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Government**

Health

COMMUNICATIONS/ PUBLIC RELATIONS DEPARTMENT

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DEPARTMENT OF PAEDIATRICS AND CHILD HEALTH

Annual Report for Tygerberg Hospital and Stellenbosch University 2012

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EXECUTIVE SUMMARY – 2012

Tygerberg Children's Hospital is situated in the Tygerberg Academic Hospital, a central hospital, serving the Eastern Metropolitan region of Cape Town and the North-eastern districts of the Western Cape province.

There were 15 113 children admitted in 2012 (5311 in highly specialised paediatrics and 9802 in general paediatrics) with a 14% increase and overall bed occupancy of 80%. The pediatric ambulatory service showed growth of 13% for general paediatrics and 4% for paediatric subspecialist services.

Bed occupancy were particularly high for the neonatal service and the paediatric intensive care unit and even with the two new wards opened in 2012, namely the Paediatric High Care Unit (pediatric Subspecialist division) and a general neonatology ward (general pediatrics division), was bed occupancy 131 % for neonatology and 92% for the children's intensive care unit respectively. There was an increase of 34% in critical care admissions, which demonstrated the pressure for more intensive care beds for children in the province. The emergency service were separated from the general pediatric outpatients in the general pediatrics division, and made triage of sick children easier.

Major causes of death for neonatology was especially premature related complications (52%) and it is clear that prenatal care should be addressed to prevent premature labour. Pneumonia was the main cause of death for older children (25%).

The department had good teaching outputs and 94% of undergraduate students have passed, 12 graduated as paediatricians, 4 as subspecialists, 3 completed the MMed (Paed) and 1 a PhD.

Research wise, there were 100 scientific articles with pioneering work by Professors Nulda Beyers & Anneke Hesseling (DTTC - Kochon prize), Mark Cotton (HIV/AIDS), Simon Schaaf (MDR-TB), Johan Schoeman (Neurology PANDA), Dr Etienne Nel (Gastroenterology ESPGHAN postgraduate course), Dr Kobus van der Walt (S2S Research Award of U.S. \$ 15 million). Ten staff members received the Rector's Award for outstanding overall performance.

Mariana Kruger

Part 1
RESOURCES AND OUTPUT

Human Resources

Posts (full-time)	Number	Filled
Professor/Chief Specialist	2	2
Chief Specialist	1	1
Principal Specialist	6	5
Senior Specialist	23+1 (5/8)	23+1 (5/8)
Senior Registrar	7 (PGWC N=3)	7 (PGWC N=3)
Registrar	31 (2 supernumery)	31
Medical Officer	26	26
Posts (sessional – hours per week)		
Specialist	5 (44 hours/week)	5 (44 hours/week)
Number of beds	268	268

Summary of Output	2012	2011	2010
General Paediatrics			
Inpatients	9802 (15% growth)	8523 (-1,2% growth)	8630
Outpatients	14178 (12,8% growth)	12568 (4%growth)	12074
Subspecialist Paediatrics			
Inpatients	5311 (13% growth)	4694 (-10% growth)	5226
Outpatients	14152 (4,25% growth)	13574 (7,6% growth)	12604

Output

SUBSPECIALIST PAEDIATRICS

Total patient admissions 2012 (Clinicom data)

*A9 NICU	A9 PICU	A9 High Care	Trachea Unit	G1	G3	G7	G9	Total
518	694	104	41	1150	717	769	1318	5311

*A9 NICU includes High-care beds, since Clinicom cannot separate data.

Bed Occupancy Rate 2012 (Clinicom data)

*A9 NICU	A9 PICU	A9 High Care	Trachea Unit	G1	G3	G7	G9	Total
131%	92%	45%	53%	87%	55%	77%	66%	76%

*A9 NICU includes High-care beds, since Clinicom cannot separate data.

Neonatology

Staff: Profs G Kirsten, J Smith, Drs A Bekker, S Holgate, G Kali, A Madide, L van Wyk, S O'Ryan, 4 Registrars, 10 Medical Officers

A9 Intensive Care Unit

Staff: 1 Consultant (on rotation), 2 Registrars, 1 Medical Officer

Beds n=8	2012	2011	2010
Admissions	518	617	408
Average Hospital Stay in Days	5	6	8,2#
Average Bed Occupancy %	92%	93% (Only NICU)	80%#
% Growth	51%	51%	5,4%
Caesarean Sections	2821 (40,5%)	2521 (41%)	2122
Deaths	85	63 (10,2%)	76 (18,62%)

Combined with PICU data

Ward G1: Neonatal Unit – Babies born outside TBH

Staff: 2 Consultants (on rotation), 2 Registrars, 2 Medical Officers, 1 Intern

Beds n=36	2012	2011	2010
Admissions	1150	1029	987 (1036*)
Average Hospital Stay in Days	9	10	10,5*
Average Bed Occupancy %	87%	81%	96,6%*
% Growth	7,4%	-1,5%	4,3%
Deaths	25	30 (2,9%) (12 outborn)	33 (3,34%)

*Data from Clinicom

A9 Paediatric Intensive Care Unit

Staff: Prof R Gie, Drs P Goussard, S Kling, L Heyns, 2 Registrars, Medical Officer

Beds n=8	2012	2011	2010
Admissions	694	598 (PICU)	629
Average Hospital Stay in Days	4,86	6	#
Average Bed Occupancy %	92%	85%	#
% Growth	34%	#	#
Deaths	84 (11,9%)	52 (8%)	74 (11,8%)

Clinicom combined data with NICU – no split for PICU, therefore cannot provide data

A9 Paediatric High Care Unit

Staff as mentioned above.

(High Care Unit opened May 2012)

Beds n=8	2012
Admissions	178

Average Hospital Stay in Days	2,5
Average Bed Occupancy %	61%
% Growth	New service
Deaths	1

A9 Tracheostomy Unit

Staff as mentioned above:

Beds n=10	2012
Admissions	23
Average Bed Occupancy %	45%
Deaths	2

Ward G9 Paediatric Pulmonology and Allergy

Staff: Prof R Gie, Drs P Goussard, Dr G Poole, Dr T Gray, 2 Registrars, Shared Medical Officer for G9

Pulmonology Beds n=10	2012	2011	2010
Admissions Pulm	656	511	512
Average Hospital Stay in Days	5,78	6,75	7,0
Average Bed Occupancy %	66,24%	78%	#76%
% Growth	27%	/	/
Deaths	2	5	2 (0,4%)

Includes for all 3 subdisciplines in G9: Pulmonology; Cardiology & Neurology

Theatre procedures and Other Activities

- Bronchoscopies : 284
- Thoracic surgery : 72

Ward G9 Neurology

Staff: Profs J Schoeman, Drs R van Toorn, Dr R Solomons (outpatient clinics and outreach), P Springer, H Saunders, PAM Brink (Senior Senior Registrars), 2 Registrars, Shared Medical Officer for G9

Beds n=10	2012	2011	2010
Admissions	414	392	397
Average Hospital Stay in Days	5,7	6,75	6,75
Referral other wards	238		
Average Bed Occupancy %	75%	135%	129%
% Growth	1%	None	62%
Deaths	8 (1,9%)	5 (1,2%)	14 (3,52%)

*Clinicom data (Combined with paediatric pulmonology)

Other Activities

- Paediatric & Neonatal EEGs reported:

630

- Outreach clinics to Paarl/Worcester hospital (patients seen): 352

Ward G9 Paediatric Endocrinology

Staff: Drs E Zöllner, D Abraham, Registrar, Shared Medical Officer for G9

Beds n=5	2012	2011	2010
Patients admitted	79 Diabetics	91 Diabetics	98 Diabetics
	117 Endocrinology	102 Endocrinology	73 Endocrinology
<i>Admission Total</i>	196	193	171 (139*)
Average Hospital Stay in Days	5,5	7	10
Average Bed Occupancy %	56,6%	74%	82%*
% Growth	1,5%	1,1%	13,2%
Deaths	0	0	1 (0,6%)

*Data from Clinicom

Ward G7 Gastroenterology

Staff: Drs E Nel, Dr S Ströbele, Registrar, Shared Medical Officer for G7

Beds n=9	2012	2011	2010
Admissions	279	317	285
Average Hospital Stay in Days	18,09	12,6	15,4
Average Bed Occupancy %	83%	89%	90,3%
% Growth	-11,9%	11,1%	-22,5%
Deaths	10 (3,5%)	9	19 (6,6%)

*Clinicom data & CHIP data

Theatre procedures

- Gastroscopy (including enteroscopy) 36
- Colonoscopy 10
- Liver Biopsy 12

Ward G7 Infectious Diseases Unit

Staff: Prof MF Cotton, Dr H Rabie (HIV Clinic), Registrar, Shared Medical Officer for G7

Beds n=14	2012	2011	2010
Admissions	200	226	193
Average Hospital Stay in Days	17,3	16,4	16,8
Average Bed Occupancy %	83%	89%	72%
% Growth	-6%	11,1%	- 11,9%
Deaths	4	7	11 (5,6%)
HIV related (CHIP)	All	All	10
Infected (CHIP data)	4	7	10

* Clinicom data combined with gastroenterology therefore cannot determine

Ward G3 Oncology & Haematology

Staff: Profs M Kruger, C Stefan, Drs A Dippenaar, R Uys, 2 Registrars

Beds n=9	2012	2011	2010
New patients	42 Haematology	51 Haematology	30 Haematology
	48 Oncology	44 Oncology	60 Oncology
Admissions	415	343	475
Average Hospital Stay in Days	5	5,3	3,4
Average Bed Occupancy %	60,16%	48,2%	51,5%
% Growth	21%	/	23%
Deaths in G3	12	5	10
Day patients	1100	1181	1317

*Clinicom data

Ward G3 Nephrology

Staff: Dr C du Buisson, Dr JL Shires – part-time, Registrar, Shared Medical Officer for G3

Beds n=4	2012	2011	2010
Admissions	126	168	140
	11 day cases for infusions only	142	
Average Hospital Stay in days	6	12	6
Average bed occupancy %	52%	92%	81%
Deaths	2	1	1

- Renal biopsies (all done in G3) 24
- Acute dialyses (all done in PICU) 12
- Out lying patients 56
- Ward referrals 328

Ward G3 & G10 Cardiology

Staff: Drs J Lawrenson, G Comitis, R De Decker (RKH/RXH), 2 Senior Registrars, 2 Registrars

Beds n=10 (G3=5, G10=5)	2012	2011	2010
Admissions	155 (includes G3)	148 (G10 - 37; G3 - 111)	147
Average Hospital Stay in Days	*	*	*
Average Bed Occupancy %	*	*	*
Inpatient Echocardiography	772	649	708
Inpatient Consultations	1094	707	*

* Clinicom data combined with nephrology and general paediatrics therefore cannot be calculated

Offered at RXH as common platform of service delivery

- RXH theatre procedures, operations 280
- RXH theatre catheterizations 214
- Outreach clinic at Worcester 129

OUTPATIENT COMPLEX

Subspecialist Clinics

Clinics	2012 Total	2011 Total	2010 Total
Haematology	261	259	177
Immunology	176	146	113
Oncology	418	448	392
Pulmonology	1399	1381	1308
Gastroenterology	614	527	604
High-risk Babies	1740	1671	1442
Neurology	2687	2685	2537
Allergy	654	713	689
Premature Follow-up	284	277	347
Nephrology	1343	1201	1103
Cardiology	937	1076	1032
Bronchopulmonary Dysplasia	21	22	23
Diabetic	610	598	586
Endocrinology	636	530	490
Rheumatology	280	183	205
Infectious diseases	1392	1308	1003
Genetics	476	367	293
Pharmacy prescriptions	224	178	250
Total	14152	13574	12604

GENERAL SPECIALIST SERVICES

Total Patient Admissions 2012 (Clinicom data)

G2	J3	G8	G10	GG Short Stay	Total
2087	642	783	1429	4861	9802

Bed Occupancy Rate 2012 (Clinicom data)

G2	J3	G8	G10	GG Short Stay	Total
93%	83%	86%	70%	68%	80%

Neonatology

Ward G2 Neonatal Unit – Babies born in TBH

Staff: 2 Consultants (on rotation), 1 Senior Registrar, 2 Registrars, 2 Medical Officers, 1 Intern (if available)

Beds n=38	2012	2011	2010
Admissions	2087	1845	2017 (2037*)
Average Hospital Stay in Days	5	6,0	6,3*
Average Bed Occupancy	93%	85%	150%*
% Growth	9,4%	-2,5%	- 12,3%
Deaths	71	66 (3,5%)	53 (2,62%)

* Data from Clinicom

Ward J3 Neonatal Unit – Babies born in TBH

Staff: 1 Consultant (on rotation), 0 Registrar, 2 Medical Officers
Ward opened April 2012)

Beds n=38	2012
Admissions	642
Average Hospital Stay in Days	9
Average Bed Occupancy	83%
% Growth	New service
Deaths	1

*Data from Clinicom

Ward G8 Neonate & Kangaroo-mother Care – Step-down Facility

Staff: 1 Consultant (on rotation), 0 Registrar, 1 Medical Officer, 1 Intern

Beds n=30	2012	2011	2010
Admissions	783	834	736 (855*)
Average Hospital Stay in Days	12	11,1	11,25*
Average bed occupancy %	86%	80%	80%*
% Growth	-7,5%	-2,5%	-11,8%
Deaths	4	0	2 (0,27%)

*Data van Clinicom

Ward G10 General Paediatrics

Staff: Dr R Solomons, Dr H Finlayson, 1 Registrar, 2 Medical Officers, 2 Interns

Beds n=25	2012	2011	2010
Admissions	1429	1119	820
% Increase in General Admissions	28%	36%	168%
Average Bed	70%*	70,8%*	66,74%

Occupancy %			
Average Hospital Stay in Days	5,4	6,33*	5,3
Deaths	11 (0,77%)	10 (0,89%)	6 (0,73%)

*Clinicom data

Short-stay G Ground: <48-hour Admissions

Staff: Prof S Schaaf, Drs E Malek, L Smit, A Redfern, 2 Registrars, (1 Emergency Medicine Registrar), 2 Medical Officers, 2 Interns

Beds n=24	2012	2011	2010
Total Admissions to G Ground	4861	4629	4738
% Increase in General Admissions	↑5%	↓2%	↓2%
Average Patient Admissions per day	13 (range 10-18)	13	13
Average Hospital Stay in Days	1.0	1,2	
% Average Bed Occupancy	72%	73%	75%
Average Gastro Beds Daily Occupancy %	59%	63%	74%
Average Gastro Daily Occupancy % (Gastro Season Feb-May) – 8 Beds during Gastro Season instead of the usual 6	78%	80%	/
Deaths	16	13	17 (0,13%)
HIV-related Mortality	0	3	2
HIV Exposed	1	2	0

General Paediatrics: Emergency & Clinics

Clinics	2012	2011	2010
OPD 8am-4pm: Emergency & Routine	8825	7668 5512 New Referrals 2156 Booked	7277
	6247 New referrals		
	2578 Booked		
Daily average seen	35	31	29
Annual OPD after hours: 4pm-8am & weekend – Emergency	5353	4900	4797

Daily average seen after hours (4pm-8am)	15		
OPD after hours: 4pm-8am %	38%	39%	39%
Total	14178	12568	12074

2012 Morbidity & Mortality

PIIP data

Total births in TCH (TBH): n = 6960

- Perinatal Mortality Rate (PNMR) ($\geq 500\text{g}$) = 70,3/1000
- Early Neonatal Death Rate (ENNDR) ($\geq 500\text{g}$) = 14,6/1000
- Perinatal Mortality Rate (PNMR) ($\geq 1000\text{g}$) = 39,9/1000
- Early Neonatal Death Rate (ENNDR) ($\geq 1000\text{g}$) = 6,8/1000

Mortality of babies born in TCH (TBH) per birth weight category: n=90

Birth Weight	% Mortality 2012	% Mortality 2011
$\leq 1000\text{g}$	29,1	21,6
1001 to 1500g	3,3	4,6
1501 to 1999g	2,4	1,5
2000 to 2499g	1	0,8
$\geq 2500\text{g}$	0,3	0,3

Causes of death of babies born in TCH (TBH): n=90

Cause of Death	% of Total 2012	% of Total 2011
Prematurity-related Complications	52,0	46,7
Extreme Prematurity	29,3	18,9
Infection-related	17,1	21,1
Peripartum Hypoxia	8,9	11,1
Congenital Anomalies	17,1	16,7
Other	0,8	1,1

% Deaths of babies referred to TCH per weight category

2012 : n = 74

Birth Weight*	% Mortality 2012	% Mortality 2011
$< 1000\text{g}$	14,5	33,3
1000 to 1499g	17,7	25
1500 to 1999g	9,7	8,3
2000 to 2499	11,3	8,3
$\geq 2500\text{g}$	46,8	25

*Weight categories as a percentage of total deaths (outborn)

Causes of deaths of babies referred to TCH

2012 : n = 74

Note: This is for all neonates born outside TCH, and not just those who were in G1.

Cause of death*	% of Total 2012	% of Total 2011
Prematurity-related Complications	31 (41,8%)	1 (8,3%)
Infection-related	15 (20,5%)	4 (33,3%)
Extreme Prematurity	9 (12%)	3 (25%)
Peripartum Hypoxia	7 (9,5%)	2 (16,7%)
Congenital Anomalies	11 (15,0%)	2 (16,7%)
Other	10 (7,4%)	/
Total Deaths	7	12

*Please note: Other co-morbidities not reflected.

Outborn babies mortality according to referral area of origin

Geographic Service Area	2012	%
Metro East:		
Northern SD	15	20%
Eastern SD	16	21%
Tygerberg SD	06	8%
Khayelitsha SD	05	7%
Winelands (Paarl area)	18	24%
Overberg (Worcester drainage area)	03	4%
Unknown	11	14%

Geographic distribution of the NICU admissions and death of babies born outside and referred to TCH

Place of Origin (Hospital)	Number 2012	Percentage 2012
Karl Bremer	60	8,6
Paarl	49	7
Helderberg	49	7
Worcester	13	1,8
Ander/Other	11	1,5
Swartland	10	1,4
Khayelitsha	8	1,1
Hermanus	7	1
Caledon	3	0,4

CHIP MORTALITY for all sub-specialist paediatric wards (2012)

CHIP Mortality	Deaths	Hosp. Mortality Rate
*0-28 days	12	1,6
28 days – 1 year	66	2,2
1-5 year	49	1,4
5-13 years	13	1,1
13-18 years	8	1,9

Number of deaths	148	1,7
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*Please note: Excluding neonatal deaths

Length of Stay	Number	%
DOA	2	1,35
<24 hours	49	33,1
1-3 days	30	20,3
4-7 days	22	14,8
8-14 days	8	5,4
>14 days	37	25

Gender	Number	%
Female	70	47,2
Male	78	52,7

Main Causes of Death in Children*	Number	%
Pneumonia, ARI	37	25
Septicaemia, Possible Serious Bacterial Infection	18	12,1
Acute Diarrhoea with Hypovolaemic Shock	13	8,7
Other Nervous System	13	8,7
Cirrhosis, Portal Hypertension, Liver Failure, Hepatitis	8	5,4
Congenital Heart Disease	5	3,3
Myocarditis	5	3,3
*Other Respiratory diseases	5	3,3
Tumours	5	3,3
TB : Miliary, other extra-pulmonary	4	2,7

*Please note: Other co-morbidities not reflected.

5 Facilities where most patients were referred is from

Referring facility	Number	%
Khayelitsha Hospital	25	17
Helderberg Hospital	22	15
Not referred	15	10,1
Paarl Hospital	11	7,4
Delft CHC	10	6,7
Eerste River Hospital	10	6,7

HIV - mortality	Number	%
Negative	91	61,4%
Exposed	15	10%
Infected	12	8.1%
	Stage III 4	
	Stage IV 5	
Not tested	16	10,8%
Unknown	14	9.4%

Mortality according to Weight Category

Weight Category	Number	%
OWFA	5	3,3
Normal	72	48,6
UWFA	48	32,4
Marasmus	16	10,8
Kwashiorkor	5	3,3
Marasmic Kwashiorkor	2	1,3

Mortality per Ward

Ward	Number
A9 PICU	84
G G Ground	16
G10 - General	11
G3 Onco	11
G7 - Gastro	10
G9 - Neuro	8
G7 - Infect	4
G9 - Resp	2
G3 - Nephro	2
G9 - Cardio	0
Total	148

Average hospital stay exceeding 30 days

Data captured on a single day)

Neonatology	22	Ex prem with complications and/or poor weight gain.
PICU & High Care Complex	8	Tracheostomy & ventilation

Infrastructure Development

General Paediatrics

Neonatology:

- A 24 bed Level 2 ward, J3 was opened to accommodate the additional very low birth weight infant load from the Khayelitsha area. Thirteen beds were transferred from G2 while 11 additional beds were created to accommodate the referrals to Tygerberg Children's Hospital

General Paediatrics

Offices were opened on the 5th floor in Tygerberg Hospital. Drs Hassan, Redfern and Smit are based there. Included is a boardroom.

GG:

A point of care Blood Gas analyser was placed in Gground to has improved patient care. This has been very sucessful in improving emergency care.

Subspecialist Paediatrics

Paediatric Intensive Care

- *In August 2012 the paediatric high care unit was opened with the equipment mostly procured from a donation from the Swiss based Fondation Albatros (*see in table below). This unit was used as a step down unit for the paediatric ICU. In the 7 months that the 4 bed unit was operational 139 children were admitted to the unit with an average stay of 2.5 patient days. This made a tremendous difference to the standard and safety of care.*

Tygerberg Children's Hospital Trust Contribution to Infrastructure

DATE	SUPPLIER	EQUIPMENT	AMOUNT
30/03/2012	Kwa-Nama Holdings	Bookcase and coffee table purchased for TCH Trust Offices	R 1 822.86
30/03/2012	Telfa TF Engineering	2 chairs for TCH Trust Offices	R 1 483.42
07/05/2012	Mason Complete Office Solution	2 Bulletin Boards for C3A	R 1 735.65
*21/06/2012	SSEM Mthembu Medical (Pty) Ltd	3 Cardiorespiratory Monitors for Paeds High Care and PICU	R 283 347.00
*28/08/2012	Respiratory Care Africa (Pty) Ltd	4 x RCA Simple CPAP machines for NICU and High Care	R 139 764.00
03/12/2012	Philani Employment Project	Fresco Art painting for TCH as outreach	R 1 800.00
		TOTAL	R 429 952.92

Part 2

Community Outreach Programmes/Community Service and Interaction & Partnerships

International

Expert Members

- Prof M Kruger :
 - SIOP Continental President for Africa
- Prof HS Schaaf
 - Invited expert on the National Paediatric Essential Medicines List committee and the National MDR-TB Advisory Committee
 - Invited expert on the European Centers for Disease Control on the issue of "Management of contacts of MDR- and XDR-TB cases" as well as on expert group for WHO on the use of the new anti-TB drug (bedaquiline) in TB treatment regimens. He is also now chair of the Lung Health Section of the International Union against TB and Lung Diseases (The Union) and serves on their Board of Directors (an NGO)
- Prof RP Gie
 - Involved in 2012 with the National Tuberculosis programs of the Republics of Bangladesh, Ethiopia and Mozambique in training physicians in childhood tuberculosis and developing childhood tuberculosis policies for the countries
 - Chairperson of the Global Drug Facility attached to the World Health Organization and was involved in developing new childhood tuberculosis guidelines for the WHO

Education & Training

- Prof DC Stefan
 - External examiner in Harare, Zimbabwe
 - Teaching and training of pediatricians, oncologists, general practitioners in Namibia, Kenya and Ethiopia
- Profs M Kruger, DC Stefan, Drs A van Zyl & R Uys
 - Members of the organizing committee SIOP Africa
 - Successfully organized the 4th International Paediatric Hematology / Oncology Workshop – 19-20 March 2012
 - Successfully organized the Pediatric Haematology/Oncology Workshop Outreach Programme – 19 October 2012

Outreach

- Prof DC Stefan
 - Medical advisor for pediatric oncology guidelines in Rwanda -
 - Twinning with the pediatric hematology oncology unit in Namibia - all members of the team
 - Twinning project with Windhoek Central Hospital Namibia

Partnerships

- Prof DC Stefan

- Invited as member of BL clinical trial in Africa (National Cancer Institute)
- Research study in SA (HIV malignancy) –collaboration with York University, Namibia
- GTF-CCC member of the task force
- Collaboration with Ivory Coast, Rwanda, Tanzania , Kenya
- Neurology:
 - Collaborative research with Prof Marceline Van Furth from the Free University, Amsterdam.
- Infectious Diseases
 - PATA- funding patient advocates
- Gastroenterology:
 - Cooperation with ESPGHAN to provide postgraduate training in Paediatric Gastroenterology to paediatricians in southern Africa
- Cardiology
 - Research partnership on rheumatic heart disease screening – World Heart Federation

National

Education & Training

- Paediatric Intensive Care/Paediatric Pulmonology
 - The unit developed and ran a national paediatric pulmonology workshop “Here be Lungs” at which international speakers including the internationally renowned pulmonologist Prof Andrew Bush: March 2012.
 - The unit took part in the “Childhood International Childhood Tuberculosis workshop; Goudini, Western Cape ,November 2012.

Partnerships

- Haematology/Oncology
 - The chair of the SA paediatric cancer register is located at Stellenbosch University/Tygerberg Children’s Hospital
- Developmental Paediatrics
 - PANDA (Paediatric Association of Neurodevelopmental specialists)
- Infectious Diseases
 - NDOH – Development of Guidelines for adolescents and children with HIV and TB Western Cape DOH – Development of guidelines
- Pulmonology
 - The paediatric pulmonology service still remains the paediatric bronchoscopy training service of choice with subspecialists in training from Red Cross War Memorial Hospital and Sub-Saharan countries being trained in the facility
- Cardiology
 - Dr H Pribut – additional exposure of trainee subspecialist registrar to rarely performed procedures
- Gastroenterology, Hepatology and Nutrition
 - SAGES, Gastro Foundation

Regional

Education & Training

- Dr EWA Zöllner/Endocrinology
 - Endocrine academic program at Groote Schuur Hospital (GSH) and participation in their endocrine journal club
- Infectious Diseases
 - 1 Day workshop hosted on "The HIV infected Adolescent"
 - 1 Day workshop hosted on "Drug resistance in paediatric HIV "

Outreach

- Endocrinology:
 - Link to St Josephs Home is maintained by patient discussions with the staff and training visits by the DNE
- Haematology/Oncology
 - Clinic outreach, Western Cape
 - Opening Survivorship Clinic – 17 Jan 2012 - Dr R Uys
- Developmental Paediatrics:
 - Outreach to Paarl Hospital, Paarl school for cerebral palsy and Sivuyile special care
- Neonatology:
 - Neonatologists do ward rounds in the neonatal and kangaroo mother care (KMC) wards at Helderberg and Eerste River Hospital
 - Khayelitsha District Hospital operating from Tygerberg Hospital, led by the level 2 general paediatric head, Dr Malek, including a quarterly morbidity and mortality meeting.
 - Ward rounds and in-service training at Helderberg Hospital and Khayelitsha Hospital twice a month (Paediatric and Neonatal) – Dr Hassan
 - Once a month perinatal morbidity and mortality meetings at Helderberg Hospital, including feedback re neonates transferred to Tygerberg Children's Hospital. – Dr Hassan
 - Co-ordination of and assistance with PPIP for the Metro East. Previously PPIP in Metro East fragmented and at some sites poorly collected. A central database has been set up in ward J3 for the importing of PPIP data from all facilities in the Tygerberg drainage area. Furthermore, various hospitals and MOUs are assisted by Dr Van Niekerk in the collection and capture of data required for PPIP. – Dr Magriet van Niekerk and Dr Hassan
 - Neonatal clinic started at newly-opened Delft MOU (weekly clinic); and taken over at Site B MOU (previously Mowbray Maternity Hospital medical officer). These clinics offer both follow-up of at-risk babies discharged from facilities in Metro East as well as babies referred by the nursing staff at the various MOUs. This decreases the workload at the various hospitals and improves access to care since the parents do not need to travel to the larger hospitals. This also allows the earlier detection of babies and children needing a higher level of care, and to aid with the referral to various allied health professionals as necessary.- Dr M van Niekerk.
 - Monthly neonatal resuscitation training at Khayelitsha Hospital and MOUs; Tygerberg Hospital (combined with obstetrics); Helderberg Hospital; Delft, Grabouw and Macassar MOUs. – Dr M van Niekerk.

- Ward rounds are conducted at the Neonatal and KMC wards at Eerste River Hospitals by Dr M du Preez
- General Paediatrics:
 - MDR TB Clinics: Outreach for MDR-TB and complicated TB cases has also continued to two subdistricts – Khayelitsha (at Town Two) every first Wednesday of the month (302 patient visits), which also included in service training of Khayelitsha doctors to manage these cases, and Kraaifontein (at Scottsdene) every second month on last Wednesday of the month (58 patient visits).
 - Brooklyn Chest Hospital: Responsibility for the BCH Children's wards together with a TCH registrar and a full-time BCH MO. Ward rounds are done twice weekly, of which one is also an opportunity for medical officer training and case presentations by Dr Andre Burger from Brewelskloof for discussion. BCH has 65 children's beds and manages complicated TB cases – 130 new admissions for 2012 – Prof HS Schaaf
- Infectious Diseases:
 - HIV service held at Helderberg Hospital, Eerste River Hospital, TC Newman, Grabouw CHC, Micheal Mapongwana CHC and Delft CHC
- Paediatric Intensive Care
 - Neonates and children are accepted from surrounding clinics, level 1 and level 2 hospitals. Good communication is maintained by the PICU to improve level of care at these institutions.
- Cardiology
 - Worcester Hospital – 3 monthly clinics
 - George Hospital – telephonic consultative service; 1 outreach clinic organised in 2012 as pilot
 - East London group – 6 monthly clinics

Partnerships

- Developmental Paediatrics:
 - Collaboration with the Tygerberg Hospital school regarding establishment of an LSEN unit for pre-school children with developmental delay.

Partnerships in the Private Sector

- Endocrinology:
 - Novo Nordisk donates the salary for the diabetics educator.
- Hematology/Oncology
 - Offer clinical advice and second opinions to private patients referred by pediatricians and oncologists
- Infectious Diseases
 - Right to Care and Abbott Hosting of fully funded work shop
- Pulmonology
 - Dr P Goussard has a outreach program to the private practices in the region surrounding Tygerberg Children's Hospital and both consults and performs bronchoscopies for the neonatal and paediatric services.

Part 3

Teaching & Training

Postgraduate Students

Successful PhD candidate, Stellenbosch University

- Dr SEV Innes – Lipoatrophy in pre-pubertal children on antiretroviral therapy in South Africa. Promotors: *Profs* MF Cotton, B Rosenkranz, Dr EWA Zöllner

Existing PhD students

Dr UD Feucht - Evaluating and improving the care of HIV-infected and HIV-affected children in the first years of the implementation of a large-scale antiretroviral therapy programme in Pretoria, South Africa. Promotors: Profs M Kruger, B Forsyth

Dr P Goussard - Bronchoscopic assessment and management of children presenting with clinical significant airway obstruction due to tuberculosis. Promotor: Prof/Prof RP Gie

Dr A Mandalakas – Development of a novel conceptual framework of childhood tuberculosis within which to study the impact of an isoniazid preventative therapy (IPT) program for childhood TB prevention in high burden communities. Promotors: Profs AC Hesselning & RP Gie

Dr R Solomons with NRF bursary – Improving early diagnosis of tuberculous meningitis in children. Promotors: Profs J Schoeman (Stellenbosch University), M van Furth (Free University Amsterdam)

Joint PhD degree with Free University Amsterdam – Profs J Schoeman (Stellenbosch), M van Furth (Amsterdam)

Dr R van Toorn - Childhood tuberculous meningitis: challenging current management strategies. Promotors: Profs JF Schoeman, HS Schaaf

Dr EWA Zöllner – Adrenal suppression in asthmatic children on steroids. Promotors: Profs S Hough, E Irušen

Ms M Zunza - Prolonged Breastfeeding with Antiretroviral Prophylaxis or Commercial Infant Formula Milk and associated health outcomes: A comparative study of a birth cohort of HIV-exposed infants in public health care settings. Promotors: Prof MF Cotton, Dr MM Esser

PhD Application Submitted

Dr A Bekker - Prevention and treatment of perinatal and infant tuberculosis in the HIV era
Promotors: Profs AC Hesselning, HS Schaaf

Successful Candidate in:

- **Cert Neonatology (SA), CMSA**
 - Dr SK van der Merwe
- **Cert Developmental Paediatrics (SA), CMSA**
 - Dr A Redfern
 - Dr HH Saunders
- **Cert Pulmonology (SA) Paed, CMSA**
 - Dr GA Poole
- **Dipl HIV Medicine (SA) Paed, CMSA**
 - Dr C Edson
- **MMed (Paed), Stellenbosch University**
 - Dr H Hassan: Title: "The clinical manifestations and outcomes in HIV-infected children with Cryptococcus at Tygerberg Children's Hospital "
 - Dr G Morkel: Title: "Bloodstream infections and antimicrobial resistance patterns in a South African neonatal intensive care (ICU)"
 - Dr JR Murray: Title: "Cost and indications of blood transfusions in Pediatric Oncology in an African hospital"
- **FC Paed(SA) Part I, CMSA**
 - Drs C Geldenhuys, M Grantham, W Hough, C Jacobs, Y Kooblal, H Liebenberg, L Mwenda, V Netshituni, L Pretorius, A van Eck
- **FC Paed(SA) Part II, CMSA**
 - Drs B Baadjes, GP de Bruin, LV Heyns, Z Kajee, I Kruger, S McClou, G Morkel, J Morrison, M Mouton, J Murray, M Palmer, L Swanson

Training Awards:

Dr ED Nel - Received financial support from the European Society of Pediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN), from an unrestricted grant of 35000 Euro annually for two years by the Nestle Nutrition Institute (NNI) to train a fellow in paediatric gastroenterology

Undergraduate Students

94.14% pass rate

Education-related Activities

- The Education Committees of the Department comprised as follows:
 - Undergraduate: Drs D Abraham, R van Toorn, R Solomons, CJ du Buisson, A van Zyl, L Heyns (chairperson), GF Kirsten
 - Postgraduate: Drs S Kling (chairperson), ED Nel, H Finlayson, Van Toorn, Stefan
 - PhD: Profs M Kruger (chairperson), N Beyers, JF Schoeman, HS Schaaf, MF Cotton, AC Hesseling
- All consultants are involved with under- and postgraduate teaching on a daily basis. Additional education activities included:
- Senior registrars in training:
 - Paediatric Pulmonology: Dr GA Poole, funded by bursary from Nycomed Pharmaceuticals, and Dr TC Gray, funded by bursary from the Discovery Foundation
 - Developmental Paediatrics: Dr HH Saunders, funded by Discovery Foundation
 - Paediatric Cardiology: Dr B Rossouw
 - Neonatology: Dr JCF Du Preez, Dr S O'Ryan
 - Paediatric Infectious Diseases: Dr L Frigati, funded by bursary from the Discovery Foundation
 - Paediatric Gastroenterology: Dr S Ströbele
 - Paediatric Neurology: Dr PAM Brink
- Colleges of Medicine of South Africa (CMSA):
 - Convenors/External Examiners:
 - Diploma in Child Health (DCH): Dr G Kali
 - Cert Neonatology (SA): Prof J Smith

Part 4

Research

Achievements with regard to Research Activities and Research Outputs

NRF Ratings:

- Profs PR Donald, HS Schaaf – A2
- Profs J Schoeman, M Cotton – B3
- Prof P Hesselning – C1
- Profs J Smith, DC Stefan, Dr H Rabie – C3 rating

Publications

- * General and Subspecialist Paediatrics, Department of Paediatrics and Child Health, Stellenbosch University and Tygerberg Children's Hospital
- # The Children's Infectious Diseases Clinical Research Unit (KID-CRU), Department of Paediatrics and Child Health, Stellenbosch University and Tygerberg Children's Hospital
- & Desmond Tutu TB Centre (DTTC), Department of Paediatrics and Child Health, Stellenbosch University and Tygerberg Children's Hospital

Journal Articles (Subsidised)

1. * AHUJA SD, ASHKIN D, AVENDANO M, BANERJEE R, BAUER M, BAYONA J, BECERRA MC, BENEDETTI A, BURGOS M, CENTIS R, CHAN ED, CHIANG C-Y, COX H, D'AMBROSIO L, DERIEMER K, HUY DUNG N, ENARSON DA, FALZON D, FLANAGAN K, FLOOD J, GARCIA-GARCIA ML, GHANDI N, GRANICH RM, **SCHAAF HS** et al. Multidrug Resistant Pulmonary Tuberculosis Treatment Regimens and Patient Outcomes: An Individual Patient Data Meta-analysis of 9,153 Patients. <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001300>. *Plos Medicine* 2012; **9**(8) : 1-17.
2. * ANDRONIKOU S, VAN DER MERWE DJ, **GOUSSARD P**, TOMAZOS N. Usefulness of lateral radiographs for detecting tuberculous lymphadenopathy in children - confirmation using sagittal CT reconstruction with multiplanar cross-referencing. *SA Journal of Radiology* 2012; **16**(3) : 87-92.
3. *#& **BEKKER A, DU PREEZ K, SCHAAF HS, COTTON MF, HESSELING AC**. High tuberculosis exposure among neonates in a high tuberculosis and human immunodeficiency virus burden setting. *International Journal of Tuberculosis and Lung Disease* 2012; **16**(8) : 1040-1046.
4. * CHOKOE M, WRIGHT C, BEZUIDENHOUT J, MOORE S, **SMITH J**. Necrotizing Enterocolitis in HIV-Exposed and Nonexposed Infants: Clinical Presentation and Histopathological Features. *Pediatric and Developmental Pathology* 2012; **15** : 293-297.
5. &* **COTTON MF, MARAIS BJ**, ANDERSSON MI, ELEY B, **RABIE H**, SLOGROVE A, **DRAMOWSKI A, SCHAAF HS**, MEHTAR S. Commentary: minimizing the risk of non-vertical, non-sexual HIV-infection in children beyond mother to child transmission. *Journal of the International Aids Society* 2012; **15**(2) : 1-9.
6. &* **COTTON MF, RABIE H**. Group B streptococcal disease in infants. *Lancet* 2012; **379** : 502-503.

7. &#* CUEVAS LE, BROWNING R, BOSSUYT P, CASENGHI M, **COTTON MF**, CRUZ AT, DODD LE, DROBNIOWSKI F, GALE M, GRAHAM SM, GRZEMSKA M, HEINRICH N, **HESELING AC**, HUEBNER R, JEAN-PHILIPPE P, KABRA SK, KAMPMANN B, LEWINSOHN D, LI M, LIENHARDT C, **MANDALAKAS AM**, **MARAIS BJ**, . Evaluation of tuberculosis diagnostics in children: 2. Methodological issues for conducting and reporting research evaluations of tuberculosis diagnostics for intrathoracic tuberculosis in children. Consensus from an expert panel. *Journal of Infectious Diseases* 2012; 205(2) : S209-S215.
8. * DAVIES M-A, BOULLE A, TECHNAU K, ELEY B, MOULTRIE H, **RABIE H**, GARONE D, GIDDY J, WOOD R, EGGER M, KEISER O. The role of targeted viral load testing in diagnosing virological failure in children on antiretroviral therapy with immunological failure. *Tropical Medicine & International Health* 2012; 17(11) : 1386-1390.
9. * DIACON AH, DAWSON R, DU BOIS J, NARUNSKY K, VENTER A, **DONALD PR**, VAN NIEKERK C, ERONDU N, GINSBERG AN, BECKER P, SPIGELMAN MK. Phase II Dose-Ranging Trial of the Early Bactericidal Activity of PA-824. *Antimicrobial Agents and Chemotherapy* 2012; 56(6) : 3027-3031.
10. * DIACON AH, DAWSON R, VON GROOTE-BIDLINGMAIER F, SYMONS G, VENTER A, **DONALD PR**, VAN NIEKERK C, EVERITT D, WINTER H, BECKER P, MENDEL C, SPIGELMAN MK. 14-day bactericidal activity of PA-824, bedaquiline, pyrazinamide, and moxifloxacin combinations: a randomised trial . *Lancet* 2012; 380 : 986-993.
11. * DIACON AH, **DONALD PR**, PYM A, GROBUSCH M, PATIENTIA RF, MAHANYELE R, BANTUBANI N, NARASIMOOLOO R, DE MAREZ T, VAN HEESWIJK R, LOUNIS N, MEYVISCH P, ANDRIES K, MCNEELEY DF. Randomized Pilot Trial of Eight Weeks of Bedaquiline (TMC207) Treatment for Multidrug-Resistant Tuberculosis: Long-Term Outcome, Tolerability, and Effect on Emergence of Drug Resistance. *Antimicrobial Agents and Chemotherapy* 2012; 56(6) : 3271-3276.
12. * DIACON AH, MARITZ JS, VENTER A, VAN HELDEN PD, DAWSON R, **DONALD PR**. Time to liquid culture positivity can substitute for colony counting on agar plates in early bactericidal activity studies of antituberculosis agents. *Clinical Microbiology and Infection* 2012; 18 : 711-717.
13. * DIACON AH, VON GROOTE-BIDLINGMAIER F, **DONALD PR**. From Magic Mountain to Table Mountain. *Swiss Medical Weekly* 2012; 142(w13665) : 1-9.
14. * **DONALD PR**, MARITZ JS, DIACON AH. Pyrazinamide pharmacokinetics and efficacy in adults and children. *Tuberculosis* 2012; 92(1) : 1-8.
15. * **DRAMOWSKI A**, MORSHEIMER MM, JORDAAN AM, VICTOR TC, **DONALD PR**, **SCHAAF HS**. Rifampicin-mono-resistant Mycobacterium tuberculosis disease among children in Cape Town, South Africa. *International Journal of Tuberculosis and Lung Disease* 2012; 16(1) : 76-81.
16. *# ETTEHAD D, **SCHAAF HS**, **SEDDON JA**, COOKE GS, FORD N. Treatment outcomes for children with multidrug-resistant tuberculosis: a systematic review and meta-analysis. *Lancet Infectious Diseases* 2012; 12(6) : 449-456.
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19. * FEUCHT U, THOMAS WN, FORSYTH B, **KRUGER M**. Incorrectly diagnosing children as HIV-infected: Experiences from a large paediatric antiretroviral therapy site in South Africa. *South African Journal of Child Health* 2012; 6(3) : 72-75.
20. * GOPAL S, WOOD WA, LEE SJ, SHEA TC, NARESH KN, KAZEMBE PN, CASPER C, **HESELING PB**, MITSUYASU RT. Meeting the challenge of hematologic malignancies in sub-Saharan Africa. *Blood* 2012; 119(22) : 5078-5087.
21. * GRAHAM SM, AHMED T, AMANULLAH F, BROWNING R, CARDENAS V, CASENGHI M, CUEVAS LE, GALE M, **GIE RP**, GRZEMSKA M, HANDELSMAN E, HATHERILL M, HESSELING

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32. &* **INNES S, COTTON MF**, HAUBRICH R, CONRADIE MM, VAN NIEKERK M, EDSON C, **RABIE H**, JAIN S, SUN X, **ZÖLLNER EW**, HOUGH FS, BROWNE SH. High prevalence of lipodystrophy in pre-pubertal South African children on antiretroviral therapy: a cross-sectional study. *BMC PEDIATRICS* 2012; 12 : 1-19.
33. * JANSE VAN RENSBURG S, KOTZE MJ, **VAN TOORN R**. The conundrum of iron in multiple sclerosis - time for an individualised approach. *Metabolic Brain Disease* 2012; 27(3) : 239-253.
34. * **KIRSTEN GF, KIRSTEN CL, HENNING PA, SMITH J, HOLGATE SL, BEKKER A, KALI GTJ**, HARVEY J. The outcome of ELBW infants treated with NCPAP and InSurE in a resource-limited institution. *Pediatrics* 2012; 129 : e952-e959.
35. & KISER JJ, ZHU R, D'ARGENIO DZ, **COTTON MF**, BOBAT R, MCSHERRY GD, MADHI SA, CAREY VJ, SEIFART HI, WERELEY CJ, FLETCHER CV. Isoniazid pharmacokinetics, pharmacodynamics, and dosing in south African infants. *Therapeutic Drug Monitoring* 2012; 34 : 446-451.

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39. * **KLING S.** Truth telling in clinical practice: Is it ever OK to lie to patients?. *Current Allergy & Clinical Immunology* 2012; 25(1) : 34-36.
40. # KOLK AHJ, VAN BERKEL JJBN, **CLAASSENS M, WALTERS E, KUIJPER S, DALLINGA JW, VAN SCHOOTEN FJ.** Breath analysis as a potential diagnostic tool for tuberculosis. *International Journal of Tuberculosis and Lung Disease* 2012; 16(6) : 777-782.
41. &* **LAUGHTON B, CORNELL M, GROVE D, KIDD M, SPRINGER P, DOBBELS E, VAN RENSBURG AJ, VIOLARI A, BABIKER AG, MADHI SA, JEAN-PHILIPPE P, GIBB DM, COTTON MF.** Early antiretroviral therapy improves neurodevelopmental outcomes in infants. *Aids* 2012; 26(13) : 1685-1690.
42. * **LEWIS N, YOUNG J, HESSELING PB, MCCORMICK P, WRIGHT N.** Epidemiology of Burkitt's lymphoma in Northwest Province, Cameroon, 2003-2010. *Paediatrics and International Child Health* 2012; 32(2) : 82-85.
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47. #* **MANDALAKAS AM, HESSELING AC, GIE RP, SCHAAF HS, MARAIS BJ, SINANOVIC E.** Modelling the cost-effectiveness of strategies to prevent tuberculosis in child contacts in a high-burden setting. <http://thorax.bmj.com.ez.sun.ac.za/content/early/2012/06/19/thoraxjnl-2011-200933.full.pdf+html?sid=6b059944-cb76-42e2-8b6c-83d9389db405>. *Thorax* 2012; 15(1) : 1-9.
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Journal Articles (Non-subsidised)

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2. * **ANDRONIKOU S, GOVENDER N, RAMDASS A, VAN TOORN R.** MRI appearances of tuberculous meningitis in HIV-infected children: a paradoxically protective mechanism?. *Imaging in Medicine* 2012; 4(3) : 359-366.
3. * **DU BUISSON CJ.** The ins and outs of urinary tract infections in children. *South African Paediatric Review* 2012; 9(3) : 15-20.
4. * **GOUSSARD PL, GIE RP, KLING S.** Approach to a hyperlucent lung in children. *South African Paediatric Review* 2012; 9(3) : 6-13.
5. * **KLING S.** Asthma exacerbations in children. *South African Paediatric Review* 2012; 9(3) : 22-27.
6. * **KRUGER M, STEFAN C, REYNDERS D, STONES DK, DAVIDSON A, POOLE J, WAINWRIGHT L, THEJPAL R, DE JAGER L, HENDRICKS M, HESSELING PB.** Childhood histiocytosis in South African paediatric oncology units. *Pediatric Blood & Cancer* 2012; 59(6) : 1045.
7. * **MADIDE A, SMITH J, ODENDAAL HJ.** Methamphetamine use by pregnant women: impact on the neonate and challenges for the perinatal team. *Obstetrics and Gynecology* 2012; 22 : 8-11.
8. * **PAPADOPOULOS NG, ARAKAWA H, CARLSEN K.-H, CUSTOVIC A, GERN J, LEMANSKE R, LE SOUEF P, MÄKELÄ M, ROBERTS G, WONG G, ZAR H, AKDIS CA, BACHARIER LB, BARALDI E, VAN BEVER HP, DE BLIC J, BONER A, BURKS W, CASALE TB, CASTRO-RODRIGUES JA, CHEN YZ, EL-GAMAL YM, E, KLING S.** International consensus on (ICON) pediatric asthma. *European Journal of Allergy and Clinical Immunology* 2012; 67(8) : 976-997.
9. * **REYNDERS D, KRUGER M, OMAR F.** Delay in presentation and treatment of patients with confirmed osteosarcoma to a single South Africa institution. *Pediatric Blood & Cancer* 2012; 59(6) : 1049.
10. *# **SCHAAF HS, SEDDON JA.** Epidemiology and management of childhood multidrug-resistant tuberculosis. *Clinical Practice* 2012; 9(6) : 701-713.
11. #* **SEDDON JA, HESSELING AC, DUNBAR R, COX H, HUGHES J, FIELDING K, GODFREY-FAUSSETT P, SCHAAF HS.** Decentralised care for child contacts of multidrug-resistant tuberculosis. *Public Health Action* 2012; 2(3) : 66-70.
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13. * **SOLOMONS R, SCHOEMAN JF, VAN TOORN R.** Approach to headaches in children. *CME* 2012; 30(1) : 31-32.
14. * **STEFAN C, HARFORD J, STONES DK, NEWTON R, RODRIQUEZ-GALINDO C.** Hope for African children with cancer: African Pediatric Oncology Group. *Pediatric Blood & Cancer* 2012; 59 : 349.
15. * **STEFAN C, STONES DK, POOLE J, KRUGER M, VUJANIC G.** Treatment of nephroblastoma in Africa: Which one and at what cost?. *Pediatric Blood & Cancer* 2012; 59(6) : 1060.

16. * VAN HEERDEN J, **KRUGER M**. Consent competency in Afrikaans-speaking children in South Africa. *Pediatric Blood & Cancer* 2012; 59(6) : 984.
17. #* **ZIMRI K, HESSELING AC, GODFREY-FAUSSETT P, SCHAAF HS, SEDDON JA**. Why do child contacts of multidrug-resistant tuberculosis not come to the assessment clinic?. *Public Health Action* 2012; 2(3) : 71-75.

Proceedings – International

1. * VAN WYK AC, **GRAY TC**, WRIGHT CA. *Lymphomatoid granulomatosis: a rare cause of granulomatous inflammation on fine needle aspiration in an HIV positive child* . XXIXth Congress of the International Academy of Pathology, Cape Town International Convention Centre, Cape town, South Africa, Wiley Blackwell 2012: 57.

Proceedings – National

1. &* ACKERMANN C, **INNES S**, TALIEP R, **VAN TOORN R, COTTON M**. *White matter signal abnormalities in children with HIV-related brain disease*. Abstract 133. 56th Annual Academic Day, Faculty of Medicine and Health Sciences, Tygerberg, South Africa, Stellenbosch University 2012: 136-137.
2. & PITCHER R, LOMBARD C, **COTTON M**, BENINGFIELD S, ZAR HJ. *Persistent chest radiographic abnormalities in HIV-infected children*. Abstract 140. 56th Annual Academic Day, Faculty of Medicine and Health Sciences, Tygerberg, South Africa, Stellenbosch University 2012: 140-141.

Chapters in Books

1. * **MARAIS BJ, SCHAAF HS**, MENZIES D. Prevention of TB in areas of high incidence. In *European Respiratory Monograph*, European Respiratory Society, Sheffield, United Kingdom, 2012: 84-94.

Special Achievements and Highlights

- Prof MF Cotton:
 - 19th Conference on Retroviruses and Opportunistic Infections (CROI), Seattle, Washington in March 2012. Title: "Nevirapine versus Ritonavir-boosted lopinavir for HIV-infected children"
- Dr ED Nel:
 - The first ESPGHAN Post Graduate Course in Paediatric Gastroenterology, 25-30 March 2012
- Desmond Tutu TB Centre (DTTC):
 - ORAP – Sustainable operational research training workshop. Train 2 staff members from TBH per annum
 - KOCHON prize – Won the 2012 Stop TB Partnership Kochon Prize (US \$65,000) for its ground-breaking research on childhood TB; Kuala Lumpur, Malaysia, 13-17 November 2012
- South-to-South:
 - On 17 October 2012 the S2S Program for Comprehensive Family HIV Care & Treatment received US\$14,999,432 funding for Cooperative Agreement No. AID-674-A-12-00031; HIV-Innovations for Improved Patient from the United States Agency for International Development/ South Africa Health

Office. Activity Title: Developing and Institutionalizing an Innovative Capacity Building Model to Support South African government Priorities to Improve HIV/TB Health Outcomes for Priority Populations

- Prof JF Schoeman
 - Lifetime achievement award by the Paediatric and neurodevelopmental association of Southern Africa (PANDA SA).
- Dr R van Toorn
 - Elected as treasurer of PANDA SA.
- Dr EWA Zöllner:
 - Received the "Best Paper Award" at the ALLSA conference in July 2012.
- Prof DC Stefan:
 - Nomination in the Ministerial Advisory Committee on the Prevention and Control of cancer in South Africa
- Dr R Uys
 - Tygerberg Hospital School Governing Body (Vice- Chair)
- Dr E Malek
 - Invited as a member of an international Swedish based research steering group on Oral Rehydration Therapy related research
- Drs DR Abraham
 - Best lecturer of the Faculty of Medicine and Health Sciences, awarded at the SI ball last year. An award dedicated by the final year students for their best lecturer.
- Rectors Award for General Performance
 - Prof M Kruger
 - Prof N Beyers
 - Dr M Claassens
 - Mrs M Bester
 - Sr J Crisp
 - Mrs SL Brand
 - Mrs J Saffier
 - Ms C de Vos
 - Mr K Smith
 - Ms L Maliwa

Conferences: Participants & Attendees

International

- Prof M Kruger
 - Developing High Quality Standards for e-Learning Programs in Research Ethics and Regulation in North-South Partnerships, Brocher Foundation, Geneva, 16 - 18 January 2013
 - 44th SIOP Congress of the International Society of Paediatric Oncology (SIOP): October 5-8, 2012 in London, United Kingdom. Titles: Oral presentation: Consent Competency in Afrikaans-speaking Children in South Africa; Poster presentation: Childhood Histiocytosis in South African Paediatric Oncology Units
 - 7th SIOP Asia Congress, Yogyakarta, Indonesia, 22-24 April 2012. Invited speaker: Ethical issues in stem cell transplantation

- SIOP Africa 2012, Woodstock, Cape Town, 21-23 March 2012. Welcome address, Round table discussion, Adapted treatment regimes: retinoblastoma, Session 8 chair & Invited speaker: Justice, rare diseases and Africa
- Prof DC Stefan:
 - Invited speaker – International pediatric cancer and pediatric Cancer Care in Africa; Annual International Conference on Child Health Kigali Rwanda
 - Invited speaker First Namibian Medical Society Pediatric Congress
 - Invited speaker “Cancer in Africa” Philadelphia University USA
 - Invited speaker SIOP Africa
- Dr A Bekker
 - Presented: 2012 UNION conference in Kuala Lumpur, November 2012; “TB treatment considerations for neonates and infants”
- Dr ED Nel
 - Improving the outcome of Severe Acute Malnutrition. Nestle Nutrition Institute of Africa Scientific Meeting, Windhoek, Namibia, 13 June 2012.
 - Hepatitis co-infection. 4th International Workshop on HIV Pediatrics. Washington DC, USA. 20-21 July 2012.
 - Paediatric Gastrointestinal Problems: CMT CME course.
 - ESPGHAN Post Graduate Course in Paediatric Gastroenterology. 25-30/3/2012:
 - HIV disease and the Intestine
 - Gastroesophageal Reflux
 - Persistent Diarrhoea
 - ESPGHAN Post Graduate Course in Paediatric Gastroenterology. 7-12/10/2012
 - TB Abdomen
 - Paediatric Gastrointestinal
 - Functional Gastrointestinal Complaints

National

- Prof M Kruger
 - Annual Novartis & Stellenbosch University Clinical Science Workshop, Faculty of Medicine and Health Sciences, 22 and 23 October 2012
Invited speaker: Paediatric Clinical Trials in Developing Countries - Ethical Issues
 - Here by Lungs Conference, Lanzerac Hotel, Stellenbosch, 16-17 February 2012.
Welcoming address
- Dr A van Zyl
 - Invited speaker MASAC Education Symposium, 16-17 November
- Prof Johan Smith:
 - Conferences organized:
 - *Here Be Lungs; 15 – 17 February 2012*
 - Workshops hosted:
 - High-frequency oscillation workshops
 - A) 9 – 11 May 2012
 - B) 14 – 16 November 2012
- Dr GTJ Kali
 - Presented at SAPA August 2012: “Predictors of outcome after cooling in HIE”
- Prof GF Kirsten:
 - Presented:

- Medi-Clinic Neonatal Nursing Seminar, Morningside Medi-Clinic, Johannesburg, January 2012
- Care of the VLBW infant
- Feeding of the VLBW infant
- Oxygen therapy in the NNICU
- Non-invasive ventilation
- Retinopathy of prematurity
- Blood transfusions in neonates
- GF Kirsten. Here be Lungs Conference, Stellenbosch. 16 & 17 February 2012. An Approach to the newborn who is difficult to wean from ventilation.
- GF Kirsten. Understanding the shared responsibility of Caring for the Very Low Birth weigh Infant. Med-Clinic Meeting. Arabella. September 2012
- GF Kirsten. Interpretation of the full blood count of a newborn infant. Medi-Clinic Neonatology Seminar. Cape Town November 2012
- Dr A Bekker
 - Presented at Here Be Lungs 15 – 17 February 2012: “Perinatal TB”
 - Presented at the 4th ICAN African Conference, November 2012: “Advances in Paediatric Infection, Prevention and Control”
- Dr GTJ Kali
 - Presented at SAPA August 2012: “Predictors of outcome after cooling in HIE”
- Dr Adrie Bekker
 - Presented at Here Be Lungs 15 – 17 February 2012: “Perinatal TB”
 - Presented at the 4th ICAN African Conference, November 2012: “Advances in Paediatric Infection, Prevention and Control”
- Dr S O’Ryan
 - Presented at Bana Pele 22 August 2012; “2010 AHA Neonatal Resuscitation Guidelines: Updates and Implementation in Developing Countries”
- Prof HS Schaaf:
 - 30th Annual Meeting of the European Society for Paediatric Infectious Diseases, 8-12 May 2012, Thessaloniki, Greece
 - Zero TB Deaths, 29 May – 1 June 2012 – Meeting at Harvard University, Cambridge, Massachusetts, USA
 - 3rd SA TB Conference, 12-15 June, Durban, South Africa.
 - International Symposium: Excellence in Pediatric HIV and TB Coinfection Care in Ukraine. 11-12 October 2012, Kiev, Ukraine
 - 6th International Childhood TB training conference, 22-26 October 2012, Goudini, South Africa
 - Biennial Conference/Workshop on drug-resistant TB: Current practice, controversies and clinical challenge. 26-28 October 2012, Cape Town, South Africa
 - Paediatric drug-resistant TB: Turning research into practice. 31 October-2 November 2012, Johannesburg, South Africa.
 - 43rd Union World Lung Health Conference, 13-17 November 2012, Kuala Lumpur, Malaysia
- Dr ED Nel
 - Aetiology and Management of GERD. SAGES 2012. Durban. 9-11 August 2012

Regional

- Prof M Kruger
 - Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI): Writing a successful NIH R01 grant application workshop, Stellenbosch University Faculty of Health Sciences, 3 April 2012. Title: Human subjects, regulatory requirements
 - Radio Tygerberg: : Invited speaker – Kinderkanker, 7 March 2012
 - RSG - Wat sê die dokter: Invited speaker – International Childhood Cancer Day, 15 February 2012
 - UCT Paediatric Refresher Course 2012, University of Cape Town, 14-17 February 2012. Chair – Ethico-legal Symposium
- Dr R Uys:
 - Childhood Cancer Awareness Presentation, CANSA Symposium, West Coast (2 Feb)
 - Childhood Cancer Awareness Talk (12 June 2012) to Health Promoting Schools Cluster
 - Meeting (Nursing staff, Educators) Beacon Valley Primary School
 - Childhood Cancer Awareness Talk on Bush Radio (30 July 2012)
- Dr P Springer
 - Radio interview Media 24 on Down Syndrome
- Prof GF Kirsten
 - Non-invasive ventilation of the newborn with a very low birth weight. Workshop on high-frequency ventilation (HFOV), Department of Paediatrics and Child Health, Faculty of Health Sciences, 14 May 2012.
 - Non-invasive ventilation of the newborn with a very low birth weight. HFOV workshop, Department of Paediatrics and Child Health, Faculty of Health Sciences, 17 November 2012.
- Dr A Bekker
 - Presented at Paediatric TB course, Goudini, October 2012: "Congenital & Neonatal TB"
- Dr S O’Ryan
 - Presented at Abbott CME 27 September 2012; "2010 AHA Neonatal Resuscitation Guidelines: Updates and Implementation in Developing Countries"

Part 5 CENTRES

THE CHILDREN’S INFECTIOUS DISEASES CLINICAL RESEARCH UNIT (KID-CRU) – Prof MF Cotton

Date	Name	Meetings/Conferences	Place
5 – 8 March 2012	Prof Cotton – Principal	CROI 2012	Seattle, USA

	Investigator		
10 – 11 May 2012	Prof Cotton	2 nd Pan-African Infectious Diseases Conference (Moderator)	Johannesburg, SA
27 – 29 June 2012	Prof Cotton	IMPAACT Group meeting - member of the primary therapy study group	Washington DC, USA
20 – 21 July 2012	Prof Cotton	4th International Workshop on HIV Pediatrics Member of organizing committee	Washington DC, USA
22 – 27 July 2012	Prof Cotton	IAS Conference – 4th International workshop on Pediatric HIV	Washington DC, USA
24 – 25 August 2012	Prof Cotton	Bana Pele Talk:	Limpopo, SA
17 – 19 September 2012	Prof Cotton	Vaccine Strategies Against Tuberculosis Workshop Talk: BCG Disease and Live Vaccines in HIV infected Children	Durban, SA
9 – 11 November 2012	Prof Cotton	International African Vaccinology Conference	Cape Town, SA
25 – 28 November 2012	Prof Cotton	SA HIV Clinicians Society Conference Talk: INH Prophylaxis	Cape Town, SA
25 – 29 June 2012	J Louw G Fourie J Coetzee M Smuts M Theunissen B Laughton	IMPAACT Group meeting	Washington DC, USA
5 – 8 March 2012	S Innes	Conference on Retroviruses and Opportunistic Infections	Seattle, USA
12 April 2012	Dr L Frigati	Immunization Presentation	Western Cape Department of Health, SA
22 – 27 July 2012	Dr M Rossouw	IAS Conference – 4th International workshop on Pediatric HIV Abstract: Safety and Efficacy of Efavirenz Sprinkled and Liquid Formulations administered in combination with didanosine and emtricitabine in HIV-1-infected infants and children 3 months to 6 years of age: Week 48 analysis of the	Washington DC, USA

Studies

A. IMPAACT

1. P1041
 Sponsor -DAIDS/NIH
 Subjects enrolled -412
 First patient enrolled: April 2005
 Study completed: February 2009

2. P1060
 Sponsor -DAIDS/NIH
 Subjects enrolled: 87 patients
 First patient enrolled: November 2006
 Study ongoing

3. P1066
 Sponsor -DAIDS/NIH
 Subjects enrolled: 2 patients
 First patient enrolled: July 2010
 Study ongoing

4. P1073
 February 2010 - continue
 Screened = 21 and Enrolled = 15
 Sponsor: IMPAACT

5. 1077BF
 May 2011 – continue
 Screened = 27 and Enrolled = 16
 Sponsor: IMPAACT

6. P1084
 Duration: May 2011 - continue
 Screened = 23 and Enrolled = 1
 Sponsor: IMPAACT

7. P1070
 Screened = 5 and Enrolled = 4
 Sponsor: IMPAACT

IMPAACT assessment

KIDCRU received an overall score of 1 (exceeded IMPAACT standards). Refer extract from report:

“The PERC (Performance Evaluation Review Committee) has reviewed all of the data and the final assessment was presented to the Network Executive Committee (NEC) for IMPAACT Year 3 CRS performance. The PERC did not receive any requests for changes or corrections to your site’s CRS evaluation for the period of February 1, 2011 through January 31, 2012.

There were five areas of evaluation, not including scientific contribution, to which your CRS was assessed and received an IMPAACT evaluation rating. The five areas of evaluation and your site’s rating are as follows:

- Accrual is Outstanding
- Data Management is Excellent
- Regulatory Compliance score is Adequate
- Monitoring is Adequate
- CAB Meets Standards

Your site’s overall score is 1, which means your CRS exceeds IMPAACT standards with > 25 subjects on average per month on study on intervention trials over a 12 – month period. The PERC congratulates you on your accomplishments.”

The report is available on request.

B. CIPRA

1. Project 2

Sponsor: DAIDS/NIH

Subjects enrolled: 136

Active patients: 105

Study started: 31 August 2005

Study is ongoing

Publication in NEJM: Early Antiretroviral Therapy and Mortality among HIV- Infected Infants. Nov 2008

2. Project 4

Sponsor: DAIDS/NIH

Subjects enrolled: 193

Active patients: 143

Study started: 10 May 2005

Study is ongoing

C. GSK

1. APV 20002

Sponsor: Glaxo Smith & Kline

Subjects enrolled: 23

Study started: 17 March 2008

Study is ongoing

2. APV 29005

Sponsor: GSK

Subjects enrolled: 5

Study started: 19 August 2008

Study is ongoing

D. HEU

Sponsor: University of Vancouver (Canada)

Enrolled subjects: 95

Active patients: 50

Study is ongoing

E. P1043

Sponsor: Westat

Enrolled subjects: 136

Study started: January 2007

Study is ongoing

Enrolment ended 26 July 2010; follow up to be completed before 10 December 2010

F. ROCKEFELLER

Sponsor: Rockefeller Foundation

Subjects enrolled: 19 (at KIDCRU); 32 (at Paarl)

G. VPM Phase II

November 2011 – November 2012

Screened = 126 and Enrolled = 48

Sponsor: Vanderbilt University

H. CHER Neurodev

Duration: January 2006 – December 2011

Enrolled = 179

Sponsor – Harry Crossley Foundation + MRC + NRF

I. SUB STUDIES

RO1

Sponsor: Wistar

Started March 2006

Subjects enrolled: 41 (Active patients: 34)

Maternal sub study

Started: September 2006

Enrolled: 183

Maternal Assessment sub-study

Title: Association of Maternal Depression and other Psychiatric Outcomes With Long-Term neurodevelopment in HIV-positive infants Receiving Early or Delayed Antiretroviral Treatment

Total number of assessments completed:

8-16 weeks:	62
18-24 weeks:	60
10-12 months:	151 (Exposed: 31 , Unexposed: 23 , Infected: 97)
18-20 months:	142 (Exposed: 32 , Unexposed: 20 , Infected: 89)
30 months:	139 (Exposed: 30 , Unexposed: 23 , Infected: 83)
42 months:	129 (Exposed: 30 , Unexposed: 18 , Infected: 81)
60 months:	48 (Exposed: 20 , Unexposed: 19 , Infected: 9)

A number of mothers were identified with probable clinical depression and were referred to their local psychology services.

Neurodevelopmental Sub study

Sponsor: Cipro/MRC/Harry Crossley

Subjects enrolled: 179

Study started: March 2006

Jeanne Louw is a voting member of the IMPAACT Site Management and Clinical Care Resource Committee

CIPRA Neurodevelopmental sub-study

Study title: The effects of early versus delayed antiretroviral treatment on the short and long term neurodevelopmental outcome of children who are HIV positive.

We have performed the following assessments to date:

10 – 12 months	– 38 HIV unexposed control group 31 HIV exposed, uninfected control group 109 HIV infected
18 - 20 months	– 35 HIV unexposed control group 22 HIV exposed, uninfected control group 98 HIV infected
2 ½ years	– 27 HIV unexposed control group 18 HIV exposed, uninfected control group 93 HIV infected
3 ½ years	– 33 HIV unexposed control group 22 HIV exposed, uninfected control group 96 HIV infected
5 years	– 28 HIV unexposed control group 21 HIV exposed, uninfected control group 10 HIV infected (still in process – to finish December 2011)

The neurodevelopmental component of CHER+ has grown out of this work, as well as improving the knowledge of the performance of South African Children on the Griffiths

Mental Development Scales (2006 edition). Dr Laughton was invited by Association for Research in Infant and Child Development in London (which developed the test) in May 2010, to present her findings on the longitudinal scores of these infants. This was also presented to the Brain and Behaviour society in Cape Town.

HIV motion correction sub study:

Title: Magnetic Resonance Imaging Sub-study

In collaboration with scientists from University of Cape Town and Boston University to conduct an MRI study on the children in CHER. The scientists developed software to correct for movement, and have been able to successfully conduct 17 MRIs on 5-year old children without sedation out of 22. This is a major contribution as previously it has been impossible to conduct MRIs on children this age without sedation or anaesthesia. Neurodevelopmental scores will then be correlated with findings on brain imaging to contribute to scientific knowledge regarding the effects of HIV on the brain.

Ongoing Research Support:

COTTON, MF		
ACTIVE		
USAID 674-A-00-09-00001-00 The major goal of this program: To Provide Technical, Program, and System Support for Family-focused HIV Services. No overlap with other projects	10/01/2011 – 9/30/2012 \$2,900,000	0.60 calendar / 5%
NIH R01 AI 076199 The major goal is to examine the Utility of Interferon-Gamma Release Assays in TB-HIV co-infected Children No overlap with other projects	8/1/2011 – 7/31/2012 \$410,000	0.60 calendar / 5%
NIH 5U01AI069521 Stellenbosch University Clinical Trial Unit – IMPAACT projects. The major goal is to conduct HIV clinical trials funded through IMPAACT. No overlap with other projects	02/01/2012 – 01/31/2013 \$1,181,201	4.8 calendar / 40%
CDC #2009-N - 11094 Tuberculosis Trials Consortium. The major goal of this project is to develop and undertake tuberculosis-related clinical trials. No overlap with other projects	10/01/2011 – 09/30/2012 \$351,676	0.60 calendar / 5%
NIH: 5R01HD069169-02 PK and Toxicity of Secondline Antituberculosis Drugs in HIV-Infected Children. The major goal is to describe pharmacokinetics and safety of 2nd-line anti-tuberculosis medications in children No overlap with other projects	04/01/2012 – 03/31/2013 \$403,759	0.60 calendar / 5%
NIH: R01 HD071664 Longitudinal Neuro-imaging and Cognitive Study of HIV-Infected Children	09/30/2011 – 06/30/2012 \$196,307	0.40 calendar

Major goals of the project: Clinical and Cognitive assessment of children at 7 and 9 years of age No overlap with other projects		/ 3.33%
Social & Scientific Systems, Inc: BRS-IMPCT-S-11-000331-001458 Task order is to secure the services of Mark Cotton, MD as IMPAACT Network Executive Committee Member (NEC) No overlap with other projects	06/01/2011 – 05/31/2012 \$18,172	0.96 calendar / 8%
Social & Scientific Systems, Inc: BRS-IMPCT-S-11-000331-001552 Task order is to secure the services of Mark Cotton, MD as IMPAACT Network PERC Co-Vice Chair. No overlap with other projects	06/01/2011 – 05/31/2012 \$21,378	1.2 calendar / 10%

Clinical Quality Management – Data Manager

Completed annually as per DAIDS requirements. Opportunities for improvement have been identified during the past year as a result of ongoing Quality Assurance (QA) and Quality Control (QC) activities. This includes SOP and Clinical Skills Training, timely completion of case report files and missed visit follow-up. Corrective actions have been put in place and it was established that the CQMP does not require any modifications.

Member of the Forms and Data Reduction working group within IMPAACT (since 2007)

As part of the larger mission of the DMRC, to ensure quality data collection, the Forms and Data Reduction (FDR) working group has been established with the mission to:

- Review and help with design of generic and protocol-specific forms
- Review code sets used in generic forms (e.g., diagnoses, signs/symptoms, chemistry/haematology tests)
- Contribute to forms standardization across networks

CAB activities 2012 (Community Advisory Board)

- Meetings once a month
- The group is divided in smaller working groups of 2 or 3.
 - They will come in on clinic days to talk to the parents in the waiting rooms.
 - Play with children
 - Teach moms what educational games they can play with their children to help with the development of their children
- Help with recruitment based on training acquired
- Outreach programs from home or in the community to educate people re: HIV/AIDS/Tuberculosis by means of talks, presentations, posters and pamphlets.
- Motivational / Educational talks at schools, churches, youth groups and community forums

- Support to bereaved families who lost a loved one.
- Support to fellow CAB members who is sick or going through difficult times
- Help with field trips with the adolescent CAB
- Protocol specific training and protocol development training
- Skills-building workshops and other trainings
- Give input on site research priorities to RCAB
- Complete survey monkey questionnaires

Awards and Accomplishments

1. **Allison Riddick:** Post graduate diploma in Palliative Medicine (UCT).
2. **Jacky Crisp:** Masters in Nursing Science (University of George Washington) & Rector's Achievement for General Performance
3. **Marchalaine Hendrinks:** Masters in Nursing Science (University of George Washington)
4. **Marie Theunissen:** ICAB Vice Chair and International Adolescent CAB Chair
5. **Joan Coetzee:** Higher Cert in Management (Cum Laude) & Membership of South African Institute of Health Care Mangers (SAIHCM)
6. **Kurt Smith:** Rector's Achievement for General Performance
7. **Chantal De Vos:** Rector's Achievement for General Performance
8. **Marieje Bester:** Rector's Achievement for General Performance

International visitors

1. Professor Y Bryson – Visiting Professor, UCLA, Los Angeles
8 October – 30 October 2012
2. Gareth Mercer - Canada graduate scholarship Michael Smith foreign study supplement
9 July 2012 – June 2013

Training and Development

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 2012** presentations

CAB training 2012

- | | | |
|-----------|---|----------------|
| ➤ Jan: | Confidentiality | Marie |
| ➤ Feb: | Program planning | Marie/Joan |
| ➤ March | Standard Operating Procedures | Joan |
| ➤ April | ARV Art exhibition | UCT |
| ➤ May | Protocol overviews | Mercia |
| ➤ June | Sexual Health | Maylene |
| ➤ July | Lipodystrophy | Steve |
| ➤ Aug | Child Health Study update | Helen |
| ➤ Sept | Standard Operating Procedures | Joan |
| ➤ October | Hygiene | Maylene/Lindee |
| ➤ Nov | Self-empowerment / Personal development | Joan |

Protocol training for all members of staff is ongoing.

Recruitment and retention for clinical trials for GCP

Developing of Standard operating Procedure workshops for GCP

SOUTH2SOUTH PROGRAMME FOR COMPREHENSIVE FAMILY HIV CARE & TREATMENT – Dr K van der Walt

Summary of activities

During 2012 South2South provided technical assistance and capacity building to the National Department of Health, and in various provinces to improve maternal and child HIV/TB health outcomes. South2South trained 943 health workers and provided mentoring in 332 mentorship sessions to frontline health workers involved in PMTCT, paediatric and adolescent HIV/TB, pharmacy systems, and psychosocial support systems. South2South refined support activities to include a combination of training, mentoring, quality improvement, and research to support knowledge translation for frontline health workers and to provide evidence-based educational outreach.

Resources:

All positions are funded 100% by PEPFAR/USAID funds. There are 16 full time posts filled which include 1 clinical program director and 1 operations director.

Faculty of Health Sciences

Community outreach programmes/community services and interaction. Please focus on initiatives in 2012, especially w.r.t. MDG and projects in Africa

South2South provided capacity building and technical assistance to National Department of health and in various provinces. Training and mentoring aims to improve the HIV/TB health outcomes of priority populations, i.e. pregnant women, infants, children, adolescents, and those who are HIV/TB co-infected. District support programs have been implemented in the Northern Cape (Pixley-ka-Seme District), Eastern Cape (Amathole District), and Western Cape (Cape Winelands District).

Partnerships

International:

- Within the southern Africa region South2South has provided training support to PATA (Paediatric AIDS Treatment for Africa). The South2South Paediatric HIV Toolkit was adapted for use by health professionals throughout Africa, and is being disseminated by PATA through training events.
- South2South's training material on Disclosure of HIV with Children was adapted for international dissemination by AIDSTAR-One (AIDS Support and Technical Assistance Resources, Sector I, Task Order 1).
- South2South is in the process of developing a web-based training tool repository for use by all PEPFAR-funded organizations in southern Africa.
- South2South provided training support to personnel from ICAP-Tanzania and ICAP-Uganda in comprehensive paediatric HIV/TB management.
- South2South has established a formal agreement with the Institute of Healthcare Improvement to support the quality improvement mentoring that South2South personnel provides to DOH structures. IHI is seen as a prominent international leader in quality improvement in health care.

National:

- South2South works closely with other PEPFAR-funded organizations in each of the provinces where district-level support is provided, i.e. Anova, Health Systems Trust, Right to Care, Keth'Impilo, FHI360, and ITECH.
- South2South is a key specialist-support partner at the National PMTCT Steering Committee and NDOH Paediatric and Adolescent HIV/TB Technical Working Group.
- South2South provided technical assistance to the NDOH Nutrition Directorate through the development of national breastfeeding training material.
- At provincial level South2South has established close relationships with provincial DOH regional training centres, and relevant program managers to improve the quality of HIV/TB services to priority populations.

Teaching and Training (under, postgraduate and elective students)

South2South training and mentoring is provided as in-service training to health workers in rural areas with a heavy HIV/TB disease burden. Training is followed up by mentoring, combined with quality improvement coaching, to ensure knowledge is translated and guidelines are implemented. The following capacity building outputs were achieved during 2012:

- Number of training sessions conducted: 70
- Number of individuals trained: 943
- Number of mentorship sessions conducted: 332
- Number of facilities supported through mentoring: 26

Special achievements and other highlights not covered by this template

- South2South has been awarded a \$20 million cooperative agreement by USAID for the period 2012-2017 to continue with innovative capacity building program development and implementation.

DESMOND TUTU TB CENTRE (DTTC) – Prof N Beyers

Infrastructure development – upgrading, new equipment, etc. (highlights)

1. Central DTTC offices in process of being refurbished to create “open office” environment.
2. The 2 field offices in Ravensmead and Uitsig are being maintained
3. For the Community TB-HIV Integration project – most of the community VCT Centres have been donated to NGOs and the whole project will finally exit during 2013 when all the assets will be donated and the close-out documents completed.
4. The fleet of vehicles has been maintained and new vehicles purchased.
5. Facilities to allow access for Mr Dunbar’s service dog are still in the process of being developed (garden, grass) – many delays experienced
6. Kitchen refurbished to allow wheelchair access to garden for Mr Dunbar
7. Website (www.sun.ac.za/tb) maintained

Community outreach programmes/community services and interaction. Please focus on initiatives in 2012, especially w.r.t. MDG and projects in Africa

Projects and studies with community interaction and outreach:

1. Monthly meetings with City of Cape Town and Western Cape Government to jointly decide on activities
2. A Trial management Committee has been established with Terms of Reference. This committee meets monthly and have representatives of City of Cape Town, Western Cape Government, NGOs, NHLS
3. The PEPFAR project has started its close-out activities and donated infrastructure and assets to City of Cape Town and to various NGOs
4. COMAPP (Community AIDS Prevention Project) has started in 5 sub-districts of Cape Town.
5. Strengthening of health systems and improving access, quality and collaboration between HIV and TB services. Many health system strengthening activities, including training and mentoring, in all 101 TB clinics in Cape Town
6. A wide range of interventions to improve TB case finding, TB cure rates infection control and to reduce susceptibility to TB and HIV happen in all the 101 clinics as well as on sub-district level in Cape Town
7. Training on request of Cape Town Health Directorate:
 - a. clinic staff were trained on the HIV/AIDS/STI/TB (HAST) integrated audit tool
 - b. 50 GPs were trained on TB
 - c. Counsellors and clinic staff were trained on TB adherence.
8. TB-RID (TB reduce Initial Default). DTTC has partnered with Department of Health to establish a data management system for managing the results from the centralised laboratories of the NHLS in an attempt to increase the number of TB cases diagnosed. A pilot intervention was initiated in the Tygerberg sub-district to reduce the number of TB defaulters. This pilot project will now be rolled out to all the clinics in Cape Town
9. PMTCT services:
 - a. Support to all health sub districts around Cape Town.
10. The TB-free Kids Project in Ravensmead and Uitsig is continuing in the community by the Community Health Advocates who do home visits and trace TB patients and get them back on treatment.

11. The community paediatric studies at DTTC are done mainly in Ravensmead, Uitsig and Site C, Khayelitsha. Although these are research studies, the focus is on improving the health systems and by doing household contact studies and piloting IPT registers, the care of children in contact with TB cases is improved.
12. Studies on the management of children in contact with MDR-TB and with MDR-TB have been established in Site B Khayelitsha and the management of children with MDR TB continues.
13. The study on Evaluation of New Diagnostics focus on strengthening health services and the link between health services and NHLS is improved. A database has been developed to track the results of TB tests.
14. Women in Networks (WIN) project is continuing in Site C Khayelitsha. In this project we partner with the Philani Nutrition Centre in a project aimed at ensuring that children access the child care grant. Additional funding has been awarded by Virgin Unite.
15. DTTC is closely aligned with the National, Provincial and Local health departments and assist on all levels in the development of guidelines, manuals and training material.
16. On request of and in partnership with the health Directorate of City of Cape Town, DTTC presents a TB Clinical Forum once a month which is attended by clinicians working in the City clinics. In 2011 there were 10 TB Clinical Forums and 544 health care workers attended
17. A 5 day Operational Research Protocol development Workshop for colleagues from the Department of Health in each of the 9 provinces and their associated academic institutions was held in 2012 –people from the 9 provinces attended and 13 proposals were developed.
18. A workshop on manuscript writing for colleagues from the Department of Health was conducted in June and numerous manuscripts are in the process of being finalized for submission.
19. A new community cluster randomized trial (Population ART to Reduce Transmission - PopART) has been funded and has established 9 field sites for this trial

Partnerships

International:

1. DTTC remains a Collaborating Centre of the International Union Against TB and Lung Disease
2. DTTC has numerous ongoing collaborations with the following:
 - a. London School of Hygiene and Tropical Medicine
 - b. University of Zambia
 - c. KNCV
 - d. University of Amsterdam
 - e. HPTN (HIV Prevention Trials Network)
 - f. CDC Tuberculosis Clinical Trials Consortium (TBTC): with >20 international sites
 - g. Imperial College, London
 - h. All India Institute of Medicine
 - i. St John Medical College, India
 - j. Charite Hospital, Berlin, Germany
 - k. McGill University, Canada

National:

1. DTTC is closely aligned with the National, Provincial and Local health departments and assist on all levels in the development of guidelines, manuals and training material.
2. National TB Programme has requested that DTTC presents research data at the quarterly National meetings
3. DTTC hosts an annual meeting with the National TB Programme to establish new priorities for TB Research in SA.
4. All activities are planned in close collaboration with the various levels of the department of health. A monthly meeting is held with Government Partners
5. All activities are planned and implemented with the support of the local Community Advisory Boards (CABs)
6. South African TB Vaccine Initiative (SATVI)
7. Division of Clinical Pharmacology, University of Cape Town:
8. Health Economics Unit: University of Cape Town
9. University of Western Cape: Human Nutrition Division
10. South African MRC: Centre for Biostatistics
11. South African centre for Epidemiological Modelling and Analysis (SACEMA)

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

Number of publications from the department/division: **41**

Media exposure:

1. SA version of LA Boheme opera brings TB message to the stage – Weekend Argus – 25 February 2012
2. Desmond Tutu uses pedal power to show his support for children with TB – Cape Argus – 7 March 2012
3. Need to fight TB with Multiple Weapons-North American Correspondent, MEdPAGE today – 12 March 2012
4. Radio Interview - RSG: Nulda Beyers re TB – 22 March 2012
5. Children are in dire need of TB treatment – Prof Gie and James Seddon – Pretoria News – 23 March 2012
6. The avoidable scourge that is TB – Mail & Guardian -23 March 2012
7. South Africa: TB-the Forgotten Children – Health E- Cape Town
8. Medics suffer high exposure to TB-Mail & Guardian – 30 March – 4 April
9. Get tested and treated for TB – Tygerburger (Brackenfell) – 12 April 2012
10. Radio Interview-Wena Moelich Kick TB – 4 April 2012
11. Get tested and treated for TB – Tygerburger (Brackenfell) – 12 April 2012
12. Radio Interview-Wena Moelich Kick TB – 4 April 2012
13. 21 May 2012 - Zamstar office key handover , Drankenstein Sub district, Paarl
14. Liyethusa Izinga Le TB Embekweni Nase Khayandi – Indaba -June 2012
15. HRH Princess Stephanie Visits TB Centre – 6 June 2012 -Tygerburger (Parow)
16. HRH Princess Stephanie's visit, The Weekend Argus Visit to HIV and TB centre fit for a princess 15 December 2012

Teaching and Training (under, postgraduate and elective students)

1. On request of and in partnership with the health Directorate of City of Cape Town, DTTC presents a TB Clinical Forum once a month which is attended by clinicians

working in the City clinics. In 2012 there were 10 TB Clinical Forums and 544 health care workers attended

2. A 5 day Operational Research Protocol development Workshop for colleagues from the Department of Health in each of the 9 provinces and their associated academic institutions was held in 2012 –people from the 9 provinces attended and developed proposals.
3. Prof Donald Enarson visited DTTC twice to teach and mentor the staff of DTTC
4. 50 GPs were trained on a TB workshop
5. A workshop on manuscript writing was conducted in June and numerous manuscripts are in the process of being finalized for submission.
6. Prof Hesseling and Prof Beyers teach in the M Clin Epidemiology course
7. Prof Beyers teaches in various Faculty courses including the NIH Ethics course and the Masters Classes for researchers
8. The Annual Childhood TB Course was again held at Goudini in 2012 and participants from more than 20 countries attended. The course will be repeated in 2013.

Special achievements and other highlights not covered by this template

1. Visitor by HSH Princess Stephanie of Monaco (Organisation: Fight AIDS Monaco)
2. Penny Rose has been accepted by IUTLD to do an Operational TB research course of 3 modules. .(May 2012)
3. Mareli Claassens – HB&MJ Thom Award – Nov 2012
4. DTTC awarded the Stop TB Partnership Kochon Prize

Ongoing Research Support

PROF. NULDA BEYERS		
ACTIVE		
NIH / FHI 360 / LSHTM (UM1 068619): HPTN 071 PopART: Cluster Randomized Trial of Combination HIV Prevention in Zambia and South Africa. No overlap with other projects	10/01/2011 – 05/31/2013 \$4,209,823	Prof Nulda Beyers (PI) = 20% Effort
International Initiative for Impact Evaluation (3ie) / LSHTM: PopART Social Science Formative Research: Community HIV Prevention, Treatment and Care Landscapes in Zambia and South Africa. No overlap with other projects	09/01/2012 – 05/31/2013 \$78,635	Substudy of PopART
USAID / IUATLD (GHN-A-00-08-00004-0): Drug Resistant Tuberculosis in Children. No overlap with other projects	01/01/2013 – 12/31/2013 \$103,509	Prof Nulda Beyers (PI) = 0% Effort / Prof Simon Schaaf (Project Director) = 7.5% Effort
USAID / IUATLD (GHN-A-00-08-00004-0): Line Probe Assay. No overlap with other projects	10/01/2012 – 09/30/2013 \$177,644	Prof Nulda Beyers (PI) = 10% Effort
USAID / IUATLD (GHN-A-00-08-00004-0): Operational Research Assistance Program.	01/01/2013 – 12/31/2013	Prof Nulda Beyers (PI) = 30% Effort

No overlap with other projects	\$230,095	
USAID / URC (FY2012-P19-4740): National TB Control Programme (NTP). The major goal is to identify challenges in the NTP and build capacity to address those challenges. No overlap with other projects	12/01/2012 – 09/30/2013 \$89,286	Prof Nulda Beyers (PI) = 10% Effort
BMGF / LSHTM: Policy and Advocacy Corre. No overlap with other projects	09/01/2011 – 08/31/2012 (NCE) \$105,713	Prof Nulda Beyers (PI) = 0% Effort for NCE Period
CDC / PEPFAR (5U2GPS000739-05): Pediatric-TB/HIV PEPFAR. No overlap with other projects	07/01/2011 – 12/31/2012 (NCE) \$1,701,828	Prof Nulda Beyers (PI) = 20% Effort
UBS Optimus Foundation: TB Smelling Among Children. No overlap with other projects	01/01/2009 – 12/31/2011 (NCE: 05/31/2013) CHF 123,978	Prof Nulda Beyers (PI) = 0% Effort / Dr Mareli Claassens (Co-Applicant) = 35% Effort
PROF. ANNEKE HESSELING		
<u>ACTIVE</u>		
CDC #10FED1007388 Tuberculosis Trials Consortium. The major goal of this project is to develop and undertake tuberculosis-related clinical trials. No overlap with other projects	10/01/2012 – 09/30/2013 \$240 000	15%
MVA85A Tuberculosis Vaccine Prime and Selective Delayed BCG Boost in Infants of HIV Infected Mothers. No overlap with other projects	7/01/2012 – 9/30/2014 £836 608	15%
NIH (5R01HD069169-02): PK Study. No overlap with other projects	04/01/2012 - 03/31/2013 \$403 759	30%
IUATLD: The Centre for Strategic Health Information and Operational Research. No overlap with other projects	07/01/2012 - 12/31/2012 (NCE) \$9 343	No effort for NCE period
Immune polarization in childhood tuberculosis: the role of helminthic co-infection. No overlap with other projects	08/01/2011 – 08/31/2012 (NCE: 07/31/2013) € 236 206.00	No effort for NCE period
Academic Partners - The purpose of this strategic collaboration is to establish a longer term relationship between WVI (World Vision International) and DTIC to enhance each partner's collaborative advantage in the field of Childhood TB and related infectious diseases.	01/26/2013 - 12/31/2016	0.60 calendar / 5%

No overlap with other projects	\$227 000	
NIH Grant 5U2RTW007370-05 International Training Corporative Agreement.	06/01/2011 - 05/31/2012	
No overlap with other projects	\$6 332	
UM1 AI068632-07 Tuberculosis Scientific Committee (TBSC) Chair and P1108 Protocol Chair.	06/01/2011 - 05/31/2012	3.60 calendar / 30%
No overlap with other projects	\$47 831	
MRS. SUE-ANN MEEHAN		
<u>ACTIVE</u>		
CDC / PEPFAR (5U2GGH000320-02): Community HIV Prevention Centres.	09/30/2012 – 09/29/2013	100%
No overlap with other projects	\$354,737	
DR. KAREN DU PREEZ		
<u>ACTIVE</u>		
PEPFAR / WITHS PHRU (U2G/PS000739-03): Childhood TB Linking Hospital and Community Care.	08/01/2011 – 12/31/2012 (NCE: 10/31/2013)	20%
No overlap with other projects	R734,850	
DR. MARELI CLAASSENS		
<u>ACTIVE</u>		
PEPFAR / WITHS PHRU: TB Initial Treatment Default.	08/01/2011 – 12/31/2012	25%
No overlap with other projects	R567,693	

Training, conferences, workshops presented – numerous including:

1. 28 Feb – 2 March – PopART workshop-Stellenbosch
2. 16-20 April 2012 – Operational Research Assistant Programme -Proposal Development Workshop – 45 delegates attended at Erinvale Estate, Somerset West. Presented: Don Enarson, Nulda Beyers, Brenda Smuts, Mareli Claassens and Pren Naidoo
3. 16-18 May 2012, PopART workshop, President Lodge, Jhb-Implementation of PopART.
8 delegates. Sue-Ann Meehan. Presentation at Quarterly National TB Meeting, “A Community HCT model for Integrated HIV and TB services and linkage to care”.
4. Where: Pretoria. Dates: 30-31 May 2012
5. 29-31 May 2012, Operational Research Assistant Programme 3rd Wave Follow-up workshop, Lanzerac, Stellenbosch. Presented: Nulda Beyers, Brenda Smuts, Mareli Claassens and Pren Naidoo
6. 21-22 June 2012-Best Practice Workshop, Spier-Pren Naidoo presented HAST tool kit and to train Government Staff on how to use the HAST tool kit efficiently during their routine clinic visits. 42 participants

7. Training given – City and Province Participants. Full name of training – “Best Practices” workshop. Spier. Date – 21, 22 June 2012. Presented by whom – Pren Naidoo, Sue-Ann Meehan, Brenda Smuts, Nozizwe Makola and Erica Jacobs
8. Training given – 27 Participants. Audit Tool training. Worcester. Date – 4,5 April 2012. Presented by whom – Pren Naidoo, Sue-Ann Meehan, Brenda Smuts, Nozizwe Makola and Erica Jacobs
9. Training given – 60 Participants PMTCT Workshop. Tygerberg Campus. Date – 14,15,16,17 May 2012. Presented by whom – Pren Naidoo, Brenda Smuts, Nozizwe Makola and Wendy Nongubo
10. Training given – 51 Participants. Full name of training – Lay Counsellor Training. Malmesbury. Date – 28 June 2012. Presented by whom – Brenda Smuts and Margaret van Niekerk
11. Training given – 22 Participants. Full name of training – UNION National Tuberculosis programmes. Where –Stellenbosch. Date - 4 May 2012. Presented by whom – Anneke Hesseling, Rob Gie, Peter Donald
12. Workshop: Completing the electronic HCT register – A practical application. 17 COMAP project staff (including 3 professional nurses, 5 enrolled nurses and 9 HIV counsellors). Presented by: Sue-Ann Meehan and Anje Coetzer. Venue: Stellenbosch University. Dates: 12 September 2012
13. Training: Reducing Initial TB Defaulters (4 sessions). Names: 124 government health employees . Presented by: Pren Naidoo and Nozizwe Makola. Venue: Government venues. Dates: 21 August, 04, 06, 07 September 2012
14. Training: Sputum induction technique. Names: Paediatric Team. Attended/Presented: Presented by Elizabeth Walters. Venue: Clinical Skills Lab. Dates: 7 August
15. Workshop: Best Practices (HAST toolkit training). Presented: Presented by Pren Naidoo, Judy Caldwell and Nozizwe Makola. Attended by: 38 participants working in government services. Venue: Devonvale. Dates: 03-04 October 2012
16. Workshop: TB flipchart adherence training. Presented: Presented by Erica Jacobs. Attended by: 20 TB adherence counsellors. Venue: Stellenbosch University, Tygerberg campus. Dates: 23-24 October 2012
17. Workshop: HAST toolkit for PMTCT component. Presented by: Pren Naidoo and Sue-Ann Meehan. Attended by: 38 participants working in government services. Venue: Devonvale. Dates: 2012
18. Training: HCT dissemination meeting (PEPFAR project). Names: Attended by 48 SU staff who were part of this project . Attended/presented: Presented. Presented by: Sue-Ann Meehan. Venue: Strand Towers hotel. Dates: 25 October 2012