

BIostatistics Unit: RESEARCH OUTPUTS 2010

PUBLICATIONS

INDEXED JOURNALS - INTERNATIONAL (FIRST AUTHOR)

1. **Manda S.** A nonparametric frailty model for clustered survival data. *Communications in Statistics: Methods and Theory* ; 2010; *In Print*

INDEXED JOURNALS - INTERNATIONAL (CO-AUTHOR)

1. Naicker N, Norris SA, Mathee A, **Becker P**, Richter L. Lead exposure is associated with a delay in the onset of puberty in South African adolescent females: findings from the Birth to Twenty cohort. *Sci Total Environ.* 2010 Oct 1; 408(21):4949-54.
2. Vance VL, Steyn M, L'abbé EN, **Becker PJ.** A cross-sectional analysis of age related changes in the osteometric dimensions of long bones in modern South Africans of European and African descent. *Forensic Sci Int.* 2010 Jun 15; 199(1-3):110.e1-9.
3. Falzone N, Huyser C, **Becker P**, Leszczynski D, Franken DR. The effect of pulsed 900-MHz GSM mobile phone radiation on the acrosome reaction, head morphometry and zona binding of human spermatozoa. *Int J Androl. Andrology* 33, 1–7.
4. Keet DF, Michel AL, Bengis RG, **Becker P**, van Dyk DS, van Vuuren M, Rutten VP, Penzhorn BL. Intradermal tuberculin testing of wild African lions (*Panthera leo*) naturally exposed to infection with *Mycobacterium bovis*. *Vet Microbiol.* 2010 Aug 26; 144(3-4):384-91.
5. Potterton J, Stewart A, Cooper P, **Becker P.** The effect of a basic home stimulation programme on the development of young children infected with HIV. *Dev Med Child Neurol.* 2010 Jun; 52(6):547-51.
6. Smith FJ, van Schalkwyk R, **Becker PJ.** Head size and body mass in infants with hydrocephalus. *J Neurosurg Anesthesiol.* 2010 Jan; 22(1):80-1.
7. Moodley M, Lindeque G, **Connolly C.** Human Papillomavirus (HPV)-type distribution in relation to oral contraceptive use in women with cervical intraepithelial neoplasia, Durban, South Africa. *Int J Gynaec Oncol.* 2010 pp 278-281.
8. Patel VB, Singh R, **Connolly C**, Kasprowicz V, Zumla A, Ndung'u T, Dheda K. Comparison of a clinical prediction rule and a LAM antigen-detection assay for the rapid diagnosis of TBM in a HIV –infected setting. *PLoS ONE* 2010 Dec 22; 5(12):e15664.

9. Patel VB, Singh R, **Connolly C**, Coovadia Y, Peer AK, Parag P, Kasprowicz V, Zumla A, Ndung'u T, Dheda K. Cerebrospinal T Cell Responses Aid the Diagnosis of Tuberculous Meningitis in a HIV and TB Endemic Population. *Am J Respir Crit Care Med.* 2010 Aug 15; 182(4):569-77.
10. Fourie MM, Rauch LHG, Morgan BE, Ellis GFR, **Jordaan E**, Thomas KGF. Guilt and pride are heartfelt, but not equally so. *Psychophysiology.* 2010 Dec 10. doi: 10.1111/j.1469-8986.2010.01157.x. [Epub ahead of print]
11. Flegar SJ, Fouche JP, **Jordaan E**, Marais S, Spottiswoode B, Vythilingum B. The neural correlates of intimate partner violence in women. *AJP, African Journal of Psychiatry.* Accepted.
12. Atkins S, Lewin S, **Jordaan E**, Thorson A. Lay health worker supported tuberculosis treatment adherence in South Africa: an interrupted time series study. Running head: Tuberculosis treatment adherence; *Int J Tuberc Lung Dis.* 2011 Jan; 15(1):84-9, i.
13. Marais S, **Jordaan E**, Viljoen D, Olivier L, de Waal J, Poole C. The effect of brief interventions on the drinking behaviour of pregnant women in a high-risk rural South African community: a cluster randomised trial. *Early Child Development and Care.* 1-12. Doi: 10.1080/03004430903450392. First Published on: 29 January 2010.
14. Franken DR, Aneck-Hahn N, **Lombard C**, Kruger TF. Semenology training programs: 8 years' experience. *Semenology training, Vol. 94, No. 7, December 2010.*
15. Plüddemann A, Flisher AJ, McKetin R, Parry CD, **Lombard CJ**. A prospective study of methamphetamine use as a predictor of high school non-attendance in Cape Town, South Africa. *Subst Abuse Treat Prev Policy.* 2010 Oct 21; 5(1):25.
16. Dunbar R, Beyers N, Barnes J, Caldwell J, Lawrence K, Verver S, Enarson D, Hargrove J, **Lombard C**. Accuracy and completeness of recording of confirmed tuberculosis in two South African communities. *IJTL-04-10-0275.R1.* Accepted.
17. Visser M, Grewal H, Swart R, Dhansay A, Walzl G, Swanevelder S, **Lombard C**, Gary Maartens. The effect of vitamin A and zinc supplementation on treatment outcomes in pulmonary tuberculosis: a randomised controlled trial. *Am J Clin Nutr.* 2010 Nov 10. [Epub ahead of print]
18. Zar HJ, Workman L, le Roux SM, Jennings T, Jele N, Schaaf HS, Barclay-Loggie A, Mulligan C, le Roux DM, **Lombard CJ**, Cotton MF; INH study team. A randomized controlled trial of intermittent compared with daily cotrimoxazole preventive therapy in HIV-infected children. *AIDS.* 2010 Sep 10;24(14):2225-32. Collaborators (8) Bezuidenhout H, Brink P, Frigati L, Gray D, Hussey G, Rabie H, Streicher R, Walters E.

19. Abrahams N, Jewkes R, **Lombard C**, Mathews S, Campbell J, Meel B. Impact of telephonic psycho-social support on adherence to post-exposure prophylaxis (PEP) after rape. *AIDS Care*. 2010 Oct; 22(10):1173-81.
20. Wild LG, Flisher AJ, **Lombard CJ**. Sexual Behaviour of High School Students in Two Rural South African Communities. *Journal of Psychology in Africa* 2010, 20(1), 999-999.
21. Plüddemann A, Flisher AJ, McKetin R, Parry C, **Lombard C**. Methamphetamine use, aggressive behavior and other mental health issues among high-school students in Cape Town, South Africa. *Drug Alcohol Depend*. 2010 Jun 1; 109(1-3):14-9.
22. Gray D, Nuttall J, **Lombard C**, Davies MA, Workman L, Apolles P, Eley B, Cotton M, Zar H. Low Rates of Hepatotoxicity in HIV-infected Children on Anti-retroviral Therapy with and without Isoniazid Prophylaxis. *J Trop Pediatr*. 2010 Jun; 56(3):159-65.
23. Hesseling AC, Walzl G, Enarson DA, Carroll NM, Duncan K, Lukey PT, **Lombard C**, Donald PR, Lawrence KA, Gie RP, van Helden PD, Beyers N. Baseline sputum time to detection predicts month two culture conversion and relapse in non-HIV-infected patients. *Int J Tuberc Lung Dis*. 2010 May; 14(5):560-70.
24. Everett-Murphy K, Steyn K, Mathews C, Petersen Z, Odendaal H, **Gwebushe N, Lombard C**. The effectiveness of adapted, best practice guidelines for smoking cessation counseling with disadvantaged, pregnant smokers attending public sector antenatal clinics in Cape Town, South Africa. *Acta Obstet Gynecol Scand*. 2010; 89(4):478-89.
25. Bachmann M, Van Der Merwe S, Zwarenstein M, **Lombard C**, Fairall L, Timmerman V, Bateman E. Effects on tuberculosis outcomes of educational outreach to South African clinics during two randomised trials. *Int J Tuberc Lung Dis*. 2010 Mar; 14(3):311-7.
26. Leon N, Mathews C, Lewin S, **Lombard C**, Naidoo P. The impact of provider-initiated (opt-out) HIV testing and counseling of patients with sexually transmitted infection in Cape Town, South Africa: a controlled trial. *Implementation Science* 2010, 5:8.
27. Fairall L, Bachmann MO, Zwarenstein M, Bateman ED, Niessen LW, **Lombard C**, Majara B, English R, Bheekie A, van Rensburg D, Mayers P, Peters A, Chapman R. Cost-effectiveness of educational outreach to primary care nurses to increase tuberculosis case detection and improve respiratory care: economic evaluation alongside a randomised trial. *Trop Med Int Health*. 2010 Mar; 15(3):277-86.
28. Parker WA, Steyn NP, Levitt NS, **Lombard CJ**. They think they know but do they? Misalignment of perceptions of lifestyle modification knowledge among health professionals. *Public Health Nutr*. 2010 Jan 28:1-10.

29. Botha SS, Schutte CM, **Olorunju S**, Kakaza M. Postictal headache in South African adult patients with generalised epilepsy in a tertiary care setting: a cross-sectional study. *Cephalalgia*. 2010 Dec;30(12):1495-501.
30. Janse Van Rensburg ABR, **Olorunju S**. Diagnosis and treatment of schizophrenia in a general hospital based acute psychiatric ward. *Afr J Psychiatry* 2010; 13:204-210.
31. Morojele NK, London L, **Olorunju SA**, Matjila MJ, Davids AS, Rendall-Mkosi KM. Predictors of risk of alcohol-exposed pregnancies among women in an urban and a rural area of South Africa. *Soc Sci Med*. 2010 Feb;70(4):534-542.
32. Zeegers I, Rabie H, **Swanevelder S**, Edson C, Cotton M, van Toorn R. Attention deficit hyperactivity and oppositional defiance disorder in HIV-infected South African children. *J Trop Pediatr*. 2010 Apr; 56(2):97-102.
33. Dalvie S, Horn N, Nossek C, **van der Merwe L**, Stein DJ, Ramesar R. Psychosis and relapse in bipolar disorder are related to GRM3, DAOA, and GRIN2B genotype. *Afr J Psychiatry (Johannesbg)*. 2010 Sep; 13(4):297-301.
34. Carstens N, **van der Merwe L**, Revera M, Heradien M, Goosen A, Corfield V, Brink P, Moolman-Smook J. Genetic variation in angiotensin II type 2 receptor gene influences extent of left ventricular hypertrophy in hypertrophic cardiomyopathy independent of blood pressure. *J Renin Angiotensin Aldosterone Syst*. 2010 Dec 16. [Epub ahead of print]
35. Posthumus M, Collins M, **van der Merwe L**, O'Cuinneagain D, van der Merwe W, Ribbans WJ, Schwellnus MP, Raleigh SM. Matrix metalloproteinase genes on chromosome 11q22 and the risk of anterior cruciate ligament (ACL) rupture. *Scandinavian Journal of Medicine and Science in Sports* 2010. In Press.
36. Jones ES, Owen EP, Davidson JS, **Van Der Merwe L**, Rayner BL. The R563Q mutation of the epithelial sodium channel beta subunit is associated with hypertension. *Cardiovasc J Afr*. 2010 Sep 9; 21:1-4.
37. De Wit E, **van der Merwe L**, van Helden PD, Hoal EG. Gene-gene interaction between tuberculosis candidate genes in a South African population. *Mamm Genome*. 2010 Aug 27. [Epub ahead of print]
38. Mapaseka SL, Dewar JB, **van der Merwe L**, Geyer A, Tumbo J, Zweygarth M, Bos P, Esona MD, Steele AD, Sommerfelt H. Prospective hospital-based surveillance to estimate rotavirus disease burden in the Gauteng and North West Province of South Africa during 2003-2005. *J Infect Dis*. 2010 Sep 1; 202 Suppl: S131-8.

39. Chatterjee K, Dandara C, Gyllensten U, **van der Merwe L**, Galal U, Hoffman M, Williamson AL. A Fas Gene Polymorphism Influences Herpes Simplex Virus Type 2 Infection in South African Women. *J Med Virol.* 2010 Dec; 82(12):2082-6.
40. Blokhuis MM, Pietersen GE, Goldberg PA, Algar U, **van der Merwe L**, Mbatani N, Vorster AA, Ramesar RS. Lynch Syndrome: The influence of environmental factors on extracolonic cancer risk in HMLH1 C.C1528T mutation carriers and their mutation-negative sisters. *Fam Cancer.* 2010 Sep; 9(3):357-63.
41. Arieff Z, Kaur M, Gameeldien H, **van der Merwe L**, Bajic VB. 5-HTTLPR polymorphism: analysis in South African autistic individuals. *Hum Biol.* 2010 Jun;82(3):291-300.
42. Okpechi IG, Rayner BL, **van der Merwe L**, Mayosi BM, Adeyemo A, Nicki Tiffin, Ramesar R. Genetic variation at selected SNPs of LEP and association of alleles with markers of kidney disease in a Xhosa population of South Africa. *PLoS One* 2010 Feb 5; 5(2):e9086.
43. Joffe YT, **van der Merwe L**, Carstens M, Collins M, Jennings C, Levitt NS, Lambert EV, Goedecke JH. The Tumor Necrosis Factor Alpha gene -308 G/A polymorphism modulates the relationship between dietary fat intake, serum lipids and obesity risk in black South African women. *J Nutr.* 2010 May; 140(5):901-7.
44. Savitz J, **van der Merwe L**, Stein DJ, Newman T, Ramesar R. Catechol-o-methyltransferase genotype and childhood trauma may interact to impact schizotypal personality traits. *Behavior Genetics.* 2010 May; 40(3):415-23.

INDEXED JOURNALS - NATIONAL (FIRST AUTHOR)

1. **Lombard C**, Nosworthy A, Albers J. Opinions in hypertension. ARBs and risk of cancer: international and South African expert comment. (Opinion/Commentary) *Cardiovasc J Afr.* 2010 Nov-Dec; 21(6):338-41.

INDEXED JOURNALS - NATIONAL (CO-AUTHOR)

1. Van Rooijen Agatha J, Viviers Christa, **Becker Piet J**: A daily Physical Activity and Diet Intervention for Individuals with Type 2 Diabetes Mellitus: A randomized Control Trial. *SA journal of Physiotherapy*, 2010, Vol 66, No 2, pp 9 – 15.
2. Smith FJ, Spijkerman S, **Becker PJ**, Coetzee JF. Entropy of the electroencephalogram as applied in the M-Entropy S/5TM Module (GE Healthcare) during increases in nitrous oxide and constant sevoflurane concentrations. *S Afr J Anaesthesiol Analg* 2010; 16(4):15-21.
3. Van Aswegen H, Eales C, Richards GA, Goosen J, **Becker P**. The effect of penetrating trunk trauma and mechanical ventilation on the recovery of adult survivors after hospital discharge. *SAJCC* 2010; 26(1): 25-32.

4. Rauf W, Rauf A, **Becker PJ**. Knowledge of and misconceptions about the spread and prevention of HIV infection among older urban women attending the Tshwane District Hospital, South Africa. *SA Fam Prac* 2010; 52(2): 142-148.
5. Schoeman S, Faber M, Adams V, Smuts C, Ford-Ngomane N, **Laubscher J**, Dhansay M. Adverse social, nutrition and health conditions in rural districts of the KwaZulu-Natal and Eastern Cape provinces, South Africa. *S Afr J Clin Nutr* 2010; 23(3):140-147.
6. Ojo OA, Louwagie G, Morojele N, Rendall-Mkosi K, London L, **Olorunju S**, Davids A. Factors associated with female high-risk drinking in a rural and an urban South African site. *S Afr Med J*. 2010 Mar 8; 100(3):180-2.
7. Fernandez P, de Beer PM, **van der Merwe L**, Heyns CF. Genetic variations in androgen metabolism genes and associations with prostate cancer in South African men. *S Afr Med J*. 2010 Nov 9; 100(11):741-745.

NON-INDEXED PUBLICATIONS

PUBLICATIONS – ACKNOWLEDGEMENTS

1. Rachel Jewkes, Kristin Dunkle; Nwabisa Shai; Mzi; **Carl Lombard**. Partner violence and relationship gender power inequity increase risk of incident HIV infections in a cohort of young South African women. *The Lancet-D-09-06472R2*. Accepted.

CONGRESS PAPERS

INVITED PRESENTATIONS - NATIONAL

INTERNATIONAL PAPER AND POSTER PRESENTATIONS

TSRU Meeting held in Berlin, Germany, 14 April 2010. Side effects of terizidone, cycloserine and ethambutol for HIVco-infected MDR-TB patients in South Africa and impact on time-to-conversion. ML van der Walt, Odendaal R, **Becker P** & Lancaster J. Unit for TB Epidemiology and Intervention Research and Unit for Biostatistical Analysis, South African Medical Research Council, Pretoria, South Africa.

2010 BASES Annual Conference. Challenging the Dogma, University of Glasgow, 6 – 8th September 2010. Players training attitude and training behavior with regards to injury prevention and performance during the tackle. S Hendricks, **E Jordaan** and MI Lambert. Oral presentation.

2010 BASES Annual Conference. Challenging the Dogma, University of Glasgow, 6 – 8th September 2010. Tackle training characteristics of junior rugby players. Poster presentation. S Hendricks, **E Jordaan** and MI Lambert. Poster presentation.

XXVth International Biometric Conference. Federal University of Santa Catarina, Florianopolis, SC, Brazil, 5 – 10 December 2010. D-optimal designs for the two-variable binary logistic model without interaction. **G Kabera**.

The 1st Latin America Congress on Controversies to Consensus in Diabetes, Obesity and Hypertension (CODHy), Buenos Aires, 11-14 March 2010. **Peer N**, Bradshaw D, Steyn N, **Laubscher R**, Steyn K. Cardiovascular disease risk factors in young South Africans between 1998 and 2003: is there a problem? Oral presentation.

10th World Conference on Injury Prevention and Safety Promotion. London, 21-24 Sept 2010. M. Prinsloo, D. Bradshaw & **R. Laubscher**. Historical trends of homicide and road traffic fatalities in South Africa: 1968-1989. Oral presentation.

The 41st Union World Conference on Lung Health. Berlin, Germany, 11-15 November 2010. Poster presentation. Debbie Bradshaw, Pam Groenewald, **Ria Laubscher**, Danuta Kielkowski, Sam Egger, Richard Peto, Freddy Sitas. Tuberculosis is now the leading cause of death related to smoking in South Africa: Results from 1 million deaths with smoking questions on the death notification form. Poster presentation.

45th Congress of the Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA), Durban, 10-13 April 2010. Peer N, Levitt NS, K Steyn, **Gwebushe N**, Bobrow K, **Lombard C**. The prevalence and trend of diabetes mellitus in urban Africans in Cape Town from 1990 to 2008/9.

5th IPCRG World Conference, Toronto, Canada, June 2-5, 2010. Symptom and sign-based clinical predictors of asthma and COPD in a resource-limited primary care setting. English RG, Bateman ED, Bachmann MO, Zwarenstein MF, Naidoo S, Fairall LR, Bheekie A, Majara B, **Lombard C**. *Oral presentation.*

XXVth International Biometric Conference. Federal University of Santa Catarina, Florianopolis, SC, Brazil, 5 – 10 December 2010. Bayesian Proportional Hazards Model using Weighted Observations from Nonproportionally Sampled Strata. **Samuel OM Manda** (South African Medical Council, South Africa), William M Bolstad (University of Waikato, New Zealand)

Population Association of America Annual Meeting 15-17 April 2010, Dallas, Texas. A Nonparametric Mixture Model for Stratified Survival Data, with an Application to the Study of Transition to Teenage Motherhood in South Africa **Samuel Manda** (samuel.manda@mrc.ac.za): Biostatistics Unit, South Africa Medical Research Council

Renate Meyer: Department of Statistics, University of Auckland, New Zealand. Bo Cai: Department of Epidemiology and Biostatistics, University of South Carolina, USA.

Delaying pregnancy is a main target of action aimed at meeting a number of the Millennium Development Goals. Low rates of teenage pregnancy contribute in the eradication of poverty and the improvement of maternal and child health. Despite recent substantial declines in rates of teenage

pregnancy, the rate is still much higher in South Africa compared to the developed countries.

In this paper, we use time-to-event models to investigate important determinants of early pregnancy using national stratified clustered sample data. The stratum-specific baseline transitions to motherhood are flexibly modelled with non-parametric techniques based on a mixture of triangular distributions. The unknown number of mixands and the other parameters are estimated using a Bayesian approach via the reversible jump Markov chain Monte Carlo (MCMC) algorithm. The results are compared to those obtained under the alternative nonparametric beta mixture model and a standard parametric Weibull model on the baseline hazard function.

An international epidemiology workshop on Occupational and public health, Aachen, Germany. 21-22 May 2010. **Manda, SOM**. Macro Determinants of Spatial Variation in Childhood Mortality in South Africa using Flexible Bayesian Gaussian Mixtures.

XVIII International Aids Conference, 18-23 July 2010, Vienna, Austria. A systematic review of studies on intimate partner violence during pregnancy and risk of HIV infection in Africa. Simukai Shamu, Naeemah Abrahams, Marleen Temmerman, **Alfred Musekiwa**, Christina Zarowsky. University of Western Cape, MRC Gender and Health, MRC Biostatistics, Ghent University (Belgium). Poster presentation.

4th Africa Nutritional Epidemiology Conference, Nairobi, Kenya, 4-8 October 2010. A Cochrane review: Pycnogenol for the treatment of chronic diseases. Schoonees A, Visser J, **Musekiwa A**, Volmink J. University of Stellenbosch and MRC South African Cochrane Centre. Oral presentation.

INVITED PLENARY PRESENTATIONS - NATIONAL

Dr Carl Lombard presented a talk on Clinical Trial Tools and Biostatistical Considerations in Protocol Development at a WILL seminar on Wednesday 31 March at Caprisa. WILL is a committee of women academics within the UKZN's College of Health Sciences promoting women faculty with their research.

WOMEN SCIENTISTS GET UP-TO-DATE ON LATEST RESEARCH TOOLS

Scientists and Clinicians embarking on health science research at UKZN were informed of the most effective biostatistical research tools during a Women in Leadership and Leverage (WILL) Workshop on March 31.

Professor Carl Lombard, a Biostatistician and the Director of Cape Town's Medical Research Council (MRC)'s Biostatistics Unit conducted the workshop titled: *Clinical Trial Tools and Biostatistical Considerations in Protocol Development*. WILL workshops are geared towards equipping women researchers with skills to assertively take the lead in science research. This is achieved through peer support and a series of sessions by inspirational role models within the science disciplines.

Professor Lombard's presentation guided researchers through the PRACTIHC (Pragmatic Randomized Controlled Trials in Health Care) website which provides open-access tools, training and mentoring to researchers in developing countries. The second part of the presentation guided researchers through Biostats consultative timelines; prerequisites for calculation of power and sample size; and best practice for comparative studies and survey of cluster groups.

An important point Professor Lombard raised was the need for both researchers and statisticians to be on the same wavelength as far as the statistical requirements of a research study are concerned. It was important for the statistician to understand the purpose behind a research study and this could only be achieved through effective communication between both researchers and statisticians. Professor Lombard said in his years as a statistician he discovered that many researchers, especially those new to research were intimidated when making initial contact with statisticians.

Co-Chairperson of WILL and a Research Gynaecologist also trained in Epidemiology and based at CAPRISA, Dr Sengeziwe Sibeko said protocol development in research had been chosen as a topic for discussion because clinical researchers were often unprepared when they approached biostatisticians for advice on developing research protocols.

NATIONAL PAPER AND POSTER PRESENTATIONS

Faculty Research Day. Faculty of Health Sciences, University of Pretoria 17 August 2010. J Myburgh, EN L'Abbe, M Steyn, **PJ Becker**. Estimating the post-mortem interval using accumulated degree-days in a South African setting. Poster Presentation.

Faculty Research Day. Faculty of Health Sciences, University of Pretoria 17 August 2010. Y Scholtz, M Steyn, **PJ Becker**, E L'Abbe. An assessment of the repeatability of pelvic measurements. Poster presentation.

South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom Campus. Combining clinical evaluation with ROC analysis to increase accuracy. **Cathy Connolly**. Oral presentation.

South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom. **Kinship Concept. Ushma Galal.**

Postgraduate Open Day, University of the Western Cape. 8 October 2010. *Kinship Concept. Ushma Galal.*

MRC Research Day. 14 – 15 October 2010. Tackle Technique Training. S.Hendricks¹, **E. Jordaan**² and MI Lambert¹, ¹UCT/MRC Research Unit for Exercise Science & Sports Medicine, University of Cape Town, and ²Biostatistics Unit, Medical Research Council, Cape Town, South Africa.

South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom. Latent Class Analysis. **Esme Jordaan**.

54th Annual Academic Day, 11-12 August 2010, University of Stellenbosch, Faculty of Health Sciences. The Neural Correlates of Intimate Partner Violence in Women. Flegar SJ, Fouche JP, **Jordaan E**, Marais S, Spottiswoode B, Vythilingum B. Oral presentation.

54th Annual Academic Day, 11-12 August 2010, University of Stellenbosch, Faculty of Health Sciences. Comparison of Oral Examination Marks in Psychiatry with Examination Marks in other Discipline in Final Year Medical. Mashile MM, Niehaus DJH, **Jordaan E**, Koen L. Oral presentation.

54th Annual Academic Day, 11-12 August 2010, University of Stellenbosch, Faculty of Health Sciences. A Role for Structural Equation Modeling in Subtyping Schizophrenia in an African Population. Niehaus DJH, **Jordaan E**, Koen L, Emsley RAE. Oral presentation.

Conference proceedings publication:

Kabera, M. G. and Haines, L. M. (2010). A Statistical Approach to the Analytic Hierarchy Process, *in* P. Debba, F. Lombard, V. S. S. Yadavalli, and L. P. Fatti (eds), *Peer-reviewed Proceedings of the 52nd Annual Conference of the South African Statistical Association for 2010 (SASA 2010)*, pp. 28 – 35.

Southern African Transport Conference (SATC 2010). Final acceptance of paper: A City-Level Study of Driver Anger and Aggression in South Africa Session: Traffic Management, Safety & Security. We are pleased to advise that your paper has been accepted for presentation at SATC 2010 to be held at the CSIR International Convention Centre, Pretoria, from 16 to 19 August this year. Authors: Anesh Sukhai, Mohamed Seedat and **Esme Jordaan**. Oral presentation.

SACENDU (South African Community Epidemiology Network on Drug Use) – Programme of the Cape Town regional report back meeting, Thursday, 27 May 2010, Fairways, Bellville Golf Club. “So, you only have three minutes?” Lessons from a randomized control trial on the prevention of fetal alcohol spectrum disorders. Dr Sandra Marais & **Esme Jordaan**. Oral presentation.

29th Conference on Priorities in Perinatal Care in Southern Africa, ATKV Goudini Spa, 9-12 March 2010. SO YOU ONLY HAVE 3 MINUTES? Sandra Marais; **Esme Jordaan**; Leana Olivier; Dennis Viljoen. Poster presentation.

Scholarship of Teaching and Learning (SOTL 2010), May 2010. Correlation of non-verbal communication skills with academic performance in the late rotation psychiatry module: sub-study comparison of written examination marks with oral examination marks. **D Niehaus, E Jordaan**. Oral presentation.

South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom Campus. A Statistical Approach to the Analytic Hierarchy Process. Gaetan Kabera. Oral presentation.

Lwando Kondlo presented one of the best papers on the 2nd ISIBalo Young Statistician Conference (IYASC), Pretoria, South Africa, 1-3 December 2010 under the theme: “Durban to Dublin: Doubling the Young African Statistician Efforts” .

ISIBalo capacity building programme: 2nd Young African Statisticians Conference 2010, 1-3 December 2010, Pretoria. Topic presented: Sample size allocation in national surveys for small area estimation: South Africa perspective. Kondlo L. Oral presentation.

South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom. Small area estimation of HIV prevalence using national survey data. Kondlo, L, Manda S. Oral presentation.

6th Public Health Association of South Africa conference. East London, 29 Nov – 01 Dec 2010. M. Prinsloo, R. Laubscher, R. Matzopoulos & D. Bradshaw. Have injury mortality rates in South Africa always been so high? Poster.

Population Association of South African (PASA) Conference, Development Bank of Southern Africa, Mid Rand, August 11-13th 2010. Nadine Nannan, Rob Dorrington, Ria Laubscher, Timotheus Darikwa and Debbie Bradshaw. Data challenges in measuring under-five mortality in South Africa. Oral presentation.

54th Annual Academic Day, 11-12 August 2010, University of Stellenbosch, Faculty of Health Sciences. The Role of Aspirin in Childhood TBM. Prof JF Schoeman, Ms A Janse van Rensburg, Ms JA Laubscher, Dr P Springer. Poster presentation.

Nutrition Congress 2010 - 23rd Biennial Congress of the Nutrition Society of South Africa and the 11th Biennial Congress of the Association for Dietetics in South Africa International Convention Centre Durban. 20 - 22 September 2010. Dietary intake measurements and biomarkers as indicators of dietary iron intake in pre-menopausal women: a structural equation modelling approach. Kunneke E, Jordaan E, Vorster HH, Wolmarans P & Laubscher R.

Nutrition Congress 2010 - 23rd Biennial Congress of the Nutrition Society of South Africa and the 11th Biennial Congress of the Association for Dietetics in South Africa International Convention Centre Durban. 20 - 22 September 2010. The relative validity of a short food frequency questionnaire for assessing dietary iron intake. Kunneke E, Wolmarans P, Vorster HH, Laubscher R.

Public Health Association of South Africa Conference, East London, November 2010. "Methamphetamine use and sexual risk behaviour among high school students in Cape Town." Plüddemann, A., Parry, C.D.H, Flisher, A.J., McKetin, R., & **Lombard, C.** Oral presentation.

54th Annual Academic Day, 11-12 August 2010, University of Stellenbosch, Faculty of Health Sciences. Access to Routine Clinic Compared to Community Sputum Collection for Tuberculosis Diagnosis. Dr E du Toit, Ms K Lawrence, Prof P Godfrey-Faussett, Dr H Ayles, **Dr C Lombard**, Prof N Beyers. Scientific Exhibitions.

South African Congress of Nephrology, Cape Town International Convention Centre (CTICC), 16 – 19 April 2010. GRK4 gene polymorphisms determine blood pressure responses to dietary intervention in black subjects with mild to moderate hypertension. Brian Rayner, Krisela Steyn, Naomi Levitt, **Carl Lombard**, Raj Ramesar, Karen Charlton. Divisions of Nephrology and Hypertension, Endocrinology and Diabetes and Human Genetics, University of Cape Town and MRC Chronic of Lifestyle Unit, and MRC Biostatistics Unit. Oral presentation.

16th Biennial Congress of the South African Hypertension Society 2010 (SAHS 2010), Feb 2010. Acute saline loading in lean young black and white subjects – GRK4 gene polymorphisms determine response. Brian Rayner, **Carl Lombard**, **Alfred Musekiwa**, Raj Ramesar, Division of Hypertension and Genetics, University of Cape Town and MRC Biostatistics Unit. Oral presentation.

10th AstraZeneca Health Sciences Research Day, 25 February 2010, University of Stellenbosch Faculty of Health Sciences. Safety and efficacy of reduced osmolarity rehydration solution for treating cholera: A Cochrane systematic review. Colleen K Murphy, **Alfred Musekiwa**, Jimmy Volmink. AIDS Research Alliance, Los Angeles, CA, USA and MRC South African Cochrane Centre. Poster presentation.

54th Annual Academic Day 2010, Stellenbosch University Faculty of Health Sciences, South Africa, 11-12 August 2010. Prevalence and incidence of back pain amongst dental practitioners: A meta-analysis. Khondowe O, Chikte UME, **Musekiwa A**, Louw Q. Oral presentation.

45th Congress of the Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA), Durban, 10-13 April 2010. The Prevalence and Trend of Diabetes Mellitus in Urban Africans in Cape Town from 1990 to 2008/09. Peer N, Levitt NS, K Steyn, Gwebushe N, Bobrow K, **Lombard C.** The prevalence and trend of diabetes mellitus in urban Africans in Cape Town from 1990 to 2008/9. Oral presentation.

South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom. Modelling of Spatially Correlated Childhood Survival in South Africa using Flexible Bayesian Frailty Mixtures. **Samuel OM Manda**

*South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom Campus. A comparative analysis of survival attributable to HIV among MDR-TB patients in South Africa. **Lieketseng Masenyetse, Samuel Manda.** Oral presentation.*

*Public Health Association of South Africa (PHASA) Conference, Pretoria. 29 November - 1 December 2010. **Manda, SOM, Lombard CJ,** Mosala TI. Divergent Spatial Patterns in the Prevalence of Human Immunodeficiency Virus and Syphilis in South African Pregnant Women using Bivariate Binomial Modelling*

*South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom. Small area estimation of HIV prevalence using national survey data. **Kondlo, L; Manda S.***

*South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom. Modelling of Spatially Correlated Childhood Survival in South Africa using Flexible Bayesian Frailty Mixtures. **Samuel Manda***

*South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom Campus. A comparative analysis of survival attributable to HIV among MDR-TB patients in South Africa. **Lieketseng Masenyetse, Samuel Manda.***

Manda SOM, Summers S, Mayayise G. Modelling ARV Regimen Change in HIV/AIDS Patients using Multi-State Models. University of Limpopo (MEDUNSA Campus) Research Day: 12 August 2010.

*South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom Campus. Odds ratios in Medical Research Stream: Biostatistics. **Lize van der Merwe.** Oral presentation.*

*54th Annual Academic Day, 11-12 August 2010, University of Stellenbosch, Faculty of Health Sciences. Variants in Renin and Renin-Binding Protein Genes Modify Cardiac Hypertrophy in Hypertrophic Cardiomyopathy Patients, Independent of Blood Pressure. Ms N Carstens, **Prof L van der Merwe,** Dr M REVERA, Dr M Heradien, Prof PA Brink, Prof JC Moolman-Smook. Poster presentation.*

LAY PUBLICATIONS/CONFERENCE PROCEEDINGS

LAY PUBLICATIONS (written documents of programmes for non-scientific audiences, includes press, radio, TV)

Conference proceedings:

Southern African Transport Conference (SATC 2010). Final acceptance of paper: A City-Level Study of Driver Anger and Aggression in South Africa Session: Traffic

Management, Safety & Security. We are pleased to advise that your paper has been accepted for presentation at SATC 2010 to be held at the CSIR International Convention Centre, Pretoria, from 16 to 19 August this year. Authors: Anesh Sukhai, Mohamed Seedat and **Esme Jordaan**. Oral presentation.

BOOKS/MANUSCRIPTS

CHAPTER

RESEARCH PROPOSALS/PROTOCOLS/GRANT PROPOSALS (approved for submission by Protocol Committee or Programme Leader)

SUCCESSFUL

The utilisation of safe stove technology to prevent childhood burns injuries in South Africa. A van Niekerk, **E Jordaan**. WHO.

Assessing Maternal Substance use during Pregnancy in Women attending Midwife Obstetric Unit, CDC. Petal Petersen, **Esme Jordaan**.

OUTCOME PENDING

Integrated chronic disease management in South African primary care: educational outreach and clinical guideline: a randomized controlled trial. A trial to be done in the EDEN district in primary care clinics: Prof Max Bachmann, Dr Lara Fairall, **Dr Carl Lombard**, Dr Merrick Zwarenstein, Dr Simon Lewin, Dr Chris Colvin, Dr Ed Wilson, Prof Tom Gaziano, Prof Eric Bateman, Prof Naomi Levitt, Dr Krisela Steyn, Prof Crick Lund. WHO/TDR call specifically Joint Global Health Trials.

GRANT PROPOSAL SUBMITTED: UNSUCCESSFUL

Plugging Gaps to achieve Goals . A proposal to improve the treatment and care of Tuberculosis patients. Prof Nulda Beyers, Ms Pauline Pieters, Dr Pren Naidoo, Prof Anneke Hesseling, Prof Gerhard Theron, Ms Brenda Smuts, Ms Melisa Smuts, **Dr Carl Lombard**, Dr Donald Skinner. WHO/TDR call specifically Joint Global Health Trials.

RESEARCH TECHNICAL REPORTS

Reports

HEAIDS, 2010. HIV Prevalence and Related Factors – Higher Education Sector Study, South Africa, 2008-2009. Pretoria: Higher Education South Africa, research team: Dr M Colvin, Dr K Kelly, Dr W Parker, **Ms C Connolly**, Dr L Ndolvu, Dr P Craviolatti

Department of Health - Management Report on Inpatient Point Prevalence Study. Conducted at TB Hospitals in the Western Cape. 01 March to 05 March 2010. Study conducted and written up by Dr GA Denicker with statistical analysis (SAS) and editing by **Esme Jordaan**.

TEACHING AND SUPERVISION FOR POST-GRADUATE STUDENTS
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PhD/MD: PROMOTER/CO-PROMOTOR (indicate in brackets if completed this year)

Dr Carl Lombard

PhD Candidates supported

Sheila Clow - Phd in mid-wifery UCT Promoter Prof George Swingler
(40hrs -Design and analysis of research)

Dr Ekkard Zollner PhD US. Promoter: Prof Hough
(10hrs Design and analysis of research)

Penny Ennarson PhD US. Promoter: Prof Robert Gie
(30hrs analysis)

Samuel Manda

a) **Kolawole Adigun:** DEVELOPMENT AND VALIDATION OF A
DECISION- MAKING ALGORITHM TO ASSIST WITH DRUG
SUSCEPTIBLE TESTING FOR TUBERCULOSIS. Department of Public
Health System, University of Pretoria

b) **Mulalo Annah Managa:** MULLTIVARIATE DISCRETE STATISTICAL
MODELS FOR DISEASE OCCURENCE. Department of Statistics,
University of South Africa.

Steve Olorunju

PhD by thesis. Department of Nutrition. University of Pretoria. Student:
Joan Matji.

Lize van der Merwe

External Promotor: PhD. Health Sciences, Stellenbosch University. Student:
Nadia Carstens.

External Promotor: PhD. Department of Human Biology, School of Medicine,
University of Cape Town. Student: Yael Joffe.

MSc (or equivalent): PROMOTER CO-PROMOTER (indicate in brackets if completed this year)

Steve Olorunju

MSc by thesis, School of Health Systems and Public Health, Faculty of Health
Sciences. University of Pretoria. Student: Joyce Shirinde.

MSc by thesis, Department of Family Medicine, School of Medicine, Faculty
of Health Sciences. University of Pretoria. Student: Dr OJ Ibeziako.

MSc by thesis, Department of Family Medicine, School of Medicine, Faculty
of Health Sciences. University of Pretoria. Student: Dr COA Fabiyi.

MSc by thesis, Department of Sociology, University of Pretoria, Faculty Humanities. Student: Lize Loots.

Samuel Manda

Muchiri Wandai. Comparison of combined immunological and virological responses in adult HIV+ patients across Antiretroviral Therapy (ART) providers in Tshwane: a Multilevel Analysis. School of Public Health System, University of Pretoria.

Lize van der Merwe

Supervisor: MSc by thesis, Department of Statistics, UWC. Student: Ushma Galal.

Examiner

Piet Becker

1 of 3 MSc Thesis; Supervisor Prof Jacky Galpin, University of the Witwatersrand, Faculty of Science. Akindolani Omotola Omokunbi, Estimating the incidence of acute HIV infection from a single cross-sectional sample.

2nd MSc Thesis: Bayesian estimation of Shannon entropy for bivariate beta priors.

Cathy Connolly

Epidemiology and Research Methods in E-Health, Dept of Telehealth, Nelson Mandela School of Medicine

Introduction to Biostatistics, Masters in Medical Science (Medical Informatics) Nelson Mandela School of Medicine

Introduction to Basic Statistics, PG Diploma in Telemedicine, Dept of Telehealth, Nelson Mandela School of Medicine.

Carl Lombard

UCT – Dept of Statistics Science, Dept of Public Health & Family Planning, Centre for Actuarial Research
UKZN- Dept of Statistics (Pietermaritzburg)

LECTURES (EXTERNAL) INVITED SPEAKER, ETC.

Cathy Connolly

Clinical Trial training for the RAP trial in Viet Nam, funding by ANRS (French), 10-17 March 2010

Dr Carl Lombard

Lecture Statistical Methods - Workshop Facilitation, Lanzerac Stellenbosch – Epi Group (M Claasens) - TB in Health Care
MSc Epidemiology, University of Stellenbosch

Samuel Manda

Lecture: Monitoring and Evaluation: Surveys and Sampling. School of Public Health System, University of Pretoria.

COURSES TAUGHT**Alfred Musekiwa**

Biostatistics 1 and II for the Masters in Clinical Epidemiology at the Stellenbosch University Faculty of Health Sciences.

Piet Becker

Informal: Research and experimental design

1) Anatomy TNM 800, UP – 4 May 2010

2) Pathology TNM 800, UP – Aug 2010

Cathy Connolly

University of Cape Town, Biostatistics Course, 8-9 August 2010

Introduction to Biostatistics, MRC Durban, 16-20 August 2010

Research Methods, UKZN School of health sciences two lectures September, 2010

Steve Olorunju & Samuel Manda

BOS 871, Biostatistics Course at the University of Pretoria, Faculty of Health Sciences. February 1-5, 2010.

Samuel Manda

BOS 871, Biostatistics Course at the University of Pretoria, Faculty of Health Sciences. February 1-5, 2010.

Hierarchical Bayesian Data Analysis in Biostatistics with WinBUGS 4--5 October 2010. Summer School, University of Pretoria.

Survival Analysis: Clinical Trials Course: School of Public Health System, University of Wits.

Lize van der Merwe

Developed and taught Masters level module: Statistical Analysis of Human Genetic Data, Department of Statistics, University of the Western Cape/University of Stellenbosch. 15-19 March 2010 and 31 May to 2 June 2010.

Carl Lombard, Esme Jordaan, Steve Olorunju, Ria Laubscher, Sonja Swanevelder, Nomonde Gwebushe, Ushma Galal, Alfred Musekiwa, Trishanta Padayachee presented and assisted presenters at the Introduction to Biostatistics Training Course. Medical Research Council, Parow. 30 August to 1 September 2010

Capacity development

Carl Lombard

Involved with a TREAT-TB Operations Research program funded by the UNIIION (TB) through the Desmond Tutu TB centre at US. Research teams from each provincial department of health supported to develop a research protocol for ethical approval and funding. Three workshops =3 days support. Acted as statistical facilitator.

Manda SOM, Summers R, Mayayise G. Modelling Regimen Switch in HIV/AIDS Patients Receiving Antiretroviral Therapy using Multi-State Models. Young Scientist Forum Presentation. 22 September 2010.

REVIEWING AND EDITING OF MANUSCRIPTS/BOOKS (JOURNAL PEER REVIEW SYSTEM)

INTERNATIONAL BOOK/JOURNAL REVIEWS

Cathy Connolly

MRC Protocols:

Prevalence of HIV-1 drug resistance within a female screening population for HIV prevention trials (MTN-009) 17 May 2010

Dr Carl Lombard

The International Journal of Biostatistics
American Journal of Preventive Medicine
Social Science & Medicine
Lancet
BMC Pregnancy and Child Birth
BMC Health Service Research (2)
BMC Urology
BMC Pediatrics (statistical advice)

Dr Lize van der Merwe

Various BMC journals

NATIONAL JOURNAL MANUSCRIPT REVIEWS

Cathy Connolly

Gender comparisons of high-risk behaviour of sexually active first-year students entering the University of Western Cape, AFRICAN JOURNAL OF AIDS RESEARCH, September 2010

Carl Lombard

Cardiovascular Journal of Southern Africa

Steve Olorunju & Piet Becker

Cardiovascular Journal for Africa

EDITORIAL COMMITTEES APPOINTMENTS

Cathy Connolly

Data and Safety Monitoring Board Meeting TB-Haart Study 8-9 April 2010, Geneva.

Carl Lombard

Associate editor of South African Statistical Journal
Associate editor of International Journal of Tuberculosis and Lung Disease (IJTLD)
Statistical Advisory Panel of BMC

Samuel Manda

Associate Editor: South African Statistical Journal

Dr Lize van der Merwe

Statistical Editor for BMC group of Journals
Statistical Editor for HIV/AIDS Systematic Review Group
Statistical Editor for South African Cochrane Centre

COMMITTEES (JOB RELATED)

INTERNATIONAL

Cathy Connolly

Committees:
Data and Safety Monitoring Board Meeting TB-Haart Study 8-9 April 2010, Geneva.

Dr Carl Lombard

Member of the African DSMB, NIH/NIAID
Member of the Zambia Viral Load Study, DSMB, NIH/NIAID
Data and Safety monitoring board for Africa DIADS NIH
DSMB member IMPI trial
DSBM member Neverest trial

NATIONAL

Esme Jordaan

Foundation for Alcohol Related Research (FARR) – the Community Builder of the Year Award.

Dr Carl Lombard

Member of the special advisory panel on HIV prevalence and Incidence of the DOH.

Health Coordination Advisory Committee, Dept of Health

Member of the advisory panel for the district HIV antenatal prevalence survey for the Western Cape.

Member of the MRC scientific review panel for the reviewing of protocols for submission for ethical approval

Trustee on the Board of SACEMA

Samuel Manda

Member of University of Witwatersrand: School of Public Health Public Health Statistics Working Group (teaching of students, seminars, short courses, Planning).

Steve Olorunju

Nominated to serve on the Ethics Committee of CSIR, for a period of three years (2010 – 2012).

Samuel Manda

Member of University of Witwatersrand: School of Public Health Public Health Statistics Working Group (teaching of students, seminars, short courses, Planning).

PREPARATION OF COMMITTEE REPORTS

Carl Lombard

Prepared statistical report of the 2009 HIV antenatal survey for the department and reviewed the draft 2009 report as member of the special advisory panel on HIV.

Steve Olorunju

Member of Students Ethics Protocol Review Committee of University of Pretoria Faculty of Health Sciences as Biostatistician on the Team.

AWARDS, PRIZES AND HONORARY MEMBERSHIPS

INTERNATIONAL RECOGNITION

NATIONAL RECOGNITION

Dr Lize van der Merwe

Extraordinary Professor in Statistics Department, Natural Sciences Faculty, University of Western Cape

Honorary Associate Professor in Human Biology Department, Faculty of Health Sciences, University of Cape Town.

IMPLEMENTATION (Describe instances where your research has influenced policy and practice)

- Research breakthroughs/Significant research translations

Carl Lombard has been involved in a series of cluster randomised trials being conducted in the primary care clinics of the Free State. The three trials are PALSA, PALSA Plus and STRETCH. The aim of these trials was training nurses at this level in the integrated care of lung health diseases, Sexually Transmitted Infections and HIV including the initiation and prescription of ARV's. These are all pragmatic trials evaluating the intervention in the real setting of the daily care in primary care clinics. The training of nurses happens through and outreach training program which does not take away staff from the workplace. Two publications have appeared in 2010 that highlights the benefit of this intervention – the impact on the TB treatment program and the cost effectiveness. The STRETCH trial funded by the UK-MRC will be ending in June and the results of this trial should be available towards the end of the year and will have definitive impact on the HIV care setup in South Africa.

The National Department of Health looked at the evidence of these studies using the method of outreach training. From April 2010 this has been accepted as the mode of training for staff in primary care clinics throughout South Africa. A large contract has been signed with the Knowledge Translation Unit from UCT who developed the training program to setup the national program. The training focus will be the PALSA Plus integrated care guidelines.

The basis for these trials is the data warehouse designed and guided by Dr Chris Seebregts and his division from 2000-2005 since the trials utilize the clinical administrative data bases of the Free State Department of Health.

C P Gale,¹ **S O M Manda**,² C F Weston,³ J S Birkhead,⁴ P D Batin,⁵ A S Hall⁶ Evaluation of risk scores for risk stratification of acute coronary syndromes in the Myocardial Infarction National Audit Project (MINAP) database: *Heart* 2009;95;221-227. Now been used by the UK National Institute for Clinical Excellence (NICE) for a guidance document on how to manage heart attacks.

WORKSHOPS, SEMINARS, SYMPOSIUMS, COURSES ATTENDED AND PRESENTED

3rd International Workshop on the Clinical PHarmacology of tuberculosis drugs, Boston. Weight and sex are important determinants of antituberculosis drug concentrations in patients with HIV associated tuberculosis; level of immune suppression and concomitant antiretroviral therapy (efavirenz, lamivudine and zidovudine) are not. Authors: Helen McIlleron, Roxanna Rustomjee, Mahnaz Vahedi, Thuli Mathiyane, Paolo Denti, **Catherine Connolly**, Wasima Rida, Alexander Pym, Peter J Smith, Philip Onyebujoh.

Piet Becker, Steve Olorunju, Nomonde Gwebushe, Tarylee Reddy and Lieketseng Masenyetse attended the Repeated Measures in Clinical Studies using SAS and Stata course. Summer School, University of Pretoria. 11-15 October 2010. University of Pretoria.

Nomonde Gwebushe and **Lieketseng Masenyetse** represented the Biostatistics Unit at the Eding International Science Festival, March 2010.

Ushma Galal attended the workshop on Statistical methods for model diagnosis presented by Professor Winfried Stute from the University of Giessen. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

Esme Jordaan

Seminar at UWC 11 August - Latent Variable Models. Oral presentation.

Alternative and Adaptive Clinical Trial Design Workshop, CAPRISA, Durban from 29-31 March 2010. Attended.

EPI Workshop, May 2010.

Participation in workshop at PHASA. November 2010. Title: Foetal Alcohol Syndrome prevention research: Where are we in South Africa – an update.

Facilitators: Kirstie Rendell-Mkosi

Abstract: Studies in South Africa have reported prevalence rates of Foetal Alcohol Syndrome that are easily the highest in the world. Researchers in the field have moved away from merely measuring the extent of the problem to testing different strategies for FAS prevention, in efforts to find ways to reduce the burden of disease associated with FAS. This workshop will provide an opportunity to review the current state of prevention research relating to FAS, allowing researchers in the field, policy makers and the public health community to share debate and engage around research methodologies and early findings to contribute to reducing the FAS burden in South Africa.

Gaetan Kabera attended the Workshop on Multivariate Analysis of Ecological Data presented by Professor Michael Greenacre from Universitat Pompeu Fabra and Professor Raul Primicerio from the University of Tromsø. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

Gaetan Kabera attended the Workshop on Global Financial Stability and Long Term Risks presented by Professor Robert Engle from the Stern School of Business. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

Lwando Kondlo attended the seminar on INNOVATIVE APPROACH TO TURN STATISTICS INTO KNOWLEDGE from 8-10 December 2010 Cape Town International Convention Centre . Organised by OECD, World Bank and Statistics South Africa.

Lwando Kondlo attended the workshop on Hierarchical Bayesian Data Analysis in Biostatistics with WinBUGS (4 -5 October 2010) and the Analysis of biomedical data using Stata 6-8 October 2010. Summer School, University of Pretoria.

Lwando Kondlo attended the workshop on Statistical methods for model diagnosis presented by Professor Winfried Stute from the University of Giessen. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

First Global Symposium on Health Systems Research, Montreux, Switzerland, from 16 - 19 November 2010. Dr Carl Lombard.

Dr Carl Lombard attended the first Western Cape Chapter meeting of SASA for 2010. Friday 30 April at 3pm. Venue: Chemistry Seminar Room (level 1 of PD Hahn Building, Upper Campus, UCT). Speaker: Trevor Hastie.

Dr Carl Lombard presented and attended at the Alternative and Adaptive Clinical Trial Design Workshop, CAPRISA, Durban from 29-31 March 2010.

CAPRISA and the Columbia University, Southern African AIDS International Training and Research Program recently co hosted a workshop on alternative and adaptive clinical trial design. This workshop, which was targeted at principal investigators, epidemiologists and statisticians involved in the design of clinical trials, was presented by Dr Shein-Chung Chow, Professor at the Department of Biostatistics and Bioinformatics, Duke University School of Medicine, Durham, North Carolina and Dr Carl Lombard, director of the biostatistics unit at the South African Medical Research Council. Although there are several designs for the conduct of clinical trials, the most extensively used design is the two-arm superiority trial. As interventions increase in complexity the utility of alternate designs increases. Alternate clinical trial designs have both advantages and disadvantages that need careful consideration. This workshop covered topics such as standard, parallel arm trials and variations on standard trials, adaptive design methods in clinical trials, statistical inference on two-stage seamless adaptive design, cluster randomised trials, adaptive designs: protocol amendment and the role of DSMBs in clinical trials.

Dr Samuel Manda attended and presented at the International Epidemiology Workshop on Occupational and Public Health, Aachen, Germany. May 21-22 in Germany, in which I have been invited to attend/present.

Dr Samuel Manda presented a workshop on Hierarchical Bayesian Data Analysis in Biostatistics with WinBUGS at the Summer School in Biostatistics, presented at the University of Pretoria by the School of Health Systems and Public Health (SHSPS), University of Pretoria. 4 – 15 October 2010.

Lieketseng Masenyetse attended the workshop on Statistical methods for model diagnosis presented by Professor Winfried Stute from the University of Giessen. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

Alfred Musekiwa was invited to the SMG course for Cochrane statisticians addressing advances in meta-analytical techniques. 4 – 5 March 2010. Cardiff, UK.

Dr Steve Olorunju

Advanced Logistic Regression Analysis: April 16 – May 16 2010.

Trishanta Padayachee attended the workshop on Statistical methods for model diagnosis presented by Professor Winfried Stute from the University of Giessen. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

Lize van der Merwe attended the Workshop on Multivariate Analysis of Ecological Data presented by Professor Michael Greenacre from Universitat Pompeu Fabra and Professor Raul Primicerio from the University of Tromsø. *South African Statistical Association Conference (SASA) 2010. 8 – 12 November 2010, North-West University, Potchefstroom.*

Dr Lize van der Merwe was invited to the *African Institute for Mathematical Sciences Conference on Diversity in Mathematics July 13-17, 2010*. Statistical Analysis of Human Genetic Data. **Lize van der Merwe**. Friday 16 July.

Dr Lize van der Merwe was invited to the *African Institute for Mathematical Sciences. Conference on Diversity in Mathematics July 13-17, 2010*. Panel Discussion: Statistics in a variety of forms David Spiegelhalter, Tertius de Wet, **Lize van der Merwe**. Saturday 17 July.

Submitted articles:

1. Moodley P, Shah NS, Tayob, N, **Connolly C**, Gandhi NR, Friedland GF, Sturm AW. Spread of extensively Drug-resistant Tuberculosis in KwaZulu-Natal Province, South Africa. PloS ONE. Submitted.
2. Hendricks S, **Jordaan E**, Lambert MI. Players training attitude and training behavior with regards to injury prevention and performance during the tackle. Psychology of Sport and Exercise Science. Submitted.
3. Niehaus D, **Jordaan E**, Mashile MM et al. Exit examination in final year medical students: Measurement validity of oral examinations in psychiatry. BMC Medical Education. Submitted.
4. Gelderblom W, Sissing L, Marnewick J, Joubert L, De Kock M, **Swanevelder S**. Modulating effects of Rooibos and Honeybush Herbal teas on the development of Oesophageal Papillomas in rats. *Nutrition and Cancer: An International Journal*. Submitted.