
DEPARTMENT OF PAEDIATRICS AND CHILD HEALTH

Annual Report for Tygerberg Hospital and Stellenbosch University 2013

**HEAD OF DEPARTMENT
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EXECUTIVE SUMMARY – 2013

There were 16957 admissions in 2013 (13% increase), of whom 11113 were admitted to general paediatrics and 5844 admitted for highly specialized paediatric care to the Department of Paediatrics and Child Health, Stellenbosch University in Tygerberg Hospital. The department serves 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 85.7%. 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). Neonatology remained a very busy service with an average BOR of more than 80% at all times, but low early neonatal death rate (ENNDR >1000g) of 5/1000 live deliveries (ENNDR > 500g – 11.3/1000). It is especially the neonates born in TBH, that had an increased average BOR of 104%. Important mortality causes were prematurity related complications for neonates (53%) and lower respiratory tract infections for the older children (24.6%) with a case fatality rate of 1.5. A third of children, who died, was underweight for age (29.3%)

The unfortunate demise of Dr Louis Heyns and the promotion of Prof Sharon Kling to clinical unit head of general paediatric services created a loss of two senior staff members in the PICU service delivery, which was addressed by the creation of two new dedicated posts for paediatric intensivists.

Education output was good with an undergraduate pass rate of 95.6%, while 11 completed their Masters degree in paediatrics, and 9 registered as paediatricians. Another 3 paediatricians qualified as subspecialists (neurology, pulmonology and gastro-enterology). Two staff members completed their PhD dissertation, while another 9 continued their PhD studies and three staff members obtained PhD scholarships.

There were peer 94 reviewed scientific papers and two books. The very important POPART study was initiated, which will investigate in a randomized control trial interventions to decrease HIV infections in 21 communities in both South Africa and Zambia. Twenty six staff members received performance excellence awards (13 from TBH and 13 from SU). Seven staff members have NRF rating with 2 as category A2.

Mariana Kruger

Part 1

RESOURCES AND OUTPUT

Human Resources

<u>Posts (full-time)</u>	<u>Number</u>	<u>Filled</u>
Professor/Chief Specialists	2	2
Chief Specialist	1	1
Principal Specialists	5	5
Senior Specialists	23+1 (5/8)	23+1 (5/8)
Senior Registrars	7 (PGWC N=4)	7 (PGWC N=4)
Registrars	30 (2 supernumerary)	30 (2 supernumerary)
Medical Officer	25	23
<u>Posts (sessional – hours per week)</u>		
Specialist	6 (48 hours/week)	6 (48 hours/week)
Number of beds	268	268

Summary of Output	2013	2012	2011
General Paediatrics			
Inpatients	11113 (13% growth)	9802 (15% growth)	8523 (-1,2% growth)
Outpatients	13392 (-5.5% growth)	14178 (12,8% growth)	12568 (4%growth)
Subspecialist Paediatrics			
Inpatients	5844 (10% growth)	5311 (13% growth)	4694 (-10% growth)
Outpatients	14039 (0.7% growth)	14152 (4,25% growth)	13574 (7,6% growth)

Output

SUBSPECIALIST PAEDIATRICS

Total patient admissions 2013 (Clinicom data)

*A9 NICU	A9 PICU	A9 High Care	Trachea Unit	G1	G3	G7	G9	Total
491	780	275	33	1030	684	1071	1480	5844

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

Bed Occupancy Rate 2013 (Clinicom data)

*A9 NICU	A9 PICU	A9 High Care	Trachea Unit	G1	G3	G7	G9	Total
138%	85.9%	51.2%	86.2%	92.4%	49.3%	100%	80%	85.3%

*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, S O'Ryan, Dr JCF du Preez, Dr H Hassan, 4 Registrars, 10 Medical Officers

A9 Intensive Care Unit

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

Beds n=8	2013	2012	2011
Admissions	491	518	617
Average Hospital Stay in Days	8.4	5	6
Average Bed Occupancy %	138%	92%	93%
% Growth	-5.2%	51%	51%
Caesarean Sections	3550.46 (45.2%)	2821 (40,5%)	2521 (41%)
Deaths	91 (18.5%)	85	63 (10,2%)

#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=30	2013	2012	2011
Admissions	1030	1150	1029
Average Hospital Stay in Days	10.1	9	10
Average Bed Occupancy %	92%	87%	81%
% Growth	-10%	7,4%	-1,5%
Deaths	15 (1.4%)	25	30 (2,9%)

A9 Paediatric Intensive Care Unit

Staff: Proff R Gie, S Kling¹, Drs L Heyns², 3 Registrars, N Parker³, Medical Officer

Beds n=8	2013	2012	2011
Admissions	790	694	598 (PICU)
Average Hospital Stay in Days	4.1	4,86	6
Average Bed Occupancy %	87%	92%	85%
% Growth	12.2%	34%	#
Deaths	92 (11,6%)	84 (11,9%)	52 (8%)

A9 Paediatric High Care Unit

Staff as mentioned above.

(High Care Unit opened May 2012)

Beds n=8	2013
Admissions	275
Average Hospital Stay in Days	3.7
Average Bed Occupancy %	55.4
Deaths	5

A9 Tracheostomy Unit

Staff as mentioned above:

Beds n=10	2013
Admissions	33
Average Bed Occupancy %	85%
Deaths	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	2013	2012	2011
Admissions Pulmonology	640	656	511
Average Hospital Stay in Days	5.90	5,78	6,75
Average Bed Occupancy %	65%	66,24%	78%
% Growth	0%	27%	/
Deaths	5	2	5

Theatre procedures and Other Activities

- Bronchoscopies: 285
- Thoracic surgery: 58

¹ Prof S Kling was promoted to Clinical Unit Head, General Paediatrics from 1 May 2013.

² Dr L Heyns died 22 May 2013 due to homicide.

³ Dr N Parker was appointed as locum in the position of Prof S Kling.

Ward G9 Neurology

Staff: Dr R van Toorn, Dr R Solomons, Dr P Springer, Dr H Saunders (15 hours/week)
Prof JF Schoeman (4 hours/week), 2 Registrars

Beds n=10	2013	2012	2011
Admissions	441	414	392
Average Hospital Stay in Days	6	5,7	6,75
Referral other wards	260	238	
Average Bed Occupancy %	77%	75%	67.5%
% Growth	6.5%	1%	None
Deaths	2(0.4%)	8 (1.9%)	5 (1.2%)

Other Activities

- Paediatric & Neonatal EEGs reported by 2 consultant: 630
- 6 Outreach clinics to Paarl hospital (patients seen): 79
- 6 Outreach clinics Worcester hospital (patients seen): 160
- 2 Transcranial Doppler clinics (patients): 12
- 2 Outreach clinics Alta du Toit (patients seen): 40
- 9 Clinics Paarl school (patients seen): 90
- Autism Diagnostic Observations Schedule (ADOS) (patients): 12

Ward G9 Paediatric Endocrinology

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

Beds n=5	2013	2012	2011
Patients admitted	94 Diabetics	79 Diabetics	91 Diabetics
	87 Endocrinology	117 Endocrinology	102 Endocrinology
<i>Admission Total</i>	181	196	193
Average Hospital Stay in Days	8	5,5	7
Average Bed Occupancy %	74%	56,6%	74%
% Growth	-7.5%	1,5%	1,1%
Deaths	0	0	0

Ward G7 Gastroenterology

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

Beds n=9	2013	2012	2011
Admissions	295	279	317
Average Hospital Stay in Days	8	18,09	12,6
Average Bed Occupancy %	100%	83%	89%
% Growth	5.7%	-11,9%	11,1%
Deaths	2	10 (3.5%)	9

Theatre procedures

- Gastroscopy (including colonoscopy): 42 Paediatric/608 Adults
- Colonoscopy 5 Paediatric/222 Adults
- Liver Biopsy 9

Ward G7 Infectious Diseases Unit

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

Beds n=14	2013	2012	2011
Admissions	189	200	226
Average Hospital Stay in Days	21	17,3	16,4
Average Bed Occupancy %	8	83%	89%
% Growth	-5.5%	-11.5%	11,1%
Deaths	1	4	7
HIV related (CHIP)	All	All	All
Infected (CHIP data)	1	4	7

* Clinicom data combined with gastroenterology

We reviewed 5-10 new referrals per week.

HIV service:

- Total children followed up: 379
- New cases initiating and following at TBH: 92
- Transfers out: 55
- Transfers in: 6
- Patients lost to follow up: 24

Ward G3 Oncology & Haematology

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

Beds n=9	2013	2012	2011
New patients	37 Haematology	42 Haematology	51 Haematology
	46 Oncology	48 Oncology	44 Oncology
Admissions	413	415	343
Average Hospital Stay in Days	3.9	5	5,3

Average Bed Occupancy %	50%	60,16%	48,2%
% Growth	0%	21%	/
Deaths in G3	7	12	5
Day patients (G3 outpatients)	1023	1100	1181

*Clinicom data

Ward G3 Rheumatology & Immunology

Staff: Dr M Esser, Registrar Shared with G3, Shared Medical Officer for G3

Beds n=4 (shared with Nephrology)	2013
Admissions	75
Average Hospital Stay in days	5.6
Average bed occupancy %	49.3%
Deaths	0

Ward G3 Nephrology

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

Beds n=4	2013	2012	2011
Admissions	155	126	168
Average Hospital Stay in days	2.3	6	12
Average bed occupancy %	60%	52%	92%
% Growth	23%	-25%	/
Deaths	1	2	1
Renal Biopsies*	33	24	33
Acute Dialysis**	23	12	7
Outliers***	302	56	142
Referrals****	410	-	-

* Done in C4B Theatre under general anaesthesia

** 3 was in G3, 20 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

Ward G3 & G10 Cardiology

Cross Platform Staff:

Tygerberg Hospital (TBH): Dr J Lawrenson, 1 Senior Registrar, 2 Registrars

Red Cross War Memorial Children's Hospital (RXH): 2 Consultants, 1 Senior Registrar

Beds n=10 (G3=5, G10=5)	2013	2012	2011
Admissions	204	155	148
Average Hospital Stay in Days	*	*	*
Average Bed Occupancy %	*	*	*
Inpatient Echocardiography	700	772	649
Inpatient Consultations	1200	1094	707
Deaths	1	/	/

* Clinic data combined with nephrology and general paediatrics therefore not possible to calculate

Offered at TBH:

- Outreach clinic at Worcester Hospital ±90

Offered at RXH as common platform of service delivery

- RXH theatre procedures, operations 286
- RXH theatre catheterizations 259
- Outreach at East London ±140

OUTPATIENT COMPLEX

Subspecialist Clinics

Clinics	2013 Total	2012 Total	2011 Total
Haematology	298	261	259
Immunology	168	176	146
Oncology	334	418	448
Pulmonology	1354	1399	1381
Gastroenterology	744	614	527
High-risk Babies	1862	1740	1671
Neurology & Developmental paediatrics	2515	2687	2685
Allergy	666	654	713
Premature Follow-up	307	284	277
Nephrology	1333	1343	1201
Cardiology	916	937	1076
Bronchopulmonary Dysplasia	19	21	22
Diabetic	620	610	598
Endocrinology	610	636	530

Rheumatology	337	280	183
Infectious diseases	1184	1392	1308
Genetics	502	476	367
Pharmacy prescriptions	270	224	178
Total	14039	14152	13574

GENERAL SPECIALIST SERVICES

Total Patient Admissions 2013 (Clinicom data)

G2	J3	G8	G10	GG Short Stay	Total
2376	918	941	1237	5641	11113

Bed Occupancy Rate 2013 (Clinicom data)

G2	J3	G8	G10	GG Short Stay	Total
104.5%	108%	83.3%	50%	81%	85.3%

Neonatology

Ward G2 Neonatal Unit – Babies born in TBH

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

Beds n=27	2013	2012	2011
Admissions	2376	2087	1845
Average Hospital Stay in Days	4.7	5	6,0
Average Bed Occupancy	104%	93%	85%
% Growth	+13.8%	9,4%	-2,5%
Deaths	71 (2.9%)	71	66 (3,5%)

* Data from Clinicom

Ward J3 Neonatal Unit – Babies born in TBH

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

Beds n=25	2013
Admissions	918
Average Hospital Stay in Days	11
Average Bed Occupancy	108%
% Growth	n/a
Deaths	2 (0.2%)

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

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

Beds n=30	2013	2012	2011
Admissions	941	783	834
Average Hospital Stay in Days	9.9	12	11,1
Average bed occupancy %	83%	86%	80%
% Growth	20%	-7,5%	-2,5%
Deaths	0	4	0

*Data from Clinicom

Ward G10 General Paediatrics

Staff: Dr H Finlayson, Prof S Kling, 1 Registrar, 2 Medical Officers, 2 Interns

Beds n=25	2013	2012	2011
Admissions	1267	1429	1119
Increase in Admissions	-11%	28%	36%
Average Bed occupancy	87.2%	70%*	70,8%*
Average Hospital Stay in Days	4.4	5,4	6,33*
Deaths	9 (0.75%)	11 (0,77%)	10 (0,89%)

*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	2013	2012	2011
Total Admissions to G Ground	4742	4861	4629
% Increase in General Admissions	-2%	5%	-2%
Average Admissions per day	13 (range 9-16)	13 (range 10-18)	13
Average Hospital Stay in Days	1.3	1.0	1,2
% Average Bed Occupancy	87%	72%	73%
Average Gastro Beds Daily Occupancy %	66%	59%	63%
Average Gastro Daily Occupancy % (Gastro Season Feb-May) – 8 Beds during Gastro Season instead of the usual 6	86%	78%	80%
Deaths	17	16	13
HIV-related Mortality	3	0	3
HIV Exposed	2	1	2

General Paediatrics: Emergency & Clinics

Clinics	2013	2012	2011
	8467	8825	7668
OPD 8am-4pm: Emergency & Routine	5630 New referrals	6247 New referrals	5512 New Referrals
	2346 Booked	2578 Booked	2156 Booked
	491 (Delft CHC)	/	/
Daily average seen	32	35	31
Annual OPD after hours: 4pm-8am & weekend – Emergency	5172	5353	4900
Daily average seen after hours (4pm- 8am)	14	15	
OPD after hours: 4pm-8am %	40%	38%	39%
Total	13639	14178	12568

2013 Morbidity & Mortality

PIIP data

Total births in TCH (TBH): n = 6603

- Perinatal Mortality Rate (PNMR) ($\geq 500g$) = 61.5/1000
- Early Neonatal Death Rate (ENNDR) ($\geq 500g$) = 11.3/1000
- Perinatal Mortality Rate (PNMR) ($\geq 1000g$) = 35.5/1000
- Early Neonatal Death Rate (ENNDR) ($\geq 1000g$) = 5.0/1000

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

Birth Weight	2013	% Mortality 2012
$\leq 1000g$	21.3	29,1
1001 to 1500g	3.4	3,3
1501 to 1999g	2.1	2,4
2000 to 2499g	0.5	1
$\geq 2500g$	0.1	0,3

Causes of death of babies born in TCH (TBH): n=97

Cause of Death	% of Total 2013	% of Total 2012
Prematurity-related Complications	53.1 (Immaturity-related)	52,0
Infection-related	13.1	17,1
Peripartum Hypoxia	11.5	8,9
Congenital Anomalies	14.6	17,1
Other	7.7	0,8

% Deaths of babies referred to TCH per weight category

Birth Weight*	% Mortality 2013 (n = 46)	% Mortality 2012 (n = 74)
<1000g	28.2	14,5
1000 to 1499g	30.4	17,7
1500 to 1999g	6.5	9,7
2000 to 2499	6.5	11,3
≥2500g	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	2013	%
Metro East	26	56.5
Winelands (Paarl area)	12	26
Overberg (Worcester drainage area)	6	13
Unknown	2	4.3

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

Place of Origin (Hospital)	Number 2013	Percentage 2013
Karl Bremer	3/48	6.2
Paarl	3/23	13
Helderberg	4/37	10.8
Worcester	4/11	36
Ander/Other	5/19	26
Swartland	1/3	33
Khayelitsha	0/11	0
Hermanus	2/3	66
Caledon	0/2	0

CHIP MORTALITY for all sub-specialist paediatric wards (2013)

CHIP Mortality	Deaths	Hosp. Mortality Rate
*0-28 days	16	3.4
28 days – 1 year	66	2.3
1-5 year	25	0.9
5-13 years	20	1.4

13-18 years	2	1.4
Number of deaths	129	1.7

*Please note: Excluding neonatal deaths reported under the PPIP section

Case fatality rate for death under age 5 years:

Category of illness	Number of admissions	Number of deaths	Case fatality rate
Acute respiratory infection	1906	29	1.5
Diarrhoeal disease	970	13	1.3
Other	3175	65	2
Total	6051	107	1.8

Length of Stay	Number	%
DOA	5	4
<24 hours	40	31.7
1-3 days	34	27
4-7 days	21	16.7
8-14 days	16	12.7
>14 days	10	7.9

Gender	Number	%
Female	67	53.2
Male	59	46.8
Main Causes of Death in Children*	Number	%
Septicaemia, Possible Serious Bacterial Infection	38	30
Pneumonia, ARI	31	24.6
Acute Diarrhoea with Hypovolaemic Shock	8	6.3
Cardiomyopathy	7	5.5
Other Nervous system	6	4.7
Congenital Heart Disease	4	3.1
Meningitis: Bacterial	4	3.1
Other circulatory Systems	3	2.3
Malignancy	7	2.3
<i>Status epilepticus</i>	2	1.5

*Please note: Other co-morbidities not reflected.

5 Facilities where most patients who died were referred is from

Referring facility	Number	%
Helderberg Hospital	19	15
Khayelitsha Hospital	19	15
Paarl Hospital	11	8.7
Karl Bremer Hospital	10	7.9
Delft CHC	10	7.9

Deaths by Sub-District:

Eastern	40	31%
Khayelitsha	23	18%
Tygerberg	26	20%
Northern	7	5.4
Drakenstein	12	9.4%
Other	11	8.5%

HIV - mortality	Number	%
Negative	62	49.2
Infected	18	14.2
Exposed	17	13.4
Not tested	16	12.6
Unknown	11	8.7

Mortality according to Weight Category

Weight Category	Number	%
Normal	70	55
UWFA	37	29.3
Kwashiorkor	10	7.9
Unknown	5	3.9
Marasmus	4	3.1

Mortality per Ward

Ward	Number
A9 PICU	91
G G Ground	17
G3 Onco	7
G10 – General	5
G7 - Gastro	2
G9 - Neuro	2
G7 - Infect	1
G9 - Resp	1
G3 - Nephro	1
Total	127

Infrastructure Development

General Paediatrics

G10:

Renovation of the G10 Infectious Diseases Ward by the Provincial Government of the Western Cape (PGWC) and Public Works have been initiated and will be completed in 2014.

GG:

Some renovations to the GG ward took place in 2013, and most of the ward has been painted with child friendly murals. The renovations have improved patient flow and triage, as well as the management of critically ill children. Discussions and planning regarding the new Paediatric OPD is ongoing.

Tygerberg Children's Hospital Trust Contribution to Infrastructure

DATE	SUPPLIER	EQUIPMENT	AMOUNT
2013/02/15	University Stellenbosch (Supplier: Quentin Atkins, subcontractor Drake & Scull)	Video camera/intercom system for WardG3	R5 955.08
2013/02/15	Exclusive Business Furniture	Furnishing of Ward G3	R47 828.70
2013/03/28	Covidien	Purchase of 4 Saturation monitors	R47 880.00
2013/04/12	Amtronix (Pty)Ltd	ABR Screener for neonatal audiology	R 96 715.32
2013/04/14	Draeger Medical SA (Pty) Ltd	Two resuscitaire cribs	R130 000.00
2013/05/16	Respiratory Care Africa (Pty) Ltd	7 CPAP machines + 1 Neopuff kit for NICU & HCU	R258 540.50
2013/05/21	GE Medical Systems	GE Vivid upgrade for neonatal ultrasound machine.	R29 178.30
16/05/2013	Stellenbosch Signs & Graphics	Frosted logos on glass doors at G Ground and signage at Paediatrics dept.	R1 863.90
16/07/2013	FR Construction CC	Double glass doors installed at G ground	R19 950.00
16/08/2013	Exclusive Business Furniture	Furniture upgrade of G Ground clerk office	R8 899.15
28/08/2013	Chantal Ely	Murals in G Ground	R10 495.00
06/11/2013	Exclusive Business Furniture	Furniture for clerk office at C3A	R11 074.22
2013/11/06	Voicesource	Telephone answering machine for temporary office at TBH School during renovation of Faculty building	R 729.60
TOTAL			R 658 614.77

Part 2

Community Outreach Programmes/Community Service and Interaction & Partnerships

Expert Members

- Prof M Kruger:
 - International Society of Paediatric Oncology (SIOP) Board Member
 - SIOP Continental President for Africa
 - Health Professions Council of South Africa (HPCSA) Medical and Dental Professions Board Member
 - Executive Committee Member of the South African Children Cancer Study Group (SACCSG)
 - National principal investigator: National Retinoblastoma protocol
- Prof Mark Cotton
 - Awarded life membership of the Federation of Infectious Diseases Societies of South Africa (FIDSSA) at the 5th conference held at Champagne Castle, Drakensberg 10 to 12 October 2013 (previously 8 life members)
- Prof S Kling
 - Secretary of the Council of Paediatricians of the Colleges of Medicine of South Africa (CMSA), serves as a Senator of the CMSA, and is a member of the management committee of the Financial and General Purposes Committee of the CMSA.
 - Member of the Executive Committee of the Allergy Society of South Africa, and serves as the chair of the Research Subcommittee.
- Prof HS Schaaf
 - Appointed as Chair of the Adult and Child Lung Health section of The Union (International Union Against Tuberculosis and Lung Diseases)" and also Board Member of The Union Board of Directors"
 - Served on an expert group for WHO on the use of the new anti-TB drug (bedaquiline) in TB treatment regimens.
- Prof DC Stefan
 - Appointed as vice president Southern Africa AORTIC. She is also the founder and new chair of ACE-net (African cancer economics network)
- Dr Rabie
 - Served on the Paediatric and Adolescent committees of both the Western Cape Department of Health and the Southern African HIV Clinicians Society
- Ms J Coetzee
 - Appointed as Co-Chair of the IMPAACT Training, Quality Assurance & Site Support Resource Committee beginning July 1, 2013. The committee focuses on maintaining and furthering development of site staff competence at established clinical research sites, in working with its partners at the Division of AIDS (DAIDS), Family Health International (FHI 360) and the other HIV/AIDS Network Collaborators, in identifying site needs and developing quality assurance/quality control (QA/QC) plans and training agendas to support protocol development and protocol implementation at the site level.

International

Outreach

- Prof PB Hesseling & Prof M Kruger
 - World Child Cancer (WCC) Twinning with The Cameroon Baptist Convention Health Board & Beryl Thyer Memorial Africa Trust
 - Prof Hesseling visits to Banso Baptist Hospital, Mbingo Baptist Hospital en Mutengene Baptist Hospitals in Cameroon during May and November 2013.

Partnerships

- Neurology:
 - Collaborative research with Prof Marceline Van Furth from the Free University, Amsterdam. Supervision of 1 joint PhD – Dr R Solomons.
- Infectious Diseases
 - The Paediatric HIV service is still part of the leDEA Southern Africa co-hort
 - PATA- funding patient advocates
- Gastroenterology:
 - Cooperation with ESPGHAN to provide postgraduate training in Paediatric Gastroenterology to paediatricians in southern Africa

National

Partnerships

- Neurology
 - Provision of workshops through national organization - PANDA (SA)
 - Paediatric Ambulatory Unit
 - Prof Schaaf serves as invited paediatric expert on the National Paediatric Essential Medicines List committee. The 3rd edition of the Standard Treatment Guidelines and Essential Medicines List for South Africa (Hospital Level Paediatrics) was published late in 2013 and is available at: <http://www.health.gov.za/docs/EDP/PaedsSTG2013LR.pdf>
 - Prof Schaaf also serves on the National MDR-TB Advisory Committee

Regional

Education & Training

- Infectious Diseases
 - On 25/02/2013 the Medikidz book was launched at the Adolescent clinic. Activities were held at the H8 reception with the children who performed a roll play on HIV issues.
 - Life skill are provided by Mrs Goovadia since 12/08/2013. She is a social worker of occupation and did report via voluntary service
- Paediatric Pulmonology and Neonatology
 - "Here by Lungs" conferences held annually providing learning sessions regarding pulmonology to medical professionals
- Paediatric Department
 - Paediatric Day of Academic Excellence held annually providing state of the art lectures to medical professionals: Theme in 2013 - Neonatology

Outreach

- Endocrinology:

- Link to St Josephs Home is maintained by patient discussions with the staff and training visits by the DNE
- Neurology
 - Outreach clinics to Worcester hospital and Paarl hospital 6 times a year.
- Paediatric Ambulatory Unit
 - District health forum initiated for the Tygerberg sub-district – has been highly successful. Outreach and support to district hospitals (Helderberg, Khayelitsha, Eersteriver, Karl Bremer)
 - Support Delft CHC paediatric services with a weekly general paediatric clinic. See new and follow-up patients that would have been seen in GGround otherwise (a total of 491 patients were managed at Delft CHC in 2013).
 - TB outreach continues to Khayelitsha Town Two, Scottsdene and especially Brooklyn Chest Hospital Children's Wards where essential support is provided regarding management of children with TB and mainly drug-resistant TB (disease and exposure).
- Paediatric Infectious Diseases
 - Doctors took 25 adolescents for an outing to the movies a meal on 19/06/2013
 - HIV Outreach to:
 - Eersteriver Hospital weekly
 - Helderberg Hospital weekly
 - Paarl Hospital every second week
 - Ikwezi clinic weekly
 - Grabouw clinic monthly
 - Delft CHC weekly
 - Kraaifontein CHC weekly
- Paediatric Hematology-Oncology
 - Twice annually to Paarl, Worcester and as requested by clinics

Partnerships

- Paediatric Nephrology & Paediatric Oncology
 - Red Cross War Memorial Hospital
- Paediatric Infectious Diseases
 - HOPE (HIV Outreach Prevention & Education)

Partnerships in the Private Sector

- Paediatric Nephrology
 - Panorama Medi-Clinic Paediatric Intensive Care Unit
- Endocrinology:
 - Novo Nordisk donates the salary for the diabetics educator.
- Infectious Diseases
 - On 27/11/13 30 adolescents went on a bus trip round and about Cape Town sponsored by the Anglican Church.
- Paediatric Ambulatory Unit
 - Private: PEPstores Parow sponsored the mural paintings of the ward.

Media Exposure

Radio Interviews:

Prof M Kruger: RSG - Wat sê die dokter: Invited speaker – Internasionale Kinderkankerdag, 6 February 2013

Articles:

Name of publication: Sunday Argus

Name of article: Tutu's goodwill years ago triggers gift for Tygerberg

Date: 3 February 2013

Name of publication: Tygerburger

Name of article: Lighthouse a big contributor to children's hospital

Date: 6 March 2013

Name of publication: Rapport

Name of article: Tutu studeer medies

Date: 15 September 2013

Name of publication: Cape Times

Name of article: Tutu fulfills his childhood dream at last

Date: 10 September 2013

Name of publication: The Times

Name of article: More help for cancer kids

Date: 20 November 2013

Name of publication: Tygerburger

Name of article: All staff at Tygerberg praised for their work

Date: 18 December 2013

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. Supervisors: Profs MF Cotton, B Rosenkranz, Dr EWA Zöllner
- **Dr EWA Zöllner** - Hypothalamic-pituitary-adrenal axis suppression in asthmatic children on corticosteroids. Supervisors: Profs FS Hough, EM Irusen

Enrolled PhD students

- **Dr A Bekker:** Title: Prevention And Treatment Of Perinatal And Infant Tuberculosis In The HIV Era. Supervisors: Proff AC Hesselning, HS Schaaf
- **Dr A Dramowski:** Title: Determinants Of Healthcare-Associated Infections Among Hospitalised Children. Supervisors: Proff MF Cotton, A Whitelaw
- **Dr UD 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: Proff M Kruger, B Forsythe
- **Dr P Goussard:** Title: Bronchoscopic assessment and management of children presenting with clinical significant airway obstruction due to tuberculosis. Supervisor: Proff RP Gie
- **Dr GTJ Kali:** Title: A comparative study of neuroprotective strategies in neonatal hypoxic ischaemic encephalopathy. Supervisors: Prof J Smith, M Rutherford
- **Dr AM 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: Proff AC Hesselning, RP Gie
- **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: Proff MF Cotton, HS Schaaf, RP Gie
- **Dr RS Solomons:** Title: Improving early diagnosis of tuberculous meningitis in children. Supervisors: Proff JF Schoeman, AM van Furth
- **Dr R Van Toorn:** Title: Childhood tuberculous meningitis: challenging current management strategies. Supervisors: Proff JF Schoeman, HS Schaaf
- **Mev 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 MF Cotton, Dr MM Esser

PhD Applications Submitted

- **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

- **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 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 MF Cotton, Prof M Kruger
- **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: Proff N Beyers, 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 S Thee:** Title: Pharmacokinetics and safety of first- and second-line antituberculosis drugs in children. Supervisors: Proff HS Schaaf, AC Hesselning
- **Dr SS 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: Proff H-H Lin, Dr M Claassens
- **Dr E Walters:** Title: Novel diagnostic strategies and markers of treatment response for paediatric pulmonary tuberculosis. Supervisors: Proff AC Hesselning, RP Gie

MMed(Paed)

- **Dr B Baadjes:** Title: A Survey of Paediatric Cancer presenting at the Windhoek Central Hospital, Namibia from 2003 to 2010: A retrospective study. Supervisor: Prof DC Stefan (*Graduated 2013*)
- **Dr GP de Bruin:** Title: Children with Kaposi sarcoma in two Southern African hospitals – clinical presentation, management and outcome. Supervisor: Prof DC Stefan (*Graduate 2014*)
- **Dr MJ de Wet:** Title: Factors affecting final renal outcome in boys with posterior urethral valves at Tygerberg Hospital. Supervisor: Dr CJ du Buisson (*Graduate 2014*)
- **Dr TE 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 (*Graduate 2014*)
- **Dr H Hassan:** Title: The clinical manifestations and outcomes in HIV-infected children with Cryptococcus at Tygerberg Children's Hospital. Supervisor: Dr H Rabie (*Graduated 2013*)
- **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 (*Graduate 2014*)
- **Dr R Lutchman:** Title: Burkitt's lymphoma – a 15 year review at Tygerberg Hospital, South Africa from 1995-2010. Supervisor: Prof DC Stefan (*Graduate 2014*)
- **Dr G Morkel:** Title: Bloodstream infections and antimicrobial resistance patterns in a South African neonatal intensive care (ICU). Supervisor: DR A Bekker (*Graduated 2013*)

- **Dr A Thomas:** Title: 'The use of unlicensed and off label drugs in Tygerberg Hospital Neonatal Intensive Care Unit'. Supervisor: Prof M Kruger (*Graduate 2014*)
- **Dr SK van der Merwe:** Title: 'Prevalence of and risk factors for retinopathy of prematurity in a cohort of preterm infants treated exclusively with non-invasive ventilation in the first week of birth.' Supervisor: Dr A Bekker (*Graduated 2013*)
- **Dr M Wessels:** Title: 'Clinical value of a uniform research case definition of tuberculous meningitis'. Supervisor: Dr RS Solomons (*Graduate 2014*)

Successful Masters Candidate

Prof Cristina Stefan successfully completed her Masters degree in Science (Cancer Epidemiology) at the University of York.

Colleges of Medicine of South Africa (CMSA)

- **Cert Paediatric Neurology (SA)**

Dr PAM Brink

- **Cert Pulmonology (SA) Paed**

Dr TC Gray

- **Cert Paediatric Gastroenterology**

Dr S Ströbele

- **CMSA FC Paed Part II**

Drs M Bassier, R Lutchman, B Pohl, RJ Stander, A Thomas, Drs N Brown, MJ de Wet, T Ferreira-Van der Watt, T van der Westhuizen

- **CMSA FC Paed Part I**

Drs S Abumhara, K Carkeek, S Fry, Z Myeko, Drs E du Plooy, C Okwundu, MA Page, LO Scheepers, C Smit, L van Heerden, M Van Velden

- **DCH (SA)**

Drs E du Plooy, MA Page, GM Strydom, Drs S Moosa, KB Oppel

Training Awards:

- **Dr A Bekker**
 - Discovery Academic Fellowship Award
 - SAMA PhD Supplementary Scholarship
 - MRC Clinician Research PhD scholarship.
- **Dr A Dramowski**
 - Discovery Academic Fellowship Award
 - MRC Clinician Research PhD scholarship.
- **Dr E Walters**
 - MRC Clinician Research PhD scholarship

Undergraduate Students

95.6% 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 CJ du Buisson (Chairperson), L Frigati, H Hassan, E Zöllner
 - Middle rotation: Drs G Kali (Chairperson), A Redfern, S Ströbele,
 - SI: Dr L Smit (Chairperson)
 - Remedial: Drs D Abraham, M Morkel
 - Elective students: Dr H Finlayson, Prof M Kruger
 - Postgraduate: Drs ED Nel (chairperson), Dr S Holgate, G Kali, Prof M Kruger, Dr H Rabie, Prof DC Stefan
 - PhD: Profs M Kruger (Chairperson), N Beyers, MF Cotton, RP Gie, AC Hesselning, HS 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:
 - Dr L Smit, University of Pretoria
 - Dr R Solomons, University of Limpopo
 - Dr A van Zyl, University of KwaZulu-Natal
- Senior registrars in training:
 - Paediatric Pulmonology: Dr J Morrison, and Dr TC Gray, funded by bursary from the Discovery Foundation
 - 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, Dr T Afaa (Supernumerary), sponsored by a Nestle Nutrition Institute Fellowship endorsed by the European Society of Paediatric Gastroenterology
 - Paediatric Neurology: Dr PAM Brink
 - Paediatric Nephrology Dr AU Solarin (Supernumerary)
- Colleges of Medicine of South Africa (CMSA):
 - Convenors (C)/Moderator (M)/External Examiners (EE):
 - Cert Paediatric Gastroenterology: Dr ED Nel (E)
 - Cert Paediatric Oncology: Prof DC Stefan (C), Prof M Kruger (E)
 - Diploma in Child Health (DCH): Dr E Malek (C), assisted by Prof S Kling, S Holgate, H Finlayson; Dr L Smit (EE)
 - FCPaed II: Prof S Kling (M), Prof M Kruger (E)
 - FCPaed I: Dr S Holgate (EE)
- Postgraduate Diploma in Research Ethics: Prof S Kling (EE)
- 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)

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- Faculty and University Committee Participation:
 - Prof M Kruger:
 - Member of the Senate Research Ethics Committee, Stellenbosch University
 - Member of the Research Committee, Stellenbosch University
 - Member of the Subcommittee C of the Research Committee, Faculty of Medicine and Health Sciences
 - Provincial Heads of Clinical Units Task Team, Provincial Government Health Department, Western Cape
 - Subcommittee C of the Research Committee, Faculty of Medicine and Health Sciences
 - Deputy Chair, Ethics Review Committee, Faculty of Medicine and Health Sciences
 - Prof N Beyers:
 - Stellenbosch University Committee: Office for Employment Equity and Promotion of Diversity
 - Stellenbosch University Committee: Senate Research Ethics Committee
 - Stellenbosch University: Institutional Forum
 - Prof HS Schaaf
 - Subcommittee C of the Research Committee, Faculty of Medicine and Health Sciences
 - Prof S Kling
 - Member, Management Committee, Centre for Medical Ethics and Law, Department of Medicine, Faculty of Medicine and Health Sciences.
 - Ethics accreditor, CPD Committee, Faculty of Medicine and Health Sciences.
 - Dr 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
Consultants					
Abraham, Dr D	Short course: Teaching in the undergraduate classroom: Interactive and effective	22 January 2013	Short course	Adv	US
	Curriculum design: closing the loop: re-visiting the instructional educator	20 February 2013	Short course	Adv	US
Bekker, Dr A	ADA Summer School, Introduction to SPSS	14-18 January 2013	Course	Adv	US
Beyers, Prof N	ORAP Wave 4 workshop	04-12 April 2013	Workshop	Int	DTTC
	PopART PC Training	03-05 September	Training	Int	DTTC

NAME	COURSES ATTENDED	DATES	TYPE OF TRAINING	LEVEL	PROVIDER
		2013			
	PopART PC Training	16 October 2013	Training	Follo w-up	DTTC
Finlayson, Dr H	GCP Course	24-25 April 2013	Refresher course	Adv	CREDE
	African Doctoral Academy Winter School: Dr H Finlayson - Course 2: Introduction to SPSS African Doctoral Academy Winter	01 May 2013	Course	Adv	SU
Frigati, Dr L	Infection Control Workshop	03 - 14 June 2013	Workshop	Adv	SU
	EndNote Course	15 April 2013	Course	Adv	SU
Gie, Prof R	ORAP Proposal writing workshop	8-12 April 2013	Workshop	Adv	Somerset West
Heyns, Dr L	Curriculum Workshop	27 March 2013	Workshop	Adv	SU
Holgate, Dr S	Post graduate supervision course	18 September 2013	Workshop	Adv	STIAS, SU
Kruger, Prof M	Interactive NRF rating system Workshop, Stellenbosch	06 March 2013	Workshop	Adv	SU
Kali, Dr G	Bristol Neonatal Echo Course	5-6 April 2013	Course	Adv	
Kling, Prof S	Setting multiple choice questions	17 July 2013	Workshop	Adv	CHPE
Malek, Dr E	PRONTAK/PREDAC	16-19 Julie 2013	Workshop	Adv	SU
Morkel, Dr M	Technologies in medical Education	04 November 2013	Course	Adv	Cape Town
Morrison, Dr J	ORAP Proposal writing workshop	8-12 April 2013	Course	Adv	Somerset West
Nel, Dr E	Understanding policies relevant to management of research contracts	25 February 2013	Short course	Adv	SU
	Post Graduate Course in Paediatric Gastroenterology	12 - 15/03/2013	Short course	Adv	SU
Redfern, Dr A	PRONTAK/PREDAC	16 - 19 Julie 2013	Workshop	Adv	SU
	Short course in clinical supervision	11 April 2013	Course	Adv	CHSE
	Technologies in medical Education	04 November 2013	Course	Adv	Cape Town
Schaaf, Prof S	Post Graduate Supervision workshop	18 September 2013	Workshop	Adv	STIAS, SU
Slogrove, Dr A	Technologies in medical Education	04 November 2013	Workshop	Adv	Cape Town
Smit, Dr L	Advanced Paediatric Life Support Course	07 - 08/03/2013	Course	Adv	SU
	Postgraduate Supervision workshop	19 April 2013	Workshop	Adv	SU

NAME	COURSES ATTENDED	DATES	TYPE OF TRAINING	LEVEL	PROVIDER
Springer, Dr P	GCP refresher course	19 April 2013	Course	Adv	CREDE
	ADI-R Course	10-11 June 2013	Course	Adv	Red Cross
Van Zyl, Dr A	CHSE Curriculum Design Workshop	20 February 2013	Workshop	Adv	CHSE
Zöllner, Dr E	Interactive NRF rating system Workshop, Stellenbosch	06 March 2013	Workshop	Adv	SU
	Conference presentation skills	22 May 2013	Workshop	Adv	SU
Registrars					
Brown, N	APLS	Mar-13	Advanced Paediatric life support	Adv	Cardio Care
	Refresher course	Mar-13	Short course	Adv	
De Wet, MJ	APLS	Mar-13	Advanced Paediatric life support	Adv	Cardio Care
Geldenhuys, C	MMED/thesis workshop	Mar-13	Workshop	Adv	SU
Grantham, M	Refresher course	Mar-13	Short course	Adv	
Kay, C	NALS	Feb-13	Neonatal advanced life support	Adv	Cardio Care
Kooblal, Y	MMed thesis workshop	Mar-13	workshop	Adv	SU
	Refresher course	Mar-13	Short course	Adv	
Lutchman, R	Refresher course	Mar-13	Short course	Adv	
Netshituni, V	Refresher course	Mar-13	Short course	Adv	
Pohl, B	Refresher course	Mar-13	Short course	Adv	
Stander, R	Refresher course	Mar-13	Short course	Adv	
Satardien, M	Oscillation workshop	May-13	Workshop	Adv	SU
Thomas, A	Refresher course	Mar-13	Short course	Adv	
Van Der Watt, T	APLS	Mar-13	Advanced paediatric life support	Adv	Cardio Care
VD Westhuizen, T	Refresher course	Mar-13	Short course	Adv	
Visser, YT	MMED / Thesis workshop	Mar-13	Workshop	Adv	SU
	Training to Registrars to teach students	Oct-13	Training	Adv	SU
Webster, I	MMED/Thesis workshop	Mar-13	Workshop	Adv	SU
Medical Officers					
Essack, G	Diploma in Family Medicine	3 year diploma course		Adv	US
Thomas, A	NALS	20-21 May 2013	Course	Adv	
Van Niekerk, M	EMSSA	Nov-13		Adv	
	PIPP	15-Aug-13	Workshop	Adv	US
Administrative Staff					

NAME	COURSES ATTENDED	DATES	TYPE OF TRAINING	LEVEL	PROVIDER
Basson, S	Office Administration Management	17 October 2013	Workshop	Basic	SU
	Meeting customer care Service	13 October 2013	Workshop	Basic	SU
Engelbrecht, S	Project management	09-13 September 2013	Course	Int	Kromme Rhee
Fourie, AE	Microsoft Excel 2010 Advanced	12 & 13 November	Course	Adv	SU
Permall, PCF	Office Administration Management	11 April 2013	Workshop	Basic	SU
	Productivity Pit Stop	05-Apr-13	Workshop	Int	SU

Part 4

Research

Achievements with regard to Research Activities and Research Outputs

NRF Rating – n=7

- Proff PR Donald, HS Schaaf – A2
- Prof BJ Marais – B1
- Prof MF Cotton – B3
- Proff J Smith, DC Stefan, Dr H Rabie – C3 rating
- Excellent research publication awards: Proff MF Cotton, AC Hesseling, HS Schaaf, S Kling, Dr H Rabie
- CIPHER grant awarded to Dr Steve Innes at Kuala Lumpur at 7th IAS Conference on HIV Pathogenesis, by Nobel prize winner Françoise Barré-Sinoussi, who discovered the HIV virus in 1983. \$150 000 will be awarded over 2 years.
- Proff M Kruger and PB Hesseling: Cameroon Twinning Project. World Child Cancer, Beryl Thyer Memorial Africa Trust and Stellenbosch University - R242 062.16

Publications

Journal Articles (Subsidised)

1. Andronikou S, Irving B, Hlabangana LT, Pillay T, Taylor P, **Goussard P, Gie R**. Technical developments in postprocessing of paediatric airway imaging. *Pediatric Radiology* 2013; **43**(3): 269-284.
2. Ayles H, Du Toit E, Schaap A, Floyd S, Simwinga M, Shanaube K, Chishinga N, Bond V, **Dunbar R**, De Haas P, **James A**, Gey van Pittius NC, **Claassens M**, Fielding K, Fenty J, Sismandidis C, Hayes R, **Beyers N, Godfrey-Fausset P** and the ZAMSTAR team. Effect of household and community interventions on the burden of tuberculosis in southern Africa: the ZAMSTAR community-randomised trial. *Lancet* 2013; **382**(9899): 1183-1194.
3. **Bekker A, Goussard P, Gie R**, Andronikou S. Congenital anterior mediastinal teratoma causing severe airway compression in a neonate. *British Medical Journal* 2013; : 1. doi:10.1136/bcr-2013-201205
4. Beneri CA, Zeldow B, Nachman S, Van der Linde M, Pillay E, Dittmer S, Kim S, Jean-Phillipe P, **Coetsee J**, Bobat R, Hawkins E, Viiolari A and the P1041 Team. Loss to follow-up among infants in a study of isoniazid prophylaxis (P1041) in South Africa. *International Journal of Tuberculosis and Lung Disease* 2013; **17**(1): 32-38.
5. Calaminus G, Birch JR, Hollis R, Pau B, **Kruger M**. The Role of SIOP as a Platform for Communication in the Global Response to Childhood Cancer. *Pediatric Blood & Cancer* 2013; **60**(12): 2080-2086.
6. Chantada G, Luna-Fineman S, Sitorus RS, **Kruger M**, Israels T, Leal-Leal C, Bahkshi S, Qaddoumi I, Abramson DH and Doz F. SIOP-PODC Recommendations for Graduated-Intensity treatment of retinoblastoma in developing countries. *Pediatric Blood & Cancer* 2013; **60**: 719-727.

7. Chegou NN, **Detjen AK**, Thiart L, **Walters E**, Mandalakas AM, **Hesseling AC**, Walzl G. Utility of host markers detected in Quantiferon supernatants for the diagnosis of tuberculosis in children in a high-burden setting. *PLoS ONE* 2013; **8**(5): e64226.
8. **Claassens M**, Du Toit E, **Dunbar R**, Lombard CJ, Enarson DA, **Beyers N**, BORGdorff MW. Tuberculosis patients in primary care do not start treatment. What role do health system delays play?. *International Journal of Tuberculosis and Lung Disease* 2013; **17**(5): 603-607.
9. **Claassens M**, Jacobs E, Cyster E, Jennings K, **James A**, **Dunbar R**, Enarson DA, Borgdorff MW, **Beyers N**. Tuberculosis cases missed in primary health care facilities: should we redefine case finding?. *International Journal of Tuberculosis and Lung Disease* 2013; **17**(5): 608-614.
10. **Claassens M**, Van Schalkwyk C, Den Haan L, Floyd S, **Dunbar R**, Van Helden P, Godfrey-Faussett P, Ayles H, Borgdorff M, Enarson D, **Beyers N**. High prevalence of tuberculosis and insufficient case detection in two communities in the Western Cape, South Africa. *PLoS ONE* 2013; **8**(4): e58689. Doi: 10.1371/journal.pone.0058689
11. **Claassens M**, Van Schalkwyk C, Du Toit E, Roest E, Lombard CJ, Enarson DA, **Beyers N**, Borgdorff MW. Tuberculosis in Healthcare Workers and Infection Control Measures at Primary Healthcare Facilities in South Africa. *PLoS ONE* 2013; **8**(10): e76272. Doi: 10.1371/journal.pone.0076272
12. Cooke ML, **Cotton MF**. Pre-hospital management and risk factors in children with acute diarrhoea admitted to a short-stay ward in an urban South African hospital with a high HIV burden. *South African Journal of Child Health* 2013; **7**(3): 84-87.
13. **Cotton MF**, Violari A, Otwombe K, Pancia R, **Dobbels E**, **Rabie H**, Josipovic D, Liberty A, Lazarus E, **Innes S**, **Janse van Rensburg A**, Peiser W, Truter H, Madhi SA, Handelsman E, Jean-Philippe P, McIntyre JA, Gibb DM, Babiker AG on behalf of CHER study team. Early time-limited antiretroviral therapy versus deferred therapy in South African infants infected with HIV: results from the children with HIV early antiretroviral (CHER) randomised trial. *Lancet* 2013; **382**(9904): 1555-1563.
14. **De Bruin GP**, **Stefan DC**. Children with Kaposi Sarcoma in Two Southern African Hospitals: Clinical Presentation, Management, and Outcome. *Journal of Tropical Medicine* 2013;. <http://dx.doi.org/10.1155/2013/213490>
15. Dhanasekaran S, Jenum S, Stavrum R, Ritz C, Faurholt-Jepsen D, Kenneth J, Vaz M, Grewal HMS, Doherty TM, **Hesseling AC**, Jacob A, Jahnsen F, Kurpad AV, Lindtjorn B, Macaden R, Nelson J, Sumintra S, Walker R. Identification of biomarkers for Mycobacterium tuberculosis infection and disease in BCG-vaccinated young children in Southern India. *Genes and Immunity* 2013; **14**(6): 356-364.
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 15. **Seddon J, Perez-Velez CM, Schaaf HS, Furin JJ, Marais BJ, Tebruegge M, Detjen A, Hesselning AC, Shah S, Adams LV, Starke JR, Swaminathan S, Becerra MC.** Consensus Statement on Research Definitions for Drug-Resistant Tuberculosis in Children. *Journal of the Infectious Diseases Society* 2013; **2**(2): 100-109.
 16. **Skinner D, Hesselning AC, Francis C, Mandalakas AM.** It's hard work, but it's worth it: the task of keeping children adherent to isoniazid preventive therapy. *Public Health Action* 2013; **3**(3): 191-198.
 17. **Ströbele S, Nel E.** Functional abdominal pain - not exclusively an adult condition. *The South African Gastroenterology Review* 2013; **11**(1): 33-36.
 18. Tripathy JP, Srinath S, **Naidoo P**, Ananthakrishnan R, Bhaskar R. Is physical access an impediment to tuberculosis diagnosis and treatment? A study from a rural district in North India. *Public Health Action* 2013; **3**(3): 235-239.

Proceedings – International

1. Pitcher R, Lombard C, **Cotton M**, Beningfield S, Zar HJ. Chronic chest radiographic changes in a cohort of HIV-infected South African children. ECR 2013, Austria Center Vienna, Vienna, Austria, *Insights Imaging* 2013: 64-65.

Books

1. **Stefan DC**, Rodriguez-Galindo C. *Pediatric Hematology-Oncology in Countries with Limited Resources*. Springer, New York, USA 2013:415 pp.
 - a. **Stefan DC.** 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, 2013: 1-5.
 - b. **Stefan DC.** HIV and malignancy in children . In *Pediatric Hematology-Oncology in Countries with Limited Resources*, Springer, New York, USA, 2013: 377-391.
2. **Schaaf HS** (co-author): World Health Organization. The use of bedaquiline in the treatment of multidrug-resistant tuberculosis. Interim policy guidance. WHO, Geneva, Switzerland, 2013. WHO/HTM/TB/2013.6 (Part of Expert Group Meeting, WHO, 29-30 January 2013)

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.
2. **Schoeman JF, Donald PR.** Tuberculous meningitis. In *Handbook of Clinical Neurology*, Elsevier, , 2013: 1135-1138.
3. **Smit L.** Pneumonia in Children. *AFEM Handbook of Acute and Emergency Care*. Oxford University Press, First Edition 2013. Smit L. Approach to Breathing Difficulties

in Children. AFEM Handbook of Acute and Emergency Care. Oxford University Press, First Edition 2013.

4. **Ströbele S.** Rapid Assessment of Abdominal Pain in Children, Oxford Handbook of Emergency Care for Africa, Published 2013,

Special Achievements and Highlights

- Performance awards for exceptional service:
 - TBH = 13
 - US = 13
- Prof Sharon Kling
 - Appointed as Head of Clinical Services: General Paediatrics
- Prof MF Cotton:
 - Appointed as Head of Clinical Services: Paediatric Infectious Diseases
- Prof J Smith
 - International patent registration of SynSurf® - a synthetic surfactant by INNOVUS

Conferences/Workshops/Training Courses: Participants & Attendees

International

1. Prof M Kruger
 - a) 45th SIOOP Congress of the International Society of Paediatric Oncology (SIOOP): September 25-28, 2013 in Hong Kong, China. Poster presentations: SIOOP-PODC recommendations for graduated-intensity treatment of retinoblastoma in developing countries & Outcome of patients with primary pulmonary metastases at diagnosis of Nephroblastoma in a developing country
 - b) SIOOP Advocacy Meeting: Presented an overview of advocacy group's role in SIOOP
 - c) Prof M Kruger. Invited to attend the Developing High Quality Standards for e-Learning Programs in Research Ethics and Regulation in North-South Partnerships, Brocher Foundation, Geneva, 16 - 18 January 2013
 - d) Attended the SIOOP Board of Directors Meeting on 27 April 2013 in Amsterdam
 - e) Invited to attend the HIV Scientific Cure Committee Think Tank during the 2013 IMPAACT Leadership Retreat Meeting, Washington on 7 May 2013
2. Prof DC Stefan
 - a) Organizer of an international workshop "Cost and cost effectiveness treatment of cancer in Africa"- sponsored by vice rector office Stellenbosch University (International Office)
 - b) Organizer of the pediatric oncology session at AORTIC 2013
 - c) Faculty member and mentor ALCI (African Leaders Cancer Institute) Speaker: National Cancer Control Plans. (Session: AORTIC African Cancer Leaders Inst). 9th AORTIC international conference on Cancer in Africa, Durban, South Africa 21 – 24 November 2013
 - d) Attended the Grant Writing Workshop, 2nd Sub-Saharan Africa CFAR Biannual meeting, 6 Dec, 2013.
 - e) -Chair: Session - Emblem (NCI BL project) 9th AORTIC International Conference on Cancer in Africa, Durban, South Africa 21 – 24 November 2013.

- f) -Speaker: Burkitt lymphoma in African HIV positive children- what is different about them? (Session - Emblem + Selected NCI Funded Res on BL) . 9th AORTIC international conference on Cancer in Africa, Durban, South African 21 – 24 November 2013.
- g) -Speaker: Cost effectiveness of treating cancer in Africa Childhood cancer (Session - DEPT PAEDS). 9th AORTIC international conference on Cancer in Africa, Durban, South African 21 – 24 November 2013.
- h) -Chair: Session - Palliative Care II. 9th AORTIC international conference on Cancer in Africa, Durban, South African 21 – 24 November 2013.
- i) -Speaker: Childhood cancer registration in Africa. (Session: Africa Cancer Reg Network). 9th AORTIC international conference on Cancer in Africa, Durban, South African 21 – 24 November 2013.
- j) Chair: Session – Paediatric Oncology. 9th AORTIC international conference on Cancer in Africa, Durban, South African 21 – 24 November 2013.
- k) Speaker: Discussion: How to improve the survival of nephroblastoma in Africa? (Session: Paediatric Oncology). 9th AORTIC international conference on Cancer in Africa, Durban, South African 21 – 24 November 2013.
- l) Invited to the World Cancer Leaders' Summit- UICC, 18 – 19 November 2013 Cape Town
- m) Invited Speaker: Cancer Registry and its utilization in cancer control in South Africa. Workshop on Cancer Registration and Cancer Control, Chandigarh, India, 10 – 12 October 2013.
- n) Invited Speaker: Option for cancer prevention and treatment: Global perspectives. Workshop on Cancer Registration and Cancer Control, Chandigarh, India, 10 – 12 October 2013.
- o) Chair: Statistical methods for Cancer Registry. Workshop on Cancer Registration and Cancer Control, Chandigarh, India, 10 – 12 October 2013.
- p) Invited Speaker: Preparation of report by Cancer Registries. Workshop on Cancer Registration and Cancer Control, Chandigarh, India, 10 – 12 October 2013.
- q) Invited Speaker Oral Presentation: Survival rates of childhood cancer in South Africa, 35th International Association of Cancer Registries (IACR) Conference, 22 – 24 October 2013, Buenos Aires, Argentina.
- r) Presented a poster on Distribution of childhood cancers in Sub-Saharan Africa., 45th congress of the International Society of Paediatric Oncology (SIOP), Hong Kong, China, 25 – 28 September 2013.
- s) Invited to the Annual French GFAOP meeting, Paris 25 – 28 June 2013
- t) Invited by IARC and WHO for site visits to Cancer Registries in Vietnam (part of IARC Regional Hub) 13 – 14 June 2013
- u) Invited to the Hopitaux Publique de Paris Meeting, Paris, France, 18 April 2013
- v) Invited to the IARC Reg Hub Mtg & Evid.based Man.Mtg, Mumbai,India , 27 Feb – 01 March 2013
- w) Speaker at the Annual review meeting of AFCRN, Mombasa,Kenya, 29 – 30 Jan 2013
- x) Faculty Member, invited by ASCO - Kaposi sarcoma, head and neck and prostate cancer as a Facilitator, 2nd American Society of Clinical Oncology (ASCO) and (AMPATH)-Oncology Inst., 22 -24 Jan 2013.

3. Dr A Van Zyl attended the XXIV Congress of the International Society of Thrombosis and Haemostasis, Amsterdam, The Netherlands, 28 June – 4 July 2013
4. Prof MF Cotton. Chair of local organising committee: WSPID 2013 conference, November 2013.
5. Prof MF Cotton. 7th IAS conference on HIV Pathogenesis, Treatment and Prevention, 30 June – 3 July 2013, Kuala Lumpur. Prof MF Cotton. Session chair and case presentation: Child with suspected tuberculosis - how to use newer diagnostic tests and plan treatment in parallel with ART
6. Dr E Malek. International Paediatric Congress, Australia, 23-30 August 2013. Presentation: Facilitating Focused Health Care Interventions In Response To Geographic Mapping Of Childhood Diarrhoeal Disease Seasonal Deaths In Cape Town, South Africa
7. Dr Finlayson. TB Union World Conference, 31 October- 2 November 2013, Paris. Poster presentation on The changing pattern of Paediatric Tuberculosis Infection during two time periods in Tygerberg Hospital, Cape Town.
8. Dr Liezl Smit (US Dept of Paediatrics and Child Health) –The impact of a referral pathways change regarding respiratory burden of disease in children, Cape Town. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013
9. Dr Adrie Bekker. Barriers to care preventing tuberculosis-exposed newborns from completing TB therapy. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
10. Prof AC Hesselning, Prof S Schaaf, Dr A Bekker. 7th International Childhood TB training course was held at Goudini, Western Cape from 30 September-4 October 2013 with 45 participants from 20 countries represented – all presenters except two were from Stellenbosch University. Excellent feedback from participants. Course coordinators Simon Schaaf and Anneke Hesselning
11. Prof HS Schaaf:
 - a) Taught at the following two courses organised by CDC and University of Pretoria:
 - o 5th International Clinician's TB and HIV Course. 9-12 May 2013, Bela-Bela, Limpopo, South Africa. Invited Presenter (3 lectures).
 - o 6th International Clinician's TB and HIV Course. 14-16 November 2013, Bloemfontein, Free State, South Africa (Invited presenter – 3 lectures)
 - b) New recommendations for the treatment of pan-susceptible and drug-resistant intrathoracic tuberculosis in children. ATS 2013 (American Thoracic Society International Conference, 17-22 May 2013, Philadelphia, NJ, USA.
 - c) Invited Expert/Speaker: State of current treatment for MDR-TB in children. Workshop: Towards earlier involvement of children and pregnant women in trials of new TB drugs. 22-23 May 2013, Bethesda (NIH), MD, USA
 - d) Caring for children with MDR/XDR-TB. PGC: MDR and XDR-TB: clinical and programmatic management of treatment and suffering. 44th Union World Conference on Lung Health, 30 October-3 November 2013, Paris, France.
 - e) Treatment of DR-TB in children and preventive therapy for children exposed to DR-TB. PGC: Managing children with drug-resistant tuberculosis: a practical approach. 44th Union World Conference on Lung Health, 30 October-3 November 2013, Paris, France.

- f) Drug resistance surveillance in children with culture-confirmed TB in the Western Cape: a downward trend? 44th Union World Conference on Lung Health, 30 October-3 November 2013, Paris, France.
 - g) Clinical care of children with tuberculosis. Educational Workshop for Fellows. 8th World Congress of the World Society of Pediatric Infectious Diseases (WSPID), 19-22 November, Cape Town, South Africa (Invited speaker).
 - h) Managing multidrug-resistant tuberculosis in children. 8th World Congress of the World Society of Pediatric Infectious Diseases (WSPID), 19-22 November, Cape Town, South Africa. (Invited speaker).
 - i) What is the best regimen for tuberculous meningitis? 5th FIDSSA Conference, 10-12 October 2013, Champagne Sports Resort, Drakensberg, South Africa.
12. Prof PR Donald. Invited speaker: 17th Annual Conference of the IUATLD of North America: The George Comstock Lecture - The Place of Children in the Global Epidemiology of TB, Vancouver, Canada, 28 February-2 March 2013
 13. Prof PR Donald. Invited speaker: International Meeting on Childhood tuberculosis, Pardia, Italy, 22-23 March 2013. Presentations on: Central Nervous System tuberculosis in children & PK and PD of TB drugs: what do we know and what are the implication
 14. Dr L Smit. TB Union World Conference, 31 October-2 November 2013, Paris. Poster presentation on The impact of a referral pathways change regarding respiratory burden of disease in children, Cape Town.
 15. Dr H Finlayson. TB Union World Conference, 31 October-2 November 2013, Paris. Poster presentation on The changing pattern of Paediatric Tuberculosis Infection during two time periods in Tygerberg Hospital, Cape Town
 16. Proff Johan Smith, Robert Gie and Dr Pierre Goussard. Organised the Here be Lungs Confence which was held from 21-22 March 2013 at the Lanzerac Hotel and were attended by three international and numerous national experts experts on childhood lung disease.
 17. Prof Robert Gie. Lead a delegation to Republic of Uganda for Global Drug facility of the WHO to aid with TB drug procurement. February 2013.
 18. Dr John Lawrenson. The 6th World Congress of Paediatric Cardiology and Cardiac Surgery took place from the 18th to the 22nd February at the CTICC. Dr Lawrenson was one of the co-chairs of the scientific committee and members of staff from adult cardiology and cardiothoracic surgery took part in the meeting as faculty, The meeting was attended by just over 3000 people and was an outstanding success.
 19. Dr ED Nel. Organised: ESPGAHN Goes Africa course (March and October 2013)
 20. Dr ED Nel. Organised: SAGES Fellow Weekend: Co-organiser of paediatric module
 21. Dr ED Nel. Presented: New developments in the diagnosis of Gastroesophageal Reflux in Children. Here Be Lungs Conference. Stellenbosch 21-22//2013

National

1. Prof M Kruger. 26th South African Children's Cancer Study Group Meeting, Hemingways, East London, 25-28 October 2013
2. Prof M Kruger. Oral presentations: SIOP-PODC recommendations for graduated-intensity treatment of retinoblastoma in developing countries & Outcome of patients with primary pulmonary metastases at diagnosis of Nephroblastoma in a developing country

3. Prof M Kruger. SARETI Institutionalising Ethical Review of Health Research Lecture Series, 9-11 September 2013 at UKZN
4. Dr R van Toorn. Organizer and speaker at a Paediatric Stroke workshop in the Drakensberg which was attended by 50 PANDA members
5. Dr E Malek. Child Health Priorities Conference, 31 October – 2 November 2013, Johannesburg
6. Dr E Malek. Presentation: Facilitating focused health care interventions in response to geographic mapping of childhood diarrhoeal disease seasonal deaths in Cape Town.
7. Prof HS Schaaf. Invited speaker: What is the best regimen for tuberculous meningitis? 5th FIDSSA Conference, 10-12 October 2013, Champagne Sports Resort, Drakensberg, South Africa.
8. Prof Johan Smith. Conferences organized:
 1. High-frequency oscillation workshop, Faculty of Medicine and Health Sciences, 15-17 May 2013
 2. United South African Neonatal Association (USANA) conference, Spier Estate, 19-21 September 2013
9. Prof Johan Smith. 35th Annual International Conference of the IEEE EMBS, Osaka, Japan, 3-7 July 2013. Presentation: Development of a diagnostic glove for unobstrusive measurement of chest compression force and depth during neonatal CPR.
10. Dr S Holgate. 6th World Congress of Paediatric Cardiology & Cardiac Surgery, CTICC, Cape Town, 17-22 February 2013
11. Dr S Holgate. United South African Neonatal Association (USANA) conference, Spier Estate, 19-21 September 2013
12. Dr ED Nel. Why Paediatric Gastroenterology. Paediatric Gastroenterology Interest Group. Cape Town. 20 April 2013.
13. Dr ED Nel. Inflammatory Bowel Disease in Children. Update 2013. University of Pretoria. 1-3 March 2013
14. Dr ED Nel. Approach to chronic diarrhoeal disease in childhood. GP Refresher Course, Spier Stellenbosch, May 2013
15. Dr S Ströbele. Gastroesophageal Reflux in Children. GP Refresher Course, Spier Stellenbosch, May 2013
16. Dr GP de Bruin. 26th South African Children's Cancer Study Group Meeting, Hemingways, East London, 25-28 October 2013. Oral presentation: Survival rates of childhood cancer in South Africa
17. Dr Y Visser. 26th South African Children's Cancer Study Group Meeting, Hemingways, East London, 25-28 October 2013. Oral presentation: Nephroblastoma – which protocol to use in South Africa?

Regional

1. Prof HS Schaaf, Dr AJ Garcia-Prats, Ms H Draper, Ms K Zimri, Prof AC Hesseling. Drug Resistance Surveillance in children with culture-confirmed TB in the Western Cape: a downward trend? SUN Annual Academic Day 2013. 14-August 2013
2. Prof S Kling. ARESA Diploma Module 3, Stellenbosch University, 9-20 September 2013 Presentation: Ethical issues in paediatric research

3. Dr R van Toorn. Organized a neonatal neurology workshop at Canal Walk which was attended by more than 80 delegates.

Part 5
CENTRES

THE CHILDREN'S INFECTIOUS DISEASES CLINICAL RESEARCH UNIT (KID-CRU)

Director: Prof MF Cotton

Posts (full-time)	Number	Filled
Director	1	1
Deputy Director	1	1
Neurodevelopmental Paediatrician	1	1
General Paediatrician	0	0
Medical Officers	9	9
Pharmacists	3	3
Pharmacist assistant	1	1
Social Worker	1	1
Regulatory Officer	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

Outpatient Facility

Number of active studies: 16
 Number of patients on study: 924
 Number of study visits: 3202

Community Advisory Board (CAB) activities (monthly meetings)

- Elections for new chair, vice chair, secretary and RCAB Rep.
- Review of Roles and Responsibilities of members and leaders.
- Preparation for Regional CAB meeting in Durban - review of scientific priorities
- Valentine's Day treat for mothers in waiting room.
- Orientation of new members_ Joan Coetzee
- Overview of IMPAACT studies -Mercia Van Der Linde (efavirenz in young children)
- Launch of Medikidz book at Tygerberg hospital
- Update of IMPAACT LEADERSHIP retreat-topics review
- Discussions – Current studies – Barbara Laughton; Using hair to measure adherence, Mississippi baby - Prof Cotton; Stavudine - Steve Innes; Nutrition – Helen Payne.

- Goudini Retreat - assessment of training needs identified at retreat,

Adolescent Activities (monthly meetings on Saturdays)

- Selection of new leadership
- Goal setting workshop facilitated by C Jordaan.
- Fun walk at Camps Bay.
- Debate on disclosure - " my right to tell or not to tell"
- Role-plays workshop- " In my world" (theme)
- Understanding the virus - Prof Cotton
- Adherence issues question and answer session
- Debate workshop. " Knowing my status" facilitated by adolescents
- Discussion on self-identity "Who Am I" facilitated By Shaun from UWC.
- Choir performance at KIDCRU 10th birthday
- Goudini Retreat with adults- 3 day program, topics of discussion included Hero Book.
- Adolescent Choir at WISPD Conference
- END OF YEAR GET TOGETHER-vote of thanks

Partnerships

1. National: Guideline Committees, EDL consultations
2. NGO: HOPE South Africa
3. International: IMPAACT, ACTG & PENTA

Teaching and Training (under, postgraduate and elective students)

1. PhD – Steve Innes
2. 10 elective students – 5 from USA, 2 from Germany, 1 from Austria & 2 from Holland
3. 1 Volunteer research assistant – Cherie Martin (USA)

Special achievements and other highlights not covered by this template

1. KIDCRU 10 Year Anniversary – 20 September 2013
2. Celebrity Visit: Annie Lennox – 6 December 2013
3. Mark Cotton - Opinion piece in Cape Argus – World AIDS day – 1 December 2013
4. M Theunissen elected as International Community Advisory Board Chairperson
5. Successful recompetition as NIAID Clinical Trial unit with inclusion of adults in ACTG trials

Publications

See list of Publications, p. 32-42.

SOUTH2SOUTH PROGRAMME FOR COMPREHENSIVE FAMILY HIV CARE & TREATMENT

Director: Dr K van der Walt

Summary of activities

South to South's strategic goal is to develop and institutionalise innovative 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. The programmatic goal is aligned with Stellenbosch University's strategic priorities, i.e. research, training, community interaction, and collaboration with African universities.

Objective 1: Provide individual-level capacity building to health workers and relevant stakeholders in the area of HIV/TB health outcomes for priority populations: pregnant women, infants, children, adolescents and those who are co-infected by HIV/TB.

Objective 2: Provide organisational-level capacity building by means of quality-improvement (QI) strategies to improve provincial and district health system performance in the area of HIV/TB health outcomes for priority populations: pregnant women, infants, children, adolescents and those who are co-infected by HIV/TB.

Objective 3: Provide systems and policy-level capacity building by means of support for national expert dialogue fora to improve the policy context for capacity building in the area of HIV/TB health outcomes for priority populations: pregnant women, infants, children, adolescents and those who are co-infected by HIV/TB.

Objective 4: Conduct programme evaluation and improvement science research to document evidence-based capacity-building activities in the area of HIV/TB health outcomes for priority populations: pregnant women, infants, children, adolescents and those who are co-infected by HIV/TB.

Resources:

All positions are funded 100% by PEPFAR/USAID funds.

Posts (Full time)	Number	Filled
Principle Investigator (10% FTE)	1	Y
Clinical Program Director	1	Y
Operations Director	1	Y
Program Manager: Health Systems Strengthening	1	Y
Program Manager: Training & Development	1	Y
Program Manager: Strategic Information	1	Y
Administrative assistant	1	Y
Travel and Logistics officer	1	Y
Financial Officer	1	Y
Data and IT Manager	1	Y
Program coordinator	2	Y
Data capturer	1	Y
M&E Officer	1	Y

Research Field Assistant	2	Y – 1 N – 1
Strategic Information Officer	1	Y
Paediatric Clinical Advisor	1	Y
PMTCT Clinical Advisor	3	Y
HIV/TB Nurse Advisor	6	Y
Psychosocial Advisor	3	Y
Pharmacist Advisor	1	Y

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

1. Establishment of the data systems and research equipment and software required to conduct health systems and program evaluation research within the program
2. Implementation of various productivity and collaboration software such as Lync, SharePoint, and Smartsheet to support staff in project management and collaboration.

Community outreach programmes/community services and interaction.

1. Right to Care sub-award capacity building program 2010-2013:

- a) In September 2013, the capacity building program funded by the Right to Care sub-award was concluded with all deliverables and targets achieved.
- b) South2South completed a 24-month quality improvement project in the Moretele sub-district, Bojanala District (North West Province). The combined PCR MTCT rate for all facilities in the sub-district decreased from 28.4% (2009) to 2.6% (2011). Improvements in critical steps along the PMTCT care pathway were demonstrated, potentially explaining the improved MTCT rate. The capacity building program resulted in innovative training, mentoring, and quality improvement tools and resources being developed, piloted, and implemented, that have since been scaled up at a national level.
- c) South2South successfully developed and refined an integrated district support model, based on the Institute of Healthcare Improvement's Breakthrough Series Collaborative Model.
- d) South2South successfully developed and piloted numerous training and mentoring tools to improve the quality of care of mothers and children affected by HIV (see our resources page for training and mentoring tools)
- e) The program supported over 45 healthcare facilities across 5 provinces.
- f) The program conducted 44 structured training events in 2013, with 660 healthcare workers trained. Over the 3-year program period 1105 healthcare workers received training.
- g) In 2013 the program delivered unstructured training to 864 healthcare workers and delivered 749 mentoring contact sessions to healthcare workers in rural primary healthcare centres.

2. Breastfeeding training material development: National Department of Health

- a) S2S was awarded a contract by USAID to develop breastfeeding training material for the Nutrition Directorate of the National Department of Health.

- b) During 2013 the project made critical progress with finalizing the following deliverables:
South2South successfully developed breastfeeding training material for the National Department of Health:
- Literature and Existing Training Material Review Report
 - Breastfeeding course for policy and decision makers and managers
 - Breastfeeding course for frontline health workers
 - Breastfeeding course for people with existing training skills

3. HIV-Innovations for Improved Patient Outcomes in South Africa

- a) The capacity building program funded by USAID aims to develop innovations and plans for capacity building and support for scale up of effective and efficient models and approaches for HIV-related services in line with SAG priorities.
- b) During 2013 program activities consisted mainly of planning, preparation, pre-fieldwork research activities, and piloting of training approaches.
- c) The following program outputs were achieved:
- Project planning meetings with provincial and national DOH stakeholders
 - Comprehensive resource mapping of existing training resources available in South Africa
 - Development and approval a training needs assessment research study protocol, including pre-fieldwork planning and preparation for research
 - Development and approval of a program evaluation research study protocol, including pre-fieldwork planning and preparation for research
 - Development of the first draft of competency dictionaries of 6 healthcare worker cadres
 - Planning, preparation, and development of the components of 2 quality improvement collaboratives: The eMTCT QI Collaborative, and the Blue Print for Action for Paediatric and Adolescent HIV/TB QI Collaborative.
 - Technical assistance to the NDOH Paediatric and Adolescent and PMTCT Technical Working Groups on numerous projects, including development of a national guideline for Disclosure of HIV status for children, caregivers, and healthcare workers, finalization of the National Psychosocial Support booklet, and roll-out of the national PMPTCT quality improvement workshops.

Partnerships

1. South African Government

S2S has agreements with the following provinces to conduct research, training, and quality improvement support:

- a) Western Cape: Cape Winelands District
- b) Northern Cape: Pixley-ka-Seme District
- c) Eastern Cape: Amathole District

S2S has established representation at the following forums at the National Department of Health:

- a) NDOH Paediatric and Adolescent Technical Working Group
- b) NDOH PMTCT Technical Working Group
- c) NDOH PMTCT Steering Committee
- d) NDOH Human Resources Directorate (Regional Training Centres)
- e) NDOH Nutrition Directorate

2. Non-governmental organizations

The S2S capacity building program is part of a wide range of NGO funded by PEPFAR to support the South African Government to improve HIV/TB health outcomes. S2S specifically works closely with the following organizations:

- a) ANOVA Health Institute: PEPFAR implementing partner in the Cape Winelands District
- b) Health Systems Trust: PEPFAR implementing partner in the Pixley-ka-Seme District
- c) IYDSA: PEPFAR implementing partner in the Amathole District
- d) ITECH: Specialist training support partner to the NDOH Human Resources Directorate and Regional Training Centres
- e) Keth'Impilo: Training collaboration on paediatric and adolescent HIV/TB
- f) Broadreach: Training collaboration and technical assistance on paediatric and adolescent HIV/TB and eMTCT
- g) 20,000+ UKZN: A quality improvement partner organization
- h) Aurum Institute: Co-support of the NDOH PMTCT Steering Committee on quality improvement
- i) WRHI: Co-support of the NDOH PMTCT Steering Committee on quality improvement
- j) Institute of Healthcare Improvement: S2S awarded a tender to IHI to provide technical assistance and training to S2S staff in quality improvement methods
- k) ICAP-Columbia University: S2S is potentially a sub-award recipient under a CDC global technical assistance grant awarded to ICAP as primary recipient.
- l) Paediatric AIDS Treatment Africa (PATA): PATA uses the S2S Paediatric HIV/TB Toolkit for training events.
- m) Numerous other NGOs and training institutions utilize training material developed by S2S.

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

Number of research reports/presentations from the program: 4

Media exposure:

1. Building the capacity of the health workforce to achieve quality HIV and TB care – Tygerland, October 2013
2. South Africa's HIV/AIDS success should be celebrated – Cape Argus, 2 Dec 2013
3. The South2South Program supports World Breastfeeding Week – Impromptu, Faculty of Medicine and Health Sciences, August 2013

Teaching and Training (under, postgraduate and elective students)

The S2S Program does not offer under- or postgraduate training to students. The current focus of the program is on in-service training of 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
Admire Chirowodza	PhD Social Sciences	University of Johannesburg
Puni Mamdoo	MMed Public Health	Stellenbosch University
Beryl Green	M Phil Health Professions Education	Stellenbosch University
Katherine Brittin	MPH	University of Cape Town

Madoda Sitshange	PhD Social Work	University of Pretoria
Justine Geiger	M Phil Health Professions Education	Stellenbosch University
Christalien Husselman	MSc Clinical Epidemiology	Stellenbosch University
Justin Engelbrecht	M Phil Health Systems and Services Research	Stellenbosch University
Irma Kruger	MSc Clinical Epidemiology	Stellenbosch University
Carmen Louw	M Phil Monitoring & Evaluation	Stellenbosch University

In addition to the above, the following staff completed a 12 month Improvement Advisor training course offered by the Institute of Healthcare Improvement:

- Katherine Brittin
- Puni Mamdoo
- Maxime Molisho
- Madoda Sitshange
- Dorothy Williams
- Kobus van der Walt

DESMOND TUTU TB CENTRE (DTTC)

Director: Prof N Beyers

Resources:

Posts (Full time)	Number	Filled
Researchers and Principal Investigators	443	All
Posts (sessional)		
Research clinicians	7	All

Infrastructure development:

- Central DTTC offices have been completed as "open office" environment.
- The DTTC Garden is ready and used daily by Rory Dunbar's guide dog, Vaughn.
- The 2 field offices in Ravensmead and Uitsig are being maintained
- Field site in Khayelitsha maintained
- PK unit
- All equipment, including desktops and printers that were purchased for the Community TB-HIV Integration centres project have been donated to NGO's. The final close out documentation for the project was send to the funders in March 2013. Once the funder confirms the close-out, all the assets (>\$ 5000) will be donated. Delays on the side of the funder have resulted in the close out not being completed in 2013.
- The fleet of vehicles has been maintained and six new vehicles purchased.
- 9 new field sites and offices developed

New equipment:

- 8 printers for home office and site offices
- 13 desktops for site offices
- 171 Gectac Electronic Capturing Devices
- 10 Multipurpose printers
- 8 Laptops
- 50 WinPad IO Tablet Electronic Capturing Devices

Community outreach programmes/community services and interaction

- Quarterly DTTC meetings with City of Cape Town and Western Cape Government to jointly decide on activities
- Monthly Trial Management Committee Meetings with City of Cape Town, Western Cape Government, NGOs, NHLS to jointly discuss challenges in PopART
- PopART (a community randomized trial in South Africa and Zambia) had a public randomization event and was activated in all 9 communities and clinics
- COMAPP (Community AIDS Prevention Project) continues in 4 health sub-districts of Cape Town.
- 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

- 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
- 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.
- The TB-free Kids Project (Flagship Project of SU) in Ravensmead and Uitsig changed its scope and became involved in Social Capital Development. The project was presented at Community Interaction at Stellenbosch and received another round of funding. In discussions with Proff Kruger and Volmink it was decided to transfer this project to the Faculty for wider inclusion of students.
- 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.
- PK studies at BCH
- Data collection was completed on the PROVE-IT study. This 3 year project assessed the implementation of molecular tests for the diagnosis of TB in public Health Services in Cape Town. This study aims to provide information at a national as well as global level on how to optimize the implementation of new diagnostic tools, including the magnitude and nature of the inputs required to implement molecular tests as part of diagnostic algorithms in routine health services; and the magnitude and range of benefits for patients and their clinical management.
- 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.
- 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 and the final report was submitted in 2013. Through this project 1265 home visits were done, 336 cases identified of whom 61 were assisted in getting child grants and received social relief.
- 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.
- A 5 day Operational Research Protocol Development Workshop for colleagues from the Department of Health (National DoH) was hosted again and was attended by: 15 Participants –8 from National Department of Health (NODH), 4 from Foundation for Professional Development (FPD)/that's it, 1 from University Research Corporation (URC) and, 2 from Dept of Paeds and Child Health
- A successful dissemination meeting was held in December 2013 to disseminate results back to our partners and stakeholders
- DTTC supported the City/MDHS Annual TB/HIV Ceremony in celebration of World TB Day 2013
- 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 2013 there were 10 TB Clinical Forums and 738 health care workers attended

Partnerships

National:

- DTTC is closely aligned with the National, Provincial and Local Health departments
 - DTTC is closely aligned with and assist on all levels in the development of guidelines, manuals and training material.
 - All activities are planned in close collaboration with the various levels of the department of health. A quarterly meeting is held with Government Partners
 - DTTC study findings are disseminated at National TB Programme that has requested that DTTC presents research data at the quarterly National meetings.
- Many activities are planned and implemented with the support of the local Community Advisory Boards (CABs) have been established for several projects and activities are planned and implemented with the support of local stakeholders.
- South African TB Vaccine Initiative (SATVI), University of Cape Town.
- University of Cape Town:
 - Division of Clinical Pharmacology
 - Division of Health Economics Unit
 - Division of Social and Behavioural Sciences
- University of Western Cape: Human Nutrition Division
- South African MRC: Centre for Biostatistics, Health Systems Research Unit
- South African Centre for Epidemiological Modelling and Analysis (SACEMA)
- University Research Co. (URC)

Private:

Nil

International:

- DTTC remains a Collaborating Centre of the International Union Against TB and Lung Disease
- DTTC has numerous ongoing collaborations with the following:
 - London School of Hygiene and Tropical Medicine
 - Liverpool School of Tropical Medicine
 - Columbia University
 - Johns Hopkins University
 - TB Alliance
 - University of California San Francisco (UCSF)
 - Baylor College of Medicine
 - University of Zambia
 - KNCV
 - University of Amsterdam
 - HPTN (HIV Prevention Trials Network)
 - IMPAACT with > 24 US and international sites
 - CDC Tuberculosis Clinical Trials Consortium (TBTC): with >20 international sites
 - Imperial College, London
 - All India Institute of Medicine
 - St John Medical College, India

- Charite Hospital, Berlin, Germany
- McGill University, Canada
- International Union Against Tuberculosis and Lung Disease
- University of Warwick, U.K.

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

Number of publications from the department/division: 34

Text books and contributions to text books

- Naidoo P, Smuts B, Claassens, M, Rusen ID, Enarson D, Beyers N. Operational Research to Improve Health Services A guide for proposal development (2013) ISBN 978-0-620-57795-3. The Union, Paris

Media exposure:

Name of publication: Weekend Argus

Name of study: MVA85A Vaccine Trial

Name of article: New TB vaccine trial phase 3

Date: 4th February 2013

Name of publication: Eikestad nuus

Name of study: PopART

Name of article: Cloetesville selected for HIV research

Date: 1 March 2013

Name of publication: Cape Times

Name of study: LPA

Name of article: We must work together on TB in SA, urge researchers

Date: 15 April 2013

Name of publication: The New Age

Name of study: LPA

Name of article: TB is the country's No 1 Killer

Date: 15 April 2013

Name of publication: The Times

Name of study: LPA

Name of article: Researchers must work with TB Doctors

Date: 15 April 2013

Name of publication: Tygerburger

Name of study: PopART

Name of article: Fired up for HIV prevention

Date: 05 June 2013

Name of publication: The Cape Times

Name of study: COMAPP

Name of article: Excited trio get the chance to talk to an American President.

Date: 02 July 2013

Name of publication: Weekend Argus (Sunday)

Name of study: COMAPP

Name of article: Princess Stephanie keeps her word to Nyanga

Date: 14 July 2013

Name of publication: Stellenbosch/Franschhoek/Pniel/ Kylemore Gazette

Name of study: DTTC

Name of article: Knitting spree for Mandela Day

Date: 30 July 2013

Name of publication/event (e.g. newspaper, radio): Star Africa

Name of study/person: Nulda Beyers

Name of article: Dr Tutu presume

Date: 10 September 2013

Name of publication/event (e.g. newspaper, radio): Cape times

Name of study/person: Nulda Beyers

Name of article: Tutu fulfils his childhood dream at last.

Date: 10 September 2013

Name of publication/event (e.g. newspaper, radio): Mercury

Name of study/person: Nulda Beyers

Name of article: "Doctor" Tutu gets to fulfil his childhood dream.

Date: 10 September 2013

Name of publication/event (e.g. newspaper, radio): Pretoria News

Name of study/person: Nulda Beyers

Name of article: Tutu finally lives his childhood dream.

Date: 10 September 2013

Name of publication/event (e.g. newspaper, radio): Cape Talk, John Maytham Show

Name of study/person: Nulda Beyers

Name of article: The presenter interviews Director of the Desmond Tutu TB Centre at the University of Stellenbosch, Nulda Beyers. They talk about HIV/AIDS rates in South Africa, as they have increased amongst adults

Date: 25 September 2013

Name of publication/event (e.g. newspaper, radio): Argus

Name of study/person: Nulda Beyers

Name of article: Western Cape TB records poor, study finds

Date: 25 September 2013

Name of publication/event (e.g. newspaper, radio): Die Burger

Name of study/person: Nulda Beyers

Name of article: SA deel van Vigs-studie
Date: 1 October 2013

Name of publication/event (e.g. newspaper, radio): Cape Times
Name of study/person: Nulda Beyers
Name of article: Huge study seeks to curb HIV spread
Date: 2 October 2013

Name of publication/event (e.g. newspaper, radio): Health Systems Trust website
Name of study/person: Nulda Beyers/Kim Cloete
Name of article: South Africa sets its sights on getting on top of TB
Date: 3 November

Name of publication/event (e.g. newspaper, radio): Health Systems Trust website
Name of study/person: Nulda Beyers/Kim Cloete
Name of article: Funding for TB Research drops sharply
Date: 3 November

Name of publication/event (e.g. newspaper, radio): The Times
Name of study/person: Nulda Beyers/Kim Cloete
Name of article: New weapon on war in TB
Date: 7 November

Name of publication/event (e.g. newspaper, radio): Health 24
Name of study/person: Nulda Beyers/Kim Cloete
Name of article: Revolutionary test for some TB poses challenges
Date: 7 November

Name of publication/event (e.g. newspaper, radio): AllAfrica.com
Name of study/person: Nulda Beyers/Kim Cloete
Name of article: South Africa sets its sights on Getting on top of TB
Date: 20 November

Name of publication/event (e.g. newspaper, radio): Pocket Media SA
Name of study: COMAPP
Name of article: The Desmond Tutu TB Centre picks a Z-CARD to educate public about male circumcision
Date: 27 November

Teaching and Training (under, postgraduate and elective students)

- 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 2013 there were 10 TB Clinical Forums and 738 health care workers attended
- A 3-day workshop on manuscript writing was hosted for participants of the Operational Research Assistance Project colleagues from the Department of Health in November and numerous 17 manuscripts are in the process of being finalised for submission.

- The Annual Childhood TB Course was again held at Goudini in 2013 and participants from more than 20 countries attended. The course will be repeated in 2014.
- Prof Donald Enarson visited DTTC twice to teach and mentor the staff of DTTC
- All staff on studies receive regular updates in study specific training
- Mareli Claassens attended Joint External Monitoring Mission for TB in Jakarta, Indonesia.
- Mareli Claassens taught at an Operational Research Course in Chennai, India.

Poster/presentation:

1. Anje Coetzer, Sue-Ann Meehan. Piloting a counselor evaluation tool to maintain a consistent quality of counseling at community HIV Counseling and Testing sites in Cape Town, South Africa. SA AIDS Conference. 19-21 June 2013
2. Dr S Thee, Dr AJ Garcia-Prats, Ms HR Draper, Prof HM Mcilleron, Ms J Norman, Prof PJ Smith, Prof AC Hesseling, Prof HS Schaaf. Pharmacokinetics of Ofloxacin and Levofloxacin in children with Multidrug-resistant Tuberculosis. SUN Annual Academic Day 2013. 14-August 2013
3. Dr AJ Garcia-Prats, Ms K Zimri, Ms Z Mramba, Prof HS Schaaf, Prof AC Hesseling. Children exposed to multidrug-resistant tuberculosis with additional amikacin resistance at a home-based day-care centre: a contact investigation. SUN Annual Academic Day 2013. 14-August 2013
4. E Walters , C Bosch, RP Gie , AC Hesseling. Urinary lipoarabinomannan (LAM) for the diagnosis of paediatric pulmonary tuberculosis: a pilot study. SUN Annual Academic Day 2013. 14-August 2013
5. E Walters, J Duvenhage, H Draper , AC Hesseling, SS Van Wyk, and H Rabie. Clinical spectrum of tuberculosis in HIV-infected children initiating antiretroviral therapy before 2 years of age. SUN Annual Academic Day 2013. 14-August 2013
6. E Walters, P Goussard, C Bosch, AC Hesseling, RP Gie. Xpert MTB/RIF on bronchoalveolar lavage samples in children with suspected tuberculosis: a pilot study. SUN Annual Academic Day 2013. 14-August 2013
7. Ms S Meehan, P Naidoo, H Draper and N Beyers. An Integrated Community HIV and TB Testing Model: Using routine data to compare stand-alone and mobile services. SUN Annual Academic Day 2013. 14-August 2013
8. Dr Ute Hallbauer (UFS) and Mrs Matseliso Moriglane (Free State DOH) –The association between HIV-infection and child TB deaths. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
9. Dr Eve Mendel (Western Cape City Health Dept) and Dr Elke Maritz (DTTC). Falling through the Cracks: Challenges of Severe Childhood Tuberculosis Reporting in Cape Town, South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013
10. Mrs Anelet James (DTTC). Association between Elevated Blood Glucose and the presence of Nontuberculous Mycobacteria. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013
11. Mrs Jackie Smith (HST) and Mrs Shoba Seethal (KZN Dept of Health). Is there is an association between delayed MDR-TB initiation and distance to the treatment initiation sites in Kwazulu Natal, South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013
12. Dr Eugene Elliot (UFS) and Mrs Phyllis Baitisiwe (Northern Cape DOH). Auditing Drug Resistant (DR) Tuberculosis (TB) case management to determine factors affecting cure

- rates. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
13. Mrs Sandra Smit (WC DOH Eden District). Accuracy of classification of relapse tuberculosis cases in the Eden District, Western Cape Province, South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 14. Dr Mareli Claassens. What determines initial loss to follow-up in TB patients at primary healthcare facilities in South Africa? 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 15. Dr Pren Naidoo. Did the introduction of Xpert MTB/RIF reduce MDR-TB treatment commencement times in Cape Town, South Africa? 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 16. Ms Sue-Ann Meehan, Ms Heather Draper, Dr Pren Naidoo and Prof Nulda Beyers. An Integrated Community HIV and TB Testing Model: Using routine data to compare stand-alone and mobile HCT services. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 17. Dr Elizabeth du Toit. Laboratory Costing for New Molecular Diagnostics in Cape Town, South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 18. Dr Kwame Shanaube. Are household contacts with high levels of interferon gamma in response to Mtb specific antigens in the QuantIFERON-TB Gold in-Tube assay at high risk of developing TB? 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 19. Dr Pren Naidoo. Lessons from Xpert deployment: How can past experience apply to future innovation TB Diagnostics? 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 20. Dr Catherine Wiseman (Prof Anneke Hesselning presented on her behalf). Validation of the NIH consensus case definitions for evaluation of diagnostic tests for childhood TB. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 21. Ms Ronelle Burger and Ms Anja Smith. TB screening specificity and sensitivity in models of discretion, protocol adherence and randomness in South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 22. Ms Ronelle Burger and Ms Anja Smith. Gender inequality in the detection of tuberculosis in South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 23. Ms Margaret van Niekerk. Patients experiences of accessing MDR-TB diagnosis and treatment in the Xpert MTB/RIF era in Cape Town. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 24. Dr Virginia Azevedo. 10 years of TB control in Cape Town, Western Cape, South Africa. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 25. Mr Rory Dunbar. Tuberculosis diagnostic research: providing comprehensive evidence to support local and national strategy. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.
 26. Dr Elizabeth Walters. Urinary lipoarabinomannan (LAM) for the diagnosis of paediatric pulmonary tuberculosis: a pilot study. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.

27. Dr Elizabeth Walters. Clinical spectrum of tuberculosis in HIV-infected children initiating antiretroviral therapy before 2 years of age. 44th Union World Conference on Lung Health. Paris, France. 30 October - 3 November 2013.

Special achievements and other highlights not covered by this template

- Etafeni Day Care Centre and DTTC received funding from Fight AIDS Monaco for the food garden at Etafeni and meals for children. Fight AIDS Monaco awarded 10 800 euro
- COMAPP shortlisted for Impumelelo Award
- Mareli Claassens: HD Brede Award for Tuberculosis Research, 2013
- Tony Garcia-Pratts received the Baylor College of Medicine Young Alumnus 2013
- Anneke Hesseling received an award from the University based on her 2011 publication outputs
- 23 abstracts were accepted for 2013 44th Union Conference on Lung Health Conference in Paris from 31 October – 3 November 2013.
- Best Oral Presentation at the Paediatric Annual Academic Day 2013 – Dr S Thee, DR AJ Garcia-Prats, Ms HR Draper, Prof HM Mcilleron, Ms J Norman, Prof PJ Smith, Prof AC Hesseling, Prof HS Schaaf. Pharmacokinetics of Ofloxacin and Levofloxacin in children with Multi-drug resistant Tuberculosis.
- Best Poster Presentation at the Paediatric Annual Academic Day 2013- Ms S Meehan. An Integrated Community HIV and TB Testing Model: Using routine data to compare stand-alone and mobile services.
- Best Poster Presentation at the Paediatric Annual Academic Day 2013- Dr E Walters. Clinical spectrum of tuberculosis in HIV-infected children initiating antiretroviral therapy before 2 years of age.

Publications

See list of Publications, p. 32-42.