#### Upgrading new equipment:

The OCCU and APN areas were renovated and moved to the east side of labour ward.

#### Community outreach programmes

A new project is planned, which will be part of critical care outreach to Worcester Hospital, where two labour ward beds will be upgraded. Dr Langenegger will provide clinical support and training as well as outreach visits on a regular basis. Phillips will assist in providing equipment as part of a combined research project between the Stellenbosch University, TBH, Worcester Hospital and Phillips International.

#### Partnerships

##### National:

Phillips International, combined research project

ESMOE master trainer

ESMOE editorial board

Basic ICU course master trainer

##### International:

University of Nottingham UK

Royal Phillips

European development forum partner

WHO Future (advanced obstetric emergency and critical care services)

Basic ICU course master trainer

#### Research activities and outputs:

Number of publications from the division 3

Textbooks and contributions to textbooks 1

#### Teaching and training:

SASOG acute obstetric emergency workshop

## New obstetric ventilation skills course:

Training registrars, fellows, interns, Master trainer for ESMOE and Basic ICU programmes

Dr Langenegger is making good progress with his PhD dealing with Obstetric Critical Care

## Special achievements and highlights:

Continued joint research co-operation with the University of Nottingham

Initiated and motivated funding from Phillips International to expand critical care resources

European Union development partner

Obtained additional funding for AEMOC (Establishing Advanced Emergency Obstetric Units in level 1 and level 2 hospitals) project

Request from Uganda to assist in Obstetric Critical Care skills training, funded by European Union

## MATERNAL AND FOETAL MEDICINE

**Head of Department:**  
**Prof DR Hall**

### Summary of activities

Manages women with pregnancies at very high risk

### Resources

Posts (Full-time)	Number	Filled
Principal specialist	3	3
Specialist	1	1
*Fellows with HPCSA numbers	3	3

\*One part-time Fellow completed his training. One full-time Fellow seconded by the University of KZN, continued her training. One self-funded Fellow commenced her training.

### Output

	2013	2014
Diabetic Clinic	1 268	1 109
Special Care Clinic	941	1 188
Anaesthetic referrals	407	362
Cardiac Clinic	111	281



## PART 2

### Faculty of Health Sciences:

#### Partnerships

##### National:

Co-ordinator and member of Maternal Mortality (NCCEMD) assessors in Western Cape (Prof. D. Hall)

Members of Maternal Mortality (NCCEMD) assessors in Western Cape (Dr J.L. van der Merwe; Dr L. Vollmer)

Health Research Ethics Committee of Stellenbosch University (Prof. D. Hall)

##### International:

###### Prof. D.R. Hall works with:

International Society for the Study of Hypertension in Pregnancy: committee member for Africa

- United Kingdom. Cochrane Collaboration: Working on systematic reviews.
- Status: ongoing
- Australia. Preterm prelabour rupture of membranes close to term trial. National Principal Investigator for South Africa. Status: Publication phase
- Canada. Member of the PRE-EMPT (pre-eclampsia & eclampsia monitoring, prevention & treatment) International Technical Advisory Group that oversees the entire research program in pre-eclampsia/ eclampsia managed by Prof P von Dadelszen (University of British Columbia and WHO)
- Canada. PIERS Studies. A WHO funded, screening study for pre-eclampsia in developing countries. Status: Publication phase several studies
- Canada. Calcium and pre-eclampsia Study. A WHO co-ordinated study investigating the effect of pre-conception calcium on the incidence of pre-eclampsia.
- Status: Recruitment ongoing
- United Kingdom. CRADLE (Community Blood Pressure Monitoring in Rural Africa and Asia: Detection of Underlying Pre-eclampsia and Shock.
- Status: Initial phase
- Mozambique. Advisor to Dr L Ellyin: Country Director Clinton Health Access Initiative (HIV & pre-eclampsia)

###### Prof. W. Steyn works with:

- Prof. D. Nieuhaus and associates on “Maternal Mental Health: a prospective naturalistic study of the short- and long-term outcome of pregnancy in women with major psychiatric disorders”
- Prof. D. Nieuhaus and associates on “Medical students and implicit attitudes”
- Prof. A. Shennan and associates, King’s College, London. New initiative – initiating phase: Blood pressure measurement in pregnancy
- Dr J. George, University of Dundee: Allopurinol – pre-eclampsia (planning phase)
- WHO Collaborating Centre for Research Synthesis in Reproductive Health, Geneva. Stepmag study
- Edgardo Abalos (Argentina), Lelia Duley (UK) and David Henderson-Smart (Australia) on Cochrane reviews on Moderate Hypertension in Pregnancy (Published 2013)
- Prof. P.S. Steyn (WHO, Geneva) on Cochrane review on Dopamine in pregnancy

### **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 at the FAMCRU site
- 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 Centers for Disease Control and Prevention. All regulatory approvals were obtained during 2014. Recruitment will commence in January 2015
- 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
- Investigating the optimal age for early infant diagnosis of HIV in order to prevent HIV-associated disease and mortality with Jean Maritz<sup>1</sup>, Gert U van Zyl<sup>1</sup>, Wolfgang Preiser<sup>1</sup> and Mark F Cotton<sup>2</sup>. <sup>1</sup>Division of Medical Virology, Department of Pathology, NHLS and <sup>2</sup>Infectious Diseases, Department of Paediatrics, University of Stellenbosch
- Pharmacokinetic properties of antiretroviral and related drugs during pregnancy and postpartum (IMPAACT P1026s) study. Principal investigator for the FAMCRU site of a multi-centre trial of the International Maternal Pediatric Adolescent AIDS Clinical Trials Group (IMPAACT). Sponsored by The National Institute of Allergy and Infectious Diseases and the Eunice Kennedy Shriver National Institute of Child Health and Human Development. Ours site is the only site that has recruited women on both antiretroviral and tuberculosis treatment
- Open-Label, Dose-Escalating, Phase 1 Study to Determine Safety and Pharmacokinetic Parameters of Subcutaneous (SC) VRC01, a Potent Anti-HIV Neutralizing Monoclonal Antibody in HIV-1 Exposed Infants (IMPAACT P1112) study. Principal investigator for the FAMCRU site of a Multicenter, Domestic and International Trial of the International Maternal Pediatric Adolescent AIDS Clinical Trials (IMPAACT) Network. 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 the National Institute of Mental Health (NIMH). Human Ethics Research Committee and Medicines Control Council approval were obtained in 2014. Recruitment to commence in 2015
- PATH/Novavax RSM Maternal Immunisation Programme. The goal is to develop a safe, effective, affordable RSV vaccine to protect the youngest infants from severe disease in middle and low-resource populations through effective immunisation during the third trimester
- A new study (R01) with the goal to investigate the effectiveness and cost-effectiveness of mobile health (mHealth) technology using weekly SMS to improve adherence and retention in care during pregnancy and post-partum in HIV-infected South African patients with support from the Department of Epidemiology, Graduate School of Public health, University of Pittsburgh. Principle investigator Prof. J. Nachegea, Co-investigator Prof. M. Cotton
- Department of Obstetrics and Gynaecology, University of Oslo. Quarterly perinatal HIV lectures are given to undergraduate medical students via the internet

### **Private**

Provide ongoing consultation to patients at very high risk managed by private participating obstetricians.

### **Number of publications from department/division:**

#### **Publications:**

Peer reviewed            11

## Teaching and Training (Postgraduate students only):

Three PhD students. Three Subspecialist Fellows. More than 10 Masters level students in O&G. Two Masters level students in Pathology. One Masters level student in Nursing. Two Masters level students in Health Sciences Education.

## Special mention:

MPhil (Applied Ethics) cum laude Stellenbosch University (Prof. D. Hall)

## OBSTETRIC AND GYNAECOLOGY

### ULTRASOUND AND FOETAL MEDICINE

**Head of Department:**  
**Prof LTGM Geerts**

### Summary of activities

The trend seen in previous years is maintained and the workload of the unit remains high and continues to climb. The output is mainly outpatient-based and the number of foetal medicine admissions remains limited because intensive outpatient surveillance is used to avoid long-term admissions.

### Resources

Posts (Full-time)	Number	Filled
Principal Specialist	1	1
Chief Medical Officer	1	1
Chief Sonographer	2	2
Registrar	1	1
Assistant Nurse	1	1
Typist (shared with O & G)	1	1
Clinic Clerk (shared with FEC)	1	1
Posts (sessional – how many hours worked per week)		
Senior specialist	4 sessions per week	Filled

## Output

Obstetrics	2013	2014
Total visits	8 722	8 059
Twin visits	1 520	1 685
Fetal anomaly visits	1 982	1 891
Doppler visits	4 850	4 767
Invasive procedures	325	348
Fetal medicine clinic	463	536
Fetal medicine admissions	27	49
Level III visits	5 302	4 911

Five hundred and twenty-eight foetuses with foetal anomalies were seen of which 282 had major anomalies. Of 266 prenatal genetic tests, 31 were abnormal (11.5%).

Gynaecology	2013	2014
Total visits	1 537	2 002
Level III visits	1 205	729

## Comment on output

The late diagnosis of foetal anomalies and foetal compromise due to late referral from referring units is a major concern and puts undue pressure on the functioning of the Unit, both in terms of time, urgency and emotional strain related to late pregnancy termination. The increasing obesity in the local population, both in terms of numbers as well as severity of obesity, is a major challenge for the Unit, in spite of newer and updated equipment. The work remains time-consuming and physically demanding and continues to cause work-related injuries to staff members, while the accuracy of the examinations remains unsatisfactory.

## PART 2

### Faculty of Health Sciences

#### Infrastructure and development

The extra consultation rooms obtained towards the end of 2013 have proved invaluable for family counselling by the foetal medicine and human genetics team. Counselling for the more routine indications is now assisted by an educational video, produced by the Film and Television Unit of the Department, which is shown to expecting parents prior to formal counselling. The subspecialist-led foetal medicine clinics, which deliver a holistic care package for women with complicated pregnancies requiring detailed fetal surveillance, are now offered three days a week, with ad hoc cover on the remaining days.

#### Community outreach programmes

Prof. Geerts and her staff continue to offer ultrasound courses with theoretical, as well as practical training for private practitioners and staff members from the public sector and an accreditation process for those wanting to have their competence assessed. The aim of the courses is to ensure that delegates master essential skills to the ultimate benefit of their pregnant patients.

Prof. Geerts was Chief Facilitator for a five-day workshop in ultrasound and fetal medicine, held in Benin City, Nigeria. The course involved theoretical lectures (preceded by online pre-course reading material), many hours of practical demonstrations, skills training and knowledge testing. The course was a first for Nigeria and was attended by 75 delegates from many different states.

The Unit offers subspecialist training in Foetal Medicine for a consultant of the University of KwaZulu-Natal.

## Partnerships

(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 still-births and sudden infant deaths. The ultrasound aspect focuses on the effects of alcohol on foetal development (mainly brain and face), 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.

(Nigeria) Prof. Geerts was invited in an advisory capacity, to assist SOGON regarding the possible development of the subspecialty programme in Foetal and Maternal medicine in Nigeria.

(TBH) The Foetal Medicine Unit and Department of Radiology are collaborating to develop a foetal MRI service, for prenatally detected anomalies that benefit from MRI imaging to establish prognosis and consider management options more accurately.

(Belgium) Dr Hannes van der Merwe had a visiting Fellowship to the Catholic University of Leuven, for his three months sabbatical.

## Achievements

The one-day accreditation courses in Obstetric Ultrasound (aimed at different scanning levels and attended by private practitioners and employees of the public sector) were a first for South Africa and continue to be well-attended.

Prof. Geerts organised a successful and fully subscribed Foetal Medicine Workshop for the SASOG congress (May 2014).

Prof. Geerts was Chief Facilitator for the five-day workshop in Obstetric Ultrasound and Foetal Medicine, Benin City, Nigeria. (May 2014)

Prof. Geerts was Chief Facilitator for a pre-congress workshop in Obstetric Ultrasound, and an invited speaker at the SOGON (Society of Obstetrics and Gynaecology of Nigeria) Congress, Asaba, Nigeria (November 2014)

In her capacity as president of SASUOG, Prof. Geerts has contributed to proposals to amend Obstetric Ultrasound training for Registrars and assessment of subspecialty trainees, and to define scanning standards.

Prof. Geerts, together with Drs Rademan, Van der Merwe, Morris, Norman and Pistorius of the Unit, form the local organising committee for the national SASUOG Congress 2015, to be held in Stellenbosch in March 2015, where approximately 220 delegates are expected and 4 international speakers are involved.

Dr Hannes van der Merwe had two poster presentations at international Foetal Medicine and Ultrasound meetings (Foetal Medicine World Congress, ISUOG Congress 2014)

Staff members of the Unit have developed SUNCAD, a congenital anomaly registry capturing all fetuses with major or multiple minor anomalies prospectively, for the purpose of audit and comparison with international registries. We envisage SUNCAD may be a model for a provincial or national registry in the future.

### Teaching and training:

The Junior Registrar training programme in basic obstetric ultrasound skills benefit patient care from the early stages of their career. The Senior Registrar training in detailed foetal assessment is highly regarded and essential for future independent practice and continues to surpass the current requirements of the FCOG Logbook.

Routine teaching activities in the US Unit, including tutorials for third years, practical demonstration, hands-on training and formal assessment of ultrasound skills for Registrars in O&G and Radiology, Medical Officers and BTech (US) or National Diploma students of CPUT; weekly tutorials and two-weekly journal clubs in Foetal Medicine-related topics.

Prof. Geerts contributes to protocol development for the Department, as well as revision of the provincial O&G ultrasound policy document.

Prof. Geerts is responsible for the Foetal Medicine module for the subspecialty in Maternal and Fetal Medicine.

Prof. Geerts has assisted the Division of Human Genetics for the development of an educational video, produced by the Department's Film and Television Unit, for patients regarding prenatal screening and diagnostic testing.

Prof. Geerts assists two Registrars, as well as two Registrars and one MSc student from the Division of Human genetics with their research projects.

Prof. Geerts was examiner at the latest Certificate in Maternal and Foetal Medicine examination for the College of O&G.

## FILM AND TELEVISION UNIT

**Head of Department:**  
**Mr W Myburgh**

### Summary of activities

The Unit continues to produce DVD footage of a high quality for training of undergraduate- and postgraduate students.

### Resources

Posts (Full-time)	Number	Filled
*Manager and Cinematographer	1	1

\* Post is remunerated by Stellenbosch University

## Output

### Productions during 2014

1. Examination of the Placenta
2. Breast Augmentation in Cape Town Clinic (re-imbursed)
3. SASOG 2014 – Dr K. van Rensburg  
Cadaver Workshop
4. Lung Unit Workshop (re-imbursed)  
Thorascopy  
TTNA  
Flexi-Scope  
EBUS TBNA  
Pleural Biopsy
5. Radiology – Prof Pitcher – student training DVD's (re-imbursed)  
Barium procedures  
CT scan  
Radiography
6. Psychiatry – Prof. Willie Pienaar (re-imbursed)  
Transcriptions (interview videos)

### Comment on output

- A number of projects were commenced during 2014 for the Department of O&G on surgical, endoscopic and reproductive medicine procedures
- Photographing students
- Showing videos to patients
- Setting up of visual aids for lectures and workshops
- Preparation of rooms for exams

## PART 2

### Faculty of Health Sciences

#### Infrastructure development:

New professional DVD production equipment has been purchased with funds generated by the Unit.

#### Teaching and training:

Continuous support provided to the Department regarding multi-media educational activities and OSCE and OSPE examinations.

## UROGYNAECOLOGY AND RECONSTRUCTIVE PELVIC SURGERY

**Head of Department:**  
**Dr JA van Rensburg**

### Summary of activities

The Urogynaecology Unit experienced a productive year, but can also comment that some of the many difficulties from the previous year have been resolved towards the end of 2014.

Urogynaecology has been accepted as a subspecialty as reported by the Health Professions Council of South Africa (HPCSA). This process was driven by the SAUGA, where Dr Van Rensburg was directly involved as he holds the secretarial position. The Urogynaecology Unit will now have the opportunity to apply to the HPCSA for official registration as Subspeciality Unit in 2015. This will require a HPCSA delegation to visit TBH for inspection and decision to approve accreditation. The Unit has established the necessary infrastructure to accommodate a Fellow. The combined perineal clinic continued at the Colorectal Unit at GSH. A combined perineal clinic once a month at TBH was also initiated in combination with the general surgeons. This clinic is functional and continuity was maintained with excellent working relationship with the Department of Surgery.

With the help of the Stellenbosch University, a motivation for two Sessional Physiotherapists was accepted by the Director of Medical Services. These Physiotherapists aimed to enter for their Master's degrees.

### Resources

Posts (Full-time)	Number	Filled
Specialist	1	1
Physiotherapist / Research Assistant (part-time)	2	2
Sessional post	1	1

### Output

	2013	2014
New patients seen	215	382
Follow-up patients seen	829	834
Urodynamic studies performed	97	53
Operative procedures performed	139	102

### Comment on output

#### Surgery:

Good co-operation with the Western Cape Government has been established over the past years, which involve the needed devices and equipment for complicated reconstructive surgery and incontinence surgery. The surgical time within the Department was increased for the Urogynaecological Unit. This serious issue of equipment procurement was addressed at the highest level with a meeting with the Senior Medical Superintendent, Procurement Medical Superintendent responsible for theatre and representatives from Head Office. Dr Van Rensburg took the initiative to write the guidelines with Dr Jeffery from GSH for the awaited tender process for the needed surgical devices and consumables. However, currently we are still waiting for the formal tender process to be approved, which may happen in 2015.



Outreach surgery at the Paarl Hospital was provided in conjunction with the GSH unit every three months.

### **Urodynamic studies**

The Urogynaecology Unit is thankful for the new urodynamic study equipment provided by the Western Cape Government. This is a state-of-the-art piece of equipment. Unfortunately consumables were not available on a continuous basis, which has increased the waiting list for 2014, but the consumables issue has been resolved during 2014. "Eyeball" urodynamics has become part of the options for urodynamic assessment, which contributes to cost saving.

### **The combined perineal clinic**

The clinic continued at the Colorectal Unit at GSH. A combined perineal clinic once a month at TBH was also initiated with the general surgeons. This combined clinic continued in 2014 with Dr I. Conradie from General Surgery.

## **PART 2**

### **Faculty of Health Sciences Infrastructure Development:**

The Urogynaecology Unit has no access to ultrasound investigation for faecal incontinence at TBH. The departmental Ultrasound Unit obtained a 4-D Voluson machine. Dr A. Steensma from the Netherlands introduced an Urogynaecology Ultrasound Programme in January 2013 after the IUGA/SAUGA conference. Since then pelvic floor ultrasound are offered for urogynaecology patients on a Friday.

### **Community outreach programmes:**

Currently the surgical list with outreach to the Paarl Hospital is shared between GSH and TBH.

### **Partnerships**

#### **National:**

Dr Van Rensburg holds the position of Secretary on the SAUGA committee and is also a member of the Cape Town Pelvic Floor Society.

Good working relationship has been established with the UCT Urogynaecology Unit.

#### **International:**

Dr Van Rensburg is a member of the IUGA, and is one of the committee members elected to host the international conference of IUGA in 2016 at the CTICC in Cape Town.

## **Achievements: Research and research outputs**

Abstract “Pre-operative urodynamic studies: Is there value in predicting post-operative stress urinary incontinence in women undergoing prolapse surgery?” was accepted at the SASOG conference hosted in Cape Town and as abstract publication in the SAJOG, with Dr K. Janse van Rensburg as first author and Dr Van Rensburg as second author.

### **Research:**

Currently running two projects.

Reviewer for the International Journal of Urogynaecology and South African Family Practice

### **Teaching and Training**

The Urogynaecology Unit is involved on an ongoing basis in undergraduate-, postgraduate- and fellowship training as soon as the Unit has HPCSA training.

## **THE PASS NETWORK**

### **Head of Department: Prof HJ Odendaal**

#### **Summary of activities**

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
- Developmental Biology and Pathology Center (Children’s Hospital, Boston)
- Physiology Assessment Center (Columbia University, New York)
- Data Coordinating and Analysis Center (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/fetal 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 up until the end of August 2016. Recruitment stopped in January 2015, when the target number of 7 062 participants was reached. The last delivery is expected to be in August. The first results will be published after the last delivery and the next round of results after the last visit, at the age of one year.

This is a unique cohort with comprehensive information commencing with early pregnancy and presently extending to the neuro-developmental outcome of the children in the cohort.

<b>Departmental Publications:</b>	<b>2013</b>	<b>2014</b>
<b>Journal Articles (subsidised)</b>		
Maternal Fetal Medicine	13	11
Reproductive Medicine	6	5
Gynaecological Oncology	4	1
Urogynaecology	-	1
Gynaecology / Education	5	4
Other	1	-
<b>Total</b>	<b>29</b>	<b>22</b>

Reproductive Medicine	1	10
Gynaecological Oncology	1	1
Maternal Fetal Medicine	-	7
Gynaecology and Family Planning	-	4
Urogynaecology	2	-
<b>Total</b>	<b>4</b>	<b>22</b>

**Head of Department:  
Professor Mariana Kruger**



**Professor Mariana Kruger**

### Summary

The inpatient admissions increased from 16 957 admissions in 2013 to 17 478 in 2014, with 11 410 children admitted to general paediatrics and 6 068 for highly specialised paediatric care in the Department of Paediatrics and Child Health, Stellenbosch University in Tygerberg Hospital, serving the East Metropolitan region of the greater Cape Town and the North-Eastern districts of the Western Cape. The average bed occupancy rate (BOR) was 90% for general paediatrics and 86% for highly specialised paediatric services. There were especially increased bed occupancy rates for the critical care beds – 138% and 87% respectively for the neonatal intensive care unit and the paediatric intensive care unit (PICU), as well as general neonatology (>100%). Early neonatal death rate (ENNDR >1 000 g) remained low as 3,3/1 000 live deliveries (ENNDR > 500 g – 10/1 000). Important mortality causes were still prematurity-related complications for neonates (60%), but changed to septicaemia from lower respiratory tract infections for the older children (23,7%). Some form of malnutrition was associated with death in 48% and only 6,5% associated with HIV.

Prof. Simon Schaaf was honoured for his lifelong research in paediatric tuberculosis research with the National Order of Mapungubwe. April clinical unit head post on the Stellenbosch University staff establishment was created and Prof. Mark Cotton appointed. Prof. Ekkehard Zollner received his PhD degree and was promoted to associate professor. An additional paediatric intensivist, Dr Ilse Appel, was appointed, as was the district paediatrician Dr Thandi Wessels. Drs Pierre Goussard and Ronald van Toorn completed their PhDs. Prof. C. Stefan resigned her position and was appointed deputy president of the South African MRC. Her post was converted to a paediatric cardiologist post to strengthen the paediatric cardiology services of the Western Cape, and Dr Barend Fourie was appointed.

The undergraduate pass rate was 96%, while 8 completed their Masters degree in paediatrics and 5 paediatricians qualified as subspecialists (gastroenterology, pulmonology, infectious diseases and 2 in neonatology). Two staff members also obtained their M Phil (Dr Liezl Smit – MPhil Medical Education cum laude; Dr Andrew Redfern – MPhil Neurodevelopment. There are

currently 19 enrolled PhD students. There were 110 peer-reviewed articles and two books published by staff members. Forty-one staff members received performance excellence awards (16 from TBH and 25 from SU). Seven staff members have NRF rating, with 2 as category A2.

Infrastructure development is in process to especially create a dedicated General Paediatric Outpatients Department, upgrade the neonatology critical care and paediatric cardiology services, which will be the focus areas for 2015-2016.

## RESOURCES AND OUTPUT

### PART 1

#### Human Resources

Posts (full-time)	Number	Filled
Professor/Chief Specialists	2	2
Chief Specialist	1	1
Principal Specialists	5	5
Senior Specialists	25+1(5/8)	25+1(5/8)
Senior Registrars	8	8
Registrars	31 (4 Supernumeraries)	31 (4 Supernumeraries)
Medical Officer	25	25
Posts (sessional – hours per week)		
Specialist	6 (48 hours)	6 (48 hours)
Number of beds	268	268

Summary of Output General Paediatrics	2014	2013	2012
Inpatients	11 410 (2,67% growth)	11 113 (13% growth)	9 802 (15% growth)
Outpatients	14 872 (11%)	13 392 (-5,5% growth)	14 178 (12,8% growth)
Subspecialist Paediatrics			
Inpatients	6 068 (3,8%)	5 844 (10% growth)	5 311 (13% growth)
Outpatients	13 595 (-3%)	14 039 (0,7% growth)	14 152 (4,25% growth)

### Output

#### Subspecialist Paediatrics

Total patient admissions 2014 (Clinicom data)								
*A9 NICU	A9 PICU	A9 High Care	Trachea Unit	G1	G3	G10	G9	Total
485	699	305	64	1 168	827	1 069	1 451	<b>6 068</b>

\*A9 NICU includes High-care beds, since Clinicom cannot separate data.

Bed Occupancy Rate 2014 (Clinicom data)								
*A9 NICU	A9 PICU	A9 High Care	Trachea Unit	G1	G3	G10	G9	Total
135%	87%	62%	77,6%	96%	60%	95%	74%	<b>86%</b>

\*A9 NICU includes High-care beds, since Clinicom cannot separate data.

## Neonatology

**Staff:** Prof. J. Smith, Drs A. Bekker, S. Holgate, G. Kali, A. Madide, J.C.F. du Preez, H. Hassan, L Lloyd, 6 Registrars, 7 Medical Officers

A9 Intensive Care Unit			
Staff: Prof. J. Smith & Dr G Kali, 2 Registrars, 1 Medical Officer			
Beds n=8	2014	2013	2012
Admissions	473*	491	518
Average Hospital Stay in Days	8,1	8,4	5
Average Bed Occupancy %	134%	138%	92%
% Growth	-3,6%	-5,2%	51%
Deaths	88 (18,6%)	91 (18,5%)	85

\*Combined with HC data

Ward G1: Neonatal Unit – Babies born outside TBH			
Staff: Drs A. Bekker & L. Lloyd, 1 Registrar, 2 Medical Officers, 1 Intern			
Beds n=30	2014	2013	2012
Admissions	1 168	1 030	1 150
Average Hospital Stay in Days	9,2	10,1	9
Average Bed Occupancy %	96%	92%	87%
% Growth	13,4%	-10%	7,4%
Deaths	30	15 (1,4%)	25

A9 Paediatric Intensive Care Unit			
Staff: Prof. .R Gie, Drs N. Parker, Dr I. Appel, 3 Registrars, Medical Officer			
Beds n=8	2014	2013	2012
Admissions	711	790	694
Average Hospital Stay in Days	5	4,1	4,86
Average Bed Occupancy %	97,4%	87%	92%
% Growth	-10%	12,2%	34%
Deaths	76 (10,7%)	92 (11,6%)	84 (11,9%)

## High Care Unit opened May 2012

A9 Paediatric High Care Unit		
Prof. J. Smith, Drs A. Bekker, S. Holgate, G. Kali, A. Madide, J.C.F. du Preez, H. Hassan, L Lloyd, 6 Registrars, 7 Medical Officers		
Beds n=4	2014	2013
Admissions	333	275
Average Hospital Stay in Days	3,1	3
Average Bed Occupancy %	62%	55,4
Deaths	0	5

A9 Tracheostomy Unit		
Prof. J. Smith, Drs A. Bekker, S. Holgate, G. Kali, A. Madide, J.C.F. du Preez, H. Hassan, L Lloyd, 6 Registrars, 7 Medical Officers		
Beds n=6	2014	2013
Admissions	115	33
Average Bed Occupancy %	77,6%	85%
Deaths	0	1

Ward G9 Paediatric Pulmonology and Allergy			
Staff: Prof R Gie, Drs P Goussard, Dr J Morrison, 2 Registrars, shared Medical Officer in G9			
Pulmonology Beds n=10	2014	2013	2012
Admissions Pulmonology	817	640	656
Average Hospital Stay in Days	5,8	5,90	5,78
Average Bed Occupancy %	89,5%	65%	66,24%
% Growth	27,5%	0%	27%
Deaths	0	5	2
Bronchoscopies	331	285	284

## Theatre procedures and Other Activities

- Thoracic surgery: 64

Ward G9 Neurology			
Staff: Dr R. van Toorn, Dr R. Solomons, Dr P. Springer, Dr H. Saunders (15 hours/week) Prof. J.F. Schoeman (4 hours/week), 2 Registrars			
Beds n=10	2014	2013	2012
Admissions	339	441	414
Average Hospital Stay in Days	5,9	6	5,7
Referral other wards	300	260	238
Average Bed Occupancy %	60%	77%	75%
% Growth	-9%	6,5%	1%
Deaths	4	2(0,4%)	8 (1,9%)

## Other Activities

- Paediatric EEG's reported from Worcester hospital: 109
- Paediatric and Neonatal EEG's reported from TBH: 474
- 6 Outreach clinics to Paarl hospital (patients seen): 90
- 5 Outreach clinics Worcester hospital (patients seen): 140
- 2 Transcranial Doppler clinics (patients): 14
- 2 Clinics at Alta du Toit special school (patients seen): 42
- 9 Clinics Paarl School (patients seen): 90
- Autism Diagnostic Observations Schedule (ADOS) (patients): 16

Ward G9 Paediatric Endocrinology			
Staff: Prof. E. Zöllner, Drs D Abraham (1/8), A Pharboo (1/8) Registrar, and shared Medical Officer for G9			
Beds n=5	2014	2013	2012
Patients admitted	118 Diabetics	94 Diabetics	79 Diabetics
	106 Endocrinology	87 Endocrinology	117 Endocrinology
Admission Total	224	181	196
Average Hospital Stay in Days	7	8	5,5
Average Bed Occupancy %	67%*	74%	56,6%
% Growth	24%	-7,5%	1,5%
Deaths	0	0	0

\*Bed occupancy inaccurate - we have shown that the hospital figures do not tally with our own stats, e.g. for August 31 patients were admitted, while the hospital only recorded 12.

**Endocrine testing:** 84 patients

Ward G10 Gastroenterology			
Staff: Drs E. Nel, Dr S. Ströbele, Registrar, and intern			
Beds n=9	2014	2013	2012
Admissions	179	295	279
Average Hospital Stay in Days	7	8	18,09
Average Bed Occupancy %	94%	100%	83%
% Growth	-40%	5,7%	-11,9%
Deaths	18 (10%)	2	10 (3,5%)



## Theatre procedures

- Paediatric Endoscopy: 48
- Adult Endoscopy: 365
- Liver Biopsy: 22

Ward G10 Infectious Diseases Unit			
Staff: Prof. M.F. Cotton, Dr H. Rabie (HIV Clinic), Registrar, Shared Medical Officer for G10			
Beds n=14	2014	2013	2012
Admissions	243	189	200
Average Hospital Stay in Days	12,5	21	17,3
Average Bed Occupancy %	90%	8	83%
% Growth	28,57%	-5,5%	-11,5%
Deaths	4	1	4

\* Clinicom data combined with gastroenterology

## We reviewed 5 - 10 new referrals per week HIV service:

- Total children followed up: 311
- New cases initiating and following at TBH: 56 children started at clinic (40 infants <12 months initiated therapy at ward and clinic level)
- Transfers out: 82
- Transfers in: 7
- Patients lost to follow up: 36

Ward G3 Oncology & Haematology			
Staff: Prof. M. Kruger, Prof. C. Stefan (till 30 September 2014); Drs A. van Zyl, R. Uys, A. Khanyamuhunga, 2 Registrars			
Beds n=9	2014	2013	2012
New patients	40 Haematology	37 Haematology	42 Haematology
	56 Oncology	46 Oncology	48 Oncology
Admissions	469 (544*)	413	415
Average Hospital Stay in Days	5,25	3,9	5
Average Bed Occupancy %	74,3%	50%	60,16%
% Growth	13,5%(*31,7%)	0%	21%
Deaths in G3	7	7	12
Day patients (G3 outpatients)	1 421	1 023	1 100

\*G3 Ward data: Clinicom data differs from ward statistics; day patients are not captured.

CSF=/ IT chemotherapy = 296 (2014)

## Bone marrow aspirations and biopsies = 83 (2014)

Ward G3 Rheumatology & Immunology			
Staff: Drs M Esser, D Abrahams (2/8); Registrar Shared with G3			
Beds n=4 (shared with Nephrology)	2014	2013	2012
Admissions	128	75	57
Average Hospital Stay in days	2	5.6	6.05
Average bed occupancy %	(86%)	49,3%	79,9%
Deaths	0	0	0

Ward G3 Nephrology			
Staff: Dr C du Buisson, Dr JL Shires - part-time, Registrar, Shared Intern for G3			
Beds n=4	2014	2013	2012
Admissions	184	155	126
Average Hospital Stay in days	5	2,3	6
Average bed occupancy %	86%	60%	52%
% Growth	26%	23%	-25%
Deaths	4	1	2
Renal Biopsies*	14	33	24
Acute Dialysis**	20	23	12
Outliers***	286	302	56
Referrals****	392	410	-

\* Done in C4B Theatre under general anaesthesia

\*\* All done in PICU

\*\*\* Most of our patients are not in our ward, due to acute infections and some are neonates, diagnosed antenatally

\*\*\*\* These are patients seen and only advise needed, not continuous care

### Cross Platform Staff:

**Tygerberg Hospital (TBH): Dr J. Lawrenson, 1 Senior Registrar, 2 Registrars**

Ward G3 & G10 Cardiology			
Red Cross War Memorial Children's Hospital (RXH): 2 Consultants, 1 Senior Registrar			
Beds n=10 (G3=5, G10=5)	2014	2013	2012
Admissions	194	204	155
Average Hospital Stay in Days	*	*	*
Average Bed Occupancy %	*	*	*
Inpatient Echocardiography	732	700	772
Inpatient Consultations	857	1 200	1 094
Deaths	0	1	/

\* Clinicom data combined with nephrology and general paediatrics therefore not possible to calculate

## Outpatient complex

Subspecialist Clinics			
	2014	2013	2012
Clinics	Total	Total	Total
Haematology	262	298	261
Immunology	164	168	176
Oncology	344	334	418
Pulmonology	1 156	1 354	1 399
Gastroenterology	726	744	614
High-risk Babies	1 973	1 862	1 740
Neurology & Developmental paediatrics	2 301	2 515	2 687
Allergy	693	666	654
Premature Follow-up	360	307	284
Nephrology	1 345	1 333	1 343
Cardiology	953	916	937
Bronchopulmonary Dysplasia	21	19	21
Diabetic	633	620	610
Endocrinology	625	610	636
Rheumatology	283	337	280
Infectious diseases	1 079	1 184	1 392
Genetics	391	502	476
Pharmacy prescriptions	286	270	224
<b>Total</b>	<b>13 595</b>	<b>14 039</b>	<b>14 152</b>

## General Specialist Services

Total Patient Admissions 2014 (Clinicom data)					
G2	J3	G8	G7	GG Short Stay	Total
2 234	951	971	1 225	6 029	11 410

Bed Occupancy Rate 2014 (Clinicom data)					
G2	J3	G8	G7	GG Short Stay	Total
104%	104%	89%	68%	85%	90%

## Neonatology

Ward G2 Neonatal Unit – Babies born in TBH			
Staff: Drs M. du Preez & A.K.M. Madide, 1 Registrar, 3 Medical Officers, 1 Intern (if available)			
Beds n=27	2014	2013	2012
Admissions	2 182	2 376	2 087
Average Hospital Stay in Days	4,6	4,7	5
Average Bed Occupancy	104%	104%	93%
% Growth	-9,2%	+13,8%	9,4%
Deaths	120	71 (2,9%)	71

\* Data from Clinicom

### Ward opened April 2012

Ward J3 Neonatal Unit – Babies born in TBH		
Staff: Dr H. Hassan, 1 Registrar, 1 Medical Officer, 1 Intern		
Beds n=25	2014	2013
Admissions	951	918
Average Hospital Stay in Days	10	11
Average Bed Occupancy	104%	108%
% Growth	3,6%	n/a
Deaths	0	2 (0,2%)

Ward G8 Neonate & Kangaroo-mother Care – Step-down Facility			
Staff: Dr S. Holgate, 1 Registrar, 2 Interns			
Beds n=30	2014	2013	2012
Admissions	971	941	783
Average Hospital Stay in Days	10,3	9,9	12
Average bed occupancy %	89,75%	83%	86%
% Growth	3,2%	20%	-7,5%
Deaths	2	0	4

\* Data from Clinicom

<b>Ward G7 General Paediatrics</b>			
Staff: Dr H Finlayson, Prof S Kling, 1 Registrar, 2 Medical Officers, 2 Interns			
<b>Beds n=25</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Admissions	1 175	1 267	1 429
Increase in Admissions	-7%	-11%	28%
Average Bed occupancy	89,6%	87,2%	70%*
Average Hospital Stay in Days	3,1	4,4	5,4
Deaths	7 (0,6%)	9 (0,75%)	11 (0,77%)

\* Clinicom data

<b>Short-stay G Ground: &lt;48-hour Admissions</b>			
Staff: Prof. S. Schaaf, Drs E. Malek, L. Smit, A. Redfern, 2 Registrars, (1 Emergency Medicine Registrar), 2 Medical Officers, 2 Interns			
<b>Beds n=24</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Total Admissions to G Ground	6 029	4 742	4 861
% Increase in General Admissions	+8%	-2%	5%
Average Admissions per day	17	13	13
Average Hospital Stay in Days	1,0	1,3	1,0
% Average Bed Occupancy	85%	87%	72%
Deaths	19	17	16
HIV-related Mortality	0	3	0
HIV Exposed	4	2	1

<b>General Paediatrics: Emergency &amp; Clinics</b>			
<b>Clinics</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
OPD 8am-4pm: Emergency & Routine	9 446	8 626	8 946
	462 (Delft)	491 (Delft CHC )	/
Daily average seen	26	24	25
Annual OPD after hours: 4pm-8am & weekend - Emergency	5 426	4 765	4 614
Daily average seen after hours (4pm-8am)	15	13	13
OPD after hours increase: 4pm-8am %	36%	36%	34%
<b>Total</b>	<b>14 872</b>	<b>13 391</b>	<b>13 560</b>

## 2014 Morbidity & Mortality

### PPIP data from PPIP database (2014)

#### Total births in TCH (TBH): n = 8 008 including Stillbirths

- Perinatal Mortality Rate (PNMR) ( $\geq 500$  g) = 59,6
- Early Neonatal Death Rate (ENNDR) ( $\geq 500$  g) = 10,0
- Perinatal Mortality Rate (PNMR) ( $\geq 1\ 000$  g) = 32,3
- Early Neonatal Death Rate (ENNDR) ( $\geq 1\ 000$  g) = 3,3

Mortality of babies born in TCH (TBH) per birth weight category: n=90			
Birth Weight	% Mortality 2014	% Mortality 2013	% Mortality 2012
$\leq 1000$ g	19,7	21,3	29,1
1001 to 1500g	4,2	3,4	3,3
1501 to 1999g	0,6	2,1	2,4
2000 to 2499g	0,3	0,5	1
$\geq 2500$ g	0,18	0,1	0,3

Causes of death of babies born in TCH (TBH): n=97			
Cause of Death	% of Total 2014	% of Total 2013	% of Total 2012
Prematurity-related Complications	60	53,1 (Immaturity-related)	52,0
Infection-related	15,4	13,1	17,1
Peripartum Hypoxia	3,1	11,5	8,9
Congenital Anomalies	16,9	14,6	17,1
Other	4,6	7,7	0,8

% Deaths of babies referred to TCH per weight category			
Birth Weight*	% Mortality 2014 (n=48)	% Mortality 2013 (n = 46)	% Mortality 2012 (n = 74)
<1 000 g	10,4	28,2	14,5
1 000 to 1 499 g	20,8	30,4	17,7
1 500 to 1 999 g	8,3	6,5	9,7
2 000 to 2 499 g	20,8	6,5	11,3
$\geq 2\ 500$ g	31,2	21,7	46,8

\* Weight categories as a percentage of total deaths (outborn)

Outborn babies mortality according to referral area of origin	
Geographic Service Area	2014 (=48)
Metro East	20
Winelands (Paarl area)	16
Overberg (Worcester drainage area)	17
Unknown	5

Geographic distribution of the NICU admissions and death of babies born outside and referred to TCH	
Place of Origin (Hospital)	Number deceased 2014
Ander/Other	15
Paarl	11
Helderberg	8
Karl Bremer	6
Worcester	5
Hermanus	2
Khayelitsha	1
Swartland	0
Caledon	0

CHIP MORTALITY for all subspecialist paediatric wards (2014)						
CHIP Mortality	Total Admissions/ Tally	% Total	Deaths	Hosp. Mortality Rate	Male	Female
*0-28 days	414	5,25	3	1,97	0	3
28 days - 1 year	2 742	34,77	64	42,11	36	28
1-5 year	2 984	37,84	53	34,87	27	26
5-13 years	1 531	19,41	27	17,76	17	10
13-18 years	215	2,73	5	3,29	2	3
<b>Total</b>	<b>7 886</b>		<b>152</b>		<b>82</b>	<b>70</b>

\* Please note: Excluding neonatal deaths reported under the PPIP section

Length of Stay	Number	%
<24 hours	51	77,5
1-3 days	38	25
4-7 days	25	16,4
8-14 days	10	6,6
>14 days	23	15,1

Main Causes of Death in Children*	Number	%
Septicaemia, possible serious bacterial infection	36	23,7
CNS conditions	19	12,5
Haematology/Oncology	11	7,2
Acute Diarrhoea	8	5,2
Chronic & severe acute liver disease	8	5,2
ARI	8	5,2
Cardiac	7	4,6
Tuberculosis meningitis	7	4,6
Myocarditis	6	3,9

\* Please note: Other co-morbidities not reflected.

## REFERRAL PATTERNS

Referral from Level 1 Hospital inside Cape Town Metropole		
Referring facility	Number	%
Khayelitsha Hospital	22	14,5
Helderberg Hospital	12	7,9
Karl Bremer Hospital	10	6,6
Eerste River Hospital	7	4,60
Somerset Hospital	1	1,92
<b>Total</b>	<b>52</b>	<b>34,2</b>

Referral from Level 1 Hospital outside Cape Town Metropole	
Referring facility	Number
Hermanus Hospital	3
Stellenbosch Hospital	2
Vredendal Hospital	2
Montague Hospital	1
Swartland Hospital	1
Ceres Hospital	1
Westfleur Hospital	1
<b>Total</b>	<b>11 (7,2%)</b>

Referral from Level 2 and private care	
Referring facility	Number
Paarl Hospital	20
Worcester Hospital	7
N1 City	1



Referral from CHC/Clinic inside Metro	
Referring facility	Number
Delft	6
Other	11
<b>Total</b>	<b>17 (11,2%)</b>

HIV - mortality	Number	%
Positive	10	6,5%
Negative	97	63,8%
Exposed	16	10,5%
Not tested (not indicated)	15	9,8%
Unknown	24	15,8%

Mortality according to Weight Category		
Weight Category	Number	%
Normal	75	49,3
UWFA	43	28,3
Kwashiorkor	12	7,9
Marasmus	10	6,6
Unknown	5	3,3
Marasmic Kwashiorkor	3	4,6

Mortality per Ward		
Ward	Number	%
Paediatric Intensive Care Unit/High Care	80	52,63
Acute Care	21	13,82
Gastroenterology	18	11,84
General Paediatrics	9	5,92
Oncology	8	5,26
Neurology	6	3,95
Nephrology	4	2,63
Infectious Diseases	4	2,63
Cardiology	1	0,66
<b>Total</b>	<b>152</b>	

## Infrastructure Development

### Tygerberg Children's Hospital Trust Contribution to Infrastructure

Date	Supplier	Equipment	Amount
06/03/2014	SSEM Mthembu Medical	2 x CO2 sensor kits for PICU	R 88 386,48
03/04/2014	Shonaquip	Upgrades for Siphokazi Chitilali's buggy wheelchair	R 5 009,45
03/04/2014	LBA Productions	Name badges for doctors	R 1 050,00
11/04/2014	Dr Julie Morrison	Pram	R 1 200,00
19/05/2014	Siyakhanda Medical Services	6 x mini-carts for A9	R 49 977,14
09/06/2014	Siyakhanda Medical Services	8 mini-carts & 2 transportation carts	R 124 044,92
03/07/2014	James Refrigeration & Air Conditioning	Extraction system installed in G ground (To be refunded by DTTC - Liz Walters)	R 16 786,50
03/07/2014	Stelmed CC	Suction Unit and Wall clocks for G ground	R 2 493,74
15/07/2014	Siyakhanda Medical Services	Storage cabinets x 2	R 27 710,39
21/10/2014	Blouberg Landscaping	Revamping of Ithuba Recreational area	R 14 800,00
07/11/2014	Surgical Innovations	ADCV55 Digital Converter for bronchoscope	R 6 815,60
<b>TOTAL</b>			<b>R 338 274,22</b>

## PART 2

### Community Outreach Programmes/Community Service and Interaction & Partnerships

#### Expert Members

##### Prof. Mariana Kruger

- SIOP (International Society of Paediatric Oncology) Continental President for Africa
- Member of the Senate Research Ethics Committee of Stellenbosch University
- Member of the Senate Research Committee of Stellenbosch University
- Member of the Research Committee of the Faculty of Medicine and Health Sciences, Stellenbosch University
- Member of the Provincial Clinical Governance Committee (PCGC)
- Board member of the Medical and Dental Professions Board, HPCSA
- Chairperson of the Curriculum Subcommittee of the Medical and Dental Professions Board, HPCSA

- Member of the Education and Registration Committee, HPCSA
- Member of an Expert Committee of the Medicines Control Council: Clinical Committee
- Elected to the Council of the College of Paediatricians for the triennium 2014-2017

**Prof. S. Kling elected as President of the Council of the College of Paediatricians for the triennium 2014-2017.**

**Prof. Mark Cotton was appointed as:**

- Consultant to Antimicrobial Resistance Stakeholder Board – National DoH DDG’s Office
- Panel Member: National Research Foundation from May 2014 – February 2018

**Dr M. Anderson of KIDCRU appointed on the Hepatitis Committee of the AIDS Clinical Trials Group**

## International

### Outreach

- Prof. M. Kruger – SIOP (International Society of Paediatric Oncology) Continental President for Africa
- Prof. M Kruger and Prof. P.B. Hesseling – Childhood cancer Cameroon
- Prof. Gie – TB teaching Bangladesh and Uganda
- Prof. Schaaf – TB teaching Mozambique and Zambia
- Prof. Beyers – POPART Zambia and RSA

## National

### Outreach

- Prof. M. Kruger – HPCSA, MCC
- Prof. N. Beyers – National Department of Health

## Regional and District

### Outreach

- Worcester – Prof. M. Kruger, Drs R. van Toorn, R. Solomons, J. Lawrenson, C. du Buisson
- Paarl – Dr P. Goussard
- Delft – Drs L. Smit, R. Gioio
- Helderberg – Dr T. Wessels; Perinatal – Dr H. Hassan
- Eerste River – Drs H. Finalyson, M. du Preez
- City of Cape Town – DTTC
- DTTC – skills development in the community
- Karl Bremer Hospital, Haemophilia, Childhood Cancer – Dr A. van Zyl; Perinatal – Dr H. Hassan

## Media Exposure

### Radio Interviews:

#### Prof. M. Kruger

- RSG – Gesondheid: Invited speaker – Kanker in kinders, 19 March 2014

### Articles:

#### **Name of publication:** Cape Times

**Name of article:** Donated prams ease moms' long trek with babies (Dr J. Morrison, Prof. R.P. Gie, Dr P. Goussard)

**Date:** 13 March 2014

#### **Name of publication:** Tygerburger

**Name of article:** Shining light for sick children (Tygerberg Children's Hospital Trust)

**Date:** 16 April 2014

#### **Name of publication:** Weekend Argus

**Name of article:** Tygerberg hospital's miracle man 'retires' (Prof. G.F. Kirsten)

**Date:** 26 April 2014

#### **Name of publication:** SAMA Insider

**Name of article:** SAMA PhD supplementary scholarships awarded (Dr A. Bekker)

**Date:** 1 May 2014

#### **Name of publication:** The Times

**Name of article:** Tygerberg delivers under pressure (Prof. G.F. Kirsten)

**Date:** 9 May 2014

#### **Name of publication:** Cape Times

**Name of article:** New plan for babies at risk of HIV (Prof. M.F. Cotton)

**Date:** 5 May 2014

#### **Name of publication:** Tygerburger

**Name of article:** Sy stryd teen TB erken (Prof. H.S. Schaaf)

**Date:** 7 May 2014

#### **Name of publication:** Pretoria News

**Name of article:** SA set to host clinical trial for new TB vaccine (Prof. M.F. Cotton)

**Date:** 15 May 2014

#### **Name of publication:** Star

**Name of article:** Expert gives TB medication alert (Prof. H.S. Schaaf)

**Date:** 2 June 2014

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<sup>1</sup> Also affiliated with Desmond Tutu TB Centre

**Name of publication:** Cape Times

**Name of article:** TB expert warns of poor drug choices and dosages (¹Prof. H.S. Schaaf)

**Date:** 2 June 2014

**Name of publication:** The Times

**Name of article:** TB Bugs outsmart docs (²Prof. H.S. Schaaf)

**Date:** 2 June 2014

**Name of publication:** News24

**Name of article:** Incorrect medication worsens drug-resistant TB (¹Prof. H.S. Schaaf)

**Date:** 5 June 2014

**Name of publication:** Tygerburger

**Name of article:** Veldtog se doel is om TB uit te roei (¹Prof. H.S. Schaaf)

**Date:** 18 June 2014

**Name of publication:** Tygerburger

**Name of article:** Stellenbosch University honours TB researchers (¹Prof. N. Beyers, Prof. R.P. Gie, Prof. H.S. Schaaf)

**Date:** 25 June 2014

**Name of publication:** YouTube by Discovery SA

**Name of article:** Preventing the transfer of TB to new-borns (¹Dr A. Bekker)

**Date:** 21 August 2014

**Name of publication:** Cape Times

**Name of article:** Tutu thanks staff at children's hospital (Tygerberg Children's Hospital Trust)

**Date:** 14 November 2014

**Name of publication:** News24

**Name of article:** Tutu pays tribute to Tygerberg Children's Hospital (Tygerberg Children's Hospital Trust)

**Date:** 14 November 2014

**Name of publication:** Die Burger

**Name of article:** In die oomblik (Tygerberg Children's Hospital Trust)

**Date:** 15 November 2014

**Name of publication:** Tygerburger

**Name of article:** 'Vyfster'-verblyf (Dr H. Hassan)

**Date:** 26 November 2014

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2 Also affiliated with Desmond Tutu TB Centre

## PART 3

### Teaching and Training

#### Training Awards:

Dr Adrie Bekker was awarded three PhD scholarships, namely: the Discovery Academic Fellowship Award, the SAMA PhD Supplementary Scholarship and the MRC Clinician Research PhD scholarship.

Dr Angela Dramowski was awarded the Discovery Academic Fellowship Award and the MRC Clinician Research PhD scholarship.

Dr Liz Walters was awarded the MRC Clinician Research PhD scholarship.

### Education-related Activities

#### Postgraduate Students

##### PhD candidates thesis completed and examined, Stellenbosch University

- Dr P. Goussard: Title: Bronchoscopic assessment and management of children presenting with clinical significant airway obstruction due to tuberculosis. Supervisor: Prof. R.P. Gie
- Dr R. van Toorn: Title: Childhood tuberculous meningitis: challenging current management strategies. Supervisors: Prof. J.F. Schoeman, Prof. H.S. Schaaf

##### Enrolled PhD students

- **Dr A. Bekker:** Title: Prevention And Treatment Of Perinatal And Infant Tuberculosis In The HIV Era. Supervisors: Prof. A.C. Hesselning, Prof. H.S. Schaaf
- **Dr P. Bock:** Title: Impact of a Universal Test and Treat strategy on clinical outcomes amongst HIV - infected adults in South Africa: Supervisor: Prof. N. Beyers, Dr S. Fidler
- **Dr A. Dramowski:** Title: Determinants Of Healthcare-Associated Infections Among Hospitalised Children. Supervisors: Prof. M.F. Cotton, Prof. A. Whitelaw
- **Mr R. Dunbar:** How can virtual implementation modelling inform the scale-up of new molecular diagnostic tools for tuberculosis? Supervisors: Prof. N. Beyers, Mr I. Langley
- **Dr U.D. Feucht:** Title: 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. Supervisors: Prof. M. Kruger, Prof. B. Forsythe
- **Dr G.T.J. Kali:** Title: A comparative study of neuroprotective strategies in neonatal hypoxic ischaemic encephalopathy. Supervisors: Prof. J. Smith, M. Rutherford
- **Dr B. Laughton:** Title: The effects of early versus delayed antiretroviral treatment on the short and long term neurodevelopmental outcome of children who are HIV positive. Supervisor: Prof. M.F. Cotton, Prof. M. Kruger
- **Dr A.M. Mandalakas:** Title: Development of a novel conceptual framework of childhood tuberculosis within which to study the impact of an IPT program for childhood TB prevention. Supervisors: Prof. A.C. Hesselning, Prof. R.P. Gie
- **Dr F Marx:** Title: Mathematical modelling to project the impact of interventions targeted to previously treated individuals on the trajectory of the tuberculosis epidemic in high tuberculosis prevalence settings Supervisors: Prof. N. Beyers, Prof. T. Cohen
- **Ms S-A Meehan:** Title: The contribution of a community based HIV counseling and testing (HCT) initiative in working towards increasing access to HIV counseling and testing in Cape Town, South Africa. Supervisors: Prof. N. Beyers, Prof. R. Burger
- **Dr P. Naidoo:** Title: Evaluating the Impact of an Xpert® MTB/RIF- based TB Diagnostic Algorithm in a Routine Operational Setting in Cape Town. Supervisors: Prof. N. Beyers, Dr C. Lombard

- **Dr H. Rabie:** Title: Pharmacokinetics and therapeutic outcomes of children with tuberculosis/HIV co-infection treated with lopinavir/ritonavir and a rifampicin-containing anti-tuberculosis regimen. Supervisors: Prof. M.F. Cotton, Prof. H.S. Schaaf, Prof. R.P. Gie
- **Dr R.S. Solomons:** Title: Improving early diagnosis of tuberculous meningitis in children. Supervisors: Prof. J.F. Schoeman, Prof. A.M. van Furth
- **Dr S. Thee:** Title: Pharmacokinetics and safety of first- and second-line antituberculosis drugs in children. Supervisors: Prof. H.S. Schaaf, Prof. A.C. Hesselning
- **Dr S.S. van Wyk:** Title: Development and validation of a prediction model to ESTIMATE an adult's probability of having active pulmonary tuberculosis in a high TB- and HIV burden setting. Supervisors: Prof. H-H Lin, Dr M. Claassens
- **Dr E. Walters:** Title: Novel diagnostic strategies and markers of treatment response for paediatric pulmonary tuberculosis. Supervisors: Prof. A.C. Hesselning, Prof. R.P. Gie
- **Mrs M. Zunza:** Title: 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 setting. Supervisors: Prof. M.F. Cotton, Dr M.M. Esser

## Successful MPhil Candidates

### Health Science Education, SU

Dr L. Smit (cum laude)

### Neurodevelopment, UCT

Dr A. Redfern

## Colleges of Medicine of South Africa (CMSA)

### Cert Pulmonology (SA) Paed

Dr J. Morrison

### Cert Gastroenterology (SA) Paed

Dr T. Afaa (Ghana)

Cert ID(SA) Paed

Dr L.J. Frigati

### Cert Neonatology(SA)

Drs J.C.F. du Preez and Dr S. O'Ryan

CMSA FC Paed Part II

Drs M. Grantham, Dr V. Netshituni, Y. Visser and I. Webster

CMSA FC Paed Part I

Drs A. Heymans, K. Oppel, C. Richardson, L. Schoonraad, A. Vahed

DCH (SA)

Drs C. Okwundu, C. Okquosa, M. van Velden

## MMed(Paed)

- **Dr G.P. de Bruin:** Title: 'Children with Kaposi sarcoma in two Southern African hospitals – clinical presentation, management and outcome'. Supervisor: Prof. D.C. Stefan
- **Dr M. Wessels:** Title: 'Clinical value of a uniform research case definition of tuberculous meningitis'. Supervisor: Dr R.S. Solomons
- **Dr R. Lutchman:** Title: 'Burkitt's lymphoma – a 15 year review at Tygerberg Hospital, South Africa from 1995-2010.' Supervisor: Prof. D.C. Stefan
- **Dr T.E. Ferreira-van der Watt:** Title: 'Clinical characteristics and outcome of children evaluated and treated at Tygerberg Children's Hospital during a measles epidemic'. Supervisor: Dr H. Finlayson
- **Dr A. Thomas:** Title: 'The use of unlicensed and off label drugs in Tygerberg Hospital Neonatal Intensive Care Unit'. Supervisor: Prof. M. Kruger
- **Dr M.J. de Wet:** Title: 'Factors affecting final renal outcome in boys with posterior urethral valves at Tygerberg Hospital'. Supervisor: Dr C.J. du Buisson
- **Dr I. Kruger:** Title: 'Paediatric and neonatal admissions to an intensive care unit at a regional hospital in the Western Cape'. Supervisor: Prof. M. Kruger
- **Dr L.C. Swanson:** Title 'Prognostic factors in children with severe acute malnutrition at a tertiary hospital in Cape Town, South Africa' Supervisor: Dr E.D. Nel

## Undergraduate Students

96% pass rate

## Education-related Activities

The Education Committees of the Department comprised as follows:

- Undergraduate: Prof. S. Kling (Chairperson)
  - MBChB II: Drs E. Malek, R. Uys
  - Early rotation: Drs C.J. du Buisson (Chairperson), L. Frigati, H. Hassan, E. Zöllner
  - Middle rotation: Drs A. Redfern (Chair), A. van Zyl, S. Ströbele, NM. Parker
  - SI: Dr L. Smit (Chairperson)
  - Remedial: Drs D. Abraham, M. Morkel
  - Elective students: Dr H. Finlayson, Prof. M. Kruger
- Postgraduate: Drs E.D. Nel (chairperson), Dr S. Holgate, G. Kali, Prof. M Kruger, Dr H. Rabie, Prof. D.C. Stefan
- PhD: Prof. M. Kruger (Chairperson), Prof. N. Beyers, Prof. M.F. Cotton, Prof. R.P. Gie, Prof. A.C. Hesseling, Prof. H.S. Schaaf
- All consultants are involved with under- and postgraduate teaching on a daily basis. Additional education activities included:
- External examiners at universities in South Africa:
  - Postgraduate:
    - Prof. M. Kruger



- PhD, University of the Free State
- MPH, University of KwaZulu-Natal
  - Prof. N. Beyers, PhD, Community Health, Stellenbosch University
  - Prof. E.W.A Zöllner, MMed, University of the Witwatersrand
- Undergraduate:
  - Prof. M. Kruger and Prof. R.P. Gie, S. Kling, University of the Free State
  - Dr C.J. du Buisson, University of Limpopo
  - Drs A. Redfern, A. van Zyl, University of Cape Town
- Postgraduate external examiners at universities in South Africa:
- Senior registrars in training:
  - Paediatric Pulmonology: Dr J. Morrison
  - Neonatology: Drs J.C.F. du Preez, Z. Kajee, N. Brown and A. Maalim (Supernumerary from Kenya)
  - Paediatric Oncology: Dr. A. Kanyamuhunga (Supernumerary from Rwanda)
  - Paediatric Infectious Diseases: Drs L. Frigati, funded by bursary from the Discovery Foundation, B. Makongwana (Supernumerary from Eastern Cape)
  - Paediatric Gastroenterology: Dr T. Afaa (Supernumerary from Ghana), sponsored by a Nestle Nutrition Institute Fellowship endorsed by the European Society of Paediatric Gastroenterology
- Colleges of Medicine of South Africa (CMSA):
  - Convenors (C)/Moderator (M)/External Examiners (EE):
    - Cert Infectious Diseases: Dr H. Rabie (C/EE)
    - Cert Cardiology: Dr J. Lawrenson
- South African Research Ethics Training Initiative (SARETI) UKZN, funded by Fogarty International Fogarty International Center (FIC) of the National Institutes of Health (NIH), grant number 6R25TW001599-13: Prof. M. Kruger (Co-principal Director)
- Faculty and University Committee Participation:
  - Prof. M. Kruger:
    - Member of the Senate Research Ethics Committee, Stellenbosch University
    - Member of the Senate Research Committee, Stellenbosch University
    - Member of the Subcommittee C of the Research Committee, Faculty of Medicine and Health Sciences
  - Prof. E. Zöllner
    - Safety representative on Health and Safety Committee, Faculty of Medicine and Health Sciences

## Courses Attended

Name	Courses attended	Dates	Type of training	Level	Provider
Abraham, Dr D.	Methodological preparation for your PhD  Grounded theory	13-17 Jan 2014  20-24 Jan 2014	Course	Adv	ADA Summer School, Stellenbosch
<sup>11</sup> Bekker, Dr A.	Tygerberg Hospital Continuity of TB Care  VIIIth International Childhood TB Centre  Annual Bioethics Seminar 4  Writing a Successful NIH Grant	29 August 2014  29 Sept-03 Oct 2014  14 Sept 2014  15-16 October 2015	Course	Adv	Tygerberg Hub  SU  Centre for Medical Ethics & Law  SU Research & Development
Du Buisson, Dr C.J.	Introduction to SPSS  Prontak / Predac 2014  Clinical skills course: Dialysis training course for African Fellows	13-17 Jan 2014  15-18 Jul 2014  11-14th of November 2014	Course	Adv	ADA Summer School, Stellenbosch  Stellenbosch University  Cape Town, South Africa
Du Preez, Dr M.	PRONTAK/PREDAC  Paediatric and Ultrasound Inspiring ICU 2014	15-18 July 2014  27 November 2014	Workshops	Adv	Stellenbosch University  Critical Care Congress - Baxter Theatre Centre
Finlayson, Dr H.	Introduction to SPSS	13-17 Jan 2014	Course	Adv	ADA Summer School, Stellenbosch
Holgate, Dr S.	Paediatric and Ultrasound Inspiring ICU 2014	27 November 2015	Workshop	Adv	Critical Care Congress - Baxter Theatre Centre

Kruger, Prof. M.	Certificate course for doctoral supervisors	20-24 Jan 2014	Course	Adv	ADA Summer School, Stellenbosch
	Takseersentrum/ Assessment for Senior Academic Leaders	19 & 26 August 2014	Evaluation	Adv	The Assessment Toolbox, Bellville
	Good Clinical Practice - Refresher Course	03 December 2014	Course	Adv	ERECCA (Enhance Research Ethics Capacity and Compliance in Africa) - an EDCTP funded project, Centre for Medical Ethics & Law, Stellenbosch University
Malek, Dr E.	Leadership and innovation in research	22 May 2014	Workshop	Adv	Lanzerac Hotel, Stellenbosch
	National DOH Training in Severe Acute Malnutrition Management	14-16 July 2014	Course		Durban, KZN
Lloyd, Dr L.	Syncytial Virus Symposium 2014	09-13 Nov 2014	Workshop	Adv	Spier Hotel
	Paediatric and Ultrasound Inspiring ICU 2014	26 Nov 2014	Workshop	Adv	Critical Care Congress - Baxter Theatre Centre
	Practical Neonatal Cranial Ultrasound	1 April-30 November 2014	Course	Adv	Stellenbosch University
Nel, Dr E.	Post Graduate Course in Paediatric Gastroenterology	2-7 March 2014	Short course	Adv	Stellenbosch University
Parker, Dr N.	Introduction to teaching in the Health Professions	21 Feb-10 Oct 2014	Course	Level 8	Stellenbosch University
Redfern, Dr A.	Introduction to SPSS	13 - 17 Jan 2014	Course	Adv	ADA Summer School, Stellenbosch
Rabie, Dr H.	NetCourseNow 101, Melrose Adv Professionals Training	18-19 Sept 2014	Short Course	Adv	Melrose Training

<sup>12</sup> Schaaf, Prof. H.S.	GCP Refresher Tygerberg Hospital Continuity of TB Care  Childhood TB diagnostics: The elephant in the room	1 August 2014  29 August 2014  18 September 2014	Course	Adv	Kidcru, SU  Tygerberg Hub  URC, facilitated NHLS and University of Pretoria
Springer, Dr P.	Early Neurodevelopmental outcome of HIV( Ethics REF: N13/03/028)	01 Mar - 31 Dec 2014	Research		Hope Cape Town Trust
Van Toorn, Dr R.	Leadership Developmental for leaders  Effective recruitment and selection practises	3-4 July 2014  15 Oct 2014	Course  Course		Stellenbosch University
Brown, Dr N.	Paediatric and Ultrasound Inspiring ICU	27 November 2014	Workshop	Adv	Critical Care Congress - Baxter Theatre Centre
Maalim, Dr A.	Paediatric and Ultrasound Inspiring ICU	27 November 2014	Workshop	Adv	Critical Care Congress - Baxter Theatre Centre
Kajee, Dr Z.	Here be lungs Trilogy 2014	21-22 March 2014	Course	Adv	Tygerberg Hospital Pulmonology and Neonatology department
Zöllner, Prof. E.W.A.	Supervising for Doctorateness	14 November 2014	Workshop	Adv	Stellenbosch University
<b>Registrars</b>					
Carkeek, Dr K.	Here be lungs Trilogy 2014  HFQV/Oscillation Course  Rheumatology Evening	21-22 March 2014	Course	Adv	Tygerberg Hospital Pulmonology and Neonatology department
Kesting, Dr S.	BLS & NALS	28 & 30 September 2014	Workshop		Cardiocare
Mulambia, Dr Y.	BLS & NALS	10-11 February 2014	workshop		Cardiocare

Medical officers					
Adeniyi, Dr F.	NALS	30 September 2015	Workshop		Cardiocare
Beukes, Dr J.	BLS & NALS	22-23 September 2014	Workshop		Cardiocare
Koningsbruggen, Dr C.	BLS & NALS	29 Sept & 2 October 2014	Workshop		Cardiocare
Evans, Dr K.	BLS & NALS	29 Sept & 2 October 2014	Workshop		Cardiocare
Jaffer, Dr S.	BLS & NALS	29 Sept & 02 October 2014	Workshop		Cardiocare
Schoonraad, Dr L.	BLS & NALS	29-30 September 2014	Workshop		Cardiocare
Xafis, Dr P.	BLS & NALS	27-28 September 2014	Workshop		Cardiocare
Admin					
Fourie, A.	Performance Management	22 August 2014	Course	Adv	Stellenbosch University
Adams, J.	Training WRT loading of the marks with Helene Nieuwoudt	01 July 2014	Course		Stellenbosch University
Samuels, N.	CROI TBTC Meeting Performance Management Training	3-6 March 2014 17-20 March 2014 08 Apr 2014	Course		Boston Atlanta Durbanville
Olah, H	Street Wise Course	18-19 March 2014	Course		Stellenbosch University

## PART 4

### Research

#### Achievements with regard to Research Activities and Research Outputs

Prof. M.F. Cotton and Prof. A.C. Hesselning received a NIH grant for the Clinical Trial Unit.

Prof. S. Kling awarded the best article award for 2013-14 of Current Allergy & Clinical Immunology, the journal of the Allergy Society of South Africa.

Prof. M. Cotton and team received NIH funding for the period 9 July 2014 to 30 June 2019 for the amount of \$3 194 263 for the project "Latent reservoir characterization and correlations with neurocognitive functioning".

Dr A. Bekker received Harry Crossley funding for her PhD study on the Pharmacokinetics of first-line antituberculosis drugs in infants: additional crossover component.

NRF rating - n = 7

- Prof. P.R. Donald A2
- Prof. H.S. Schaaf A2
- Prof. M.F. Cotton B3
- Prof. J. Smith C2
- Dr R. van Toorn C2
- Dr H. Rabie C3
- Dr S. Innes Y2

### Publications

#### Journal Articles (Subsidised)

1. ACKERMANN C., ANDRONIKOU S., **LAUGHTON B.**, KIDD M., **DOBBELS E.**, **INNES S.**, **VAN TOORN R.**, **COTTON M.** White matter signal abnormalities in children with suspected HIV-related neurologic disease on early combination antiretroviral therapy. *Pediatric Infectious Disease Journal* 2014; **33**(8): e207-e212.
2. ANDRONIKOUS.,ACKERMANN C.,**LAUGHTON B.**,**COTTON M.**, TOMAZOS N., SPOTTISWOODE B., MAUFF K., PETTIFOR J.M. Correlating brain volume and callosal thickness with clinical and laboratory indicators of disease severity in children with HIV-related brain disease. *Childs Nervous System* 2014; **30**: 1549-1557.
3. ANDRONIKOU S., VAN WYK M.J., **GOUSSARD P.L.**, **GIE R.P.** Left Main Bronchus Compression as a Result of Tuberculous Lymphnode Compression of the Right-Sided Airways With Right Lung Volume Loss in Children. *Pediatric Pulmonology* 2014; **49**: 263-268.
4. AYLES H., FLOYD S., **BEYERS N.**, GODFREY-FAUSSETT P. Design of pragmatic trials of tuberculosis interventions - authors' reply. *Lancet* 214; **383**: 214-215.
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6. **BEKKER A.**, **SCHAAF H.S.**, SEIFART H.I., DRAPER H.R., WERELY C.J., **COTTON M.F.**, **HESELING A.C.** Pharmacokinetics of isoniazid in low-birth-weight and premature infants. *Antimicrobial Agents and Chemotherapy* 2014; **58**(4): 2229-2234.
7. **BEKKER A.**, **SLOGROVE A.**, **SCHAAF H.S.**, **DU PREEZ K.**, **HESELING A.C.** Determinants of tuberculosis treatment completion among newborns in a high-burden setting. *International Journal of Tuberculosis and Lung Disease* 2014; **18**(3): 335-340.

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10. **BOCK P.**, **BEYERS N.**, FIDLER S.J. Balancing the need to rapidly scale-up and improve clinical outcomes in antiretroviral programmes in developing countries: lessons from an Indian programmatic cohort study. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 2014; **108**(10): 599-600.
11. CHURCHYARD G., MAMETJA L.D., MVUSI L., NDJEKA N., **HESELING A.C.**, REID A.J., BABATUNDE S., PILLAY Y. Tuberculosis control in South Africa: Successes, challenges and recommendations. *SAMJ South African Medical Journal* 2014; **104**(3): 244-248.
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21. DIACON A.H., **DONALD P.R.** The early bactericidal activity of antituberculosis drugs. *Expert Review of Anti-Infective Therapy* 2014; **12**(2): 223-237.
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88. **SOLOMONS R.**, **WESSELS M.**, VISSER D.H., **DONALD P.R.**, MARAIS B.J., **SCHOEMAN J.F.**, VAN FURTH A.M. Uniform research case definition criteria differentiate tuberculous and bacterial meningitis in children. *Clinical Infectious Diseases* 2014; **59**(11): 1574-1578.
89. **SOLOMONS R.S.**, VAN ELSLAND S.L., VISSER D.H., HOEK K.G.P., MARAIS B.J., **SCHOEMAN J.F.**, VAN FURTH A.M. Commercial nucleic acid amplification tests in tuberculous meningitis - a meta-analysis. *Diagnostic Microbiology and Infectious Disease* 2014; **78**(2014): 398-403.
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96. THEE S., GARCIA-PRATS A.J., MCILLERON H., WIESNER L., CASTEL S., NORMAN J., DRAPER H.R., **VAN DER MERWE P-L.**, **HESELING A.C.**, **SCHAAF H.S.** Pharmacokinetics of ofloxacin and levofloxacin for prevention and treatment of multidrug-resistant tuberculosis in children. *Antimicrobial Agents and Chemotherapy* 2014; **58**(5): 2948-2951.

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### Journal Articles (Non-subsidised)

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2. **BRAND S., DRAPER H.R., ENARSON D.A., BEYERS N., CLAASSENS M.** Factors influencing increased expertise for a sustainable workforce at a research centre in South Africa. *Public Health Action* 2014; **4**(4): 276-280.
3. **DRAMOWSKI A., FRIGATI L., RABIE H., COTTON M.F.** Malaria in Children Prevention and Management. *Infectious Disorders - Drug Targets* 2013; **13**: 303-311.



4. **GOUSSARD P.L., ANDRONIKOU S., SEMAKULA-KATENDE N.S., GIE R.P.** Calcification and airway stenosis in a child with chondrodysplasia calcificans punctate. doi: 10.1136/bcr-2014-205087 . *BMJ Case Reports* 2014; **22 September**: 205087.
5. **GOUSSARD P.L., GIE R.P., ANDRONIKOU S., FOURIE P.B.** A correctable cause of lung collapse in an adolescent with severe scoliosis causing compression of the bronchial tree. . *BMJ Case Reports* 2013; **15 November**: 202017.
6. **GOUSSARD P.L., GIE R.P., ANDRONIKOU S., MORRISON J.** Organic foreign body causing lung collapse and bronchopleural fistula with empyema. doi: 10.1136/bcr-2014-204633 . *BMJ Case Reports* 2014; **4 April**: 204633.
7. **GOUSSARD P.L., GIE R.P., JANSON J., SCHUBERT P.T.** Intratracheal inflammatory myofibroblastic tumour mimicking severe acute asthma. *BMC Case Reports* 2013; **4 July**: 010232.
8. **GOUSSARD P.L., GIE R.P., RABIE H., ANDRONIKOU S.** Nocardia pneumonia in an HIV-infected neonate presenting as acute necrotising pneumonia. *BMC Case Reports* 2013; **31 July**: 010479.
9. **GOUSSARD P.L.** The radiological evaluation of childhood tuberculosis. *Paediatric Focus* 2014; **5(1)**: 6-8.
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13. MASON S., MOUTLOATSE G.P., VAN FURTH A.M., **SOLOMONS R., VAN REENEN M., REINECKE C., KOEKEMOER G.** KEMREP: A New Qualitative Method for the Assessment of an Analyst's Ability to Generate a Metabolomics Data Matrix by Gas Chromatography–Mass Spectrometry. *Current Metabolomics* 2014; **2(1)**: 15-26.
14. MORSHEIMER M.M., **DRAMOWSKI A., RABIE H., COTTON M.F.** Paediatric ART outcomes in a decentralised model of care in Cape Town, South Africa. *South African Journal of HIV Medicine* 2014; **15(4)**: 148-153.
15. **NAIDOO P., WILLS C., ENARSON D.A., BEYERS N.** How do we measure the success of operational research? *Public Health Action* 2014; **4(2)**: 74.
16. PICKEN S.C., WILLIAMS S., HARVEY J., **ESSER M.** The routine paediatric human immunodeficiency virus visit as an intervention opportunity for failed maternal care, and use of point-of-care CD4 testing as an adjunct in determining antiretroviral therapy eligibility. *South African Journal of Infectious Diseases* 2014; **29**: 70-74.
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18. **SCHAAF H.S.** Multi-drug resistant tuberculosis in children. *Paediatric Focus* 2014; **5(1)**: 8-10.
19. **SEDDON J.A., GODFREY-FAUSSETT P., HESSELING A.C., SCHAAF H.S., ENARSON D.A.** Preventive therapy for children following contact with a tuberculosis source case: cause for debate in a high-burden setting? *Southern African Journal of Infectious Diseases* 2014; **29(3)**: 120-124.
20. **STEFAN D.C., KRUGER M.** Incidence of childhood cancer in Namibia: the need for registries in Africa. *Pan African Medical Journal* 2014; **17**: 191.
21. **STEFAN D.C.** Childhood cancer in Africa: Past, Present, and Future. *Journal of African Cancer* 2014; **6(3)**: 127-128.
22. VISSER J.H., **UYS R., VAN ZYL A., STEFAN D.C.** Nephroblastoma - A 25-year review of a South African unit. *Journal of Medicine and Life* 2014; **7(3)**: 445-449.

## Books

1. **M. KRUGER, P. NDEBELE, L. HORN**, Editors: *Research Ethics in Africa. A Resource for Research Ethics Committees*. Sun Media Publishers, July 2014: 206 pp.
2. **GIE R.P., BEYERS N.** *Getting Started in Clinical Research: Guidance for junior researchers*. Sun Media, Stellenbosch 2014:155 pp.

## Chapters in Books

1. BALAGADDE-KAMBUGU J., OREM J., **STEFAN D.C.** HIV and malignancy in children. In *Pediatric Hematology-Oncology in Countries with Limited Resources*, Springer, New York, USA, 2014: 377-391.
2. CHI P.C., HORN L., **KRUGER M.** Risk-benefit Assessment. In *Research Ethics in Africa: A Resource for Research Ethics committees*, SUN PRESS, Stellenbosch, South Africa, 2014: 63-70.
3. **COTTON M.F.**, KROON S.M., **RABIE H.** HIV in pregnancy: diagnostic and therapeutic implications for the newborn. In *ERS - Monograph - Pulmonary complication of HIV*, European Respiratory Society, Sheffield, United Kingdom, 2014: 71-83.
4. **COTTON M.F., SCHAAF H.S., RABIE H.**, MARAIS B.J. Tuberculosis. In *Coovadia's Paediatrics & Child Health*, Oxford University Press, Goodwood, South Africa, 2014: 354-378.
5. **GIE R.P.** Respiratory disorders. In *Coovadia's Paediatrics and Child Health*, Oxford University Press, Goodwood, South Africa, 2014: 537-563.
6. **KRUGER M.**, BARSDORF N. Ancillary care in Research. In *Research Ethics in Africa: A Resource for Research Ethics committees*, SUN PRESS, Stellenbosch, South Africa, 2014: 153-156.
7. **KRUGER M.**, HORN L. Introduction. In *Research Ethics in Africa*, Sun Media Publishers, Stellenbosch, South Africa, 2014: 1-2.
8. **KRUGER M.** Children as research participants. In *Research Ethics in Africa: A Resource for Research Ethics committees*, Sun Media Publishers, Stellenbosch, South Africa, 2014: 91-98.
9. **KRUGER M., KLING S.** Ethical issues in Paediatrics. In *Coovadia's Paediatrics and Child Health*, Oxford University Press, Goodwood, South Africa, 2014: 795-800.
10. **KRUGER M.** Neoplastic disorders. In *Coovadia's Paediatrics and Child Health*, Oxford University Press, Goodwood, South Africa, 2014: 468-482.
11. MURGUIA-PENICHE T., **KIRSTEN G.F.** Meeting the challenge of providing neonatal nutritional care to very or extremely low birth weight infants in low-resource settings. In *Nutritional Care of Preterm Infants - Scientific basis and practical guidelines*, Karger, Basel, Switzerland, 2014: 278-296.
12. NDEBELE P., MWALUKO G., **KRUGER M.**, OUWE O., OUKEM-BOYER M., ZIMBA M. History of Research Ethics Review in Africa. In *Research Ethics in Africa*, Sun Media Publishers, Stellenbosch, South Africa, 2014: 3-10.
13. **NEL E.D., COOKE M.L.**, GODDARD E.A. Gastrointestinal disorders. In *Coovadia's Paediatrics and Child Health*, Oxford University Press, Goodwood, South Africa, 2014: 510-536.
14. **SCHOEMAN J.F., VAN TOORN R.** Tuberculosis. In *Central Nervous System Infections in Childhood*, Mac Keith Press, London, United Kingdom, 2014: 202-218.

15. **STEFAN D.C.** Childhood Cancer in Low-income and middle-income countries in the twenty-first century. In *Pediatric Hematology-Oncology in Countries with Limited Resources*, Springer, New York, USA, 2014: 1-5.
16. **STEFAN D.C.** Clinical trials. In *Handbook for Cancer Research in Africa*, World Health Organization Regional office for Africa, Republic of Congo, Congo, 2014: 117-127.
17. **STEFAN D.C.** Developing and maintaining effective North-South, South-South and South-South-North partnerships. In *Handbook for Cancer Research in Africa*, World Health Organization regional office for Africa, Republic of Congo, Congo, 2014: 15-22.
18. **STEFAN D.C.** Malignancies in children with HIV infection. In *Cancers in People with HIV and AIDS*, Springer, Bethesda, USA, 2014: 349-357.

## Special Achievements and Highlights

Prof. Simon Schaaf received the National Order of Mapungubwe from President Jacob Zuma on 27 April for his excellent contribution in the field of medical sciences, specifically his groundbreaking focus on drug-resistant tuberculosis.

Prof. Nulda Beyers, Prof. Robert P. Gie and Prof. H. Simon Schaaf appointed as Distinguished Professors at Stellenbosch University from 1 July 2014 for 5 year period.

Prof. Mark Cotton was appointed as Head of Clinical Services: Paediatric Infectious Diseases.

Dr Ekkehard Zöllner was promoted to Associate Professor in August 2014.

Performance awards for exceptional service:

- TBH = 16
- US = 25 (including DTTC = 11; Kidcru = 7; S2S = 3)

## International visitors and lectures:

1. Stephanie Williamson, Deputy Director of Redevelopment, Great Ormond Street Hospital for Children NHS Foundation Trust, London: 11 March 2014
2. Prof. Lars Bode – Associate Professor in Pediatrics – Division of Neonatology and Division of Pediatric Gastroenterology, Hepatology and Nutrition, University of California, San Diego – Lecture: Huma milk oligosaccharides: Every baby needs a sugar mama: 26 March 2014
3. Prof. Mary Rutherford – Professor in Perinatal Imaging, Imperial College of Science, Technology and Medicine, Hammersmith Campus, London – Lecture: MR imaging of the fetal brain: 2 April 2014
4. Prof.dr. A. Marceline van Furth and Dr Martijn van der Kuip, Pediatric Infectious Diseases and Immunology, VU Medical Center, Amsterdam: 3 July 2014 and 8 October 2014
5. Prof. Sara Browne, Associate Professor of Clinical Medicine, Department of Medicine, Division of Infectious Diseases, University of California, San Diego; San Diego, California – Lecture: Medication Adherence in the 21st Century: 23 July 2014
6. Prof. Michael Boivin, Associate Professor, Neurology, Michigan State University – Lecture: Neurodevelopmental interventions and assessments with African children with HIV: 23 July 2014
7. Prof. W. Bitter: Department of Medical Microbiology and Infection control, VU University Medical Centre, Amsterdam: 8 October 2014

## Conferences/Workshops/Training Courses: Participants & Attendees

### International

#### Prof. M. Kruger

1. World Federation of Hemophilia GAP/MASAC Education Symposium, Kempton Park, 6-7 November 2014.  

Invited speaker - Ethical issues in haemophilia care: Resource allocation - [Kruger M](#)
2. 46th SIOP Congress of the International Society of Paediatric Oncology (SIOP): October 22-25, 2014, Toronto, Canada  

Poster presentation: RB1 mutations in South African children with retinoblastoma: [Kruger M.](#), Wainwright R.D., De la Rey M., Van Rensburg E.J.
3. SAPA & SAAPS Growing Child Health in Africa Congress, CTICC, Cape Town, 10-14 September 2014  

Session Chair - [Kruger M](#)

Invited speaker - National LCH data SIOP - [Kruger M](#)

Invited speaker - The ethics of resource allocation for Rare Diseases - [Kruger M](#)

Oral presentation - Off label drug use in paediatrics - our ethical responsibility--  
[Kruger M](#)
4. 17<sup>th</sup> World Congress of Basic & Clinical Pharmacology, Cape Town, 13-18 July 2014  

Poster presentation:

Unlicensed and Off-Label Drug Use in the Neonatal Intensive Care Unit (NICU) of Tygerberg Hospital. Thomas A, [Kruger M](#)

Unlicensed and Off-Label Drug Use In Paediatric Ambulatory Clinics In Africa. Ramoroka S., Makiwane M.M., Rosenkranz B., [Kruger M.](#)

Oral presentation

Unlicensed and off Label Drug Use in Highly Specialised Paediatric Wards. [Kooblal Y.](#), Kruger M.
5. Seventh EDCTP Forum, Berlin, Germany, 30 June-2 July 2014. Oral presentation: Research ethics in Africa: A resource for research ethics committees. L. Horn and [M. Kruger](#).
6. Eleventh Continental Meeting of the International Society of Paediatric Oncology in Africa: Dar es Salaam, Tanzania, 23-25 April 2014.  

Opening and Keynote address

Ethics and Evidence-based Medicine, especially in the context of rare diseases. [Kruger M.](#)

Oral presentation:

Unlicensed and off label drug use in children in a large central hospital in South Africa. Y. Kooblal, [Kruger M.](#)



### **Prof. M.F. Cotton**

1. Appointed themed discussion leader at CROI 2014 in Boston, MA, USA; Tentative Themed Discussion Topic: Response to Early ART Initiation in Infants
2. ICID Conference: April 5, 2014, CTICC. Oral presentation: Health Outcomes in HIV-exposed Uninfected Children
3. SAGOG Conference: May 20, 2014 – Trilogy 9: HIV. Oral presentation: Treat infants to cure

### **Dr E.D. Nel**

1. 20-21 Jan 2014: PANCOF preconference course on Paediatric Gastrointestinal Endoscopy, Calabar, Nigeria. Dr E.D. Nel invited to present the course and act as “International Resource Person”
2. Third ESPGAHN Goes Africa Post Graduate Course in Paediatric Gastroenterology hosted at the FMHS, March 2014

### **Prof. D.C. Stefan**

1. Organised and presented at the Cancer Registration Workshop: Childhood cancer registration in Africa, 21-22 April 2014, Dar es Salaam, Tanzania

### **Dr NM Parker**

1. On the organising committee and faculty of Critical Care Congress, 26-30 November 2014, Cape Town

### **<sup>1</sup>Prof. H.S. Schaaf**

1. Plenary speaker at the 51<sup>st</sup> Annual Convention of the Philippine Pediatric Society” on Global burden of paediatric tuberculosis. Also presented lunch time symposium on Multidrug-resistant tuberculosis in children attended by 1 500 paediatricians.
2. Fifty-first Annual Convention of Philippine Pediatric Society, 6-9 April 2014, Manila, Philippines  
Invited Plenary speaker: Global burden of paediatric tuberculosis  
Invited speaker: Multidrug-resistant tuberculosis in children
3. TB in children – an update. Fifth Botswana International HIV Conference. 20-23 August 2014, Gaborone, Botswana (Keynote speaker)
4. Diagnostic issues in childhood tuberculosis. Paediatric ID Workshop, SAPA & SAAPS Congress, 10-13 September 2014, CTICC, Cape Town, South Africa

### **<sup>13</sup>Dr A. Bekker**

1. Forty-fifth Union Conference, Barcelona, Spain, 28 October- 1 November 2014 (funded by SU Scientific Travel Fund)

Presentation: Maternal and infant outcomes from a study in Cape Town, South Africa

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<sup>3</sup> Also affiliated with Desmond Tutu TB Centre

### **Prof. P.R. Donald**

2. All India Institute of Medical Sciences conference on Childhood Tuberculosis, 15-16 November 2014

Invited speaker and participant; delivered the keynote opening address: The epidemiology and natural history of tuberculosis with the emphasis on children and a second lecture: Management principles and primary regimen.

### **Dr E. Malek**

1. World Association for Infant Mental Health Conference, Edinburgh, Scotland, 14-18 June 2014

### **Dr R. Uys**

1. World Foundation of Haemophilia International Congress, Melbourne, Australia, 11-15 May 2014

### **Dr A. Kanyamuhunga**

1. Haemophilia Academy, Edinburgh, Scotland, 27-31 October 2014

### **Dr G. Kali**

1. Tenth International Congress on Tropical Paediatrics, Nairobi, Kenya, 24-27 August 2014

Invited to present at pre-congress neonatal symposium on:

- a) CPAP: Physiological basis for use in neonatal practice, pros and cons.
- b) Therapeutic Hypothermia in asphyxiated newborn infant: appropriate application, pros and cons

2. Twenty-ninth International Workshop on Surfactant Replacement, Valencia, Spain, 29 May-1 June 2014

### **SAPA presentations by other members of department:**

Prof MF Cotton Update of Kawasaki Disease

Controversies in the management of HIV infection during the neonatal period

Dr R. Solomons What's new in therapy for tuberculous sclerosis

Dr A. Bekker Maternal and infant tuberculosis

Prof. R..P Gie Developments in childhood TB for the practicing clinician

Dr R. van Toorn Update on TB meningitis

Prof J. Smith Panel Discussion: Newborn screening in South Africa: what are the priorities?

Panel Discussion: Infant Male Circumcision: Cultural identity: the children's act and the impact of HIV/AIDS

- Dr J. Lawrenson Special problems in general paediatric: when is it cardiac?
- Prof. S. Kling Update on childhood asthma
- Dr Y. Visser Nephroblastoma – A 25-year review of a South African unit
- Dr Y. Kooblal Unlicensed and off label drug use in children in a large central hospital in South Africa
- Dr F. van der Westhuizen The identification of risk factors for adverse clinical outcome in patients aged three months to five years, admitted to Worcester Provincial Hospital with acute gastroenteritis
- Dr L. van Dyk Familial-environmental risk factors in South African children with ADHD: A case-control study

## National

### Prof. M. Kruger

1. Paediatric Brain Tumour Workshop, Red Cross Children's War Memorial Hospital, Cape Town, 29-30 November 2014  
  - Session Chair – Kruger M
  - Invited speaker – The big debate: In paediatric brain tumours, improved quality of life in fewer survivors is preferable to higher overall survival rates regardless of quality of life – Kruger M (For), D. Reynders (Against) (Ethics)
2. Second Metabolic Disorder Symposium, University of Pretoria, 28-29 November 2014  
  - Invited speaker – Management of families with a child with an unknown diagnosis – Kruger M. (Ethics)
3. Eighteenth Annual Paediatric Anaesthesia Congress of South Africa, Cape Town, 6-8 November 2014  
  - Invited speaker – Off label and unregistered drug use in paediatrics – our ethical responsibility – Kruger M
4. Here by Lungs Trilogy Conference, Lanzerac Hotel, Stellenbosch, 22-23 March 2014  
  - Welcoming address – Kruger M
  - Invited speaker – Off label drug use in paediatrics – our ethical responsibility – Kruger M

### Prof. Johan Smith, Prof. Robert Gie and Dr Pierre Goussard

1. Organised the Here be Lungs Conference which was held from 21-22 March 2014 at the Lanzerac Hotel and were attended by four international and numerous national experts on childhood lung disease.

## **Prof. M. Kruger and J. Smith**

Organised our annual Academic Day of Excellence which was held on 19 November 2014 at the Faculty of Medicine and Health Sciences. Speakers from the Department included:

Prof. Mariana Kruger – Welcoming

Prof. Sharon Kling – Ethics: Can we afford to treat orphan diseases?

Prof. Mariana Kruger – Inherited cancer risk: Retinoblastoma

Dr Pierre Goussard – What does the chILD, PIG and ABC (A) have in common?

Dr Cilla Springer – The curious incidence of a rare disorder

Dr Christel du Buisson – Picking at bones

Prof. Ekkehard Zöllner – Ambiguous genitalia

## **Prof. M.F. Cotton**

1. Co-chair the symposium “Paediatric/Adolescent HIV” together at the 16th ICID, Cape Town, April 2014
2. ICID Conference: April 5, 2014, CTICC. Oral presentation: Health Outcomes in HIV-exposed Uninfected Children
3. SAGOG Conference: May 20, 2014 – Trilogy 9: HIV. Oral presentation: Treat infants to cure

## **<sup>14</sup>Prof. H.S. Schaaf**

1. Organised Paediatric TB Symposium at the 4<sup>th</sup> South African TB conference, Durban, 10-13 June 2014

Speakers included:

Prof. Anneke C. Hesseling: Pharmacokinetics of second-line anti-TB drugs for children

Dr Liz Walters: Diagnostics in childhood tuberculosis (excluding immunological diagnosis)

Prof. H. Simon Schaaf: Preventive therapy for tuberculosis in children (both drug-susceptible and drug-resistant TB)

2. Diagnostic issues in childhood tuberculosis. Paediatric ID Workshop, SAPA & SAAPS Congress, 10-13 September 2014, CTICC, Cape Town, South Africa
3. Progress and challenges in diagnosis of tuberculosis in children. Childhood TB: The elephant in the room. Workshop USAID/NDOH/Univ. Pretoria. 18 September 2014, CSIR, Pretoria, South Africa

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4 Also affiliated with Desmond Tutu TB Centre

### **Dr E. Malek**

1. Priorities in Perinatal Care Conference, Cape Town, March 2014
2. SAPA Conference, 10-15 September 2014
3. National Child Health Priorities Conference, Bloemfontein, 3-5 December 2014

### **Dr A. van Zyl**

4. SACCSG ( South African Childhood Cancer Study Group) & SAPA 13 Sept 2014, CTICC, Cape Town
5. MASAC, Johannesburg, 6 - 7 November 2014

### **Dr R. Uys**

1. SACCSG(South African Childhood Cancer Study Group) & SAPA 13 September 2014 CTICC, Cape Town

### **Dr A. Kanyamuhunga, Dr V. Netshituni**

2. Paediatric Brain Tumour Workshop, UCT, 29-30 September 2014
3. WBMT (Worldwide Network for Bone Marrow Transplantation), Cape Town, 14-16 November 2014

### **Dr A. Kanyamuhunga**

1. Immunology School, Durban, 6-9 August 2014

## **Regional**

### **Dr A. van Zyl, Dr R. Uys, Dr V. Netshituni**

1. Bioethics, University of Stellenbosch, 24 October 2014

## PART 5

### CENTRES

#### THE CHILDREN'S INFECTIOUS DISEASES CLINICAL RESEARCH UNIT (KID-CRU)

Director: Prof. M.F. Cotton

Posts (full-time)	Number	Filled
Director	1	1
Deputy Director	1	1
Neurodevelopmental Paediatrician	1	1
Paediatrician	1	1
Medical Officers	10	9
Pharmacists	3	3
Pharmacist assistant	1	1
Social Worker	1	1
Project Managers	4	4
Manager, Logistics & HR	1	1
Admin Officers	2	2
PA & Assistant Project manager	1	1
Cleaners	2	2
Data manager	1	1
Data Entry Officers	3	3
Drivers	3	3
Study Coordinators	2	1
Counsellors	12	12
Registered Nurses	8	8
Staff Nurses	8	8
Testers	2	2

#### Outpatient Facility

Number of active studies:	18
Number of patients on study:	979
Number of study visits:	3 917

Date	Name	Meetings/Conferences	Place
3 - 6 March	Prof. Cotton - Principal Investigator	CROI 2014  Themed Discussion Leader: Discussion Topic: Response to Early ART Initiation in Infants	Boston, USA
17 - 19 March	Prof. Cotton	TBTC Meeting Chairman: Breakout Session IV: Design of Clinical Trials and Epidemiology	Atlanta, USA
2 - 5 April	Prof. Cotton	16th International Congress on Infectious Diseases  Member of Local Organising Committee  Speaker: "Health Outcomes in HIV-exposed Uninfected Children"	Cape Town, SA
20 May	Prof. Cotton	SAGOG Conference  Trilogy 9: HIV - Title: Treat infants to cure	Cape Town, SA
16 - 20 June	Prof. Cotton	IMPAACT Annual Meeting -  Member of the primary therapy study group	Washington DC, USA
23 - 27 June	Prof. Cotton	Annual AIDS Clinical Trials Group Network Meeting	Washington DC, USA
30 June	Prof. Cotton	Prestigious Research Lecture Series - University of Witwatersrand  Commentator: Topic of presentation and discussion: "Are the bugs winning the war?"	Pretoria, SA
18 - 19 July	Prof. Cotton	Sixth International Workshop on HIV Paediatrics  Member of international organising committee  Chair to session: Management of Paediatric HIV	Melbourne, Australia
21 - 25 July	Prof. Cotton	IAS Conference - 5th International workshop on Paediatric HIV  Speaker - Session title: Smooth Transitions: From Paediatric to Adolescent Care for Perinatally-infected Children  Panellist: Press conference on "Dual challenges: drug-resistant TB and HIV co-infection"  Chairman of PHTI Stakeholder briefing on 21 July at IAS, Melbourne	Melbourne, Australia
30 August	Prof. Cotton	The South African Medical Association Conference  Speaker - Session 3: Reduction in Child Mortality, on "Child Mortality"	Durban, SA

10 – 14 September	Prof. Cotton	South African Paediatric Association and South African Association of Paediatric Surgeons Biennial Congress  Chair of Scientific Session: Infectious Diseases  Speaker: Update on Kawasaki Disease  Speaker: Controversies in the management of HIV infection during the Neonatal period	Cape Town, SA
19 – 21 October	Prof. Cotton	11th Vaccinology Scientific Congress	KwaZulu-Natal, SA
28 October – 1 November	Prof. Cotton	45th Union World Conference	Barcelona, Spain
9 – 13 November	Prof. Cotton	RSV Conference  Member of Local Organising Committee	Cape Town, SA
7 – 8 December	Prof. Cotton	PADO2 – WHO Meeting	Geneva, Switzerland
9 – 12 December	Prof. Cotton	HIV DART Conference  Talk: The Continuum of ARV Use from PMTCT to Treatment in Infants	Miami, Florida
15 – 17 December	Prof. Cotton	PENTA 2014 Meeting	Paris, France

## Community Advisory Board activities

### January 2014 – No meeting due to school holidays

1. Review of CAB SOP
2. Roles and responsibilities of members
3. Confidentiality statements review
4. Elections
5. Discussion on new IMPAACT budget review and how it will impact CABs
6. Talk: “Trough intracellular concentration of D4T triphosphate compared to children on low dose Stavudine” repeat training by Dr Steve Innes
7. Choreography routine by adolescents from the Lighthouse Church
8. Handing out of collected gifts to children in wards G7, G9 and G10 by older adolescents and facilitators
9. Role plays based on “ Auntie Stella – teenagers talk about sex
10. Training from IMPAACT CAB glossary – abbreviations
11. Update by Prof. Cotton on cure study and the Mississippi baby
12. Role play: TOPIC: MY church says condoms are wrong
13. Spring Day competition



## **Adults:**

1. Assessment of training needs for the retreat
2. Follow-up discussion of Stavudine study by Dr Steve Innes
3. Discussion on IMPAACT budget review, way forward for RCAB and ICAB
4. Overview of the activities for the year, challenges addressed
5. P1077 option B+ training facilitated by Jean Louw
6. Dialogue with Annie Lennox
7. ACTG coordinators visit to FAMCRU – both adults and adolescents present
8. Discussion on structure of ACTG
9. Visit by Victoria Beckham
10. Follow-up training on Stavudine study by Sr. Zuki (assistant to Dr Innes)
11. Training on new adolescent study presented by Anita Janse van Rensburg
12. Review of CAB SOP
13. Visit by NIH officials attended by CABs from FAMCRU, TASK, Delft and Karl Bremer Hospital
14. Presentation on establishment of the CAB and its roles in the community by Marie Theunissen and Jackie Jacobs

## **Partnerships**

1. National: Guideline Committees, EDL consultations
2. NGO: HOPE South Africa
3. International: IMPAACT, ACTG and PENTA

## **Teaching and Training (undergraduate-, postgraduate- and elective students)**

1. Five elective students from UK
2. Weekly teachings and presentations are being held on different work-related aspects and guest speakers have been invited. This can be viewed on G:\PERSONEEL\PEDIAT\KIDCRU\Training\Weekly training\Weekly training\Teaching 2014 presentations

## **Awards and Accomplishments**

1. Staff awarded with long service awards certificates (5 – 18 year employment service)
2. Staff Rector's Awards for General Performance: Mr K. Smith, Mr G. Fourie, Ms H. Petersen, Ms M. Reid and Ms J. Coetzee
3. Joan Coetzee – elected to serve on ACTG committee ( ACTG PDisc)
4. Celebrity Visit: Victoria Beckham – 24 February 2014

## Publications

See list of Publications, p. 29-40

## SOUTH2SOUTH PROGRAMME FOR COMPREHENSIVE FAMILY HIV CARE AND TREATMENT

**Acting Director:**  
**Ms C. du Toit**

### Summary of activities

In October 2012, the South to South Programme (hereafter S2S) secured funding through PEPFAR/USAID under Cooperative Agreement No. AID-674-A-12-00031; HIV-Innovations for Improved Patient Outcomes in South Africa. This cooperative agreement ends on 30 September 2017.

For the above-mentioned agreement, S2S's strategic goal is to develop and institutionalise capacity-building programmes to support the South African Government's health priorities and to improve HIV/TB health outcomes of priority populations – pregnant women, infants, children, adolescents and those who are co-infected by HIV/TB – by providing individual-level, organisational-level and systems and policy-level capacity building to health workers and relevant stakeholders, as well as conducting programme evaluation and improvement science research to document evidence-based capacity-building activities.

S2S provided individual level capacity building that is aimed at strengthening the Department of Health HIV/TB programmes and overall staff capacity. In 2014, S2S facilitated six Paediatric HIV and TB short courses for nurses and doctors working in primary health care. This course was attended by 72 clinicians, representing 8 of the South African provinces. Facilitators for this course are drawn from a number of departments within the Faculty of Medicine and Health Sciences, and include Prof. S. Schaaf (Dept. Paediatrics), Dr J. Maritz (Virology), Dr I. McLachlan (Medicine & Health Sciences, Dermatology), Dr A. Redfern (Medicine & Health Sciences, Neurodevelopment), Dr Susan Purchase (Hope), Dr G. van Zyl (Virology) and G. Essack (Medicine & Health Sciences, Paediatric ART).

S2S assisted the Department of Nursing to train the Certificate in Management of ART course. We trained the fourth-year MBCHB students in quality improvement during their Doctors as Change Agents module and sponsored the end-of-module celebration.

The national Department of Health was supported through two initiatives. The first was a national symposium to support the standardisation of Integrated Management of Childhood Illnesses (IMCI) within the undergraduate nursing curriculum. This symposium was attended by 45 nurse educators, representing 30 nurse training institutions in all 9 provinces. Secondly, we assisted with the roll-out of National Paediatric HIV stationary through training provincial trainers in the use of the stationary in two provinces.

In-service training for government staff was further supported through training in the provinces (Western Cape, Northern Cape and Eastern Cape) on paediatric ART, Prevention of mother to child transmission of HIV and infant feeding. S2S collaborated with an Eastern Cape NGO, Beyond Zero, to adapt and facilitate our Paediatric ART training material locally in the Eastern Cape. We assisted PATA with the revision of a toolkit for Community Care Workers in Southern Africa, receiving an acknowledgement as co-developers in the document.

S2S provided organisational capacity building that is aimed at strengthening the Department of Health HIV/TB programmes, quality improvement/quality assurance systems and overall staff capacity. S2S currently facilitates the elimination of mother to child transmission (eMTCT) Quality Improvement Collaborative focusing on the prevention of mother to child transmission (PMTCT) programme. During the end of 2014, S2S also started planning an Integrated Management of

Childhood Illness support programme for the Department of Health. A summary of highlights is provided below:

1. eMTCT Quality Improvement Collaborative
  - a. S2S has been facilitating the elimination of mother to child transmission (eMTCT) Quality Improvement Collaborative (QIC) in 3 provinces (Eastern Cape, Northern Cape and Western Cape), (Amathole, Cape Winelands and Pixley ka Seme) and 8 subdistricts.
  - b. A key highlight during 2014, include the expansion of sites for the eMTCT QIC. S2S managed to scale up implementation of the S2S eMTCT QIC from an initial 16 pilot sites to 51 full implementation sites between January and March 2014.
  - c. The following impact indicators were supported during the action periods:
    - i. (1) Antenatal first visit before 20 weeks rate
    - ii. (2) Antenatal client HIV re-test rate
    - iii. (3) ART initiation rate
    - iv. (4) Mother six-day postnatal visit rate
    - v. six weeks PCR testing rate
  - d. Other key outputs from the collaboration are listed below:
    - i. 413 health workers reached through Quality Improvement (QI) Coaching
    - ii. 125 health workers were reached through Learning Sessions
    - iii. 15 quality improvement training modules were designed and compiled
2. Initiation of planning for a District Integrated Management of Childhood Illness Support Project
  - a. During 2014, planning began for a new Integrated Management of Childhood Illnesses (IMCI) Support model. A literature search was done, National policies and programmes investigated and discussions held with the National Department of Health (NDoH) IMCI co-ordinators
  - b. An introductory visit was conducted in one district
3. S2S staff attended Paediatric and Prevention of mother to child (PMTCT) Technical working groups. Attendance by S2S to these technical working groups allowed S2s to advocate for quality improvement in maternal and child health and support paediatric and adolescent HIV care in South Africa at a national and provincial level.

Another of S2S's strategic objectives is to conduct programme evaluation and improvement science research to develop an evidence-based for capacity building activities in the area of HIV/TB health outcomes of priority populations. The following is a list of programme evaluation and improvement science studies conducted during the year 2014:

1. Training needs assessment of frontline primary health workers (PHC), facility managers, medical doctors, professional nurses, pharmacy assistants, facility-based counsellors and community health workers (2014-2016).
2. An evaluation of two Quality Improvement Learning Collaborative programmes that aim to improve HIV/TB primary healthcare services to maternal, infant, child and adolescent populations (South to South Programme evaluation (2013 - 2017). The 2014 programme evaluation is in progress.
3. A case study of the drivers and barriers of implementation of the Baby Friendly Hospital Initiative (BFHI) in a rural hospital in South Africa
4. Knowledge and skills of home-based carers on TB and HIV care and support at Cyferskuil Community Health Centre, Northwest Province, South Africa. Write-up of study is in progress.
5. Exploring perceptions of partnerships in a Health Systems Strengthening Programme: A Moretele subdistrict study. Data collection in progress.
6. Programme evaluation of a capacity building intervention for the reduction in HIV mother to child transmission (Moretele Programme Evaluation).

S2S's programmatic goals are aligned with Stellenbosch University's strategic priorities, i.e. research, training, community interaction and collaboration with African universities.

## Resources

**All positions are funded 100% by PEPFAR/USAID funds through Cooperative Agreement No. AID-674-A-12-00031; HIV-Innovations for Improved Patient Outcomes in South Africa.**

Posts (Full-time)	Number	Filled
Principal Investigator (10% FTE)	1	Y
Clinical Programme Director	1	N-1
Operations Director	1	Y
Programme Manager: Health Programmes	1	Y
Programme Manager: Learning Support	1	Y
Programme Manager: Strategic Information	1	Y
Administrative Assistant	1	Y
Travel and Logistics Coordinator	1	Y
Financial Officer	1	Y
Programme Coordinator	2	Y
Programme Data Manager	1	Y
Data Capturer	1	Y
M&E Officer	1	Y
Strategic Information Officer	1	Y
Research Assistant	2	Y
Paediatric Clinical Advisor	1	Y
PMTCT Clinical Advisor	3	Y-1 N-2
HIV/TB Nurse Advisor	4	Y
Nurse Advisor Training	2	Y-1 N-1
Training Designer	2	N-2
APS Advisor	3	Y
Pharmacy Advisor	1	Y

### New equipment:

- 30 Dell Latitude E7440 Laptops
- 1 Epson 1410WI Interactive Data Projector
- 1 Interactive Whiteboard

### Partnerships:

#### South African Government:

**S2S have ethical approval from the Provincial Government structures to conduct research:**

- Western Cape Department of Health: Cape Winelands District
- Northern Cape Department of Health: Pixley-ka-Seme District
- Eastern Cape Department of Health: Amathole District

## **S2S have established representation at the following forums of the national Department of Health (NDoH):**

- NDoH Paediatric and Adolescent Technical Working Group
- NDoH PMTCT Technical Working Group
- NDoH PMTCT Steering Committee
- NDoH Human Resources Directorate (Regional Training Centres)
- NDoH Nutrition Directorate

## **Non-governmental organisations:**

S2S is a USAID provincial specialist partner forming part of the broader NGO network of PEPFAR support to the South African Government to improve HIV/TB health outcomes. S2S works closely with the following organisations:

- ANOVA Health Institute: USAID district implementing partner in the Cape Winelands District, Western Cape Province
- Health Systems Trust: USAID district implementing partner in the Pixley-ka-Seme District, Northern Cape Province
- IYDSA: USAID district implementing partner in the Amathole District, Eastern Cape Province
- ITECH: Specialist training support partner to the NDoH Human Resources Directorate and Regional Training Centres
- Keth'Impilo: Training collaboration on paediatric and adolescent HIV/TB
- Broadreach: Training collaboration and technical assistance on paediatric and adolescent HIV/TB and eMTCT
- 20 000+ UKZN: Quality improvement partner organisation
- Aurum Institute: Co-support of the NDoH PMTCT Steering Committee on quality improvement
- WRHI: Co-support of the NDoH PMTCT Steering Committee on quality improvement
- Institute for Healthcare Improvement: Providing technical assistance and training to S2S staff in quality improvement methods
- Paediatric Aids Treatment Africa (PATA): PATA uses the S2S Paediatric HIV/TB toolkit for training events
- Numerous other NGOs and training institutions utilise S2S training material

## **Conference Presentations:**

Chirowodza A. and S.J. Van der Walt (2014). Measuring quality improvement interventions and context for a health system strengthening programme in three provinces in South Africa: a reflection on measures and outcomes. Oral presentation presented at the Third Global Symposium on Health Systems Research, 30 September-3 October 2014, Cape Town.

Geiger J., Green B. and Brittin K. (2014). Field testing of breastfeeding training. Oral presentation presented at the South Africa Association of Health Educationalists, 26-28 June, Cape Town.

Green B., Geiger J. and Brittin K. (2014). Facilitating Feedback on content and training activities during the pilot of a training course. University of Stellenbosch Academic Day, 13 August 2014, Cape Town.

Van der Walt K and Chirowodza A. (2014). Early summative evaluation of a quality improvement learning collaborative aiming to reduce mother-to-child-transmission of HIV in South Africa. Poster presentation presented at the Third Global Symposium on Health Systems Research, 30 September-3 October 2014, Cape Town.

## Teaching and training:

The S2S Programme does not offer under- and postgraduate training to students. Currently the focus of the programme is on in-service training of public healthcare workers through educational outreach. The table below is a summary of S2S staff and their current postgraduate studies.

S2S Staff Member	Degree Course	Institution
Katherine Brittin	M in Public Health	University of Cape Town
Admire Chirowodza	PhD in Counselling Psychology	University of KwaZulu-Natal
Justin Engelbrecht	MPhil in Health Systems Research	University of Stellenbosch
Justine Geiger	MPhil in Health Professions Education	University of Stellenbosch
Beryl Green	MPhil in Health Professions Education	University of Stellenbosch
Christalien Husselmann	MSc Clinical Epidemiology	University of Stellenbosch
Irma Kruger	MSc in Clinical Epidemiology	University of Stellenbosch
Carmen Louw	MPhil in Monitoring and Evaluation	University of Stellenbosch
Puni Mamdoo	MMed in Public Health	University of Stellenbosch
Madoda Sitshange	DPhil in Social Work	University of Pretoria

## DESMOND TUTU TB CENTRE (DTTC)

Director: Prof. N. Beyers

### All Travel/Congress/Conference/workshop/training (attended or presented)

Name of conference/workshop/training attended or presented:	Name of person Attended/presented?	Funded & presented:	Venue & Date
African Doctoral Academy – Summer School	Graeme Hoddinott, Lario Viljoen, Hlengani Mathema, Lesley-Ann Erasmus-Claassen, Kelly Abrahams, Nomtha Mandla and Sue-Ann Meehan attended courses in qualitative research design and the use of ATLAS.ti software for qualitative analysis.	Presented: Max Bergman, Lauren Wildschut, and Susanne Friese.	Stellenbosch 13 and 24 January 2014
Partner MER Workshop, Pretoria	Ms Margaret van Niekerk	Funded & presented: CDC Pretoria	CDC Pretoria office 21 January 2014

Sexual Reproductive Health Training for PN's	P. Heneke, N. Magwaca, N. Konza	Presented: Comficator Consulting	Comficator training venue February, ongoing for 5 weeks every Monday
Sexual Reproductive Health Training for EN's	C. Jantjies, M. Nonabe, P. Stephane, M. Visser	Presented: Comficator Consulting	Comficator training venue February, ongoing for 5 weeks, 2 days per week
HPTN 071 (PopART) (stigma ancillary) Annual Workshop	PopART Staff	Funded: NIMH	Misty Waves Hotel, Hermanus 1-3 February 2014
HPTN 071 (PopART) 2nd Annual Workshop	PopART Staff	Funded: NIH	Arabella Hotel & Spa, Kleinmond, Cape Town 3-7 February 2014
	Liz Walters Attended	Funded: MRC; Presented:	Stellenbosch University Business School 6-7 February 2014
GCP refresher	Anneke Hesseling and Boniswa Bavuma; Attended	Funded: NA; Presented: Marijke Geldenhuis	CAB Conference Centre Brackenfell 13 February 2014
Email correspondence course	Sharon Mbaba; Attended	Funded: Stellenbosch University; Presented: IT	Stellenbosch University Faculty of Medicine and Health Science 19 February 2014
Grant Writing Workshop	Joel Steingo; Attended	Funded: Kid-Care; Presented: Stellenbosch Institute for Advanced Study	Stellenbosch University Main Campus 24 February 2014
Business and report writing workshop	Leandie September	Funded: COMAPP(CDC); Presented: DEAL	DEAL training venue 27-28 February 2014
GCP Training	Lucy Lumphondo, Lumka Mafa and Wayne Green; Attended	Funded: Kid-Care; Presented: Creed	CAB Conference Centre, Brackenfell 5-6 March 2014
Research Overview Workshop	Debbie Myburgh; Attended	Funded: Kid-Care; Presented: Stellenbosch University Faculty of Medicine and Health Sciences Research & Development Unit	Stellenbosch University 11 March 2014



Basic Life Support and Advanced Life Support Training - paediatric resuscitation training for paediatric clinical trial staff	Penny Rose; Presented	Funded: n/a; Presented: Penny Rose	Stellenbosch University Faculty of Medicine and Health Sciences 19, 24, 28 March 2014
Defensive Driving Workshop	Thabang Kakudi	Funded: COMAPP; Presented: Kilarney training centre	Kilarney 7 March 2014
Implementing a Results-based M & E System	Zamikhaya Ndiki	Funded: COMAPP; Presented: Southern Hemisphere	Southern Hemisphere - Cape Town 11-13 March 2014
Families Matter! Program Training of Facilitators	P. Dlodlo, N. Hlekani, S. Mqondiso, Z. Ndiki, S. Ndoda	Funded: CDC; Presented: CDC	Pretoria 17-21 March 2014
Team building - COMAPP	The COMAPP team, 48 people	Funded: COMAPP; Presented: Willem Conradie	The Lord Charles 28 March 2014
Definitions of the new indicators	Ms Margaret van Niekerk	Funded & presented: CDC Pretoria	CDC Pretoria office 3 April 2014
Reporting for PEPFAR's Semi Annual Program Results (SAPR) and Implementation of PEPFAR's Monitoring, Evaluation and Reporting (MER)	Margaret van Niekerk	Funded: CDC/PEPFAR; Presented: CDC Pretoria Office and CDC Atlanta Office	Premier Hotel in Johannesburg 3 April 2014
Microsoft Powerpoint 2010 Basic	Z. Ndiki	Funded: University of Stellenbosch	Tygerberg Campus / GERGA 8 April 2014
GCP Refresher	Z. Ndiki and S. Meehan	Funded: COMAPP; Presented: CREDE	CAB conference centre in Brackenfell 9 April 2014
Plus Programme	Cindy Harley, Delphine Adams, Lisl Martin, Mercia Kuhn, Leandie September	Presented: Lorinda Nel	Stellenbosch Feb-Dec 2014
Building Effective Relationships	Bulelwa Mangcunyana	Presented: Stellenbosch	STIAS 8-9 May 2014
Effective Writing Skills	Rochelle Petersen	Presented: Stellenbosch	Language Centre Stellenbosch 8-9 May 2014
Mentor Training	Elize Nel	Presented: Stellenbosch	STIAS 8-9 May 2014



Sexual & Reproductive Health for FMP Facilitators	FMP Facilitators	Funded: CDC/PEPFAR; Presented: CDC Pretoria	St Georges Hotel, Pretoria 20-23 May 2014
PIMA CD4 Test Training	COMAPP Management & Nurses	Funded: Alere Pharmaceuticals; Presented: Alere Pharmaceuticals: Training division	Alere Premises, Ndabeni 21-22 May 2014
Training of Managers & M/E officers for FMP	Margaret van Niekerk, Zamikhaya Ndiki	Funded: CDC/PEPFAR; Presented: CDC Pretoria	St Georges Hotel, Pretoria 28 & 29 May 2014
Sustainable rural Health Research day	Prof. Nulda Beyers	Funded & presented: Ukwanda Rural Clinic	Ukwanda Rural Clinic School, Worcester 29 May 2014
National Certificate in Business Administration Services	Leandi September	Funded: Stellenbosch University; Presented: Siyathembana	Main Campus Stellenbosch 15-16 April, 20-21 May, 17-18 June
HSRC Roundtable Debate New molecular diagnostic tests for TB: Do patients benefit?		Funded: TREAT TB; Presented: Dr Pren Naidoo	HSRC, Cape Town 2 June 2014
HPTN Annual Meeting-jointly with IMPAACT	Vikesh Naidoo, Mark Theart, Nomtha Mandla, Bliya Yang, Anelet James, Nozi Makola, Peter Bock	Funded & presented: HPTN	Washington 13-20 June 2014
Introduction to Infectious Disease Modelling and its Applications	Mr Rory Dunbar	Funded: POPART NIH (pending Academic Fund approval); Presented: Biostats Core - London School of Hygiene and Tropical Medicine	London School of Hygiene and Tropical Medicine 16-27 June 2014
PopART Data Meeting	Prof. Nulda Beyers	Funded & presented: HPTN PopART	London 1-3 July 2014
GCP Refresher	M. Visser	Funded & presented: CREDE	CAB conference centre in Brackenfell 4 July 2014
SOP training on consent, confidentiality and guardianship	Paediatric Clinical and Support Staff	Funded & presented: Frieda Verheye-Dua	Teaching Block, Tygerberg Campus 9 July 2014

FDA Audit Feedback session	CRS Clinical and Support Staff	Funded & presented: Frieda Verheye-Dua	Teaching Block, Tygerberg Campus 10 July 2014
CD 4 Count Training	26 COMAPP Staff members	Funded & presented: S Meehan, Felicity Nelsen	The HUB 14 July 2014
Dangerous Goods Training	Anel Botha, Primrose Puling and Adelaide Carelse (PK Team)	Funded & presented: Flight Safety Training SA	Cape Town International Airport 14 & 15 July 2014
Finance post-award training, NIH	Grayson Lamore	Funded & presented: NIH	London, UK 14-16 July 2014
Management Development leadership program	M. van Niekerk	Funded & presented: Willem Conradie	HUB Tygerberg Campus 15-16 July 2014
National HCT Campaign revitalisation Meeting	P. Heneke, A. Sampson	Funded & presented: National Health Department	The Lakes Hotel, Benoni 15-17 July 2014
Genedrive research training (3 days)	Treatment Response Team	Presented: Epistem & the Liverpool School of Hygiene and Tropical Medicine	Tygerberg Hospital 15-18 July 2014
ACTG Adult walk-through training provided by DTTC IMPAACT CRS coordinator	TASK Applied Sciences	Presented: Frieda Verheye-Dua (Kelly Dooley, co-PI for the study also present)	TASK, Brooklyn Chest Hospital 18 July 2014
Best practice for effective recruitment and selection	Debbie Myburgh and Karen du Preez	Presented: Jane Moors, Outerbox Thinking	Feathers Lodge, Bellville 21 July 2014
Effective Recruitment skills Training	M. van Niekerk, L. September, Z. Ndiki, Elize Nel, David Nkani	Funded & presented: Jane Moore	Feather Lodge 21 July 2014
Project Management for the Research team	Debbie Myburgh	Presented: Research Development and Support Division	Tygerberg Campus, Education block 23-24 July 2014
FMP Exchange meeting - CDC	M. van Niekerk, Z Ndiki	Funded & presented: CDC	St Georges Hotel - JHB 22-24 July 2014
Training on Safety in the Study Communities.	All Intervention & Population Cohort Field Staff in the 9 study sites.	Funded: PopArt; Presented: Quinton Adams	PopART Site offices 28, 29, 30 & 31 July 2014

Health Research Ethics application information session	Frieda Verheye-Dua	Presented: Research Development and Support Division	Tygerberg campus 29 July 2014
Management Leadership Development Programme (MLDP) - Opening day	Karen du Preez, Sharon Mbaba, M. van Niekerk	Presented: Willem Conradie	SU Tygerberg Campus 29 July 2014
GCP Refresher	Karen du Preez, Elizabeth Viljoen, Anel Botha, Frieda Verheye-Dua	Presented: PPD	Kid-Cru 31 July 2014
National investment - CDC	M. van Niekerk	Funded & presented: CDC	St Georges Hotel - JHB 30-31 July 2014
Introduction to Clinical Pharmacology	Joretha Arendse, Frieda Verheye-Dua, Marieke van der Zalm and Tony Garcia-Prats	Presented: DAIDS LMS online tutorial	SU Tygerberg Campus August 2014
DAIDS Clinical Quality Management Plan Training	Joretha Arendse and Corné Bosch	Presented: DAIDS LMS online tutorial	SU Tygerberg Campus August 2014
GCP Refresher	Danite Bester	Presented: PPD	Kid-Cru 1 August 2104
Emotional Intelligence	Nadia Nel	Funded & presented: HPTN PopART/Deal training	Kolping Guesthouse 4-5 August 2014
Contracts Management Training	Grayson Lamore	Presented: SU Facilitator	SU Main Campus 5 August 2014
Counselling Training	25 COMAPP Staff members	Funded & presented: Welmoet Bok	HUB, Tygerberg campus 5-6 August 2014
National Health Research Database training	Frieda Verheye-Dua, Karen du Preez	Funded & presented: Charlene Roderick (DOH)	SU Tygerberg Campus 6 August 2014
Demo training & fitting of the V-flex N-95 Respirator Mask	Paediatric Clinical & Support Teams	Presented: Minette Tucker	Teaching Block, Tygerberg Campus 8 August 2014
Office Administration	Nadia Nel	Funded & presented: HPTN PopART/Deal training	Kolping Guesthouse 11-15 August 2014
Psycho-social Support Training	Sharon Mbaba; Daphne van Ster	Presented: SU facilitator	Tygerberg Hub 13 August 2014

Mentor training	Debbie Myburgh, Melvina Stollie	Presented: Dr Allan Stellenbosch Mentoring and Coaching Centre.	Devon Valley Hotel, Stellenbosch  14-15 August 2014
Wellness Training on Trauma Related Stress.	Charisse Pedro, Eliud Nkuna and David Nkani	Funded: DTTC; Presented: Maureen Kennedy	The Hub, Tygerberg Campus  14 August 2014
SOP on Infection Control and Hand Washing	Paediatric Clinical and Support Teams	Presented: Frieda Verheye-Dua	Teaching Block, Tygerberg Campus  15 August 2014
Kid-care project dissemination meeting	Karen du Preez	Funded & presented: Karen du Preez obo URC	Training room 3, Khayelitsha District Hospital  15 August 2014
Safety training for the Community	22 COMAPP staff members	Funded & presented: Quinton Adams	The HUB  15 August 2014
Plus Program	Cindy Harley and Delphine Adams		Stellenbosch  15 & 16 July 2014, 19 & 20 August 2014 and 16 & 17 September 2014
TOT couple Counselling and TOT Promotion	M. van Niekerk, P. Heneke	Funded & presented: CDC	Holiday Inn Rosebank  18-22 August 2014
Follow up Mentoring Training	Elize Nel, Charisse Pedro		Devon Valley  22 August 2014
MLDP Management & Leadership	Karen du Preez and Sharon Mbaba	Funded & presented: Funded DTTC; SU facilitator	Tygerberg Campus  22 August 2014
MLDP: Financial Management and Procurement	Karen du Preez and Sharon Mbaba	Funded: DTTC; Presented: Suzanne Schoeman	SU Tygerberg Campus  22 August 2014
Tygerberg Hospital Continuity of TB Care	Karen Du Preez, Anneke Hesseling,	Funded: Dept of Community Health; Presented: Karen Du Preez, Adrie Bekker	Tygerberg Hub  29 August 2014
SAPO Training & Leadership	Treatment Response Team	Funded & presented: SAPO	Red Cross Children's Hospital  September 2014

Protocol Training on the PopART Population Cohort for the new staff.	Bongani Sani, Thembela Masuku, Jennifer Witbooi and Mzwanele Lawrence	Funded: PopArt; Presented: Charisse Pedro and Nomtha Mandla	Room F330, Fissan Building 2 & 3 September 2014
Paediatric TB diagnostics	Liz Walters	Funded & presented: Liz Walters, DTTC	Khayelitsha District Hospital 5 September 2014
Performance Management Workshop	Karen du Preez	Funded & presented: SU facilitator	Feathers Lodge 9 September 2014
Leading Teams that work and work well together at SAPA congress	Liz Walters, Megan Palmer, Marieke van der Zalm, Ingrid rowan, Daphne Leukes	Funded & presented: Funded DTTC and presented Simon Hurry	Red Cross Children's Hospital 10 September 2014
Protocol Writing Workshop	Louvina van der Laan	Funded & presented: SU facilitator	SU Tygerberg Campus 16, 17 & 18 September 2014
Childhood TB diagnostics: The elephant in the room	Karen du Preez,	Funded & presented: URC, facilitated NHLS and University of Pretoria	CSIR Pretoria 18 September 2014
Global Health Trials Workshop: National Skills Sharing Workshop	Frieda Verheye-Dua, Ingrid Rowan and Lienki du Plessis	Funded & presented: Funded SU & UCT and presented Global Health Trials	Groote Schuur Hospital, UCT 19 September 2014
TOT training on HIV rapid test.	14 Research Nurses of the Population Cohort	Presented: Kerry Nel	Room 3015 Clinical building 19 September 2014
Dangerous Goods Training	Corné Bosch	Funded & presented: Flight Safety Training SA	Cape Town International Airport 22-23 September 2014
Foundation for Innovative New Diagnostics Training on a new TB diagnostic method using stool samples and Xpert	Treatment Response Team	Presented: FIND (Pamela Nabeta, Claudia Denkinger) and Rutgers University (Priya Banada)	DTTC 29-30 September 2014
Writing a Successful NIH Grant	Marieke van der Zalm	Funded & presented: SU Research & Development	15-16 October 2014

GCP	Anneline Scholtz	Attended/ Presented: Attended	Crede 22 - 23 October 2014
MDLP: Operational Management	Karen du Preez, Sharon Mbaba	Funded & presented: SU	Stellenbosch 24 October 2014
Treatment for prevention conference (R4P):	Nomtha Mandla, Dewald van Deventer, Blia Yang, Nulda Beyers, Maninie Molatseli	Funded: PopART; Presented: Various presenters on HIV prevention research	Cape Town International Convention Centre 30 October 2014
Mentoring Training Follow up.	Debbie Myburgh, Sharon Mbaba, Gwynneth Hendricks, Nomtha Mandla	Funded & presented: SU, Dr Allen	Devon Valley Hotel 31 October 2014
45th Union Conference	Anneke Hesseling, Liz Walters, Karen du Preez	Funded & presented: The Union	Barcelona, Spain 28 October - 1 November 2014
ICAN	Zingiwe Mramba	Funded & presented: WHO	Harare, Zimbabwe 3-5 November 2014
Positive, Change, Gender, HIV and Disability	Lumka Mafu	Funded & presented: DTTC	Stellenbosch Main Campus 4-6 November 2014
Positive Leadership, Positive Change: Building leadership skills with regards to Transformation, Gender, Disability and HIV in Higher Education	Rochelle Petersen; Attended		Katjiepiering Restaurant Conference facility, Botanical Garden, Stellenbosch 4 - 6 November 2014
MDLP: Generational Acumen	Karen du Preez, Sharon Mbaba	Funded & presented: SU	Stellenbosch 7 November 2014
CDC - Point of Care Testing : Quality Control Workshop	Ms Margaret van Niekerk; Attended	Funded: CDC; Presented: CDC in partnership with NHLS & NCID	Pretoria 13 November 2014
FMP Facilitators	J. Galada, S. Mqondiso, A. Lingani, P. Matshanga; Attended	Funded: CDC; Presented: CDC	Pretoria 10-14 November 2014
PLUS Programme	Delphine Adams and Cindy Harley; Attended		7 & 8 Oct 2014 18 & 19 Nov 2014 and 9 & 10 Dec 2014: Stellenbosch

MDLP: Operational Management	Karen du Preez, Sharon Mbaba	Funded & presented: SU	Stellenbosch 24 October 2014
Mentoring Training Follow up.	Debbie Myburgh, Sharon Mbaba, Gwynneth Hendricks	Funded & presented: SU, Dr Allen	Devon Valley Hotel 31 October 2014
ICAN	Zingiwe Mramba	Funded & presented: WHO	Harare, Zimbabwe 3-5 November 2014
Positive, Change, Gender, HIV and Disability	Lumka Mafu	Funded & presented: DTTC	Stellenbosch Main Campus 4-6 November 2014
MDLP: Generational Acumen	Karen du Preez, Sharon Mbaba	Funded & presented: SU	Stellenbosch 7 November 2014
Media Skills for research Scientists	Gwynneth Hendricks	Funded & presented: SU Research & Development	The Lanzerac Hotel & Spa, Stellenbosch 1 December 2014
Media Skills Workshop	Gwynneth Hendricks	Funded & presented: SU Research & Development	The Lanzerac Hotel & Spa, Stellenbosch 1 December 2014
PLUS Program	Leandie September; Attended	Funded: University of Stellenbosch; Presented: Siyathembana	Stellenbosch February 2014 - Ongoing
Dispensing Course	P. Heneke, A. Sampson, N. Magwaca; Attended	Funded: CDC; Presented: Pharmacy Education International	Plumstead July 2014 - Ongoing
20th International AIDS Conference	Sue-Ann Meehan	Funded & presented	Melbourne Australia, 20-25 July 2014

### Visitors:

Visitors name:	Organisation:	Purpose of visit:	DTTC person visited:	Date of visit:
Charles Wells and Larry Geitner	Otsuka Pharmaceuticals	Site visit for upcoming clinical trial	Anneke Hesselning and the PK Team	January 2014
Cherise Scott	Paediatric programme director, TB Alliance Unitaidd project	Development opportunities and looking at new drugs	Anneke Hesselning and paediatric team leaders	29 January 2014

Dr Nils Dalaire (Assistant Secretary for Global Affairs U.S. Department of Health and Human Services) and Dr Nancy Knight (CDC-SA Country Director)	US Government & CDC South Africa	Showcase the Prevention work carried-out in South Africa that is funded by CDC Atlanta	COMAPP	7 February 2014
Ayana Moore and Tanette Headen	FHI 360	Initial Assessment visit	PopART Population and Intervention-Nomtha Mandla, Blia Yang and PopART team	7-12 February 2014
Sian Floyd	London School of Health Tropical Medicine	Data Management	PopART Population and Intervention-Nomtha Mandla, Blia Yang and PopART team	10-14 February 2014
Phyllis Costanza, Tom Hall and Maya Ziswiler	UBS Optimus Foundation	South African funded site visit and presenting the current community-based activities and platform of Kid-Care	Karen du Preez	17 February 2014
Dr Mary Glenshaw, the new Project Officer and Ms Michelle Smith, the financial officer	CDC Pretoria office	The aim of the visit was for formal introductions, to provide Dr Gleshaw with a theoretical and practical overview of the project and discuss budget-related matters.	COMAPP Management	6 March 2014
Steve Smith, Gray Handley, Peter Kim	DAIDS/NIAID	Explore interest from SUN in an NIH-funded regional TB Research network	Tony Garcia-Prats (representing Anneke Hesselning)	18 March 2014
Hilda Maringa	CDC Pretoria	Support visit to Families matter! programme	Sue-Ann Meehan, Margaret van Niekerk, Zamikhaya Ndiki and FMP team	12 May 2014
Ms Evelyn Mhlope, Ms Hyla van den Berg	URC	Kid-care team (Dr Karen du Preez)	Study close out visit	10 July 2014



Kelly Dooley	John Hopkins University, US Medicine	DTTC	Research study & presentation	15 July 2014
Emma Mosely	Quintiles	PK team	Refresher training in preparation for Otsuka 232 study start up	23 July 2014
Hilda Maringa	CDC	Quarterly Activity Visit	COMAPP Sites	29 July 2014
Corey Best and Jamar Robinson	Otsuka	MDR PK team	First dose for 232 study and study oversight	12 August 2014
Emma Mosely, Annelie Rust	Quintiles	MDR PK team	Site monitoring for 232 study	12 August 2014
Emma Mosely	Quintiles	MDR PK team	Site monitoring for 232 study	21 August 2014, 25-August 2014
Eileen Pouliot DAIDS CTU program officer and 3 other DAIDS representatives	DAIDS, NIAIDS	DTTC, (CRS) at Brooklyn Chest PK Unit	Site monitoring for the PK Unit	22 August 2014
Dr Liz Harausz	Case Western Reserve University (USA)	Anneke Hesseling	Work on WHO evidence synthesis for MDR-TB in children	25 August 2014 through 5 October 2014
Amanda Mnabisa	PPD	BCH PK unit, IMPAACT CRS	Site Initiation monitoring, IMPAACT	3-4 September 2014
Dr James Hargreaves	LSHTM	HPTN 071a/ PopART Stigma Study	Graeme Hoddinott/ Hlengani Mathema	10-12 September 2014
Yaw Agyei	HIV Prevention Trials Network (HPTN) Laboratory Centers (LC) QA/QC Coordinators Johns Hopkins School of Medicine Department of Pathology Laboratory Information Systems Training		PopART Laboratory Personnel	12-17 September 2014
Devasena Gnanashanmugan	DAIDS	Anneke Hesseling	Site visit and discuss diagnostics	26 September 2014

Priya Banada	Rutgers University, New Jersey	Liz Walters	Diagnostic studies	29-30 September 2014
Matthew Wiperman, Christy Beneri, Irina Ureshenko, Robbie Flick	Stony Brook, TB Alliance, University Colorado respectively	PK Unit, BCH and the Diagnostic team	learn more about Paediatric TB, MDR-TB and TB diagnostics	Between 22 September – 10 October 2014
Chris Egerton-Warburton and Kate Antrobus	Global Health Investment Fund	Diagnostic Team and Coné Bosch	Very keen to understand the research process	9 October 2014
Dr Virginia Bond	Zambart	HPTN 071 (PopART) Social Science Workshop	Graeme Hoddinott	13-17 October 2014
Emma Mosely; Anle Nel	Otsuka	MDR-PK Unit, BCH	Monitoring	20-21 October 2014
Ayana Moore	FHI 360	HPTN 071/ PopART PC Site Assessment visit	Nomtha Mandla	21-23 October 2014
Ms Shari Krishnaratne	LSHTM	HPTN 071a/ PopART Stigma Study	Hlengani Mathema	24-26 October 2014
Richard Hayes, Sian Floyd	LSHTM	HPTN 071/ PopART Population Cohort (PC) Vendor Kickoff meeting at Spier	Nulda Beyers and PopART PC team	17-19 November 2014
Ayana Moore	FHI 360	HPTN 071 Vendor Kickoff Meeting at Spier	Nulda Beyers and PopART PC team	17, 18, 19 November 2014
Helen Ayles, Ab Schaarp and Nkantya	Zambart	HPTN 071/ PopART Population Cohort (PC) Vendor Kickoff meeting at Spier	Nulda Beyers and PopART PC team	17-19 November 2014
Sarah Fidler	Imperial college	HPTN 071/ PopART Population Cohort (PC) Vendor Kick-off meeting at Spier	Nulda Beyers and PopART PC team	17-19 November 2014
Emma Mosely; Anle Nel (Quintiles)	Quintiles	MDR-PK Unit, BCH	Pre-monitoring visit	17-21 November 2014
Emma Mosely; Anle Nel (Quintiles) and Jamar Robinson; Corey Best (Otsuka)	Quintiles and Otsuka	MDR-PK Unit	Monitoring visit	4-5 December 2014

## Infrastructure development

PK unit upgraded. The painting of walls is done. Cracked windows were replaced, etc. This was done over a three-week period during March.

DTTC Refurbishment – July-September 2014

### Brooklyn Chest Hospital:

- Garden established
- Branding attached to exterior structure
- Incubator for storing Investigational Products (IP)
- New furniture for patient recreation room

### Tygerberg Hospital:

- Established a cough room in GGr for the safe collection of respiratory samples from children. Supported by NRF and the Tygerberg Children's Hospital Trust

## Special Events:

### January 2014:

Initiation (Start) of PopART Population cohort on 15 January 2014

### February 2014:

PK team building afternoon held at the end of February 2014.

### March 2014:

Dr Karen du Preez was invited as a guest speaker at the World TB Day Activities hosted by the Cape Winelands District.

**Topic:** Let's talk paediatric TB (joint presentation with Dr Andre Burger)

**Date:** 25 March 2014

**Venue:** Ukwanda Rural Medical School, Worcester

### Mandela Day, 18 July 2014:

On Mandela Day, 18 July, the paediatric team visited Fikilela between 10:00 and 12:00. The visit included indoor and outdoor activities. Age-appropriate educational toys and healthy snacks for the children were donated. Fikilela will remain our outreach organisation of choice in future. The nature of their work as a safe-house for young children does not allow us to create media hype or publish photographs of the children.

Afterwards the team joined in the “Blanket Drive” initiative by DTTC, which resulted in a useful donation to the PK Unit at Brooklyn Chest Hospital. Marlene Kotze was invited to do the handover to Dr Marianne Willemse on Wednesday 30 July.

### **DTTC Dissemination meeting:**

**Date:** 12 December 2014

**Venue:** Klein Joostenberg

**Newly enrolled students for Degrees: (only students which have been newly enrolled during the quarterly report months)**

Adelaide Carelse – enrolled for Postgraduate Diploma Nursing Education which commenced in February.

### **Ms Nomakula Konza**

Primary Health Care for Professional Nurses

Cape Peninsula Technicon, Bellville

### **Students graduated:**

Louvina van der Laan, MPhil Clinical Pharmacology, University of Cape Town

I.B. Johnson – PGD-Primary Health Care, Stellenbosch University

E Johnson – PGD-Primary Health Care, Stellenbosch University

### **Funding/Grants awarded:**

**Name of person:** Adrie Bekker

**Funding Body:** TB Alliance

**Name of study:** Infant PK Study

**Date:** March 2014

**Name of person:** Liz Walters

**Funding Body:** MRC Clinician Researcher PHD Scholarship

**Name of study:** Innovative strategies to improve the diagnosis of intrathoracic TB in children

**Date:** March 2014

**Name of person:** Prof. A. Hesselting and Prof. Simon Schaaf, in collaboration with South African and international colleagues

**Funding/Grant body:** British BMRC/Wellcome Trust of approximately R40 million and collateral funding has been awarded by the South African MRC SHIP programme.

**Name of study:** Paediatric team at the Desmond Tutu TB Centre (DTTC), Department of Paediatrics and Child Health- implementation of community-based trial to prevent MDR-TB in children, the trial, TB-CHAMP

**Lienkie du Plessis**

**Harry Crossley**

Clinical characteristics and referral outcomes of children admitted with hospital diagnosed TB at district level hospital

October 2014

**Anneke Hesselning**

SA MRC

Collaborative Centre

21 October 2014

**Liz Walters**

Scientific Travel Fund, Stellenbosch University

Funded to travel to/attend the 45th Union Conference, Barcelona

28 October-1 November 2014

**Anneke Hesselning**

SA NRF

SARCHi Chair

November 2014

#### **Promotions/Achievements/Awards:**

- COMAPP was selected as one of the PEPFAR Projects to be filmed in the CDC/PEPFAR Success story edition. The filming was carried-out over two days. They filmed the Nurses on CD4 PIMA training, the Etafeni outreach team and the FMP site. Date: 22 and 23 May 2014
- Rectors award for 2013 performance: 11 staff members
- Zingiwe Mramba awarded second place for her poster at the ICAN conference in Zimbabwe 3-5 November 2014.
- Klassina Zimri's article, "The role of the Research Nurse", has been shortlisted by the Global Health network team, and has been sent to the panel of judges who will consider the shortlisted entries and will choose the winners at a teleconference to take place on 16 December 2014.

## Publications

See list of Publications, p. 29-40

### Non-Peer review publications/media events/radio, newspapers:

Name of publication/ event (e.g. newspaper, radio):	Name of study/ person:	Name of article:	Date
Cape Talk; John Maytham Show	Nulda Beyers	Prof. Nulda Beyers comments on TB	20 March 2014
The Lancet, <a href="#">Volume 383, Issue 9922</a> , Page 1031,	Nulda Beyers	Nulda Beyers speaking up for children with tuberculosis	22 March 2014
RSG; Montor	Nulda Beyers	Prof Nulda Beyers praat oor tuberkulose	24 March 2014
Mail & Guardian	Nulda Beyers	Collective will can curb TB epidemic	28 March 2014
<a href="http://www.healio.com/infectious-disease/respiratory-infections/news/online">www.healio.com/infectious-disease/respiratory-infections/news/online</a>	Florian Marx	TB-relapse-occurs-sooner-after-treatment-than-reinfection	7 April 2014
United States/ <a href="http://africapunch.com">africapunch.com</a>	Nulda Beyers	<a href="#">South Africa: Better TB Treatment for Babies?</a>	15 April 2014
The New Age	DTTC	Study to treat TB in babies	14 May 2014
<a href="http://www.health24.com/Medical/Tuberculosis/News/New-treatment-for-babies-with-TB-20140513">http://www.health24.com/Medical/Tuberculosis/News/New-treatment-for-babies-with-TB-20140513</a>	DTTC	Better treatment for babies with TB	14 May 2014
<a href="http://allafrica.com/stories/201405150742.html">http://allafrica.com/stories/201405150742.html</a>	DTTC	<a href="#">South Africa: Research Could Point to Better Treatment for Babies With TB</a> - Desmond Tutu TB Centre	16 May 2014
John Maytham Show Cape Talk	Prof Nulda Beyers	<a href="#">Tuberculosis</a>	18 June 2014
Tygerburger (Brackenfell)	Prof Nulda Beyers	Closing the gap to tackle TB	16 July 2014, p2
<a href="http://www.allAfrica.com">www.allAfrica.com</a> South Africa	PopART	SA-The Gape to Tackle TB	August 2014
Cape Times	PopART	Research will see home HIV testing offered	7 August 2014
<a href="http://www.health24.com/Medical/HIV-AIDS/News/Bringing-HIV-testing-and-prevention-to-the-people-20140807">www.health24.com/Medical/HIV-AIDS/News/Bringing-HIV-testing-and-prevention-to-the-people-20140807</a>	PopART	Bringing HIV testing and prevention to the people	7 August 2014

www.allAfrica.com South Africa	COMAPP	South Africa: Helping Pre-Teens to Cope With Life's Pressures	11 August 2014
Cape Times Live	COMAPP	Caregivers in the Cape Town community of Nyanga have completed an innovative course intended to help them support children in their preteen years and lower the rate of teenage pregnancy	11 August 2014
Radio 2000	COMAPP / Margaret van Niekerk	Families Matter! Program - interview	12 August 2014
www.Health24.co.za	PopART	The Clever Dick campaign kicks off in the Cape	1 September 2014
www.timeslive.co.za	PopART	Boost for male circumcision	1 September 2014
www.timeslive.co.za	Childhood	New hope for TB Kids	2 September 2014
The times	Childhood	New hope for TB Kids	2 September 2014
The Times	Anneke Hesseling	New hope for TB kids	2 September 2014
The Daily voice	PopART	Time to be a clever dick	2 September 2014
Tygerburger (Milnerton)		Promoting safe circumcision	3 September 2014
PocketMedia® Solutions,	COMAPP	Z-CARD® - a Medical Male Circumcision (MMC) education tool for communities	28 October 2014
CNS	Anneke Hesseling	Stepping up development of child-friendly TB drugs	1 November 2014
Tygerburger Newspaper	COMAPP, Kraaifontein Site, Living Hope	Bringing new hope to residents	12 November 2014
Health24.com	DTTC	Tutu pays tribute to Tygerberg Children	14 November 2014
Cape Times	DTTC and Tygerberg	Tutu thanks staff at children's hospital	14 November 2014
TB Alliance Film Documentary: Challenges of TB in children:	DTTC paediatric team	Challenges of TB in children	1-4 December 2014

1 Also affiliated with Desmond Tutu TB Centre

2 Also affiliated with Desmond Tutu TB Centre

## PSYCHIATRY

**Head of Department:  
Prof Soraya Seedat**

### Summary of activities

The year 2014 was a very active and productive year for the Department of Psychiatry, both on the clinical service delivery and academic fronts. Nine registrars successfully completed their FC Psych Part II examinations, two specialists completed MPhil degrees, and there were five PhD graduates.



### Resources:

**Prof Soraya Seedat**

Posts (Full-time)	Number	Filled
Head of Department	1	1
Heads of Clinical Units	2	2
Specialists	4 (2 adult + 2 C&A)	4
Registrars	8	8
Medical Officers	0	0
Senior registrars	1 (C&A)	1
Posts (Sessional)		
Specialists	0	0
Part time posts	5/8 MO (C&A)	1(5/8)
Locum posts	1 (C&A)	1
Full Time equivalents	0	0
Number of beds (usable)	42 (+4 seclusion beds)	(42 + 4 seclusion beds)

### Output

Outpatient visits		
	2013	2014
J.LG Adults	1 635	1 228
Liaison/Emergency Psychiatry - Adults	1 758	1 687
F.LG - C&A	2 768	2 688
Total Outpatient visits	6 161	5 603
Admissions		
DG Adults	258	223
D.LG -Adults	181	215
G.LG - C&A	167	151
Total admissions	606	589
Theatre procedures:		
ECT	0	24(2pts)
The Department also delivers a full clinical service at Stikland Hospital and shared input at Lentegeur Hospital, for which the statistics are not included here. (Statistics for Clinical Psychology are also not included here).		



## Comment on output:

No significant changes were noted in the number of total admissions. A decrease in adult outpatient visits probably reflects effective referral to community clinics where patients are followed up by psychiatry registrars from our department, as well as by psychiatric community nursing and other clinical staff.

Lower inpatient turnover was associated with increased length of stay of individual patients and ongoing saturation of admission waiting lists. An increasing number of patients stay longer because of concurrent chronic general medical conditions such as HIV and simultaneous difficulties to discharge patients to adequate care and supervision resources in the community. These trends were echoed in the child and adolescent psychiatry service, with particular difficulties associated with the discharge of young patients who have psychiatric difficulties and are not able to be cared for at home.

A new therapeutic group for adolescent girls was successfully initiated by Dr Fiona Schulte and Ms Kim Rooney (private sector clinical psychologist) with good provisional outcomes.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

A child and adolescent forensic psychiatry service has been established at Valkenberg Hospital, staffed by a visiting consultant from Tygerberg and a psychologist from the private sector. The aim of the service is to provide the Department of Justice with criminal capacity/forensic psychiatry assessments of children in conflict with the law.

#### Community outreach programmes

The child and adolescent psychiatry service continues to provide outreach and support to specialist mental health services in the relevant rural and metro catchment areas, as well as in-service training were requested to children's services and district and school health services. CPD for general psychiatrists, other medical specialists, psychologists and educators is also provided where possible. Intensive support services are provided to selected children's homes that admit and manage children or adolescents with challenging behaviour.

Since 2014, Dr Leigh van den Heuvel has run a consultation outpatient clinic on Wednesday mornings for both new and follow-up patients, consulted on inpatients in other departments at Tygerberg Hospital, and provided telephonic clinical support. Since commencing the service; she has given lectures and tutorials to nurses attending advanced HIV nursing courses at Fort Hare University as well as at Stellenbosch University. In addition, she has delivered tutorials with visiting nurses from Fort Hare and patient presentations at liaison meetings.

#### The Mental Health Information Centre (MHIC)

The Mental Health Information Centre of Southern Africa, directed by Ms Janine Roos since 2011, had numerous activities during 2014. In this report we give feedback of some of these activities.

The MHIC aims to be in touch with the whole community of Southern Africa by means of a call/e-mail centre and also runs a text message service to facilitate getting information to people in rural areas who may not have access to the internet. Via the call centre, with a 24-hour turnaround period, the MHIC provides information on mental health/disorders and makes referrals to a database of mental health professionals. Members of the public can also contact professionals via the website.

## Brain Awareness Week 2014

In March 2014, we organised several radio talks, distributed booklets on brain matters and ran a campaign on our facebook page to create awareness about brain health, brain disorders and the newest brain research.

**MENTAL HEALTH INFORMATION CENTRE**  
Southern Africa

Home Topics Mental Health Professionals Research Studies News About us Get Involved Contact us

### Brain Awareness Week 10-16 March 2014

In March we celebrate Brain Awareness Week

The adult brain only weighs about 1.5 kg, yet it sets us apart from all other species by allowing us to achieve wonders such as walking on the moon and composing masterpieces of literature, art and music. The brain determines who we are as a person.

Brain Awareness Week is a global campaign in association with the DANA Alliance [www.dana.org](http://www.dana.org) dedicated to raise public awareness of the progress and benefits of brain research. It is an opportunity to provide information about the newest brain research, brain diseases and – disorders.

The Mental Health Information Centre (MHIC) is a non-profit organisation that aims to promote mental health in Southern Africa by increasing public awareness and understanding of mental health, and addressing the stigma associated with mental illness. As a Brain Awareness Week partner, the MHIC will once again be celebrating this event between 10 and 16 March 2014. Lookout for our daily brain facts and memory tips on [www.facebook.com/mentalhealthsa](http://www.facebook.com/mentalhealthsa)

Contact us on 021 938 9229 or send an e-mail to [mhic@sun.ac.za](mailto:mhic@sun.ac.za) should you be interested in becoming a brain advocate in your area.

Recent Posts

- Brain Awareness Week 16-22 March 2015
- The Enduring Mystery of Migraine
- Diabetes: Defects in insulin action could contribute to schizophrenia-like behavior
- New insights into an old problem
- Study on social anxiety disorder

Mental Health Topics

- Mood Disorders
- Schizophrenia and other psychotic disorders
- Anxiety Disorders

4 Wednesday March 19 2014 **NEWS** TygerTalk

## Celebrating brain awareness week

**TANSEEM HASSAN**

With nerves travelling faster than a Grand Prix car and stretching over 75km, the brain is the most complex machine in the universe with over one billion nerve cells.

The brain's power is always underestimated, said Janine Roos, the director of the Mental Health Information Centre of Southern Africa in the Department of Psychiatry at Stellenbosch University.

She said in marking Brain Awareness Week (BAW) last week, from Monday March 10 until Sunday March 16, it was important to know that brain awareness is celebrated all year, but especially focused on in March.

She said Brain Awareness Week is an international Dana Alliance Campaign supported by the Dana Foundation, which is dedicated to raising public awareness of the progress, promise and benefits of brain research. It is an opportunity to let people know what is being done to diagnose, treat and prevent disorders of the brain and provide information on the effects of substances on the brain. This is an important country to have this

■ Pictured are brains that were put onto a pencil to keep pupils interested in brain education.

awareness, where there is a high intake of substance that affect the brain," said Ms Roos.

The Dana Foundation is a philanthropic organisation based in New York, that supports brain research through grants and education.

Ms Roos said often, there is a stigma attached to people who have any mental or brain illness. "The stigma is still out there. We find that when people call our helpline, they seem to remain anonymous or try to hide symptoms. It is not worth it. Why hide it, because you need help," said Ms Roos.

She added that at the mental health centre they aim to eliminate the discrimination against people who suffer from brain disorders. "Discrimination and the stigma are big issues. We aim to get people talking and get them the assistance we can," said Ms Roos.

She said they try to get people the treatment they need as mental illnesses can get progressively worse if patients do not get help.

She said public health facilities are strained to deal with mental health illnesses.

"There are good ones out there that offer help, but they can only carry a certain capacity. The health sector is really lacking. I think that mental illness needs to be integrated with primary health care, because all illness may lead to mental health problems," said Ms Roos.

She said no matter what illness you have, it affects your mental ability.

Researchers from the Mental Health Information Centre, which has been operating since 1999, visited schools during Brain Awareness Month to educate pupils about the importance of the brain.

She said they find many people are ignorant about health and don't realise that small things affect the brain.

Ms Roos said they do research at the Tygerberg Medical Campus, in partnership with the Medical Research Council (MRC). One of the researchers, Elsie Breet, research assistant for the MRC Unit on anxiety and stress disorders, said previously a person's mental ability was tested using a Rorschach test,

but it wasn't reliable. It is no longer used because we have found more reliable things like the Yale Brown Obsessive Compulsive Scale (Y-BOCS) that helps tests the brain's ability," said Ms Breet.

She said the y-bocs is used to diagnose and check the severity of an obsessive brain disorder.

**Interesting facts about the brain, from the Dana Foundation:**

- The human brain is just bigger than your fist
- The brain weighs 1.5kg and is about 1.5% of the body weight
- The grey part of the brain is folded to fit inside the skull and if it flattened it would cover the surface of an office desk
- The brain consists of 100 billion brain cells, of which 100 000 are lost each day
- The brain is a mass of nervous tissue that regulates all physical and mental activity
- On average the male brain is 1.4kg and is slightly heavier than the female brain which weighs 1.25kg

For information contact the Mental Health Information Centre on [mhic@sun.ac.za](mailto:mhic@sun.ac.za) or call the helpline 021 938 9229 or visit [www.mentalhealth.org.za](http://www.mentalhealth.org.za)



The MHC organised T-shirts for staff who took part in the Two Oceans marathon to create awareness about the MHC.

Psychiatrist Dr Helena Lategan (right)

The MHC mental health professional's database is growing in popularity and currently has 730 registered professionals and organisations. The database is accessible to anyone in need of a mental health professional. We also maintain a mobile-friendly website, [www.mentalhealthsa.org.za](http://www.mentalhealthsa.org.za), with up-to-date news and information.

**Kersfees *in alleenheid en verlies***  
*Cevlia de Kock*

John Wilkinson, 'n senior burger, het gesê: "By elke mens is daar 'n prentjie in jou gedagtes wanneer jy aan Kersfees dink. Die meeste van ons sien blink versierde kersbome en die opgewonde gesiggies van kinders wat wag op geskenke. Of ons onthou 'n Kersdiens wat ons bygewoon het.

Maar daar is ook die ander kant van Kersfees. Wanneer 'n mens alleen die Kerstyd tegemoet gaan, sak 'n eensaamheid oor jou. Vir hoeveel van ons senior burgers is dit 'n tyd wat ons net wil verby kry. Om gelukkige gesinne saam te sien, laat mens terugdink aan die dae wat jy saam met geliefdes die feestyd gedeel het."

As 'n bekende of geliefde afwesig is van die feesvieringe hierdie jaar, veroorsaak deur dood, egskoiding of ver afstande, is die einste feesvieringe meer as wat ons kan of wil hanteer. Claire Colvin sê: "Almal vertel net hoe wonderlik die Kerstyd is, maar wat hulle vergeet om by te sê, is wat jy daaraan kan doen as dit nie so is nie!"

Luister na die eenvoud van 'n kinderversoek: "Sal jy saam met my stap? Sal jy my hand vashou?" Of dit nou in die gang af is, of om buite na 'n blom te gaan kyk, of na 'n maatjie toe te stap, ons kinders wil hulle hande in ons s'n hê.

So kan ons ook vir die Here vra: "Sal u my hand vashou en saam met my stap?" Hy sal, want Hy is ons Vader en hou al lankal sy hand uit na ons toe. Hy is altyd by ons, al is ons alleen. Dawid het daarvoor getuig: "Die HERE is na aan hulle wat gebroke harte het; wie se gees verpletter is, verlos Hy" (Ps 34:19, Direkte Vertaling).

Kersfees is Kersfees omdat Jesus gebore is. Hy het sy koninkryk na ons gebring en met sy kruisiging ons verlos van ons sondes sodat ons die ewige lewe kan hê.

John Wilkinson sê verder: "Al is ek alleen hierdie Kersfees en is daar 'n verlange in my hart, weet ek dat ek tot in alle ewigheid nooit alleen sal wees nie. Ek kyk nou met 'n ander bril na Kersfees, want Jesus se geboorte het vir my ewige hoop gegee."

Janine Roos, van MHC (Mental Health Information Centre), sê stres, angs en depressie kan gedurende die feestyd vererger en stel voor dat ons uitreik na positiewe mense met begrip. Vermoë situasies wat negatiewe gevoelens kan ontketen. U kan haar kontak in hierdie feestyd by 021 938 9229.



During 2014, the MHC and psychiatrists gave talks about mental health/disorders at various Anxiety and Depression Support groups.



## Mental Health Awareness Month (October):

On 12 October 2014, the MHIC and staff from the Department of Psychiatry joined the Hope Hike at D’Aria in Durbanville to increase awareness of depression.



## Mental Health Awareness Days celebrated in 2014 were:

- 14-21 February: Teen Suicide Prevention Week
- 16-22 March: Brain Awareness Week
- 26 May: Bipolar Awareness Day
- 26 Jun-1 Jul: Substance Abuse Awareness Week
- 10 July: Panic Awareness Day
- 25 July: National Schizophrenia Day
- 21 September: World Alzheimer’s Day
- October: Mental Health Awareness Month (10 October: World Mental Day)

The MHIC had a fair amount of media coverage during 2014 with articles published in various community newspapers and magazines. We also did radio talks on different aspects of mental health/illness.



**Geveesde situasies**

Die absonderlike verskynsel van die wiggie...  
 • Dit kan 'n teken wees van 'n ernstige...  
 • Dit kan 'n teken wees van 'n ernstige...  
 • Dit kan 'n teken wees van 'n ernstige...

**Kry hier hulp**

• Soek die gesondheidsdienste...  
 • Soek die gesondheidsdienste...  
 • Soek die gesondheidsdienste...

# Sosiale angs

Goodwood/Parow  
**Tyger talk**

Wednesday 28 May 2014  
 Editorial tel: 021 460 4147/4234  
 Advertising tel: 021 460 4147/4234  
 Tyger talk Goodwood/Parow est: 1996  
 CAPE COMMUNITY NEWSPAPERS




■ Welgelegen petrol attendant Bantu Zotwana has written a book about his struggle with schizophrenia.

## A mind less ordinary

Motorists probably don't give Bantu Zotwana a second glance as he fills their cars with petrol, but the 35-year-old schizophrenic has written a book about a condition few understand, but which affects 1 in 100 people.

**TASNEEM HASSAN**

The exact cause of schizophrenia is still unknown, and there is much stigma attached to this lifelong disease. Despite this, Welgelegen schizophrenic Bantu Zotwana, 35, is striving to live an ordinary life with a mind less ordinary.

Taking the correct medication has made a difference, says Mr Zotwana, who was diagnosed with the disease in 1997.

Schizophrenia affects one out of every 100 people worldwide and there is a misconception that people with the disease are "crazy", have split personalities and are violent.

But according to Janine Roos, director at the Mental Health Information Centre, schizophrenics are generally not violent.

Mr Zotwana is a petrol attendant at a garage in Welgelegen, not too far from his home. While his colleagues and boss know about his illness, and have been very supportive, others aren't always so understanding.

Sometimes the stigma is hard to deal with and Mr Zotwana finds it frustrating when people treat him differently.

"I am normal, it is like any other person who suffers from diabetes. I also take medication to keep my illness in check. I want people to treat me and others with this illness the same as they did before, and not pity us."

Continued on page 4

**HELP-LINES**

**SADAG**  
**Suicide Crisis Line**  
 ☎ 0800 567 567  
 ☎ SMS 31 393  
 8am-8pm  
**Pharmadynamics Police and Trauma Line**  
 ☎ 0800 20 50 26  
 8am-8pm  
**AstraZeneca Bipolar Line**  
 ☎ 0800 70 80 90  
 8am-8pm

**Sanofi Aventis Sleep Line**  
 ☎ 0800 753 379  
 8am-8pm  
**SADAG Mental Health Line**  
 ☎ 011 262 6396  
 8am-8pm  
**Department of Social Development Substance Abuse Line**  
 ☎ 0800 12 13 14  
 ☎ SMS 32312  
 24hr helpline

**Dr Reddy's Help Line**  
 ☎ 0800 21 22 23  
 8am-8pm  
**Lifeline**  
 ☎ www.lifeline.org.za  
**National**  
 ☎ 0861 322 322  
**AIDS**  
 ☎ 0800 012 322  
**Stop Gender Violence**  
 ☎ 0800 150 150

**SUPPORT GROUPS**  
 Contact SADAG for groups in your area  
 ☎ 011 262 6396

**ONLINE FORUMS**  
 ☎ www.bipolarsa.org.za  
 ☎ www.psychcentral.com [select community]  
 ☎ www.nami.org

**Find a mental health professional today!**  
 mentalhealthsa.org.za

**MENTAL HEALTH INFORMATION CENTRE**  
 Southern Africa

**thrive your mental wellness guide**  
 ☎ thrivemag.co.za

Via the MHIC, the Department of Psychiatry maintains contact with consumer support groups such as the South African Depression and Anxiety Group (SADAG), Cape Mental Health, SA Federation for Mental Health, BIG/MIND, the Postnatal Depression Support Group, the Centre for Public Mental Health, as well as different support groups run by members of the public. Other important partners are the Department of Health, professional organisations such as the SA Society of Psychiatrists, the SA Medical Association, the Medical Research Council, the Health Professionals Council of SA and the pharmaceutical industry.

## Partnerships:

### National:

1. Consultant psychiatrists in the department regularly serve as examiners for undergraduate student examinations hosted by the Departments of Psychiatry at UKZN, WSU, UP and UOFS.
2. Dr Rene Nassen, Prof. Soraya Seedat and Prof. Robin Emsley serve as national convenors of the of HIV Special Interest Group, the Biological Psychiatry Special Interest Group and the Clinical Trials Special Interest Group, respectively.
3. Prof. Soraya Seedat is a national member of Senate of the Colleges of Medicine of South Africa and an Exco member of the South African Association of Child and Adolescent Psychiatry and Allied Health Professionals.
4. Dr Lize Weich is a board member of South African National Council on Alcoholism (SANCA) and is a founding member and serves as an Exco member of South African Addiction Medicine Society (SAAMS).

### Private Health Sector:

The Department of Psychiatry has regular engagement with psychiatrists and clinical psychologists in private practice who are integrally involved in teaching and training of undergraduate students and registrars, and who serve as examiners in undergraduate and postgraduate examinations and in the marking of student dissertations.

## International:

1. The Department of Psychiatry hosted two successful “Biostatistics in Mental Health” short courses in July 2014 aimed at African early career mental health researchers from (Ghana, Nigeria, Liberia, Kenya and South Africa). The courses were attended by 22 participants. The courses each spanned five days focusing on biostatistics relevant to mental health and were facilitated by two facilitators from South Africa (Prof. Martin Kidd and Dr Justin Harvey) and two from the United States (Prof. Jim Anthony and Dr Zhehui Luo).
2. The Department of Psychiatry has multiple research project collaborations with researchers in the USA, Holland, Germany, Uganda, Kenya, Nigeria, Ghana, Finland and the UK.
3. Dr Lize Weich serves on the WHO Expert Advisory Panel on Drug Dependence.
4. Prof. Soraya Seedat serves on the editorial boards of the following international journals: PLoS one, Global Mental Health and AIDS Research and Treatment.

## Achievements w.r.t research activities and research outputs:

Number of publications from the department/division	73
Textbooks and contributions to textbooks	23

## Journal Articles (subsidised)

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**SHIELD K., PARRY C.D.H., REHM J.** Chronic Diseases and Conditions Related to Alcohol Use. *Alcohol Research-Current Reviews* 2013; **35**(2) : 155-173.

**SIEGFRIED N., PIENAAR D.E., ATAGUBA J.E., VOLMINK J.A., KREDO T., JERE M., PARRY C.D.H.** Restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents. *Cochrane Database of Systematic Reviews* 2014; **11** : 1-59.

**SMITH J., SWARTZ L., KILLIAN S., CHILIZA B.** Mediating words, mediating worlds: Interpreting as hidden care work in a South African psychiatric institution. *Transcultural Psychiatry* 2014; **50**(4) : 493-514.

**SPIES G., SEEDAT S.** Depression and resilience in women with HIV and early life stress: does trauma play a mediating role? A cross-sectional study. *BMJ Open* 2014; **4**(2) : 1-8.

**SUKERI K., ALONSO-BETANCOURT O., EMSLEY R.A.** Lessons from the past: Historical perspectives of mental health in the Eastern Cape. *South African Journal of Psychiatry* 2014; **20**(2) : 34-39.

**SUKERI K., ALONSO-BETANCOURT O., EMSLEY R.A.** Staff and bed distribution in public sector mental health services in the Eastern Cape Province, South Africa. *South African Journal of Psychiatry* 2014; **20**(4) : 160-165.

**SULIMAN S., STEIN D.J., SEEDAT S.** Clinical and Neuropsychological Predictors of Posttraumatic Stress Disorder. *Medicine* 2014; **93**(22) : 1-9.

**SULIMAN S., TROEMAN Z.C.E., STEIN D.J., SEEDAT S.** Are neuropsychological deficits after trauma associated with ASD severity?. *Comprehensive Psychiatry* 2014; **55**(1) : 145-154.

**SWARTZ L., KILIAN S., TWESIGYE J., ATTAH D., CHILIZA B.** Language, culture, and task shifting - an emerging challenge for global mental health. *Global Health Action* 2014; **7** : 23433.

**TOL W.A., BARBUI C., BISSON J., COHEN J., HIJAZI Z., JONES L., DE JONG J.T.V.M., MAGRINI N., OMIGBODUN O., SEEDAT S., SILOVE D., SOUZA R., SUMATHIPALA A., VIJAYAKUMAR L., WEISSBECKER I., ZATZICK D., VAN OMMEREN M.** World Health Organisation Guidelines for Management of Acute Stress, PTSD, and Bereavement: Key Challenges on the Road Ahead. *PloS Medicine* 2014; **11**(12) : 1-5.

**VAN AMERINGEN M., SIMPSON W., PATTERSON B., DELL'OSSO B., FINEBERG N., HOLLANDER E., HRANOV L., HRANOV G., LOCHNER C., KARAMUSTAFALIOGLU O., MARAZZITI D., MENCHON J.M., NICOLINI H., PALLANTI S., STEIN D.J., ZOHAR J.** Pharmacological treatment strategies in obsessive compulsive disorder: A cross-sectional view in nine international OCD centres. *Journal of Psychopharmacology* 2014; **28**(6) : 596-602.

**VAN DEN HEUVEL L., JORDAAN G.P.** The psychopharmacological management of eating disorders in children and adolescents. *Journal of Child and Adolescent Mental Health* 2014; **26**(2) : 125-137.

**VAN DEN HEUVEL L.** Stahl's essential psychopharmacology: Neuroscientific basis and practical applications. *Journal of Child and Adolescent Mental Health* 2014; **26**(2) : 157-158.

**VAN DER WALT L., SULIMAN S., MARTIN L.I., LAMMERS K., SEEDAT S.** Resilience and post-traumatic stress disorder in the acute aftermath of rape: a comparative analysis of adolescents vs adults. *Journal of Child and Adolescent Mental Health* 2014; **26**(3) : 239-249.

**VINK M., ZANDBELT B., GLADWIN T., HILLEGERS M., HOOGENDAM J.M., VAN DEN WILDENBERG P.M., DU PLESSIS S., KAHN R.** Frontostriatal Activity and Connectivity Increase During Proactive Inhibition Across Adolescence and Early Adulthood. *Human Brain Mapping* 2014; **35** : 4415-4427.

**WILLIAMS P.P., CARNEY T., PLUDDAMAN A., PARRY C.D.H.** Intervening to identify and reduce drug use and sexual HIV risk patterns among men who have sex with men in three provinces in South Africa. *Journal of Substance Use* 2014; **19**(1-2) : 141-146.

**YU D., MATHEWS C.A., SCHARF J.M., NEALE B.M., DAVIS L.K., GAMAZON E.R., DERKS E.M., EVANS P., HEMMINGS S.M.J., LOCHNER C., STEIN D.J., ET AL.** Cross-Disorder Genome-Wide Analyses Suggest a Complex Genetic Relationship Between Tourette's Syndrome and OCD. *American Journal of Psychiatry* 2014; **AIA** : 1-12.

### Journal Articles (NON-subsidised)

**BATES H., SEEDAT S., LESTER H.** A qualitative study of the views of patients with human immunodeficiency virus and childhood trauma on the consent process for a neurocognitive and neuroimaging study. *Primary health care research & development* 2014; **15**(4) : \*\*MISSING PAGE START\*\*.

**DE JAGER P., SULIMAN S., SEEDAT S.** Role of ethnicity in social anxiety disorder: A cross-sectional survey among health science students. *World journal of clinical cases* 2014; **2**(7) : 265-271.

**DEL ZOMPO M., DELEUZE J.F., CHILLOTTI C., COUSIN E., NIEHAUS D.J.H., EBSTEIN R.P., ARDAU R., MACE S., WARNICH L., MUJAHED M., SEVERINO G., DIB C., JORDAAN E., MURAD I., SOUBIGOU S., KOEN L., BANNOURA I., ROCHER C., LAURENT C., DEROCK M., BIGUET N.F., MALLET J., MELONI R.** Association study in three different populations between the GPR88 gene and major psychoses. *Molecular Genetics & Genomic Medicine* 2014; **2**(2) : 152-159.

**FJELDHEIM C.B., NOTHLING J., PRETORIUS K., BASSON M., GANASEN K., HENEKE R., CLOETE K.J., SEEDAT S.** Trauma exposure, posttraumatic stress disorder and the effect of explanatory variables in paramedic trainees. *BMC Emergency Medicine* 2014; **14**(11) : 1-7.

**KOUTSILIERI E., RIEDERER P., DU PLESSIS S., SCHELLER C.** A short review on the relation between the dopamine transporter 10/10-repeat allele and ADHD: implications for HIV infection. *Attention deficit and hyperactivity disorders* 2014; **6**(3) : 203-209.

**POTOCNIK F.C.V.** Ethical and medico-legal aspects of dementia. *Continuing medical education (CME)* 2013; **31**(10) : 367-370.

**SEEDAT S.** Pulling at the Roots: Broadening Our Perspective on Mental Disorder Aetiology. *Global mental health* 2014; **1**(e5) : 1-2.

### Proceedings International

**BOTHA I., KALBERG W.O., MARAIS A.S., HOYME H.E., DE VRIES M.M., SEEDAT S., PARRY C.D.H., MAY P.A.** Longitudinal studies with a cohort of infants and toddlers prenatally exposed to alcohol in South Africa. Third European Conference on Fetal Alcohol Spectrum Disorders, Rome, Italy, 2014: 1.

**CHILIZA B., ASMAL L., ESAN O., OJAGBEMI A., GUREJE O., EMSLEY R.A.** Combining depot antipsychotic with an assertive monitoring program for treating first-episode schizophrenia in a resource-constrained setting. World Psychiatric Association Regional Congress, Kampala, Uganda, 2014: 1.

**CHILIZA B., ASMAL L., OOSTHUIZEN P.P., VAN NIEKERK Y., ERASMUS R.T., KIDD M., MALHOTRA A.K., EMSLEY R.A.** Changes in body mass and metabolic profiles over 12 months in patients with first-episode schizophrenia with assured antipsychotic adherence. 4th Schizophrenia International Research Society Conference, Florence, Italy, 2014: 1-2.

**DE VRIES M.M., MARAIS A.S., BUCKLEY D.G., KALBERG W.O., ADAMS C.M., HASKEN J.M., SEEDAT S., PARRY C.D.H., MAY P.A.** Epidemiology of fetal alcohol spectrum disorders in rural communities in South Africa: Prevalence, child characteristics, and maternal risk factors. RSA Conference, Bellevue, Washington, USA, 2014: 1.

**DE VRIES M.M., MARAIS A.S., BUCKLEY D.G., KALBERG W.O., ADAMS C.M., HASKEN J.M., SEEDAT S., PARRY C.D.H., MAY P.A.** *Epidemiology of fetal alcohol spectrum disorders in rural communities in South Africa: Prevalence, child characteristics, and maternal risk factors.* Third European Conference on Fetal Alcohol Spectrum Disorders, Rome, Italy, 2014: 1.

**EMSLEY R.A.** *Can the on going use of placebo in relapse-prevention clinical trials in schizophrenia be justified?.* Schizophrenia International Research Society Congress, Florence, Italy, 2014: 1.

**EMSLEY R.A.** *Dopamine and Psychosis.* 3ed Panhellenic Congress of Clinical Psychopharmacology, Chalkidiki, Greece, 2014: 1.

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**JORDAAN G.P., EMSLEY R.A., WARWICK J.M., NEL D.G., HEWLETT R.H.** *Alcohol-induced psychotic disorder: brain perfusion and psychopathology - before and after antipsychotic treatment.* 27th ECNP Congress, Berlin, Germany, 2014: 1.

**KILLIAN S., GOOSEN A., EMSLEY R.A.** *Instruments evaluating emotional blunting in schizophrenia patients with negative symptoms: A systematic review.* 4th Biennial Schizophrenia International Research Conference, Firenze Fiera Congress Center, Florence, Italy, Schizophrenia Research 2014: S127-S128.

**LACHMAN A.** *A mentalization-based parenting therapy: A pilot study of PIO with mothers providing Kangaroo Care to premature babies at Tygerberg Hospital.* World Infant Mental Health Congress, Edinburgh, 2014: 1.

**MALAN-MÜLLER S., FAIRBAIRN L.R., JALALI M., OAKELEY E.J., GAMIELDIEN J., KIDD M., SEEDAT S., HEMMINGS S.M.J.** *Molecular mechanisms of D-cycloserine in fear extinction: Insights from RNA and microRNA sequencing.* 22 World Congress of Psychiatric Genetics, Copenhagen, Denmark, 2014: 1.

**MARAIS A.S., DE VRIES M.M., BUCKLEY D.G., KALBERG W.O., HASKEN J.M., MAY P.A.** *A comparison of drinking patterns and other maternal risk factors of farm worker mothers living on farms and in towns of South Africa.* RSA Conference, Bellevue, Washington, USA, 2014: 1.

**MARTIN L.I.** *Is childhood trauma exposure predictive of anxiety sensitivity in school-attending youth?.* 7th Biennial Congress of the International Society of Affective Disorders, Hotel Intercontinental, Berlin, Germany, 2014: 1-2.

**MPINDA B.** *PIO-ZA Pre-pilot. Lentegeur Hospital.* 14th World Infant Mental Health Congress, Edinburgh, 2014: 1.

**NORTJE G., OLADEJI B., GUREJE O., SEEDAT S.** *A quantitative review of the efficacy of traditional healers in treating mental disorders.* World Psychiatric Association International Congress, Madrid, Spain, 2014: 1.

**NORTJE G., OLADEJI B., GUREJE O., SEEDAT S.** *The efficacy of traditional healers in mental disorders.* 4th Annual Malawi Mental Health Conference, Zomba, Malawi, 2014: 1.

**SEEDAT S.** *A snapshot of Recent Biological "Breakthroughs" in Psychiatry.* Biological Psychiatry Society of Nigeria: First Annual Symposium, Kaduna, Nigeria, 2014: 1-2.

**SEEDAT S.** *Biological Aspects of PTSD: Current and Future Considerations.* Biological Psychiatry Society of Nigeria: First Annual Symposium, Kaduna, Nigeria, 2014: 1-2.

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**SEEDAT S.** *Effects of HIV and childhood trauma on brain morphometry and neurocognitive function: Poster Presentation.* ENCP Congress, Berlin, Germany, 2014: 1-2.

**SPIES G., AHMED F., FENNEMA-NOTESTINE C., CHERNER M., SEEDAT S.** *Effects of HIV and childhood trauma on brain morphometry and neurocognitive function.* International Society of Affective Disorders Congress, Berlin, Germany, 2014: 1.

**SULIMAN S., STEIN D.J., SEEDAT S.** *Associations between Neuropeptide Y Plasma Levels, Cognition, and Later Posttraumatic Stress Disorder.* International Society of Affective Disorders 2014, Berlin, Germany, 2014: 1.

**THOMAS E., DU TOIT E., NIEHAUS D.J.H., KOEN L., HARVEY G., VYTHILINGUM B., JORDAAN E., LEPPANEN J.M.** *Maternal Mental Health: a prospective naturalistic study of the outcome of pregnancy in women with psychiatric disorders in an African country.* 29th CINP World Congress of Neuropsychopharmacology, Vancouver, Canada, 2014: 1.

**THOMAS E., NIEHAUS D.J.H., DU TOIT E., KOEN L., HARVEY G., VYTHILINGUM B., JORDAAN E., LEPPANEN J.M.** *Maternal Mental Health: a prospective naturalistic study of the outcome of pregnancy in women with major psychiatric disorders in an African Country.* 14th World Infant Mental Health Congress, Edinburgh, 2014: 1.



**VOGES J., ADAMS A., BERG A., SUCHMAN N.** *Parenting from the Inside Out (PIO) as a therapeutic model in a psychiatric outpatient setting in South Africa.* 14th World Infant Mental Health, Edinburgh, 2014: 1.

**VOGES J., ADAMS A., BERG A.** *From the U.S. to South Africa: is true collaboration possible? Adapting an evidence-based parenting therapy for at-risk mothers using community-based participatory research.* World Association of Infant Mental Health, Edinburgh, 2014: 1.

**VOGES J., BERG A.** *Bridging the hospitalization gap: A case study of a mother-infant intervention.* 14th World Infant Mental Health, Edinburgh, 2014: 1.

## Proceedings National

**ALEXANDER D., CLOETE K.J., KIDD M., EDWARDS A., MALCOLM C.** *Early adolescent rugby players: Long-term impact of MTBI on neurocognitive and academic performance.* IACAPAP 21st World Congress, Durban, South Africa, 2014: 1.

**ALEXANDER D.** *Concussion: what can neuropsychology add to the management?.* Campus Health Services University of Stellenbosch, Stellenbosch University, Cape Town, South Africa, 2014: 1.

**BISHOP M., ROSENSTEIN D., BAKELAAR S.Y., SEEDAT S.** *An analysis of early developmental trauma in SAD and PTSD.* IACAPAP 21st World Congress, Durban, South Africa, 2014: 1.

**BISHOP M., ROSENSTEIN D., BAKELAAR S.Y., SEEDAT S.** *An analysis of early developmental trauma in SAD and PTSD.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**BOTHA I., KALBERG W.O., MARAIS A.S., HOYME H.E., DE VRIES M.M.** *Longitudinal studies with a cohort of infants and toddlers prenatally exposed to alcohol in South Africa.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**BREET E., KIDD M., STEIN D., LOCHNER C.** *Suicidality in OCD.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**BREET E., KIDD M., STEIN D., LOCHNER C.** *Suicidality in OCD.* SA Society of Psychiatrists (SASOP) Congress, Durban, South Africa, 2014: 1.

**CHILIZA B., ASMAL L., EMSLEY R.A.** *Long-acting injectable antipsychotic in first-episode schizophrenia: The EONKCS Study.* South African Society of Psychiatrists Congress, Durban, South Africa, 2014: 1.

**CLOETE M., JOUBERT B., HENDRICKS .N., STEENEKAMP J., ALEXANDER T., FERREIRA R., MARAIS A.S., SEEDAT S., PARRY C.D.H., SNELL C.L., BLANKENSHIP J., GOSSAGE J.P., MAY P.A.** *A comprehensive prevention approach in a community with a high prevalence of fetal alcohol spectrum disorders (FASD).* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**DE VRIES M.M., MARAIS A.S., BUCKLEY D.G., KALBERG W.O., ADAMS C.M., HASKEN J.M., SEEDAT S., PARRY C.D.H., MAY P.A.** *Epidemiology of fetal alcohol spectrum disorders in rural communities in South Africa: Prevalence, child characteristics, and maternal risk factors.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**EMSLEY R.A.** *Achieving recovery in schizophrenia: applying our current knowledge to clinical practice.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**EMSLEY R.A.** *Changes in body mass and metabolic profiles in patients with first-episode schizophrenia treated for 12 months with a first-generation antipsychotic.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**EMSLEY R.A.** *State of the Art Lecture: Understanding the brain: doing it with dopamine.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**HEMMINGS S.M.J., KALUNGI A., SEEDAT S., JOLOBA M., KINYANDA E.** *Serotonin transporter gene variants are associated with increased risk of suicide in an HIV-positive Ugandan population.* International Society for Serotonin, Onrus Western Cape, South Africa, 2014: 1.

**KHAN Z., LACHMAN A.** *Clinical Utility of Routine Neuroimaging in Adolescents admitted to Psychiatry at Tygerberg Hospital.* IACAPAP Symposium, Durban, South Africa, 2014: 1.

**KILLIAN S.** *Instruments measuring emotional blunting in schizophrenia.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**LACHMAN A.** *Kleine-Levin Syndrome: A Neuropsychiatric Presentation.* IACAPAP Symposium, Durban, South Africa, 2014: 1.

**LACHMAN A.** *Neuropsychiatric Impact of Paediatric HIV.* IACAPAP Symposium, Durban, South Africa, 2014: 1.

**LOCHNER C., MCGREGOR N.W., HEMMINGS S.M.J., HARVEY B., BREET E., SWANEVELDER S., STEIN D.J.** Symmetry symptoms in obsessive-compulsive disorders; clinical and genetic correlates. SA Society of Psychiatrists (SASOP) Congress, Durban, South Africa, 2014.

**MALAN S., FAIRBAIRN L.R., JALALI M., OAKELEY E.J., GAMIELDIEN J., KIDD M., SEEDAT S., HEMMINGS S.M.J.** *The role of serotonin in DCS-induced fear extinction in an animal model of PTSD.* Meeting of the International Society for Serotonin Research, Onrus Western Cape, South Africa, 2014: 1.

**MALAN-MÜLLER S., FAIRBAIRN L.R., JALALI M., OAKELEY E.J., GAMIELDIEN J., KIDD M., SEEDAT S., HEMMINGS S.M.J.** *Molecular mechanisms of D-cycloserine in fear extinction: Insights from the transcriptome and epigenome.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**MARTIN L.I.** *Is childhood trauma exposure predictive of anxiety sensitivity in school-attending youth.* Annual Academic Yearday 2014 - Stellenbosch University, Stellenbosch University, Cape Town, South Africa, 2014: 1-2.

**MCGREGOR N.W., DIMATELIS J., HEMMINGS S.M.J., KINNEAR C.J., STEIN D.J., RUSSELL V., LOCHNER C.** *Candidate susceptibility genes in anxiety disorders: A rGE and GxE study.* Faculty of Health Sciences, UCT, South Africa, 2014: 1.

**MPINDA B.** *An integrated approach to the establishment of mental health services to HIV positive children and adolescents in Khayelitsha.* IACAPAP Symposium, Durban, South Africa, 2014: 1.

**NORTJE G., OLADEJI B., GUREJE O., SEEDAT S.** *The efficacy of traditional healers in mental disorders.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**NOTHLING J.** *Differences in abuse, neglect and exposure to community violence in trauma exposed adolescents with and without PTSD.* Annual Academic Yearday 2014 Stellenbosch University, Cape Town, South Georgia and the South Sandwich Islands, 2014: 1-2.

**OLIVIER R., KILLIAN S., CHILIZA B., ASMAL L., SCHOEMAN R., OOSTHUIZEN P.P., KIDD M., EMSLEY R.A.** *Cognitive performance during the first year of treatment in first-episode schizophrenia: a case-control study.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**OLIVIER R., KILLIAN S., CHILIZA B., ASMAL L., SCHOEMAN R., OOSTHUIZEN P.P., KIDD M., EMSLEY R.A.** *Neurocognition and disordered thinking: It's association, temporal stability and outcome correlates in first episode psychosis.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**PHAHLADIRA L., ASMAL L., EMSLEY R.A., CHILIZA B.** *Clinical and functional outcome of refractory schizophrenia.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**ROOS J., LOCHNER C., BREET E., SULLIMAN S., SEEDAT S., STEIN D.** *The mental health information of Southern Africa: Narrowing the science to service gap in mental health.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**ROSENSTEIN D.** *Neurocognition and imaging genetics in social anxiety disorder in the context of early developmental trauma.* SASOP Conference, Durban, South Africa, 2014: 1-2.

**ROSENSTEIN D.** *Social anxiety disorder in the context of early developmental trauma: structural magnetic resonance imaging (sMRI) and proton magnetic resonance imaging findings (1H-MRS).* SASOP Conference, Durban, South Africa, 2014: 1-2.

**ROSENSTEIN D.** *The effect of interpersonal factors and empathy on therapeutic intervention and treatment outcomes.* ENT/SASLA Conference, CTICC, Cape Town, South Africa, 2014: 1-2.

**SCHULTE F., LACHMAN A.** *Abnormal Metabolic Markers in Adolescents admitted to TBH Psychiatric Hospital on Atypical Antipsychotics.* IACAPAP Symposium, Durban, South Africa, 2014: 1.

**SEEDAT S.** *Early Childhood Trauma and posttraumatic stress disorder: from assessment to treatment.* 18th National Congress of the South African Society of Psychiatrists, Durban, South Africa, 2014: 1-2.

**SPIES G., AHMED F., FENNEMA-NOTESTINE C., CHERNER M., SEEDAT S.** *Effects of HIV and childhood trauma on brain morphometry and neurocognitive function.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**SULIMAN S., STEIN D.J., SEEDAT S.** *Associations between Brain Deprived Neurotrophic Plasma Levels, Cognition and Later Posttraumatic Stress Disorder.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**SULIMAN S., STEIN D.J., SEEDAT S.** *Associations between Neuropeptide Y Plasma Levels, Cognition and Later Posttraumatic Stress Disorder.* Annual Academic Yearday 2014 Stellenbosch University, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**THOMAS E., LATEGAN H., WEICH L.E.M., VERSTER G.C.** *Psychiatric inpatients with methamphetamine psychosis in the Western Cape, South Africa: phenomenology, risk factors, and acute treatment modalities.* SACENDU National Brief, Cape Town, South Africa, 2014: 1.

**THOMAS E., LATEGAN H., WEICH L.E.M., VERSTER G.C.** *Psychiatric inpatients with methamphetamine psychosis in the Western Cape, South Africa: phenomenology, risk factors, and acute treatment modalities.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**THOMAS E., NIEHAUS DJH, DU TOIT E, KOEN L, JORDAAN E.** *Maternal Mental Health: a prospective naturalistic study of the outcome of pregnancy in women with major psychiatry disorders in an African Country.* Annual Academic Yearday 2014 University of Stellenbosch, Faculty of Medicine and Health Sciences, Cape Town, South Africa, 2014: 1.

**THOMAS E., NIEHAUS D.J.H., DU TOIT P.L., KOEN L., JORDAAN E.** *Serious Mental Illness during pregnancy - the latest South African findings.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**THOMAS E., STEIN D.J., LOCHNER C., CHILIZA B.** *Sniffing out the Olfactory Reference Syndrome: a case report.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

**VAN DEN HEUVEL L., SULIMAN S., HEMMINGS S.M.J., SEEDAT S.** *BDNF Val66Met polymorphism and plasma levels in acutely traumatised road traffic accident survivors.* Serotonin Safari 2014, Western Cape Hermanus, South Africa, 2014: 1.

**VAN DEN HEUVEL L., SULIMAN S., HEMMINGS S.M.J., SEEDAT S.** *BDNF Val66Met polymorphism and plasma levels in acutely traumatised road traffic accident survivors.* South African Society of Psychiatrists, Durban, South Africa, 2014: 1.

## Chapters in Books

**DORUYTER A.G.G., STEIN D.J., WARWICK J.M.** Neurobiology of Posttraumatic Stress Disorder: The Role of Nuclear Neuroimaging. In *PET and SPECT in Psychiatry*, Springer, London, United Kingdom, 2014: 371-395.

**HAWKRIDGE S., BERG A., SEEDAT S.** Oxford Textbook of Violence Prevention. In *Epidemiology, Evidence, and Policy*, Oxford University Press, United Kingdom, 2014: 1-300.

## Doctoral completed

**MALAN-MÜLLER S.** *Molecular mechanisms of D-cycloserine in a fear extinction posttraumatic stress disorder (PTSD) animal model.* PhD, 2014. 269 pp. Promotor: Hemmings SMJ. Medepromotor: Seedat S.

**MCGREGOR N.** *The identification of novel susceptibility genes involved in anxiety disorders.* PhD, 2014. 198 pp. Promotor: Lochner C. Medepromotor: Hemmings SMJ, Kinnear C.

**SULIMAN S.** *Neuropsychological predictors of posttraumatic stress disorder.* PhD, 2014. 240 pp. Promotor: Seedat S. Medepromotor: Stein DJ.

## Masters completed

**CONNELL A.** *Religious Delusions in a Xhosa Schizophrenia Population.* MMed, 2014. 8 pp. Study leader: Koen L, Botha UA.

**DANNATT L.** *Frequency and correlates of co-morbid psychiatric illness in patients with heroin use disorder admitted to Stikland Opioid Detoxification Unit, South Africa.* MMed, 2014. 20 pp. Study leader: Weich LEM.

**MAWSON K.** *Evaluating the extrapyramidal side effect burden of short-acting intramuscular antipsychotic treatment in acutely psychotic patients at Stikland Hospital.* MMed, 2014. 48 pp. Study leader: Bruwer BR. Co-leader: Koen L, Niehaus DJH.

**ROOS T.C.** *Facial affect recognition and exit examination performance in medical students: a prospective exploratory study.* MMed, 2014. 29 pp.

**VAN DER WALT L.** *Resilience and posttraumatic stress disorder in the acute aftermath of rape: a comparative analysis of adolescents versus adults.* MMed, 2014. 32 pp. Study leader: Seedat S.

## Teaching and Training (under, postgraduate and elective students)

Number of MMed students registered for above period	23
Number of MMed students currently registered	21
Number of DMed students registered	2
Number of MPhil students	4
Number of PhD students	14
Number of FC Psych Part II successful candidates	9
MMed Degrees Completed	3
Masters Degrees Completed	5
PhD Degrees Completed	5
<b>The following candidates passed MMed Part 1:</b> Graeme Michie, J.L. du Plooy, Sean Jacobs, Hannelie Williams, Caro de Witt, Matthew Mausling, Pieter Aartsma	
<b>The following candidates passed the FCPsych Part II examinations:</b> Hester Fourie, Fatima Hansrod, Kate Mawson, Abdul Domingo, Fileuka Ngakongwa, Mari Retief, Corrie Schumann, Lisa Dannatt, Lydia van der Walt	

## The following candidates obtained the Certificate in Child and Adolescent Psychiatry:

Dr Bulelwa Mpinda and Dr Fiona Schulte

## New Staff

**Consultants:** Dr Inge Smit

**Registrars:** Dr Phillip du Preez, Dr Roxanne Jones, Dr Sean Jacobs, Dr Cecily Murray, Dr Wiehan van der Merwe

**Shared Roots Project:** Dr Leigh van den Heuvel, Sr. Debbie Joubert, Sr. Jane Fortuin, Ms Nicole Schuitmaker

**South African Research Chair in PTSD Programme:** Ms Rolanda Londt, Ms Anouk Albien

**MRC Unit on Anxiety and Stress Disorders:** Ms Natasha Horak, Ms Isabel Calmarza

**FASER-SA:** Ms Lise Anthonissen, Ms Tanya van de Water

**Joint appointments (Psychology):** Ms Toni Abrahams, Mr Martin Gibb, Mr Waseem Hawa, Ms Sonja Pasche and Ms Brigitte Swarts

## Special achievements

**Prof. Robin Emsley** was appointed to the Sarah Turoff Endowed Research Chair in Schizophrenia Research. This was made possible by an endowment of R8 million from the Sarah Turoff Will Trust.

**Prof. Soraya Seedat** was elected as President of the College of Psychiatrists of the Colleges of Medicine of South Africa for 2014 to 2017. She was also appointed to editorial board as associate editor to GMH (published by Cambridge Univ. Press).

**Prof. Seedat** was recognised by Prof. Eugene Cloete as one of the researchers at Stellenbosch University who made the biggest contribution to scientific publications and /or doctoral education in 2013.



**Prof. Liezl Koen** was appointed as a Council member of the College of Psychiatrists of the Colleges of Medicine of South Africa for 2014 to 2017. She and Dr Bonga Chiliza were also elected to the South African Society of Psychiatrists (SASOP) Board of Directors 2014 – 2016. Dr Bonga Chiliza was appointed as National Treasurer and Prof. Liezl Koen was appointed as National Honorary Secretary. Dr Robin Allen was appointed as National Chairperson of the Public Sector Special Interest Group of SASOP.

**Prof. Christine Lochner:** Finalist for the 2013/2014 NSTF-BHP Billiton Awards in the category “For an outstanding contribution to Science, Engineering, Technology and Innovation by an Individual: TW Kambule Award: through research and its outputs (over the last five to ten years).” Prof. Lochner was also awarded a postdoctoral fellowship from the Faculty of Medicine and Health Sciences and received the Rector’s award for outstanding work performance.

**Dr Anusha Lachman** was selected to attend the 11th Annual Research Training Seminar for Child & Adolescent Neuropsychiatry in Camposampiero, Padova (Italy), from 23 – 30 May 2014. The meeting was hosted by the Italian Fondazione Institute for Child Psychiatry, supported by the World Psychiatric Association. There were 42 attendees, all under age 40, from 22 countries at early research stages of their clinical careers in Child Psychiatry.

**Dr Lebogang Phahladira** was selected to attend the Association for the Improvement of Mental Health Programmes in collaboration with the African Association of Psychiatrists and Allied Professionals, and the World Psychiatric Association to attend a Course on the Development of Leadership and Professional Skills for Young Psychiatrists in Kampala, Uganda, from 3 – 5 February 2014 .

**Dr Rene Nassen** presented at two successful child and adolescent teaching/training endeavours this year. The first was a child and adolescent three-day training module presented in June 2014, and the second was the paediatric HIV symposium at the CMSA in November.

**Dr Sue Hawkrige** was reappointed Clinical Associate in the Department of Psychology of Rhodes University. She was also an invited participant at the PsySSA 2014 Annual South African Psychology Conference.

**Susanne Bakelaar** received an NRF-DST Innovation Doctoral Scholarship for 2014.

**Dr Stefanie Malan-Muller** received an NRF-DST Innovation Postdoctoral Fellowship for 2014.

**Dr Sharain Suliman** received the Claude Leon Foundation Postdoctoral Fellowship for 2015 – 2016.

**Mr Khetelo Xulu** received the HW Truter Bursary for 2014.

**Biological Psychiatry Research Awards 2014:** Prof. Christine Lochner and Dr Stefanie Malan-Muller.  
**Runners up:** Drs Belinda Bruwer and Sanja Kilian.

**Dr Tessa Roos** received the G.P.J. Snyman Bursary for 2014.

**Dr Matthew Mausling** was awarded the Dr Janus Steyn first year (Part I) award as he completed his part I exams and achieved above 75% in two subjects.

**Dr Mari Retief** won the Colleges of Medicine MS Bell Award by the for the best registrar presentation at the National Psychiatry Congress.

**Dr Abdul Domingo** received the Departmental Award for Best Registrar 2014: This award is presented to the registrar as elected by our consultants through a voting process.

**Head of Department:  
Professor BL Warren**



**Professor BL Warren**

### Units & Staffing

- Surgical Gastroenterology – Professor B.L. Warren, Dr AvV Lambrechts, Dr J. Lübbe, Dr W. Conradie
- Vascular Surgery – Professor D.F. du Toit, Dr J. deV Odendaal, Dr H. Louwrens
- Head-, Neck- and Breast Surgery – Professor J.P. Apffelstaedt, Dr K.J. Baatjes
- Surgical Intensive Care – Dr C.E. Fourie, Dr N. Ahmed, Dr S.W. van der Merwe
- Burn Unit – Dr W. Kleintjes
- Trauma Surgery – Dr R. deM Dannatt, Dr Z. Keyser

Twenty-one Registrars on Tygerberg Hospital staff establishment, plus one each employed by Karl Bremer, Paarl and Worcester hospitals and 2 supernumerary Registrars (both from Namibia) rotate on a 2 – 4 monthly basis to do service in above-mentioned units and also cover the affiliated Provincial Hospitals.

### Selected statistics

**(Figures in parenthesis indicated percentage change from 2013)**

- Average bed occupancy C1D East Surgical Admissions Ward – 198% (+ 3,1%)
- Admissions C1D East Surgical Admissions Ward – per month 546 (+ 0,5%)
- Trauma patients treated – 18 469 (- 7%)
- Patients admitted to Resuscitation Unit – 809 (- 22%)
- Average bed occupancy in Resuscitation Unit – 124% (+ 5,9%)

## Comment

The aforementioned statistics reflect a relatively stable year-to-year workload, with a slight decrease in overall numbers possibly indicative of improved capacity in regional and district referral areas. Bed occupancy rates, however, are problematic, with an upward trend. This is because of downstream pressures in operating theatre time, critical care facilities and availability of general ward beds.

A good example of the surgical workload borne by Tygerberg Hospital emerged from the findings of the South African Surgical Outcomes Study (SASOS), conducted over a one week period in May 2014, the overall results of which having subsequently been published (South African Medical Journal 2015; 105: 465 - 475). This was an audit of all non-cardiac, non-obstetric inpatient surgical procedures during the week concerned at 45 hospitals nationwide. All surgical Divisions participated, together with the Departments of Obstetrics and Gynaecology and Anaesthesiology. Tygerberg Hospital recruited 270 patients to the study, this being 6,9% of the national total and comfortably the largest number of patients from any single hospital.

## Academic

Five candidates from the Division were admitted as Fellows of the College of Surgeons of South Africa and six MMed(Chir) degrees (Drs Ilna Conradie, Timothy Forgan, Zamira Keyser, Olalekan Oke, Heinrich Pohl and Isabelle Steinberg) were awarded at year end.

## OPHTHALMOLOGY

**Head of Department:  
Professor David Meyer**

### Summary of activities

This annual report reflects the dedicated work of all the committed staff of the Division of Ophthalmology who under conditions of increasingly high patient loads rendered an exceptional tertiary service to the patients in our drainage area and beyond.

During 2014, **24 454** patients visited our Outpatient Department (2% more than in 2013), making it still the busiest surgical outpatient clinic in the hospital. During 2014, **1 032** (859 in 2013) premature babies were screened for retinopathy of prematurity (ROP), of whom 6 required treatment. This represents 20% more screenings than 2013 in keeping with the province-wide thrust to optimise ROP screening of premature babies (see graph below "Comment on Output"). Tygerberg Academic Hospital now offers a state-of-the-art, world-class ROP screening service.

Patient admissions to our wards (D7, D4 and G4) totalled **2 920** (3 036 in 2013).

Surgical cases totalled **2 762** operations (2 825 in 2013) divided into **796** day surgery cases (a 17% increase from 2013); **918** general ophthalmic cases and **1 048** cataract operations. Trauma still contributes markedly to our general ophthalmic surgical load, especially as emergency operations. Long waiting times to surgery of many of our trauma cases impact negatively on patient outcomes. The increase in day surgery cases is primarily driven by intravitreal injections of Avastin for diabetic retinopathy cases. Ophthalmic laser procedures totalled **871** (820 in 2013).

During outreach efforts, **57** additional operations and **150** consultations were performed in Namibia, and **120** cataract cases screened and **42** operated in the Northern Cape Province.

The maintenance (and increase in some areas) of the service delivery is remarkable given the number of doctors and high support- and nursing staff shortages. The service delivery took place in parallel with a very active academic and research programme. Sincere gratitude is expressed to every single dedicated staff member.

## Resources

Posts (Full-time)	Number	Filled
Consultants	4	4
Optometrist	1	1
Ultrasonographer	1	1
Medical officers	3	3
Registrars	7 + 4 Supernumery	7 + 4 Supernumery
<b>Posts (sessional – how many hours worked per week)</b>		
Specialist	4	37

## Output

**Outpatient visits Total:** 24 454

### Sub-Specialist Clinics serving Ophthalmology:

1. Medical Retina
2. Surgical Retina
3. Paediatric Ophthalmology
4. Oculoplastics
5. Cornea and anterior segment
5. Refraction (1 032 refraction clinic visits)

**Admissions:** D4=47, G4=204, D7=2 785 Total: **2 920**

<b>Theatre procedures:</b>	
General ophthalmic	918
Day surgery	796
Cataract	1 048
<b>Total</b>	<b>2 762</b>
ROP Screening	1 036
<b>Laser procedures</b>	
Yag laser	271
Argon laser	532
Diode laser	64
ROP laser	4
<b>Total</b>	<b>871</b>

**Comment on output:**

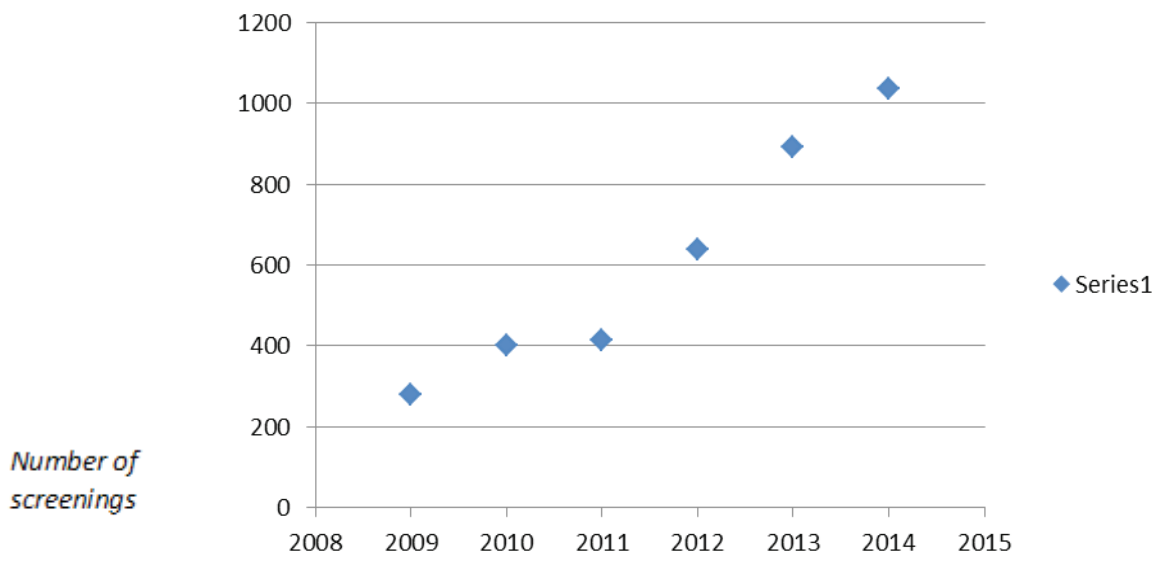
During 2014, 24 454 patients (23 422 for medical reasons and 1 032 for refraction) attended our Outpatient Department, making it the busiest surgical clinic in the hospital – representing a 2% increase compared to 2013. During the year, 1 036 premature babies were screened for retinopathy of prematurity (ROP), of whom 6 required treatment. See Figure 1 below illustrating the growth in numbers screened over the past six years. This emphasises the significant contribution our Division is making to the welfare of our hospital’s neonatal care.

Patient admissions to our wards (D7, D4 and G4) totalled 2 920 – slightly down from the previous two years. This reduction is satisfying given our increased patient load. We attempt to treat as many patients as possible on an outpatient/home care basis.

Surgical cases totalled 2 762 operations divided into 796 day surgery cases (a 17% increase from 2013 and a more than a doubling since 2011); 918 general ophthalmic cases and 1 048 (a marginal increase over 2013) cataract operations. Trauma still contributes significantly to our general ophthalmic cases. The increase in day surgery cases is primarily driven by Avastin intravitreal injections for diabetic patients. Ophthalmic Laser procedures totalled around 871 cases (a 6,2% increase from 2013).

The central academic hospitals cannot continue to render the required ophthalmic services to an ever increasing population hence the establishment of secondary eye care units outside of these academic complexes still remains the only acceptable long-term solution for responsible eye care to the communities. The implementation of a Metro-wide primary screening service delivered by two optometric service providing companies is to be commended, but increased screening is accompanied by an increased demand for secondary and tertiary services. These services are still not optimal in the Western Cape Province.

The Province furthermore needs to consider creating a single tertiary/quaternary dedicated eye hospital to serve the whole province whilst continuing the support of the two secondary service centres at the two main teaching complexes.



**Figure 1. Retinopathy of Prematurity Screenings – past 6 years (2009 -2014)**

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

A state-of-the-art ophthalmic operating microscope was purchased by Tygerberg Hospital and installed in 2014. This acquisition, together with the teaching and video facility, has enhanced not only our patient care, but also our teaching and training.

#### Community outreach programmes

The Division's main outreach programme focusses on the country of Namibia. This initiative is driven by Prof. Meyer. It has been a 13-year initiative focussing on assisting the specialists in Namibia to manage difficult ophthalmic cases and performing surgery on these patients. In 2014, he visited Windhoek on 2 occasions, consulting 150 patients and operating on 57 cases.

Our collaboration with the Northern Cape Province continued. One hundred and twenty cases were screened and 42 cataract operations performed during an outreach to Upington in September 2014 by Drs Ernst Janse van Rensburg and Julia Jansen van Rensburg.

#### 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. Biannual paediatric ophthalmology seminars were held and well attended.
2. This division trains one registrar at a time for the National Defence Force at 2 Military Hospital. This collaboration has existed successfully for about 24 years. The new registrar joined our Division in 2011 and continued training in 2014.
3. Two new fully sponsored registrars from the Northern Cape Province commenced their training in January 2012 and continued training successfully in 2014.

##### Private:

1. The Cape Eye Hospital forms part of our postgraduate accredited teaching platform. It 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/consultants from the Faculty of Health Sciences to do observerships. This is especially valuable as they have access to the only Femtosecond laser in the Western Cape.

##### International:

The first supernumerary registrar from an African country fully sponsored by the Namibian Department of Health and Social Welfare returned early in 2012 as a fully qualified ophthalmologist to serve the country of Namibia. The second fully sponsored registrar joined our Division in 2014 as the second specialist in training for Namibia.

## Achievements w.r.t research activities and research outputs:

1. **ABU-AMERO K.K., BOSLEY T.M., KONDKAR A.A., OYSTRECK D.T.** CCDD Phenotype associated with a Small Chromosome 2 Deletion. *Seminars in Ophthalmology* 2014; **0**(0) : 1-8.
2. **ABU-AMERO K.K., KONDKAR A.A., ALORAINY I.A., KHAN A.O., AL-ENAZY L.A., OYSTRECK D.T., BOSLEY T.M.** Xq26.3 Microdeletion in a Male with Wildervanck Syndrome. *Ophthalmic Genetics* 2014; **35**(1) : 1-7.
3. **ABU-AMERO K.K., KONDKAR A.A., OYSTRECK D.T., KHAN A.O., BOSLEY T.M.** Microdeletions involving Chromosomes 12 and 22 Associated with Syndromic Duane Retraction Syndrome. *Ophthalmic Genetics* 2014; **35**(3) : 162-169.
4. **AREVALO J.F.** Diabetic macular edema: changing treatment paradigms. *Current Opinion in Ophthalmology* 2014; **25**(6) : 502-507.
5. **AREVALO J.F.** Outcomes of Treatment of Pediatric Choroidal Neovascularization with Intravitreal Antiangiogenic Agents. *Retina-The Journal of Retinal and Vitreous Diseases* 2014; **0**(0) : 1-9.
6. **BOSLEY T.M., ALORAINY I.A., OYSTRECK D.T.** Neurologic injury in Isolated sulfite Oxidase Deficiency. *Canadian Journal of Neurological Sciences* 2014; **41**(1) : 42-48.
7. **Du Toit S.H., Smit D.P.** Mooren's ulcer of the cornea after immune reconstitution. *AIDS* 2014; **28**:139-140
8. **MACKINNON S.E., OYSTRECK D.T., ANDREWS C., CHAN W., HUNTER D.G., ENGLE E.C.** Diagnostic Distinctions and Genetic Analysis of Patients Diagnosed with Moebius Syndrome. *Ophthalmology* 2014; **1**(0) : 1-8.
9. **MEYER D., FREEMAN N.** Toward early detection of retinoblastoma. *SAMJ South African Medical Journal* 2014; **104**(12) : 856.
10. **OYSTRECK D.T., ALORAINY I.A., MORALES J., CHAUDHTY I., ELKHAMRY S.M., BOSLEY T.M.** Ocular motility abnormalities in orbitofacial neurofibromatosis type 1. *Journal of Aapos* 2014; **18**(4) : 338-343.
11. **AREVALO J.F., SERRANO M.A., ARIAS J.D.** Perfluorocarbon in vitreoretinal surgery and preoperative bevacizumab in diabetic tractional retinal detachment. *World Journal of Diabetes* 2014; **5**(5) : 724-729.
12. **MEYER D.** Ophthalmia Neonatorum Prophylaxis and the 21<sup>st</sup> Century Antimicrobial Resistance Challenge. *Middle East African Journal of Ophthalmology* 2014; **21**(3) : 203-204.

## Teaching and Training (under, postgraduate and elective students)

1. Four MMed students are supernumery students – one from the SA Defence Force, two from the Northern Cape Province and one from Namibia. These students are under contract to return to their respective employers for service as specialists. Their contribution to clinical service delivery is invaluable to the Division.
2. Currently there are three registered PhD students in the Division. Two are international students.



3. The increased number of MBChB students needing exposure to clinical ophthalmology in their student intern years, poses new challenges. We will not be able to maintain standards unless new clinical teaching platforms are sourced. These are however limited because of the paucity of specialised ophthalmic care centres with an academic brief in the Metropole, and subsequently new and innovative clinical teaching and training methods are being developed and used.

## Special achievements

Dr William Mapham, a registrar in the Division, won several grants to enable him to pursue the development of a cell phone app to be used in ophthalmology referrals, with the emphasis on assisting eye care in rural and underserved areas. He was able to spend significant time on the development and field application of this novel device. This is already leading to better quality referrals.

## ORTHOPAEDICS

**Head of Department:  
Dr Jacques du Toit**

### Current Activities:

The Department of Orthopaedics deliver tertiary and secondary care to approximately 50% of the Western Cape population. We have a massive trauma load that has increased by 22% with the addition of Khayelitsha to our drainage area. We see and treat about 900 – 1 200 new emergency cases and operate about 628 emergency cases per month. Our average daily emergency cases awaiting theatre average 40 – 90 cases per day (53/day average).

The Department comprise of the following subspecialties for treatment of elective orthopaedics and complex trauma:

- Tumor and Sepsis unit
- Spinal Unit
- Shoulder and Elbow Unit
- Sports Medicine
- Arthroplasty Units
- Foot and Ankle Unit
- Hand Unit
- Paediatric Orthopaedics Unit
- Research Unit

**High quality elective orthopaedic care is rendered although this is suboptimal due to restricted bed availability and theatre time.**



## **New Incentives:**

- Outreach: Khayelitsha: Newly established weekly Orthopaedic Outpatients and Theatre List
- Departmental Restructuring: Initiation of project to restructure department to improve efficiency, e.g. one trauma firm with more efficient quality control and peer review. Project completed on 15 July 2014
- Establishing an Orthopaedic Digital database for registrar logbooks and database for patient treatment and operative procedures, as well as controlling the use of the appropriate orthopaedic hardware as prescribed on tender. The database also allows us to control expenditure. Project completed in August 2014
- Restructured Morbidity and Mortality Meetings: Evidence-based and accurate reflection of trends and interventions with regards to our morbidity and mortality
- Orthopaedic Treatment Protocols: We initiated a project to establish evidence-based Tygerberg Hospital treatment protocols for the Casualty Department, Orthopaedic Registrars and Interns. Projected date of completion is December 2015
- Initiation of a Minor Procedure List four times per week to aid in addressing the massive trauma workload. This initiative decants beds and supplies a venue for the treatment of minor cases so that these cases do not have to wait 2 – 3 weeks for their operations. These lists commenced in March 2015 and we are performing more than 100 operative cases on average per month

## **Personnel:**

### **Current activities:**

### **Our Department consist of:**

- Nine Orthopaedic Specialists (Including the Head of Department)
- Three Sessional Specialists
- 16 Orthopaedic Registrars
- One Supernumerary Registrar-Libya
- Two Registrars that are financed by II Military Hospital
- One Registrar at Worcester District Hospital
- One Registrar in Paarl District Hospital

## **New Incentives:**

- One Medical Officer Post
- One new Sessional Specialist: Dr Markus Michel – An internationally renowned hip and knee reconstructive Orthopaedic Surgeon still awaiting successful registration at the Health Professions Council of South Africa (HPCSA) before commencing a “pro-Duo” sessional post
- Extensive personal development programmes to improve teaching and examination skills of our Specialists and our Orthopaedic Registrars
- Restructuring of the departmental performance assessment – SPMS
- Trauma “fellowship” with “newly qualified” Orthopaedic Specialists from the Netherlands” attending a 6/12 “Trauma Fellowship” at our institution
- Arthroplasty and Spinal fellowship programmes: Commencing in 2015

## Reflection:

- We are under severe strain with regards to staff shortages on Specialist, Registrar and especially Medical Officer level. Our service delivery load has nearly doubled since 2013. With no increase in personnel in our department for the last five years (except one Medical Officer Post), it has become increasingly difficult to accommodate normal leave and sick leave. The Division of Orthopaedic Surgery urgently requires additional posts to be able to address the massive workload.

## Administration

### New Incentives:

- Departmental restructuring with official portfolio allocation and regular review of output
- Optimised “Lean Management” strategies
- Accurate data capturing through our own data capturing software (Orthware)

## Academic Activities

### Current Activities

- Teaching, training and examining the MBChB III/V/VI undergraduate students
- Extensive postgraduate Registrar programme

### New Incentives

- MBChB Curriculum: Initiation of restructuring the entire MBChB Curriculum. This exciting programme has the outcome objectives to render our students an up-to-date and outcome-based curriculum. This entails new outcomes, lectures, notes and examination techniques. The project was completed in 2014 and the feedback from the students was exceptional
- Undergraduate examination: Initiation of programme to implement evidence-based and scientifically sounds examination techniques. We are building a validated and evidence-based MSQ exam database. We currently have about 550 validated MSQ's on this database and our aim is more than 1 300 questions
- Postgraduate Trauma Programme: The development of an official trauma orientated teaching programme to enhance knowledge of orthopaedic trauma
- Orthopaedic Specialists: We have numerous courses at our facility to train already qualified orthopaedic specialists in their chosen subspecialities.

## Resources

(Please adapt this to your dept. e.g. if you don't have Radiographers, but have e.g. Pharmacists on your establishment, please substitute accordingly)

Posts (Full-time)	Number	Filled
Head	1	1
Consultants	8	8
Registrars	16	16
Medical Officer	1	1
Posts (sessional – how many hours worked per week)		
Dr R. Smith	1	1
Dr A.A. van Zyl	2	2
DR A.M. Heyns	4	4
Dr R.J. du Plessis	6	6

## Output

- Astronomical service delivery in trauma orthopaedics
- High Quality elective orthopaedics
- High standard of academic and research output
- High quality administrative output
- Defining the Department of Orthopaedics as a properly functioning business unit

### Comment on output:

The Department has maintained a high quality of service delivery, exceptional academic programmes (nearly 100% postgraduate pass rate and a very high MBChB pass rate) and a vastly improved research output in spite of being severely overloaded with emergency orthopaedics. We have initiated extensive restructuring programmes in 2014:

- MBChB III Curriculum
- Administrative Portfolio Development
- Departmental Restructuring
- Database Development and Improved Data capturing
- Personnel managerial, administrative and leadership development
- Initiating outreach programmes
- Launch: Orthopaedic Research Unit

The Department of Orthopaedics could easily have capsized due to the trauma burden and restricted availability of infrastructure to render elective orthopaedic care, but due to the commitment of the personnel, the Department is actually improving output on all its spheres of responsibility.

### Factors that will influence output in the future are:

- Availability of infrastructure to effectively manage our workload
- Increase of personnel, both at Tygerberg Hospital and as outreach initiatives

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

- Extensive upgrading of the Advanced Orthopaedic Training Centre
- Supply of a large amount of research software by the Faculty of Health Sciences to enhance research output

#### Community outreach programmes

##### Community Outreach in Africa: Treatment of clubfeet with the Ponseti Method Outreach Project

The Clubfoot Clinic at Tygerberg Hospital is one of the more advanced units in South Africa with regards to rendering evidence-based clubfoot care with the Ponseti Method. There is very little doubt in the international arena that the Ponseti Method is the “Gold Standard” for clubfoot care.

In Partnership with STEPS Charity (South African Clubfoot treatment NGO), we have launched governmental clubfoot programmes and trained personnel to treat clubfeet in the following countries:

- Botswana
- Namibia
- Seychelles

#### Partnerships

##### National:

- STEPS Charity and Lady Michaelis Paediatric Orthopaedic Surgery Department – NGO that aid African countries to initiate active clubfoot treatment programmes

#### Achievements w.r.t research activities and research outputs:

##### Research outputs 2008 – 2011(previous accreditation period)

	2008	2009	2010	2011	Total
Completed MMed dissertations:	3	4	2	1 (cum laude)	10
Local research articles:	1	2	1	1	5
Peer reviewed articles:	2	0	0	0	2

## Research outputs 2012 – 2015 (current HPCSA accreditation period)

	2012	2013	2014	2015	Total
Completed MMed dissertations:	3	2	3 (2 cum laude)	4 (expected)	12
ISI accredited research articles:	1	0	2	0	3
PubMed cited articles:	1	1	10	3	15

The amount and quality of research within the Division of Orthopaedics has increased substantially since the last HPCSA accreditation period. The total amount of publications has increased from 7 publications in the period between 2008 and 2011 to 14 publications in the period between 2012 and 2015, while several internationally peer-reviewed papers are currently still under review. In addition to the increase in the amount of publication, more research was also published in internationally peer-reviewed and PubMed cited journals. This sevenfold increase (700%) does not only indicate that the amount of research has increased, but also the quality of the research projects.

### These improvements can be contributed to several incentives:

- The development of an 'orthopaedics research module' to assist Registrars and staff to conduct high quality research
- Appointment of an Orthopaedic Research Director, Prof. Robert Lamberts, who was appointed as the Head of Orthopaedic Research in 2014. Under his guidance the research culture is rapidly growing, which in turn has led to the registration of the first South African Registrar for a PhD in Orthopaedics and the attraction of a postdoctoral research fellow
- The identification of 2 – 3 main research focuses areas (TB and orthopaedics – Dr T.N. Mann, HIV and orthopaedics – Dr N.G. Langerak and Orthopaedics and trauma). The focus to develop so-called research lines in our main areas of "Burden of Disease" – Trauma/HIV/Tuberculosis
- The attraction of postdoctoral fellows to future increase the research culture and build support research structures for Orthopaedic Registrars
- Increase the quality of MMed dissertations so that they can be published in internationally peer-reviewed journals
- Pro-active support and evaluation of the actual research project or MMed dissertation

### Major research achievements during the last HPCSA accreditation period (2012-2015)

- Collaborative partner on a successful and prestigious Collaborative Initiative for Paediatric HIV Education and Research (CIPHER) grant from the International AIDS Foundation, Geneva, Switzerland (\$150 000 – ZAR 1 787 528,57)
- Successful NRF scarce skill postdoctoral fellowship application – Dr T.N. Mann (ZAR 990 000,00)
- Publication of 10 internationally peer-reviewed and PubMed cited paper in 2014, while the average for orthopaedics in the last 10 year has been 3 – 4 nationwide.
- PhD registration in Orthopaedics of the first South African Orthopaedic Registrar
- Successful postdoctoral fellowship application – acceptance rate 7,7%: Dr T.N. Mann.
- Two 'cum laude' MMed dissertations in 2014

## Teaching and Training (under, postgraduate and elective students)

### Current Activities

- Teaching, training and examining the MBChB III/V/VI undergraduate students
- Extensive postgraduate Registrar programme

### New Incentives

- MBChB Curriculum: Initiation of restructuring the entire MBChB Curriculum. This exciting programme has the outcome objectives to render our students an up-to-date and outcome-based curriculum. This will entail new outcomes, lectures, notes and examination techniques
- Undergraduate examination: Initiation of programme to implement evidence-based and scientifically sound examination techniques
- Postgraduate Trauma Programme: The development of an official trauma orientated teaching programme to enhance knowledge of orthopaedic trauma

### Special achievements

Bronze Marksmen Proficiency Shooting Badge January 2014: South African National Defence Force – South African Military Health Services: Dr J. Watt.

## PLASTIC AND RECONSTRUCTIVE SURGERY

**Head of Department:**  
**Prof. Frank Graewe**

### Summary of activities

Our normal day to day activities consist of pre- and post-operative consultations, elective and emergency surgery, in-hospital patient care and several academic meetings and teaching sessions. We hosted the annual Plastic Surgery Association meeting at Spier in October 2014. (APRSSA 2014). In November 2014 we had the annual Smile Week, operating on children with congenital, mostly facial, abnormalities.

### Resources

Posts (Full-time)	Number	Filled
specialist	2	2
registrar	4	4
Posts (sessional – how many hours worked per week)		
specialist	10	10

## **PART 2**

### **Faculty of Health Sciences**

#### **Infrastructure development**

Operating Loupe and headlight for microsurgical procedures

#### **Partnerships**

##### **National:**

Smile Foundation South Africa

##### **Private:**

##### **International:**

World Craniofacial Foundation (WCF)

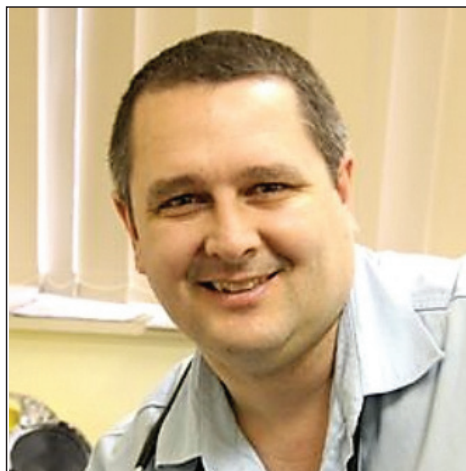
#### **Teaching and Training (under, postgraduate and elective students)**

We are actively involved in training, with the main focus on postgraduate training and specialised training in microsurgery. We have elective students rotating through our Division.

#### **Special achievements and other highlights not covered by this template**

Our Plastic Surgery Division formed an integral part of the surgical team that did the world's first penile transplant at Tygerberg Hospital in December 2014. We took part in the cadaver study preparing for the transplant surgery and we did all the microsurgery that was involved during harvesting and transplantation of the penis. We also did a –non-functional penile reconstruction for the donor as requested by the family.

**Head of Department:  
Dr W.A.J. Meintjes**



**Dr W.A.J. Meintjes**

### Summary of activities

The Division of Community Health within the Department of Interdisciplinary Health, Faculty of Health Sciences, Stellenbosch University (SU), established the UIPC in 2004, and in 2006 it became an academic unit which was sited in Tygerberg Hospital. The UIPC is the first academic unit of its kind in Africa.

The clinical team includes four IPC Clinical Programme Coordinators (CPCs), two of whom have the Postgraduate Diploma in IPC and two have completed the Fundamentals in IPC short course.

The UIPC provides numerous university-registered and accredited training courses in IPC and related subjects. The UIPC has an extensive teaching, training and research programme within four of the nine provinces of South Africa, which is also extended to numerous other African countries, including Namibia, Botswana, Rwanda, Zimbabwe, Sierra Leone and others.

The UIPC is leading and participating in several research programmes. Formal collaborations are in place with the University of Nijmegen (the Netherlands), the Infection Control Africa Network (ICAN) and, through ICAN, with a number of other international collaborators. The administrative office of ICAN is situated within the UIPC.

Clinical service provided by the IPC team is based on outcome of surveillance (in association with the Dept. of Microbiology) carried out at TBH. 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 healthcare facilities (HCFs) and communities in IPC.



## Resources

### Clinical office:

Medical Specialist	1
Specialist Microbiologist (sessional post)	1
IPC Nurses (clinical programme coordinators)	4
Admin Officer	1
Senior Admin Clerk	1
Intern	1
University Office	1
Medical Specialist	1
Training Coordinator (IPC practitioner)	1
Admin Officer	1
Training Administrator	
ICAN Office	
Professor	1
Training Coordinator (IPC practitioner)	1

## 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 Dept of Microbiology, NHLS, Pharmacy, Heads of medical specialities at TBH, 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 (DoH 2007) and the National Core Standards (DoH 2011). The Unit is actively involved in the roll-out and support of healthcare bundles to prevent hospital-acquired infections in various disciplines. Since 2011, the IPC has also expanded 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 Hospital Acquired Infections (HAIs). The UIPC contributes to a major reduction in HAIs at TBH, resulting in considerable cost savings. In collaboration with the Central Data Warehouse (NHLS), the reporting system (for compilation of the daily pathogen report) is continually improving and increases in accuracy. This, too, reflects a reduction in HAIs.

The UIPC presented and participated in several IPC-related events at TBH during 2014, including:

- The Global Hand Hygiene Day as recommended by the World Health Organization (WHO), which emphasised the role of hand hygiene in the prevention of HAI. A record number of persons attended the event
- The provincial IPC Day, an annual event since 2008, is a platform to discuss hot topics in IPC and is very well attended

## Training:

The UIPC has delivered 1 965 person-courses in 2014, of which 78 were delivered in Namibia, 142 in Botswana, 138 in Sierra Leone and 401 in other provinces within South Africa. A total of 1 206 staff members were trained at Tygerberg Academic Hospital. The training team has been deployed to Sierra Leone for training on IPC for Ebola, and the UIPC has authored a book specifically for this purpose (see <http://ls.bettercare.co.za/ebola-prevention-and-control/0-3-contents.html>)

## Comment on output

Although this is the largest unit for IPC in the province, it is still small in comparison with the burden of infection-related morbidity and mortality in the province and the Unit experiences a shortage of staff. Despite the limited resources the UIPC has performed exceptionally well in ensuring a high output and impact.

## PART 2

### Infrastructure development

The UIPC acquired additional equipment for newly appointed staff. The student room was also expanded, with the provision of workstations for students who spend their time within the Unit. Faculty on Health Science

### Community outreach programmes

The Unit was involved in the SURMEPI programme of the faculty, providing training in rural areas on matters related to IPC. This is also associated with pre- and post assessments to evaluate the impact of the training.

### 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 Human Sciences Research Council (HSRC).

International: The UIPC is the headquarters of the Infection Control Africa Network (ICAN), which has members from multiple African countries. Prof. Shaheen Mehtar is the founder and Chair of ICAN. The expansion of education and training, as well as joint projects is ongoing.

Visits to several SADC countries (including Zimbabwe, Namibia and Botswana) for IPC training and audits

A Memorandum of Understanding (MoU) was signed between the UIPC and the University of Nijmegen in the Netherlands as a natural progression of an existing relationship. This allows for collaborative research and training initiatives, as well as staff exchanges between the two institutions. A MoU was also signed between the UIPC and ICAN, which allows for collaborations across Africa.

The Unit signed an agreement with the Centres for Disease Control and provided training on Ebola prevention and control in affected countries, like Sierra Leone.

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Private sector: The Unit continues to provide training for private hospital groups, including Mediclinic and Melomed Hospital.

### **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-OHS Committee
- Provincial antibiotic stewardship 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 Control Africa Network
- Committee member: TB/HIV Care Organisation, Cape Town
- Committee member: TADSA, Cape Town

### **Achievements wrt research activities and research outputs:**

The UIPC remains actively involved in education-related as well as operational (clinical) research. A number of publications originated from the Unit. The Unit is also involved in research at the postgraduate level and currently has six students enrolled for the MSc (IPC) programme.

### **Presentations:**

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

### **Teaching and Training (under-, postgraduate and elective students).**

The UIPC delivers a large range of IPC-related training courses at local, national and international level. The courses include:

#### **Formal academic programmes:**

- MSc (Infection Prevention and Control)
- Postgraduate Diploma in Infection Control

#### **Short courses:**

- Fundamentals of Infection Prevention and Control
- IPC for healthcare managers
- Introduction to IPC for healthcare workers
- Basic Decontamination and Sterilisation
- Intermediate Decontamination and Sterilisation
- Advanced Decontamination and Sterilisation
- Train-the-Training in IPC
- TB-IPC for Laboratory Workers
- IPC for Link-nurses and the link-nurse programme
- IPC for general assistants and domestic staff
- Ebola training courses

**Head of Department:  
Prof. XG Mbhenyane**



**Prof. XG Mbhenyane**

### **Summary of activities**

The Division of Human Nutrition consists of three components, namely Service Delivery, Training and Research:

### **Service delivery at Tygerberg Hospital**

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, Surgical Intensive Care Unit, Diabetes Mellitus and Endocrinology, Internal Medicine, Orthopaedics, Dermatology, Neurology, 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 administration and management of the ordering system MODS 2 (the ordering system for tube feeds).

## **Training**

Tygerberg offers a practical training platform for the Dietetics students from Stellenbosch University, University of the Western Cape (UWC) as well as the University of Cape Town (UCT). In 2014, a total of 19 students from Stellenbosch University were placed for a total of 11 weeks; 28 student from UWC for a period of 6 weeks and 13 students from UCT for 1 week training in the Burns Unit only. Two elective students from Belgium were included in the SU Dietetics students training programme at TBH for a period of 4 weeks.

## Division Human Nutrition

The Division Human Nutrition has four key performance areas; which are: teaching and learning, research, community interaction or service delivery. The division offers BSc Dietetics, and two Masters and a doctoral programmes and also participate in the teaching of other programmes within the Faculty and at the main campus. Community interaction includes activities related to student experiential learning in Tygerberg hospital, Bishop Lavis, Ukwanda platform in Worcester, and Hermanus and other communities where students are placed. Staff also engages in clinical services, research for training students as well as staff research on these sites. Research includes implementation of projects, collaboration, conferencing and publications. Outputs on these activities are detailed in the following sections.

### Resources

Posts (Full-time)	Number	Filled
<b>Academic posts:</b>		
Professor	1	1
Associate Professor	1	1
Senior Lecturer	4	4
Lecturer	5	5
Junior Lecturer	1	1
Administrative	3	3
Laboratory technicians*		
Researcher		
<i>NICUS Posts*</i>		
Manager	1	0
Dietitian		
<i>Posts (sessional - how many hours worked per week)</i>		
Part-time posts (5/8)	5*	5*
Locum posts* (Ad- Hoc)	8	8
Full-time equivalents		
NICUS posts		
Dietitian (3/8)	1	1
<b>Posts in Tygerberg Academic Hospital: Dietetic and other</b>		
Assistant Director	1	1
Chief Dietitian	4 (ODI = 5)	4
<i>Production Dietitian</i>		
Grade I	9 (ODI = 15)	8+1 (being evaluated for reasonable accommodation placement)
Grade II	1	1
Grade III		
Community-service Dietitian	1	1
Contract posts	2	
Chief Professional Nurse	1	1
Typist	1	1
Food Service Supervisor	1	1
Food Service Aid	5	5

\* Private funds

## Output

<b>Inpatients</b>	
Number of patients follow-up	12 277
Total number of contacts : Initial Ass & Follow-up	40 283
Total number of contacts : Weekends & PH	1 970
Tube feeds	13 669
Supplementary drinks	13 359
<b>Outpatients</b>	
H&L Clinic-Diabetes (new)	69
H&L Clinic - Diabetes(follow-ups)	35
H&L Clinic-Weight loss (new)	96
H&L Clinic - Weight loss(follow-ups)	58
H&L Clinic - Individual	23
On-call (adults)	2 199
On-call (paediatric)	647
HIV clinic (adults)	101
<b>Food Services</b>	
Special diets	175 084
Full diets	296 063
<b>TPN</b>	
New referrals	200
Total TPN Patients	238
TPN Nursing Consultations	7 216
Total Ward Rounds	514
Nutrition Support: feeds	
New referrals	184
Patient consultations	2 333
PEG1 patients (new)	445
PEG1 patients (follow-up)	1 353
Nutrition Information Centre (NICUS)	
<b>Advisory service</b>	
Correspondence	1190
Telephonic	
<b>Educational</b>	
Radio talks	9
Lay publications	15
Talks	7
Television	5
Training workshops	
<b>Stikland outreach</b>	
Individual consultations	
Group activities	
Community nutrition	
Individual consultations	
Group activities	
Campus health services and SUSPI2 (new consultations)	

Community Nutrition Statistics for 2014								
	Individual Consultations		Group activities					
	Bishop Lavis CDC	St Josephs Step-down facility	Bishop Lavis CDC	Bishop Lavis Rehab	Elsies River CWC	Sonskyn elderly group	Stikland Hospital	Other
January	94					22		
February	120		28			75	10	
March	114	6	231	159	164		40	40
April	121			5				
May	116							
June	117				15			
July	115	6	56	61	34		40	
August	120		173	55	114		40	
September	133	6	173	45	40		40	
October	126							
November	137							
December	77							
<b>TOTAL</b>	<b>1 390</b>	<b>18</b>	<b>661</b>	<b>325</b>	<b>367</b>	<b>97</b>	<b>170</b>	<b>40</b>
<b>TOTAL</b>	<b>1408</b>		<b>1 660</b>					

### Comment on output:

The number of clients have remained constant and the fluctuations are similar to previous years.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

The Division is awaiting the renovations as per Faculty plan which were due in 2014 but moved to later in 2015.

#### Community outreach programmes

The Division's activities are divided as community outreach under the different firms - community nutrition, food service management and therapeutic nutrition. Community services for all staff are then reported in the last section.



## Community Nutrition Firm

The Community Nutrition firm engages in community interaction activities on a regular basis. It entails direct nutrition services to patients and community groups, as well as indirect services to professional associations and organisations.

The following three Community Nutrition projects are registered on the Stellenbosch University Community Interaction website:

- Community Nutrition 478 Internship
- Community Nutrition 478 - Health Promoting Schools
- Ukwanda for Dietetic IV

Here follow short description of these three projects activities.

- Community Nutrition 478 Internship

Ensuring and supplying Primary Healthcare services to previously disadvantaged communities is part of the bigger plan of addressing inequity in South Africa. The internship entails rendering of health and nutrition services at Community and Health facility levels. Relevant interactions and interventions at community-based and non-governmental organisations is an important focus after completion of a community profile.

Students perform their health facility-based and community-based activities at the Bishop Lavis Community Health Centre (BLCHC), Bishop Lavis Rehabilitation Centre (BLRC), Elsie's River Clothing Workers Union Clinic (ERCWC) and within the community of Bishop Lavis. On certain Wednesday afternoons, students partake in the Inter-professional Learning and Teaching (IPTL) activities at the Bishop Lavis Rehabilitation Centre. Students also do health promoting nutrition education group activities to psychiatric patients at Stikland Hospital on certain Thursday afternoons.

The first two weeks of the Community Nutrition internship is spent doing a breastfeeding self-study course and tutorials that prepare students for practice during the Community Nutrition internship. These early weeks are spent under the direct supervision of a Dietitian, who ensures that students are able to provide nutrition counselling and health promotion to the patients and community members successfully by the end of the period.

### Community Nutrition 478 - Health Promoting Schools

The South African Integrated School Health Policy (ISHP), launched at the end of 2012, aims to build on and strengthen existing school health services. It recognises the World Health Organization Health Promoting Schools concept as an important vehicle for expanding health in communities. The Integrated Nutrition Programme in SA is seen as a key programme to support this policy. Dietitians and Nutritionist have a very important role to fulfil in the context of the ISHP and it is essential that students are exposed to these roles and functions in their pre-service training.

School Health Services in the Western Cape Metropole district offer opportunities to students to assist in nutrition-related service delivery and to explore and implement health promotion activities in schools. Fourth year Dietetic students work with the Metro West School Health team for a period of 1 week during 8 occasions per year. The School Health team do routine screening of Grade 1 learners to assess early indications of health problems. Weights and heights are measured by the Dietetic students. The data is analysed and nutritional profiles are presented to the School Health team, who in turn provide feedback to the schools. The students also do health education and promotion at primary schools as well as advocacy about the dietetics course and profession to high school learners. Students document their experiences and reflect critically about their insights. In so-doing the project is a true service-learning experience with components of teaching, service delivery and community interaction.

- Ukwanda for Dietetic IV

The project entails rendering of health and nutrition services at community and health facility level (primary and secondary). It involves Integration of the 3 fields of dietetics (Community Nutrition, Food Service Management and Therapeutic Nutrition) within the rural community setting. Relevant

interactions and interventions at crèches, old age homes, farms, factories and other community-based organisations (CBOs), clinics and hospitals are important focus areas after completion of a community profile of the area / site.

The Community Nutrition firm also act on requests and invitations for nutrition knowledge translation opportunities and events. Here are some which took place in 2014:

- **Du Plessis L.M.** Breastfeeding consultant for the lay publication: “Baba en Kleuter “/ “Baby and Toddler”
- **Du Plessis L.M.** Breastfeeding in the workplace. Continuing Nutrition Education. Division of Human Nutrition, Faculty of Medical and Health Sciences (Cape Town University of Technology Campus), Stellenbosch University, 30 May 2014
- **Du Plessis L.M.** The environment affecting Infant and Young Child Feeding. Government Policy Cluster workshop commissioned by Department of Science and Technology and arranged by the Human Sciences Research Council. Theme: Child health: Improving the quality of care during the first 1000 days of life”. CSIR Conference Centre, Pretoria. 25 February 2014
- **Daniels L.C,** Petersen A. Road to Health Booklet Workshop at RUDASA conference, Worcester. 23 September 2014

### **Food Service Management Firm**

During 2014, dietetic students performed a number of service delivery activities on the Food service platform as part of their final year training. These tasks included:

#### **Ukwanda: Worcester and Hermanus:**

- The development of an economic menu and standardisation of a recipe according the needs of the client.
- Presentation of lectures to food service personal according to the need of the FSU.
- Interaction with people with disabilities at the NID College to be gain more experience on alternative methods of training hearing impaired people.
- Promoting healthy cooking methods to members of the community in a practical and applicable way, keeping in mind the environment with limited resources.
- Promotion of food safety and sanitation by performing a hygiene audit, promoting the implementation of HACCP guidelines and training the FS staff according to the Western Province Food Service Policy.

### **Tygerberg Academic Hospital**

- Students perform a hygiene audit using the Western Province hygiene audit tool. The results of the audit are given to the FSM.
- Students perform a food wastage study at TAH. The results can be used to improve the quality of meals served to the patients and to make suggestions to reduce food wastage in the FSU.

### **Private hospitals**

- Students present a lecture to the FS staff according to the need of the client.
- Students standardise a therapeutic recipe and arrange a sensory evaluation session of that recipe. The type of recipe is discussed with the FSM to address a need of the FSU.

## The Road to Health Booklet (RtHB) Study

The third and last phase of the RtHB study, which aims to investigate the implementation of the new RtHB in healthcare facilities in the Western Cape was completed in 2014. During this phase, the Overberg and West Coast districts were investigated. The respective reports were finalised and presented at various forums. The full report of the completed study was also finalised and submitted to the Department of Health.

## Partnerships

The report in this section is divided into national, private and international. Only highlights are provided:

### National level:

The Division Human Nutrition has links with the following institutions:

- North West University
- Medical Research Council
- Department of Health (Provincial and National)
- UP, UCT and UWC
- Ten Institutions training Dietitians or Nutritionists

The collaboration includes activities on teaching and learning, nutrition policy implementation discussions and development of guidelines and protocols. The following guests of institutions were hosted in 2014: National Department of Health Norms and Standards working group, Prof J Jerling of North West University and Prof M Senekal of UCT. Members of the division serve as Convenors or participants in the National Department of health working group developing Dietetic Norms and Standards. There are nine Task teams (of which five are convened by staff from the division) for the compilation of the norms and standards of practice of Dietitians. The Division hosted two meetings of the Task team in 2014.

### Private:

- INDUSTRY (Private Hospitals in Western Cape for food service training)
- Collaboration with the industry through our Glycaemic Index (GI) Laboratory. GI testing is performed on food upon request from the industry
- GI analysis for various industry clients
- Shoprite/Checkers
- Colcacchio
- Soreaso
- Numifoods

Collaboration includes using their platforms for student training, sharing of information and data analysis service. Various engagements were held with the partners in 2014.

## International:

- University of Oslo (Norway)
- Oslo & Akershus University college of Applied Sciences
- Makerere Univ (Uganda)
- Kyambogo Univ (Uganda)
- Vrije University
- ZTH (Zurich Technology Institute)
- University of Ghana
- Jomo Kenyatta University
- Boitekanelo College, Botswana

Collabotation includes staff and student exchange on capacity development, research and information sharing. The following international guests/institution was hosted in 2014:

- Boitekanelo College in August 2014
- Dr. S Ochola in August 2014
- Prof Jeanne Freeland-Graves, University of Texas at Austin in July 2014

In addition to the above, Members of the Division serve on many University, National and International committees and Councils.

- Member of the Health Promoting Schools Forum (network between universities/government departments/NGO's & CBO's)
- Member of the Advisory Committee for Maties Community Service
- Inter-professional Education working group of the Faculty of Medicine and Health Sciences
- Allied Health Professions Graduate Attribute committee of the Faculty of Medicine and Health Sciences
- Member of the organising committee for the Clinical Supervision Course
- South African Society for Parenteral and Enteral Nutrition (SASPEN) President & Council
- Critical Care Congress Organising & Scientific Committee
- Co-Regional Editor for the International Journal of Applied and Basic Nutritional Sciences (NUTRITION)
- Editorial Assistant for the South African Journal of Clinical Nutrition
- Member of the National Working group to review the South African Paediatric- Based Dietary Guidelines
- Member of the Provincial Technical Working Group: Infant and Child Nutrition. (This is an advisory sub-committee to the Department of Health Provincial Co-ordinating committee for Child Health)
- Member of the Advisory group on Health Promoting Schools to the Vice-Dean Community Interaction, Faculty of Medicine and Health Sciences, Stellenbosch University
- Breastfeeding consultant for the lay publication: "Baba en Kleuter" / "Baby and Toddler"
- Member of the IMBEWU-GESOG Committee to recruit students from disadvantaged backgrounds
- Allied Health Professions Graduate Attribute committee of the Faculty of Medicine and Health Sciences
- Bishop Lavis facility committee
- Bishop Lavis Rehabilitation Centre committee
- Member of working group: Hospital Dietitians (PGWC)
- Member of Core Committee for Allied Health Professions at Tygerberg Hospital
- Member of Breastfeeding Committee of Tygerberg Hospital

- Member of Provincial Food Service Management Menus Task Team
- Member of Provincial Ration Scales Task Team
- Member of Provincial Economical Meals Task Team
- Member of Provincial ARV Task Team
- Member of Provincial NTP policy Task Team
- Infant and young child feeding working group, Nutrition Sub-Directorate, Department of Health, Provincial Government of the Western Cape
- Member of the Health Research Ethics Committee (Stellenbosch University), two members (vice-chair)
- Chair Wellness Committee of the Faculty of Medicine and Health Sciences, Stellenbosch University
- Executive committee of the South African Sports Medicine Association (SASMA)
- Executive committee of the Association for Dietetics South Africa- Sport Nutrition Working Group (ADSA-SNWG)
- International Society for the Advancement of Kinanthropometry (ISAK) member and accreditation as level 1 and level 2 anthropometrist
- American College of Sports Medicine Professional member

### **Staff serve as invited reviewers for the following scientific peer-reviewed journal (International & national)**

- Public Health Nutrition journal
- Maternal and Child Nutrition
- British Journal of Nutrition
- Nutrition Journal
- Bio Medical Central (Public Health)
- Development Southern Africa journal
- Nurse Educator
- Current Nutrition and Food Science journal
- University of Mauritius Journal
- South African Journal of Clinical Nutrition
- South African Family Practitioner
- South African Journal of Education
- African Journal of Primary Health Care and Family Medicine

### **Achievements w.r.t research activities and research outputs:**

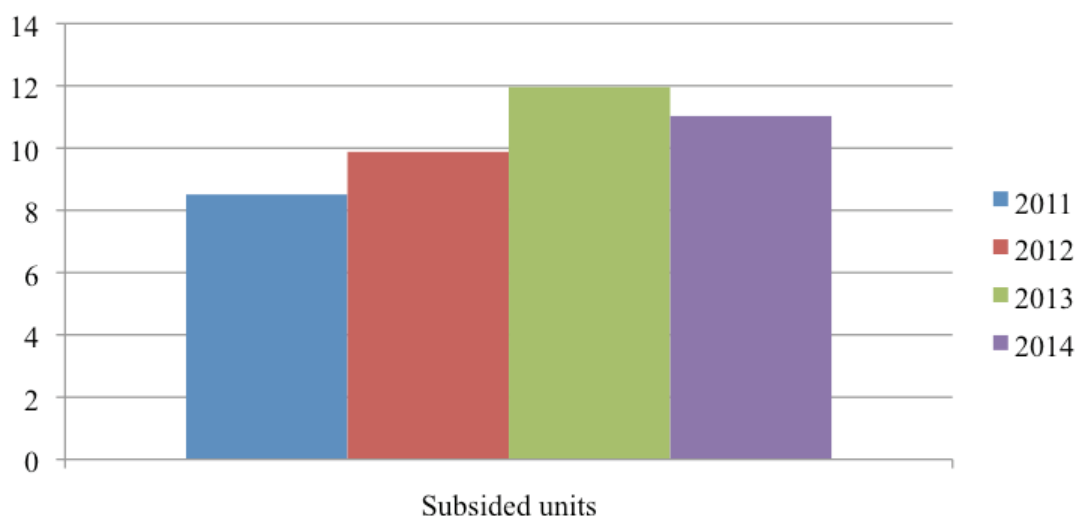
The achievements are listed in detail followed by analysis of performances compared with the previous years.

#### **JOURNAL ARTICLES (SUBSIDISED)**

- i. **ABERMAN N, RAWAT R, DRIMIE S, CLAROS JM, KADIYALA S.** Food Security and Nutrition Interventions in Response to the Aids Epidemic: Assessing Global Action and Evidence. *Aids and Behavior* 2014; **2014**(18): S554-S565.
- ii. **DU PLESSIS LM, KOORNHOF HE, DANIELS L, SOWDEN M, ADAMS R.** Health-promoting schools as a service learning platform for teaching health-promotion skills. *African Journal of Health Professions Education* 2014; **6**(1): 48-51.

- iii. **EMSLEY RA, CHILIZA B, ASMAL L, DU PLESSIS S, PHAHLADIRA L, VAN NIEKERK E, JANSE VAN RENSBURG S, HARVEY BH.** A randomized, controlled trial of omega-3 fatty acids plus an antioxidant for relapse prevention after antipsychotic discontinuation in first-episode schizophrenia. *Schizophrenia Research* 2014; **158**(1-3): 230-235.
- iv. **FRAYNE B, CRUSH J, MCLACHLAN M.** Urbanization, nutrition and development in Southern African cities. *Food Security* 2014; **6**: 101-112.
- v. **GOOSEN C, MCLACHLAN M, SCHÜBL C.** Factors impeding exclusive breastfeeding in a low-income area of the Western Cape Province of South Africa. *African Journal of Nursing and Midwifery* 2014; **16**(1): 13-31.
- vi. **GOOSEN C, MCLACHLAN M, SCHÜBL C.** Infant feeding practices during the first 6 months of life in a low-income area of the Western Cape Province. *South African Journal of Child Health* 2014; **8**(2): 50-54.
- vii. Kriel J, Esau N. Nutritional management of encapsulating peritoneal sclerosis with intradialytic parenteral nutrition. (Case-study) 2014. *S Afr J Clin Nutr*; **27**(1):38-43
- viii. **LOMBARD L, DU PLESSIS LM, VISSER J.** Body composition of rheumatoid arthritis patients in the City of Cape Town, South Africa. *Clinical Rheumatology* 2014; **2014**(33): 467-476.
- ix. **MANDIWANA TC, MBHENYANE XG, MUSHAPHI LF, MABAPA NS.** Knowledge and practices of pre-school teachers on growth monitoring program - South Africa. *Health Promotion International* 2014; **1**: 1-6.
- x. **MAVENGAHAMA S, DE CLERCQ WP, MCLACHLAN M.** Trace element composition of two wild vegetables in response to soil-applied micronutrients. *South African Journal of Science* 2014; **110**(9/10): 1-5.
- xi. **NEL J, VAN STUIJVENBERG ME, SCHOEMAN SE, DHANSAY MA, LOMBARD C, DU PLESSIS LM.** Liver intake in 24-59-month old children from an impoverished South African community provides enough vitamin A to meet requirements. *Public Health Nutrition* 2014; **17**(12): 2798-2805.
- xii. **POTGIETER S, VISSER J, CROUKAMP I, MARKIDES M, NASCIMENTO J, SCOTT K.** Body composition and habitual and match-day dietary intake of the FNB Maties Varsity Cup rugby players. *South African Journal of Sport Medicine* 2014; **26**(2) : 35-43.
- xiii. **SLEGTENHORST S, VISSER J, BURKE A, MEYER R.** Antioxidant intake in paediatric oncology patients. *Clinical Nutrition* 2014; **1** : 1-5.
- xiv. **STEVENSON C, BLAAUW R, FREDERICKS E, VISSER J, ROUX S.** Food avoidance in irritable bowel syndrome leads to a nutrition-deficient diet. *South African Journal of Clinical Nutrition* 2014; **27**(1) : 25-30.
- xv. **STEVENSON C, BLAAUW R, FREDERICKS E, VISSER J, ROUX S.** Randomized clinical trial: Effect of *Lactobacillus plantarum* 299 v on symptoms of irritable bowel syndrome. *Nutrition* 2014; **30** : 1151-1157.
- xvi. **VAN NIEKERK E, AUTRAN CA, NEL DG, KIRSTEN GF, BLAAUW R, BODE L.** Human Milk Oligosaccharides Differ between HIV-Infected and HIV-Uninfected Mothers and Are Related to Necrotizing Enterocolitis Incidence in Their Preterm Very-Low-Birth-Weight Infants 1-3. *Journal of Nutrition* 2014; **144**(8) : 1227-1233.
- xvii. **VAN NIEKERK E, BLAAUW R, KIRSTEN GF.** The role of human milk oligosaccharides in preventing necrotising enterocolitis and human immunodeficiency virus transmission. *South African Journal of Clinical Nutrition* 2014; **27**(2) : 51-55.
- xviii. **VAN NIEKERK E, KIRSTEN GF, NEL DG, BLAAUW R.** Probiotics, feeding tolerance, and growth: A comparison between HIV-exposed and unexposed very low birth weight infants. *Nutrition* 2014; **30**(6) : 645-653.
- xix. **VILJOEN E, VISSER J, KOEN N, MUSEKIWA A.** A systematic review and meta-analysis of the effect and safety of ginger in the treatment of pregnancy-associated nausea and vomiting. *Nutrition Journal* 2014; **13**(20) : 1-14.
- xx. **VISSER J, NOTELOVITZ T, SZABO CP, FREDERICKS N.** Abnormal eating attitudes and weight-loss behaviour of adolescent girls attending a "traditional" Jewish high school in Johannesburg, South Africa. *South African Journal of Clinical Nutrition* 2014; **4** : 208-216.

## Analysis of the above outputs compared to previous year's performance.



The figure shows that when considering the full-time equivalent for academic staff only, the units per capita is one compared to 1.25 national norm set by the Department of Training and Higher Education.

## JOURNAL ARTICLES (NON-SUBSIDISED)

Four articles were published in peer reviewed international journals but not subsidised.

- i. **DRIMIE S, CHAKRABARTY SK, DUBE C, SMIT-MWANAMWENGE M, RAWAT R, HARRIS J.** Intersectoral Coordination for Nutrition in Zambia. *IDS Special Collection* 2014; **1** : 72-77.
- ii. **MABAPA NS, MBHENYANE XG, JOOSTE PL, MAMABOLO RL, AMEY AKA.** Iodine Status of Rural School Children in Vhembe District of Limpopo Province, South Africa. *Current research in nutrition and food science* 2014; **2(2)** : 98-105.
- iii. **MCLACHLAN M.** A practical approach to facilitate food system change and link nutrition and agriculture: lessons from the Southern Africa Food Lab experience. *SCN News* 2014; **40** : 48-53.
- iv. **MUGAMBI MN, YOUNG T, BLAAUW R.** Application of evidence on probiotics, prebiotics and synbiotics by food industry: a descriptive study. *BMC Research Notes* 2014; **7(754)** : 1-8.

## CHAPTERS IN BOOKS

There were three contributions to books or chapters.

- i. **LABUSCHAGNE IL, GOOSEN C, REID LM, LOMBARD MJ.** Prebiotic, probiotic and symbiotic use in infant formulae. In *Handbook of dietary and nutritional aspects of bottle feeding*, Wageningen Academic Publishers, Wageningen, Netherlands, 2014: 305-320.
- ii. **LOMBARD MJ, LABUSCHAGNE IL.** Bottle feeding: African perspectives. In *Handbook of dietary and nutritional aspects of bottle feeding*, Wageningen Academic Publishers, Wageningen, Netherlands, 2014: 45-62.
- iii. **VISSER J, BLAAUW R.** Micronutrient Supplementation for Critically Ill Adults: Practical Application. In *Diet and Nutrition in Critical Care*, Springer Reference, London, 2014: 1-15.



## PUBLISHED ABSTRACTS (NATIONAL & INTERNATIONAL)

The published abstracts below were linked to conferences attended:

- i. Potgieter S, Smith C, Wright H, Warnich L. The effect of caffeine supplementation on Olympic distance triathletes and triathlon performance in the South Africa. *Med Sci Sports Ex* 2014; 56(5): S571.
- ii. Stevenson C, Blaauw R, Fredericks E, Visser J, Roux S. Randomized clinical trial: effect of *Lactobacillus Plantarum* 299v on symptoms of irritable bowel syndrome. *Clinical Nutrition* 2014; 33(1): S71.
- iii. Blaauw R, du Plessis L, Koen N, Koornhof L, Marais M, Nel DG, Potgieter S, Visser J. Implementation of The Road-to-Health Booklet in PHC facilities in the Western Cape province. *S Afr J Clin Nutr* 2014; 27(3): 147.
- iv. Blaauw R, Veldsman L & Richards GA. Protein delivery in ICU: A neglected area. *Clinical Nutr* 2014; 33 (Suppl 1): S33.
- v. Koornhof L, Blaauw R, Marais M, Du Plessis LM, Visser J. Utilising the service-learning paradigm to redesign students' research experience. Congress Proceedings: SAAHE Congress, Cape Town, South Africa, 26-28 June 2014 AND Faculty of Medicine and Health Sciences Academic Research Day; Centre for Health Professions Education. Stellenbosch University, Bellville, South Africa, 13 August 2014.
- vi. Nel J, Schoeman ME, Dhansay MA, Du Plessis LM, Dr ME van Stuijvenberg. Liver intake provides enough Vitamin A to meet requirements of 24 to 59 month-old children from an impoverished Northern Cape community. *S Afr J Clin Nutr*. 2014;27(3):166
- vii. Van Stuijvenberg ME, Nel J, Schoeman SE, Du Plessis LM, Dhansay MA. Low intake of calcium and vitamin D associated with stunting in an impoverished Northern Cape community. *S Afr J Clin Nutr*. 2014;27(3):177
- viii. Du Plessis L.M, McLachlan MH, Drimie SE. A multi-stakeholder approach to explore commitment and capacity to address infant and young child feeding practices in the Breede Valley District, Western Cape, South Africa. *International Journal of Community Nutrition*. 2014;0(0):137.
- ix. Bardien F, Kloppers M, Koornhof HE, Bester J. Students' Experience of Inter-professional Education (IPE) through ICF-Based activities at a Community-based Rehabilitation Centre. 50th ENT / SAAA / SASLHA Congress, Cape Town, 18-21 October 2014.
- x. Malongane F and Mbhenyane XG. Nutritional status of children on the National School Nutrition Programme in Limpopo Province, South Africa. *SAJCN* 2014, 27 (3), P162.
- xi. Masia TA, Mabapa Ns, Mbhenyane XG and Mushaphi LF. Nutrition Knowledge and practices of home-based caregivers in Vhembe district. *SAJCN* 2014, 27 (3), P162.
- xii. Mbhatsani HV, Selekane AM and Mbhenyane XG. Prevalence of Iron deficiency among preschool children aged 3 - 5 years in Vhembe district, Limpopo province, South Africa. *SAJCN* 2014, 27 (3), P163.
- xiii. Marais ML, Eide WB, McLachlan M. Perceptions Held by Masters Students of the NOMA track module on Nutrition, Human Rights and Governance. World Public Health Nutrition Conference. "Building Healthy Global Food Systems" - A New imperative for Public Health, Keble College, Oxford, United Kingdom, 8-9 September 2014 Conference proceedings (Poster nr 64).
- xiv. ML Marais, WB Eide, M McLachlan. The NOMA Track Module - Fostering Competency Attributes Important to Health and Nutrition Professionals. SAAHE conference Convergence and divergence. University of Western Cape, Bellville, South Africa, 26-28 June 2014. Conference Proceedings (Abstract p18) AND Faculty of Medicine and Health Sciences Academic Research Day; Centre for Health Professions Education. Stellenbosch University, Bellville, South Africa, 13 August 2014.
- xv. Koornhof L, Blaauw R, Marais ML, du Plessis LM, Daniels L. Dietetics training: from the urban facilities to rural communities. SAAHE conference Convergence and divergence. University of Western Cape, Bellville, South Africa, 26-28 June 2014. Conference Proceedings (Abstract p16).



## ORAL PRESENTATIONS (NATIONAL & INTERNATIONAL)

Staff presented research work listed below in conferences.

- i. Blaauw R, du Plessis L, Koen N, Koornhof L, Marais M, Nel DG, Potgieter S, Visser J. Implementation of The Road-to-Health Booklet in PHC facilities in the Western Cape province. Nutrition Congress, 16-19 September 2014, Johannesburg, South Africa.
- ii. Visser J. ERAS: where does nutrition fit in? Division of Human Nutrition annual CNE (Continued Nutrition Education) – 29 - 30 May 2014.
- iii. Koen, N. Organic Foods: What’s all the fuss about? Division of Human Nutrition annual CNE (Continued Nutrition Education) – 29 - 30 May 2014.
- iv. Potgieter S. Nutrition strategies for the diabetic athlete. 6th Clinical Sport and Exercise Medicine Conference, 22-24 October 2014, Vineyard Hotel, Cape Town, South Africa.
- v. Potgieter S (as part of ARESA trainee 2014 group). Ebola outbreak in West Africa. 3rd Annual ARESA Seminar in Health Research Ethics, 18-19 September 2014, Southern Sun Hotel, Newlands, Cape Town, South Africa.
- vi. Visser J. Immunonutrition. SASPEN Roadshow, 24 June 2014 (Upington).
- vii. Visser J. Nutritional requirements: Micronutrients and Fluids. SASPEN Roadshow, 13 (Cape Town) and 24 June 2014 (Upington).
- viii. Visser J. Nutrition support ethics. SASPEN Roadshow, 13 June 2014 (Cape Town).
- ix. Visser J. Indications and contra-indications for enteral and parenteral nutrition. SASPEN Roadshow, 13 June 2014 (Cape Town).
- x. Kaibi F, Steyn N, Ochola S, Du Plessis LM. Are households with and without children with stunted growth significantly different in dietary diversity and household food security in rural Kenya? 2014 International Nutrition Conference, North Beach Hotel, Mombasa, Kenya, 10-14 March 2014.
- xi. Koornhof HE, Blaauw R, Marais ML, du Plessis LM, Daniels LC. Dietetics training: from the urban facilities to rural communities. SAHEE Congress. Cape Town, 26-28 June 2014 AND Faculty of Medicine and Health Sciences Academic Research Day; Centre for Health Professions Education. Stellenbosch University, Bellville, South Africa, 13 August 2014.
- xii. Du Plessis LM, Badham J. The South African Paediatric guidelines. Plenary session: “Ten years on: The process and outcome of the review of the South African Food-Based Dietary Guidelines”. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xiii. Du Plessis LM, Pereira C. Commitment and capacity for the support of breastfeeding in South Africa. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xiv. Du Plessis LM, Sweet L, Kruger S. Complementary feeding: a critical window of opportunity from 6 months onwards. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xv. Nel J, Schoeman ME, Dhansay MA, Du Plessis LM, Dr ME van Stuijvenberg. Liver intake provides enough Vitamin A to meet requirements of 24 to 59 month-old children from an impoverished Northern Cape community. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xvi. Van Stuijvenberg ME, Nel J, Schoeman SE, Du Plessis LM, Dhansay MA. Low intake of calcium and vitamin D associated with stunting in an impoverished Northern Cape community. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xvii. Du Plessis LM, McLachlan MH, Drimie SE. Systematic stakeholder identification and engagement to explore commitment and capacity to address infant and young child feeding practices in Worcester, Breede Valley, Western Cape, South Africa. Sustainable Rural Health Research Days. “From practice to research; from research to practice” Worcester Rural School campus. Stellenbosch University. 31 May 2014.

- xviii. Koornhof HE. Household characteristics and anthropometric status of recipients of the child support grant in Avian Park and Zweletemba. 25th Congress of the Nutrition Society of South Africa & - 13th Congress of the Association for Dietetics in South Africa. 17-19 September 2014 - Birchwood Hotel & Conference Centre, Johannesburg
- xix. Malongane F and Mbhenyane XG. Nutritional status of children on the National School Nutrition Programme in Limpopo Province, South Africa. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xx. Mbhatsani HV, Selekane AM and Mbhenyane XG. Prevalence of Iron deficiency among preschool children aged 3 - 5 years in Vhembe district, Limpopo province, South Africa. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.
- xxi. ML Marais, WB Eide, M McLachlan. The NOMA Track Module - Fostering Competency Attributes Important to Health and Nutrition Professionals. SAAHE conference Convergence and divergence. University of the Western Cape, Cape Town. 26-28 June 2014 AND Faculty of Medicine and Health Sciences Academic Research Day; Centre for Health Professions Education. Stellenbosch University, Bellville, South Africa, 13 August 2014.
- xxii. Veldsman L, Richards G, Blaauw R. Fluid and Nutrient Delivery in the ICU: A Retrospective Review. 4th IFAD 2014, Antwerp, Belgium, 27-29 November 2014
- xxiii. Blaauw R. ERAS: Nutritional implications. Nutrition Congress Africa, 16 - 19 September 2014, Johannesburg.
- xxiv. Blaauw R. Nutritional management post-Whipple procedure. Nutrition Congress Africa, 16 - 19 September 2014, Johannesburg

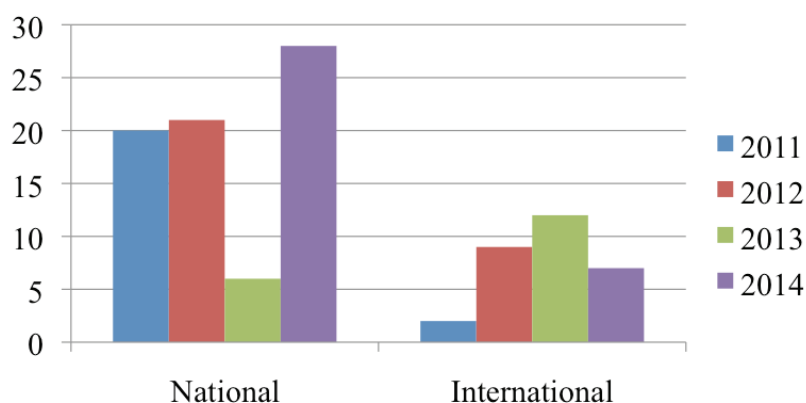
## POSTER PRESENTATIONS (NATIONAL & INTERNATIONAL)

The following were presentations at conferences as posters:

- i. Blaauw R, Veldsman L, Richards G. Protein delivery in ICU: A neglected area. 36th ESPEN Congress, 6 - 9 September 2014, Geneva, Switzerland.
- ii. Visser J, Stevenson C, Blaauw R, Fredericks E, Roux S. Randomized clinical trial: effect of Lactobacillus Plantarum 299v on symptoms of irritable bowel syndrome. 36th ESPEN Congress, Geneva, Switzerland, 6-9 September 2014.
- iii. Stevenson C, Blaauw R, Fredericks E, Visser J, Roux S. The effect of diet and a probiotic on gut microbiota in patients with irritable bowel syndrome. International Probiotic Conference, Hungary, June 2014.
- iv. Koornhof L, Blaauw R, Marais M, Du Plessis LM, Visser J. Utilising the service-learning paradigm to redesign students' research experience. SAAHE Congress, Cape Town, South Africa, 26-28 June 2014.
- v. Potgieter S, Smith C, Wright H, Warnich L. The effect of caffeine supplementation on Olympic distance triathletes and triathlon performance in the South Africa. 61st Annual Meeting, 5th World Congress on Exercise is Medicine® and World Congress on the Role of Inflammation in Exercise, Health and Disease, Orange County Convention Center and the Rosen Centre Hotel, Orlando, Florida USA, 27-31 May 2014.
- vi. Du Plessis L.M, McLachlan MH, Drimie SE. A multi-stakeholder approach to explore commitment and capacity to address infant and young child feeding practices in the Breede Valley District, Western Cape, South Africa. III World Congress of Public Health Nutrition. Las Palmas De Gran Canaria. 7-12 November 2014.
- vii. Masia TA, Mabapa Ns, Mbhenyane XG and Mushaphi LF. Nutrition Knowledge and practices of home-based caregivers in Vhembe district. Nutrition Congress 2014, Johannesburg, South Africa. 16-19 September 2014.

- viii. Marais ML, Eide WB, McLachlan M. Perceptions Held by Masters Students of the NOMA track module on Nutrition, Human Rights and Governance. World Public Health Nutrition Conference. “Building Healthy Global Food Systems” - A New imperative for Public Health, Keble College, Oxford, United Kingdom, 8-9 September 2014 Conference proceedings (Poster nr 64).
- ix. Koornhof HE, Blaauw R, Daniels LC, du Plessis LM, Marais ML, Visser J. Utilising the Service-Learning Paradigm to Redesign Students’ Research Experience. Faculty of Medicine and Health Sciences Academic Research Day; Centre for Health Professions Education, Stellenbosch University, Bellville, South Africa, 13 August 2014.
- x. Van Niekerk E, Autran C, Nel D G, Kirsten G F, Blaauw R, Bode L. Human milk oligosaccharides differ between HIV-infected and -uninfected mothers and correlate with the incidence of necrotizing enterocolitis in their preterm very low birth weight infants. ISRHML 2014.
- xi. Blaauw R, Visser J, Marais M. Celebrating our African Footprint: 2011-2014 - Division of Human Nutrition. Celebrating our African Footprint, Department of Interdisciplinary Health Sciences (DIHS), Faculty of Medicine and Health Sciences, Stellenbosch University. 19-23 May 2014.

**Analysis of oral and poster presentation in comparison with previous year’s performance.**



The performance in 2014 is boosted by the biennial Congress of Nutrition, which takes place in South Africa every two years. All staff where and if possible, are expected to participate actively.

## Teaching and Training (under, postgraduate and elective students)

### Enrolment data

Comparison of enrolment over a three year period including output (graduation)

Programme	Registered students			Graduates		
	2012	2013	2014	2012	2013	2014
BSc Dietetics	125	112	113	26	24	16
Elective students	9	8	4	NA	NA	NA
M Nutr (Structured)	62	60	59	12	6	8
M Nutr (Research)	11	8	5	1	2	2
PhD	11	10	6	1	3	4

The targeted enrolment for first level is 35. The total number over the four years is depended on first level intake as well as less attrition. The first level intake was 38 in 2014, compared to 27 in 2013. Staff to student ratio was 17 for 2014 using head count and total permanent staff only. The success rate of BSc dietetics is 50% of cohort that enrolled in 2011. Masters graduation is lower than target of above 10 while doctoral is above target.

### MASTERS STUDENTS COMPLETED

Ten students graduated in 2014 and their topics are listed below:

- i. **CATSICAS-BUYS R.** *An assessment of the level of knowledge of health professionals on nutrition and diabetes self management in treating patients with Type1 and Type2 diabetes mellitus in South Africa.* M Nutrition, 2014. 146 pp. Study leader: Lombard MJ. Co-Study leader: Potgieter S.
- ii. **GARRETT C.** *Assessing the renal handling of a dietary protein load in patients managed for Nephroblastoma.* M Nutrition, 2014. 136 pp. Study leader: Herselman MG. Co-Study leader: Hadley GP.
- iii. **KOORNHOF HE.** *A profile of children in the Avian park and Zweetemba settlements in the Breede Valley local municipality of the Western Cape Province, South Africa.* M Nutrition, 2014. 100 pp. Study leader: McLachlan M. Co-Study leader: Faber M.
- iv. **MARAIS ML.** *Perceptions held by Masters Students of the NOMA track module on "Nutrition, Human Rights and Governance".* M Nutrition, 2014. 136 pp. Study leader: Eide WB. Co-Study leader: McLachlan M.
- v. **MATTHYSEN M.** *Factors that influence attitude, beliefs and barriers of caregivers regarding complementary feeding practices of infants aged 6-12 months in the Breede Valley district of the Western Cape.* M Nutrition, 2014. 285 pp. Study leader: Lombard MJ. Co-Study leader: Daniels L.
- vi. **PEREIRA C.** *Understanding fruit and vegetable consumption: A qualitative investigation in the Mitchells Plain sub-district of Cape Town.* M Nutrition, 2014. 199 pp. Study leader: McLachlan M. Co-Study leader: Battersby J.

- vii. **RAUSCH U.** *Development and testing of a standardized training manual: Diet and the Nutritional Management of Diabetes Mellitus: A Comprehensive Guide for Health Practitioners.* M Nutrition, 2014. 207 pp. Study leader: Lombard MJ. Co-Study leader: Labuschagne IL.
- viii. **TILL A.** *Dietary risk assessment of Discovery Health medical aid's Vitality Members in South Africa.* M Nutrition, 2014. 210 pp. Study leader: Lambert V. Co-Study leader: du Plessis LM.
- ix. **TURNER A.** *Assessing the value of a South African developed educational nutritional board game in selected Grad 4 primary school children learners and their Life Orientation educators in the City of Cape Town District.* M Nutrition, 2014. 233 pp. Study leader: du Plessis LM. Co-Study leader: Oldewage-Theron W.
- x. **VAN ZYL Z.** *The impact of recall bias on the accuracy of dietary information.* M Nutrition, 2014. 200 pp. Study leader: Venter C. Co-Study leader: Blaauw R.

## DOCTORAL STUDENTS COMPLETED

Four students completed in the academic year 2014 and their topics are listed below:

- i. **M'KAIBI F.** *The role of agricultural biodiversity, dietary diversity and household food security in households with and without children with stunted growth in rural Kenya.* PhD, 2014. 232 pp. Promoter: Steyn NP. Co-Promoter: du Plessis LM, Ochola S.
- ii. **MUGAMBI MN.** *Prebiotics and Synbiotics use in Neonates: A critical appraisal of the evidence and evaluation of its application by the food industry.* PhD, 2014. 252 pp. Promoter: Blaauw R. Co-Promoter: Young T.
- iii. **STEVENSON C.** *Nutrient intake, gastrointestinal microbiota and the effect of *Lactobacillus plantarum* 299v in irritable bowel syndrome patients.* PhD, 2014. 278 pp. Promoter: Roux S. Co-Promoter: Blaauw R, Visser J.
- iv. **VENTER E.** *The use of probiotics in the management of Necrotizing Enterocolitis in HIV-exposed premature very-low birth weight infants.* PhD, 2014. 198 pp. Promoter: Kirsten G. Co-Promoter: Blaauw R.

## Special achievements

In 2014, the Head and professor was appointed and assumed duty on 1 May 2014. The Division had a strategic planning session on 3 -4 December 2014. Dr Evette van Niekerk obtained her PhD in Nutritional Sciences in 2014, adding the total doctoral holders in the Division to four full time staff. The division also gained an NRF rated researcher in Prof XG Mbhenyane. Mrs's M Marais and HE Koornhof completed their Masters in Human Nutrition while Dr S Potgieter also obtained a Diploma in Health Research Ethics (graduation December). Furthermore, the Division successfully hosted the annual Continuing Nutrition Education (CNE) event which was attended by over 300 Dietitians on 29-30 May 2014.

## OCCUPATIONAL THERAPY

**Head of Department:**  
Mr. Elvin Williams

### Summary of activities

During 2014, the Department of Occupational Therapy (OT) embarked on several strategic 'visioning' sessions, to align its departmental operational plan with broader national, provincial and institutional strategic drivers.



Mr Elvin Williams

Departmental activities were guided by the following key objectives:

A. Improve early access to occupational therapy services:		
Target Group	Activity	Aim
<b>Infants and Children</b>	1. Infant and Child Early Intervention Clinics (<1 years and between 1 and 3 years, respectively)	To identify infants and children at risk for neurodevelopmental delays.
	2. Infant Mental Health Clinic (< 3 years)	Works with vulnerable mothers and infants (< 3 years) who are at risk for developing mental health issues.
<b>Adolescents</b>	Vocational assessment and placement of learners with special needs	To provide adolescents with special needs access to training and work placement.
<b>Adults</b>	1. Lymphedema Out-patient Clinic 2. Motor Neuron Out-patient Clinic	To prevent secondary complications associated with these chronic conditions.
<b>All Ages</b>	1. Hand and Splinting Clinics 2. Burns and Pressure Garments Clinics 3. Wheelchair and Seating Clinics	To prevent secondary complications, improve access to assistive devices and promote wellness.
B. Improve continuity of occupational therapy services:		
<p>Several initiatives have been implemented to improve continuity of OT services, by establishing referral pathways within our geographical service area (GSA). Examples of these include:</p> <ul style="list-style-type: none"> <li>• The establishment of referral guidelines for the management of Carpal Tunnel Syndrome, De Quervain's and Trigger Finger at community level</li> <li>• Training and collaboration with community based rehabilitation workers (CBR) in a selected area within our GSA - Elsies River area CBR workers</li> <li>• Monitoring of patients referred to and who have received OT services at the next level of care.</li> </ul>		



### C. Measure and improve the outcome of occupational therapy services:

During 2014, the department has embarked on a process of establishing systems to monitor and evaluate the outcome of OT services at Tygerberg Hospital. The following outcome indicators have been developed and will be reported on in the next financial year (2015-2016):

- Number of patients returning /commencing work or training
- Patients referred to next level of care
- Patients seen at the next level of care
- Number of patients receiving assistive devices (including mobility assistive devices)
- The number of patients who have improved their functional status after OT intervention
- Number of patients successfully referred to an educational setting

### D. Strengthen inter-sectoral collaboration with relevant stakeholders:

A number of key strategic partnerships were formed with the goal of promoting health, wellness, participation and social inclusion for persons with impairments and disabilities. Examples of these include the following:

- Collaboration with the Department of Education and WCFID to improve access of adolescent learners with special needs to training and vocational placements;
- Collaboration with the South African Social Services Agency (SASSA) and Department of Social Development for the review of disability grant assessments;
- Collaboration with the Western Cape Rehabilitation Reference Group (RRG) to advocate for the positioning of rehabilitation as a key priority in the Western Cape Department of Health.

### Major barriers to service delivery:

- Patients are referred to Occupational Therapy too late. Referrals are still received 2 hours before discharge, especially for mobility assistive devices.
- There are insufficient Occupational Therapists for the amount of patients in Tygerberg Hospital. Especially in Paediatrics, Neurology, Neurosurgery and Psychiatry.
- The rapid turnover of entry level therapists has made it very difficult to provide consistent services.
- Appropriate clinical courses are expensive and at times not approved.
- Consumable resources for child and adult psychiatric group activities are very limited.

### Resources

Posts (Full time)	Number	Filled
Head of Department	1	1
Occupational Therapy Supervisor	4	4
Occupational Therapy Clinicians	8	8
Occupational Therapy Technicians	5	4. One Technician was seconded to Head Office in his capacity as a Shop Steward.
Occupational Therapy Community Service	0	0
Posts (sessional – how many hours worked per week)		
Locum Occupational Therapists	3	32 hours per week

## Output

	Surgery
(Amputation, Burns, Hands, Orthopaedics, Plastics, Internal Medicine, Pressure Garments, Rheumatology, Lymphoedema)	4848
Neurology and Neurosurgery	1831
Paediatric	3814
Psychiatry:	
Adult	1759
Child and Adolescent Unit	1420
Work Assessment	418
<b>Total</b>	<b>14090</b>
Total 2013	13706

### Comment on output:

Although the statistics for 2014 show a marginal increase in the number of patients accessing OT services at Tygerberg Hospital, the following has to be noted:

- CLINICOM statistics for certain months reflect an inaccurate record. Discrepancies varying between 50 and 75 patients' counts have been noted.
- Certain areas within Occupational Therapy demonstrate a decrease in out-patient statistics, as more patients are being referred to the next level of care for continued therapy. This is line with Health Care 2030 requirements.
- The Work Assessment services showed a marked decrease in patient numbers, due to several human resources challenges:
  - Resignation of the Occupational Therapy Supervisor and subsequent delay in the new appointment;
  - Ill-health and incapacity of the remaining Occupational Therapy Clinician;
  - Secondment of the Occupational Therapy Clinician to Head Office in his capacity as a Shop Steward.

## PART 2

### Faculty of Health Sciences

#### Infrastructure development

**The department of Occupational Therapy acquired the following essential equipment in 2014:**

- A Golvo 8008 Hoist valued at R85 000,00. This hoist is utilized for transfer training with patients who have severe mobility impairments.
- A 3 section couch utilized in the treatment of patients with lymphedema
- The Out-patients OT Hands Clinic has been renovated and supplied with a new list of equipment and medical consumables
- The in-patient OT Adult Psychiatry treatment room has been refurbished
- The OT Paediatric In-patient services received a new splinting pan



## Community outreach programmes

- The OT Neuropsychiatry Workgroup collaborated with the Bellville Motor Neuron Disease Support Group (18/09/2014) to provide assistance with access to OT services; information on assistive devices and advise on coping skills.
- Work Assessment Seminar “Joining Hands” with community therapists (28/03/2014) focussing on the assessment of eligibility for disability grants.
- Neuropsychiatry Seminar “Joining Hands” with community therapists (11/07/2014) – provided training to community therapists on the Shonaquip buggies and seating devices.
- Surgery Seminar “Joining Hands” with community therapists (19/9/2014) – focussed on providing community therapists with guidelines on the management of selected hand conditions as a method to streamline referrals.
- Pediatrics Seminar “Joining Hands” with community therapists (28/11/2014) – training on the management of Autism in the community setting.
- The OT department hosted a training workshop to OT’s focussing on the newly developed assessment tool - WHO-DAS (17/10/2014).
- Training of CBR workers on the management of Lymphedema – September 2014.
- Monthly Fibromyalgia support groups - dates of the sessions: 7 February, 14 March, 4 April, 9 May, 6 June, 4 July, 1 August, 5 September, 3 October, 7 November, 5 December 2014.
- A total number of 50 seating sessions were conducted with the following Special Needs Schools and NGO’s: Delft School; Filia School; Sibongile Hospice; Oasis; Alta Du Toit; Little Angels; Senecio and Agape.

## Partnerships

### Provincial:

- Collaboration with the University of Stellenbosch, School of Rehabilitation Science in the establishment of the Western Cape Rehabilitation Reference Group (RRG) to advocate for the positioning of rehabilitation as a key priority in the Western Cape Department. A joint position paper was formulated.

### National:

- Key contributor to the National Round Table discussion on Wheelchairs held on the 17 August 2014.

### Private:

- Arthritis Foundation
- Smile Foundation
- BSN Mediacal

### International:

- Participation in ICF-CY survey on the establishment of core sets for the diagnosis of autism and ADHD

## Achievements w.r.t research activities and research outputs:

The department of OT was involved in the following under & post graduate research studies:

- “Arbeidsterapeute se sienings oor ‘n relevante en aanpasbare VOORGRAADSE ARBEIDSTERAPIE NEUROLOGIE kurrikulum binne ‘n Suid-Afrikaanse konteks.” University of Stellenbosch 4th year unpublished thesis
- “An exploration of OTs perceptions of occupation-based practice in UWC fieldwork practice settings”. University of the Western Cape 4th year unpublished thesis.
- “The experience of occupational therapist in returning clients with brain injury to work through the utilisation of the Model of Occupational self-efficacy”. Masters Student, unpublished thesis.

## Teaching and Training (under, postgraduate and elective students)

The Tygerberg Hospital, Department of OT hosted a total of number of 150 students in 2014. The table below illustrates the break-down on the student categories.

2014	Preliminary Students	Level III and Level IV	Elective (Local Foreign)	TOTAL
January - March		III Years: 4 IV Years: 5	Local: 0 Foreign: 2	11
April - June	3 April 2014: 26	III Years: 5 IV Years: 2	Local: 2 Foreign: 3	38
July - September	3 July 2014: 35 17 July 2014: 25	III Years: 11 IV Years: 3	Local: 3 Foreign: 0	77
October - December	9 October 2014: 9	III Years: 7 IV Years: 8	Local: 0 Foreign: 0	24

## Special achievements

- The Tygerberg Hospital, Department of OT actively participated in the 34th National Congress of the Occupational Therapy Association of South Africa (OTASA): “Rooted in Africa: diverse realities and possibilities” – 2 - 4 April 2014.
- The Tygerberg Hospital, Department of OT actively participated in the Occupational Therapy Metro District Forum (MOTH) 2014: “Promoting Diversity in Occupational Therapy: Different ways of doing” – 23 May 2014, by producing 4 paper presentations:
  - The ICF – a Foundation for treatment groups within the South African context, by Amy Buttle.
  - Van pampoen tot perlemoen: the renaissance of the role of the Occupational Therapy, by Abdul-Hadee Vent.
  - The soft/circumferential splint used in the treatment of spastic elbows and hands, by Gwenn-Lynne North and Roberta Gordon.
  - Occupational Confinement: Through the lens of a Lymphoedema patient, by Lindy Melton and Tarryn Pieterse.
- Tygerberg Hospital Neurosurgery Symposium 2014: Multidisciplinary Approach to the Neurosurgery Critical Care Patient – 28 May 2014.

## PHYSIOTHERAPY

**Head of Department:  
Ms Anne-Marie Swart**

### Summary of activities

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.

Clinical services provided by the Tygerberg Hospital (TBH) Physiotherapy Department include:

- Inpatient service to all wards of TBH (wards D4, J1 and J3 have locum services)
- Limited after hours and weekend duties
- Outpatient service to clients residing in the catchment area of TBH
- Outpatient consultation in complex cases referred from other clinics
- Outpatient monitoring of certain elective procedures, e.g. shoulder replacements
- Specialist outpatient clinics: Hands clinic, Craniofacial assessments

Education: The TBH Physiotherapy Department is involved in education and training of staff, students and the public through various programmes.



**Ms Annemarie Swart**

### Resources

Posts (Full-time)	Number	Filled
Assistant Director	1	1
Chief Physiotherapists	4 & 5/8	4 (5/8ths contract worker)
Physiotherapists Grade 1 & 2	13	13
Community Service Physiotherapist	1	1
Sessional locum physiotherapy services		

- Motivation for conversion of vacant Chief Physio 5/8 post to full-time Physiotherapist Grade 1 post – approved. Contract worker appointed during the interim period
- Secured an additional Intern Data Capturer via Human Resource Development to assist with reception duties. Other intern assists with capturing of inpatient statistics. Improved efficiency and working conditions for clerks

## Output

January to December 2014 statistics totalled 47 864 patient attendances (Inpatients and OPD) by TBH physiotherapy staff and students – and an additional 2 410 attendances from weekend duty. GRAND TOTAL = 50 274.

### Comment on output:

- The total attendances for 2014 (50 274) remained constant when compared to the totals for 2013 (51 940) and 2012 (50 638) – which may indicate that we have reached our performance peak within the current resource capacity
- High turnover of patients and quick discharges due to a high demand for beds continue to cause an increased pressure on physiotherapy services

## PART 2

### Infrastructure development

- Work on the air-conditioning system on the west side of the Department completed
- Equipment approved for purchase:
  - Ten Intermittent Positive Pressure Breathing units
  - NCS project for Allied Health Departments: mobile bedside screens; equipment to stock three emergency trolleys including suctioning units, blood pressure and saturation monitors
  - NCS project for Physiotherapy: new waste bins, mop trolleys and dusting trolleys

### Achievements w.r.t research activities and research outputs:

One Physiotherapist concluded clinical research as part of M.Sc. Physiotherapy studies and passed with distinction.

## Teaching and Training (undergraduate-, postgraduate- and elective students)

### Staff

- Physiotherapy staff utilised the following training opportunities:
  - Funding to attend courses: six staff members
  - Special leave to attend courses: 12 staff members
  - Courses/lectures attended during working hours: 29 events
  - WCG courses attended: 12 staff members
- Kinetic Handling lectures and demonstrations were given to TBH staff
- New initiative implemented – providing training interventions to postgraduate ICU Nursing students

## Students

- The Department accommodates undergraduate- and postgraduate students from the Physiotherapy Departments of the University of the Western Cape (UWC) and Stellenbosch University (SU). Students from other SA universities are accommodated on elective placements.

Student Placements 2014		Number of final clinical exams accommodated
University	Number of Students	
SU II	58	
SU III	42	TFT III – 40
SU IV	91	49
SU OMT MSc	5	
UWC II	114	
UWC III	IVth years allocated to IIIrd year placements – UWC request	
UWC IV	61	26 exams, 6 re-evaluation exams, 6 special exams in January 2015
Elective students	5	

- The Department co-ordinated a visit by the University of Cape Town (UCT) Physiotherapy students to the TBH Burns Unit
- Training was provided to MB CHB final year students regarding Orthopaedic Physiotherapy Practice as part of their Orthopaedic Clinical Rotation at TBH

## Public

- Participation in TBH initiatives: TBH Open Day, Rheumatology Open Day and Orthopaedic Arthroplasty Blitz week
- One Open Day for scholars interested in studying physiotherapy was held

## Special achievements

- Representation on committees/portfolios outside Physiotherapy Department:
  - Occupational Health & Safety Committee – involvement with OH&S Risk Assessments and Ergonomics Subcommittee
  - Transformation Committee – representative served as Vice Chairperson
- ASD participated in Rehabilitation Reference Group – new initiative from SU Centre of Rehabilitation Studies

## VOLUNTARY AID SERVICE

**Chairperson:**  
**Ms F. MacClune**

### **Committee members**

Mrs G. Scott (Vice-chairperson)

Mrs L. Layman

Mrs P. Oliver

Mrs M. Rhooide

Mrs M. Arendse

Mrs H. Rudman

Mrs B. Lottering

Mr O. Scheepers

Mrs M. Parker (Accountant)

Mrs M. de Jager (Head of Social Work Unit (officially))

Ms Z. Vallie (Occupational Therapist (per invitation))



**Ms F. MacClune**

### **Personnel**

The organiser, cashier/stock controller, manager of the catering service, six kitchen personnel, one shop assistant at the pharmacy and one shop assistant at kiosk Exit 1 are all compensated by Voluntary Aid Service.

### **General**

After 41 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 66 members at different working points rendered 6 644 hours of service in total. During the school holidays, 28 junior volunteers worked 553 hours. The following areas were served:

- Ward visits and wards duty
- Children's Wards
- Hairdressing service: Hair care for 700 patients
- Shop trolley to wards, clinics and pharmacy
- Gene Louw Building, Radiotherapy Department: catering service and hair wash for patients

- Christmas project: 760 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
- Assistance at CSSD, Occupational Therapy Department 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.

<b>Total amount paid out for Need Alleviation:</b>	
Petty cash	R48 000,00
Foods parcel	R110 000,00
	<b>R158 000,00</b>

## Special projects

<b>Some of the donations made to the hospital</b>	
Occupational Therapy Department, Transport and Sandwiches	R5 400,00
Wards D & G Lower Ground, Toiletries and Underwear Patients	R875,31
Prize for Best Occupational Therapy Student of the Year	R500,00
Plants CEO's Office	R7 225,88
Diabetic Clinic Sandwiches	R153,00
Hair Service Laundry (Towels) and Equipment	R2 141,31
Xmas Project	R1 957,79
Tea and Sandwiches to Sixth-Year Medical Students	R1 104,00
Transit Lounge, Transport and Refreshments	R3 875,00
14 Chairs - Occupational Therapy Department	R1 196,00
Upholstery F2 Staff Tea Room Couches	R4 440,00
"4 Mini Kits" Department Occupational Therapy	R1 640,00
Breast Cancer Awareness Day Refreshments	R1 120,00
Donation towards Mrs R. Basson's Farewell	R5 000,00
Donation Mrs Majiedt, "16 Days" Refreshments	R599,72
Lace Curtains, Second Floor, Ultrasound Waiting Room	R1 080,00
Donation towards Strategic Planning Hospital Board	R5 000,00
Shipment received from UK - Expenses (Donated to Tyger Bear)	R8 773,66
<b>Total amount paid out for Hospital Projects</b>	<b>R52 081,67</b>
<b>Total amount spend on Need Alleviation</b>	<b>R158 000,00</b>
<b>Total amount spend</b>	<b>R210 081,67</b>

# STATISTICS

## Inpatients Statistics

Ward	Actual Beds	Useable Beds	% Occ (a)	% Occ (u)	Cum. Admis	Total Admis	Ward Int Trans In	Cum. Disch	Total Disch	Deaths	Day Patients	Ward Int Trans Out	Inpatient Days	Patient Days	Avg Los
A1 Burns	22	22	84	84	354	329	25	345	270	60	4	11	6 899	6 901	20
A1 Surgical ICU	12	12	102	102	832	95	737	832	1	39	0	792	4 551	4 551	5
A10 Metab	14	14	46	46	490	415	75	490	433	1	16	40	2 374	2 382	5
A2 Thoracic Surg High Care	10	10	142	142	818	332	486	815	459	8	7	341	5 289	5 293	6
A2 Thoracic Surg ICU	14	14	46	46	418	36	382	420	18	20	0	382	2 395	2 395	6
A3H Orthopaedics	31	31	87	87	1 748	1 606	142	1 749	1 634	0	20	95	10 020	10 030	6
A3W Orthopaedics	31	31	84	84	1 016	833	183	1 011	851	13	3	144	9 706	9 708	10
A4E Neuro Surg + Thoracic Surg	31	31	58	58	843	320	523	842	552	50	2	238	6 711	6 712	8
A4W Neuro Surg High Care	18	18	129	129	1 083	580	503	1 088	704	30	2	352	8 608	8 609	8
A4W Neuro Surg ICU	12	12	23	23	263	67	196	261	1	50	0	210	1 035	1 035	4
A5E Respiratory ICU	7	7	82	82	439	139	300	438	8	107	0	323	2 127	2 127	5
A5W Internal Meds High Care	13	13	81	81	927	34	893	927	228	106	0	593	3 930	3 930	4
A6 Cardiology High Care	16	16	78	78	1 349	793	556	1 357	1 039	7	18	293	4 620	4 629	3
A6 Cardiology ICU	8	8	71	71	910	695	215	912	346	48	7	511	2 111	2 115	2
A7 Renal High Care	6	6	98	98	419	381	38	421	359	13	12	37	2 177	2 183	5
A7 Renal ICU	4	4	8	8	23	12	11	22	7	2	0	13	126	126	6
A8 Internal Medicine	28	28	91	91	1 343	33	1 310	1 342	1 044	144	1	153	9 450	9 451	7
A8W Dermatology + Neurology	27	27	69	69	829	492	337	833	645	28	35	125	6 881	6 899	8
A9 Neonatal ICU	8	8	132	132	482	210	272	481	32	91	2	356	3 930	3 931	8
A9 Paediatric High Care	4	4	61	61	304	11	293	301	19	1	1	280	906	907	3
A9 Paediatric ICU	10	10	86	86	697	224	473	706	16	77	0	613	3 190	3 190	5
A9 Paediatric Trachea	6	6	76	76	64	33	31	62	51	4	4	3	1 701	1 703	27
B5E Day Surgery	15	15	25	25	2 899	2 860	39	2 899	41	0	2 764	94	38	1 420	0
CID Resus	4	4	122	122	806	606	200	808	31	117	0	660	1 812	1 812	2
CID Trauma + Surgery	23	23	194	194	6 552	6 385	167	6 544	3 497	136	377	2 534	16 416	16 605	3
C2A East	12	12	16	16	166	67	99	161	55	0	1	105	732	733	5
C2A Labour Ward	19	19	124	124	9 822	7 797	2 025	9 821	221	348	109	9 143	8 684	8 739	1
C2A Labour Ward High Care	4	4	81	81	576	122	454	577	11	15	0	551	1 201	1 201	2
D Ground - Psychiatry	14	14	80	80	198	40	158	195	173	0	0	22	4 146	4 146	21
D1 Vascular Surgery	22	22	98	98	942	475	467	947	629	41	11	266	7 975	7 981	8
D10 Internal Medicine	30	30	81	81	1 056	9	1 047	1 053	794	172	0	87	9 020	9 020	9
D2 Abdominal Surgery	31	31	80	80	1 712	850	862	1 716	1 089	45	46	536	9 222	9 245	5
D3 Plastic/Reconstructive Surg	25	25	73	73	1 479	1 156	323	1 475	1 336	7	38	94	6 774	6 793	5
D4 Private + Cardiology	29	29	61	61	1 447	1 053	394	1 445	1 166	20	68	191	6 540	6 574	5
D5 Abdom +Head/Neck and Breast	31	31	78	78	1 444	622	822	1 442	1 005	48	6	383	9 005	9 008	6
D6 Urology	32	32	68	68	1 299	936	363	1 301	1 186	22	8	85	8 135	8 139	6
D7 Ophthalmology	32	32	66	66	2 760	2 690	70	2 769	2 454	0	217	98	7 772	7 881	3
D8 Internal Medicine	28	28	80	80	1 335	804	531	1 330	1 100	109	47	74	8 300	8 324	6
D9 Internal Medicine	29	29	92	92	1 426	21	1 405	1 420	1 108	157	0	155	9 957	9 957	7
DLG Psychiatry (GLG)	12	12	104	104	212	131	81	213	94	0	0	119	4 663	4 663	22
F1 Medical Emergency	20	20	219	219	10 691	10 199	492	10 701	3 995	488	685	5 533	15 952	16 295	2
F1 Medical Emergency High Care	6	6	55	55	1 205	963	242	1 205	86	282	6	831	1 228	1 231	1
F2M Obstetrics Antenatal	34	34	69	69	3 066	1 540	1 526	3 076	1 287	2	49	1 738	8 705	8 730	3
F4 Orthopaedics	32	32	75	75	917	754	163	919	814	11	9	85	8 976	8 981	10
FGR Gynaecology	24	24	100	100	2 247	1 378	869	2 252	1 973	47	31	201	8 934	8 950	4
G Lower Ground - Psychiatry	16	16	78	78	152	139	13	157	152	0	1	4	4 645	4 646	30
G1 Kangaroo Ward	0	0	0	0	4	3	1	4	0	0	0	4	1	1	0
G1 Neonatal Medicine	30	30	94	94	1 167	531	636	1 166	677	30	2	457	10 519	10 520	9
G10 Paed Infectious Diseases	30	30	67	67	949	332	617	942	697	18	26	201	7 509	7 522	8
G2 Neonatal Medicine	27	27	102	102	2 199	2 194	5	2 196	318	79	22	1 777	10 236	10 247	5
G3 Paediatric Oncology	18	18	59	59	849	716	133	849	617	11	179	42	3 855	3 945	5
G4 Paediatric Surgery	27	27	76	76	1 871	1 362	509	1 879	1 658	2	85	134	7 557	7 600	4
G5 Ear, Nose & Throat	19	19	73	73	1 321	1 142	180	1 320	1 148	7	44	121	5 146	5 168	4
G6LM Paediatric Orthopaedics	25	25	68	68	1 103	1 041	62	1 104	1 036	0	32	36	6 331	6 347	6
G7 General Paediatrics	23	23	94	94	1 187	215	972	1 183	994	16	10	163	8 030	8 035	7
G8 Neonatology / KMC	30	30	88	88	962	27	935	968	893	2	1	72	9 835	9 836	10
G9 Paed Internal Medicine	30	30	73	73	1 446	970	476	1 441	1 168	8	84	181	8 072	8 114	6
GG Paediatric Emergency	24	24	84	84	6 026	6 002	24	6 031	3 511	19	591	1 910	7 196	7 492	1
HIX Radiation Oncology	21	21	81	81	704	624	80	702	635	48	3	16	6 358	6 360	9
H2X Radiation Oncology	26	26	81	81	768	670	98	759	684	44	7	24	7 800	7 804	10
J1 Medical / Surgical	28	28	97	97	1 367	7	1 360	1 359	1 030	156	0	173	10 148	10 148	7
J2M Obstetrics Post Natal	27	27	89	89	3 736	1 093	2 643	3 730	2 405	2	15	1 308	8 926	8 934	2
J3 Neonatology	25	25	102	102	950	28	922	953	816	1	1	135	9 519	9 520	10
J4 Gynaecology	33	33	74	74	2 573	1 674	899	2 571	2 158	21	65	327	9 029	9 062	4
J5B Obst Post Neonatal	0	0	0	0	87	85	2	87	78	0	2	7	275	276	3
J5M Obstetrics Post Natal	23	23	97	97	5 273	293	4 980	5 274	5 023	0	176	75	8 187	8 275	2
J6 Orthopaedics	29	29	80	80	909	786	123	907	698	12	3	194	8 672	8 674	10
J7 Trauma Surgery	31	31	85	85	1 477	870	607	1 475	1 246	22	2	205	9 816	9 817	7
R1 West (PACU)	2	2	72	72	146	7	139	145	1	1	1	142	533	534	4
<b>Report Total:</b>	<b>1 384</b>	<b>1 384</b>	<b>81</b>	<b>81</b>	<b>107 135</b>	<b>69 939</b>	<b>37 196</b>	<b>107 126</b>	<b>60 505</b>	<b>3 465</b>	<b>5 958</b>	<b>37 198</b>	<b>431 119</b>	<b>434 098</b>	<b>7</b>



## Service group visits per Attendance Codes - 2014

Service Group	Attend- ed not treated	Attend- ed and Treat- ed	Can- celled on day	Can- celled	Did not attend	Not re- corded	Walk-in	Grand Total
Clinical Psychology	15	1 288		20	55	5	48	1431
Human Nut/Dietetics	5	7 840	23	2	279	80	4	8233
Occupational Therapy	1 093	15 895	417	199	2 741		820	21165
Physiotherapy	76	41 318	28	8 934	488	110	44	50998
Podiatry	9	670		11	245	18	11	964
Radiotherapy	5	18 613	5	36	20		1	18680
Social Work	3	23 392		81	237	1	18	23732
Speech Thy/ Audiology	18	6 015	16	249	1 439	7	1 942	9686
Stomalthery RN	14	2 943		44	95	5	835	3936
<b>Grand Total</b>	<b>1238</b>	<b>117974</b>	<b>489</b>	<b>9576</b>	<b>5599</b>	<b>226</b>	<b>3723</b>	<b>138825</b>

## Service group visits per New and Follow-up

2014 DEPARTMENTS	TOTAL HEAD COUNTS		TOTAL ATTENDANCES	
	NEW	FOLLOW-UP	NEW	FOLLOW-UP
Clinical Psychology	910	227	1 096	333
Human Nut/ Dietetics	345	592	5 378	2 758
Occupational Therapy	8 427	2 469	15 815	5 316
Physiotherapy	3 055	675	42 015	8 949
Podiatry	802	145	818	145
Radiotherapy	11 018	924	17 266	1 380
Social Work	4 920	3 266	14 553	9 169
Speech Thy/ Audiology	5 929	2 511	6 762	2 920
Stoma therapy RN	1 393	160	3 295	637
<b>Grand Total</b>	<b>36 799</b>	<b>10 969</b>	<b>106 998</b>	<b>31 607</b>

## OPD per Specialist Clinics - 2014

Row Labels	FOL	NEW	Grand Total
Burns	411	312	723
Cardio Thoracic Surgery	1286	562	1848
Cardiology	20571	5584	26155
Child Psychiatry	1719	255	1974
Clinical Haematology	280	21	301
Dermatology	12321	3104	15425
Diagnostic Radiology	96783	31237	128020
Ear Nose and Throat	8153	4170	12323
Emergency Medicine	2153	5286	7439
Endocrinology	4014	609	4623
Gastroenterology	14770	3584	18354
General Medicine	6242	1866	8108
General Paediatrics	276	45	321
General Psychiatry	2991	901	3892
General Surgery	5	9	14
General Surgery Abdominal	4420	2442	6862
Geriatric Medicine	335	45	380
Gynaecological Endocrinology	466	178	644
Gynaecological Oncology	3000	2051	5051
Gynaecology	15222	9836	25058
Head Neck and Breast Surgery	8310	1115	9425
Infectious Diseases	11271	747	12018
Maxillo-Facial Surgery	216	48	264
Neonatal Medicine	3418	426	3844
Nephrology	14589	436	15025
Neurology	4641	1521	6162
Neurosurgery	4692	1286	5978
Nuclear Medicine	2224	2265	4489
Obstetrics	48891	9801	58692
Occupational Health	2836	838	3674
Ophthalmology	23077	5070	28147
Orthopaedic Joint Replacement	1148	148	1296
Orthopaedics	19780	4592	24372
Orthopaedics Hands	4627	1185	5812
Paed Allergy	922	57	979
Paed Cardiology	1112	279	1391
Paed Clinical Haematology	322	28	350
Paed Clinical Immunology	242	29	271
Paed Dermatology	1	1	2
Paed Ear Nose and Throat	1217	767	1984
Paed Emergency Medicine	2247	12859	15106
Paed Endocrinology	1645	113	1758
Paed Gastro-Enterology	898	87	985
Paed Human Genetics	531	138	669
Paed Infectious diseases	1998	484	2482
Paed Medical Oncology	1859	82	1941
Paed Nephrology	1656	125	1781
Paed Neurology	2846	423	3269
Paed Orthopaedics	2144	355	2499
Paed Respiratory Medicine	1574	78	1652
Paed Rheumatology	368	29	397
Paed Surgery	1011	1114	2125
Pharmacy-Repeats Scripts	6653	428	7081
Plastic Reconstructive Surgery	4181	1711	5892
Radiation Oncology	32423	2600	35023
Reproductive Medicine	91	321	412
Respiratory Medicine	5640	1547	7187
Rheumatology	5035	396	5431
Trauma	6015	15662	21677
Urology	14026	3354	17380
Vascular Surgery	2733	1342	4075
<b>Grand Total</b>	<b>444528</b>	<b>145984</b>	<b>590512</b>

## OPD per Attendance Code - 2014

Service Group	Attend- ed not treated	Attend- ed and Treat- ed	Can- celled on day	Can- celled	Did not attend	Not re- corded	Walk-in	Grand Total
Gynaecology	220	15511	290	260	4470	2	10315	31068
Maternity	234	36402	1	527	4803	1	16690	58658
Medicine	1291	105610	2609	1741	23696	5	28566	163518
Non Specialist as per DoH	329	34083	680	329	4050	11	68784	108266
Orthopaedics	443	17094	438	134	6828		3179	28116
Paediatrics	372	44094	805	791	11700	6	36947	94715
Psychiatry	37	2370	26	116	781		1304	4634
Surgery	1260	54966	1430	948	18061	7	24865	101537
<b>Grand Total</b>	<b>4186</b>	<b>310130</b>	<b>6279</b>	<b>4846</b>	<b>74389</b>	<b>32</b>	<b>190650</b>	<b>590512</b>

## Theatre data - 2014

Theatre Name	Under 30 min	30 - 60 min	Over 60 min	Total
TBH C6AT UROLOGY/ CYSTOSCOPY	1835	693	309	2837
TBH B1AB ABDOMINAL/NEURO/ RECONSTRUCTIVE	5	63	1091	1159
TBH B3QR PAEDS SURGERY/ORTHO	22	102	447	571
TBH B3UV TRAUMA/ ORTHO	80	278	605	963
TBH C1AT BURNS ADULTS	114	310	413	837
TBH C2AT OBSTETRICS	40	1878	1989	3907
TBH C4B THEATRE	623	717	607	1947
TBH C5BT DAY CASE SURGERY	1069	727	455	2251
TBH C8DT CARDIOLOGY CATHETER LAB	566	739	359	1664
TBH B1CD EMERGENCY/ SURGERY	79	1035	5017	6131
TBH CGW KOEBERG THEATRE	114	234	106	454
TBH B1EF CARDIO THORACIC	3	19	600	622
TBH B1GH ADOMINAL/ PAEDS/VAS/MAMM	20	236	1469	1725
TBH B1IJ SHARED ENT+UROLOGY	27	201	471	699
TBH B1IJ SHARED ENT+UROLOGY	1	73	629	703
TBH B3ST GYNAECOLOGY	11	103	736	850
TBH B3WX ORTHOPAEDICS	22	266	1178	1466
TBH B3YZ OPHTHALMOLOGY	342	936	828	2106
	<b>4 973</b>	<b>8 610</b>	<b>17 309</b>	<b>30 892</b>

For enquiries or to obtain information and/or copies of this document please contact:  
Laticia Pienaar  
Principal Communications Officer  
Tygerberg Hospital  
Administration Building (West)  
Room 9, Ground Floor

**Tel:** 021 938 5454

**E-mail:** [Laticia.Pienaar@westerncape.gov.za](mailto:Laticia.Pienaar@westerncape.gov.za)

**Twitter:** LC\_WCHealth



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