



CELEBRATES SCIENCE



AUGUST 2016

TOP 5 ARTICLES

Director: Prof Stephen Tollman



Article:

Garenne M, Collinson MA, Kabudula CW, Gomez-Olive FX, Kahn K, Tollman S. Improving completeness of birth and death registration in rural Africa. *Lancet Global Health*. 2016 Aug 15. [Letter]

DOI: 10.1016/S2214-109X(16)30146-2

Impact Factor: 14.722

Summary:

Vital registration is a key element of modern societies and necessary for functioning of the rule of law. Birth and death certificates are necessary to guarantee numerous rights and duties to individuals and families. However, with a few exceptions (such as islands), no African country has achieved a complete system of civil registration and vital statistics (CRVS).

Director: Prof Heather Zar



Article:

Gray DM, Turkovic L, Willemse L, Visagie A, Vanker A, Stein DJ, Sly PD, Hall GL, Zar HJ. Lung function in African infants in the Drakenstein child health study: Impact of lower respiratory tract illness. *American Journal of Respiratory and Critical Care Medicine*. 2016 Aug 10. [Original]
DOI: 10.1164/rccm.201601-0188OC
Impact Factor: 13.118

Summary:

Rationale Lower respiratory tract illness is a major cause of childhood morbidity and mortality. It is unknown whether infants are predisposed to illness due to impaired lung function or whether respiratory illness reduces lung function. We aimed to investigate the impact of early life exposures, including lower respiratory tract illness on lung function during infancy. **Methods** Infants enrolled in the Drakenstein child health study had lung function at six weeks and one year. Testing, during quiet natural sleep, included tidal breathing, exhaled nitric oxide and multiple breath washout measures. Risk factors for impaired lung health were collected longitudinally. Lower respiratory tract illness surveillance was performed and any episode investigated. **Results** Lung function was tested in 648 children at 1 year. One hundred and fifty (29%) infants had a lower respiratory tract illness during the first year of life. Lower respiratory tract illness was independently associated with increased respiratory rate (4%, 95%CI 1.01 to 1.08; $p=0.02$). Repeat episodes further increased respiratory rate (3%, 95%CI 1.01 to 1.05; $p=0.004$), decreased tidal volume (-1.7 mL, 95%CI -3.3 to -0.2; $p=0.03$) and increased the lung clearance index (0.13 turnovers, 95%CI 0.04 to 0.22; $p=0.006$) compared to infants without illness. Tobacco smoke exposure, lung function at 6 weeks, infant growth and prematurity were other independent predictors of lung function at one year. **Conclusions** Early life lower respiratory tract illness impairs lung function at one year, independent of baseline lung function. Preventing early life lower respiratory tract illness is important to optimise lung function and promote respiratory health in childhood.

Director: Prof Jimmy Volmink



Article:

Wiysonge CS, Abdullahi LH, Ndze VN, Hussey GD. Public stewardship of private for-profit healthcare providers in low- and middle-income countries. *Cochrane Database of Systematic Reviews*. 2016 Aug 11; (8): CD009855. [Review]
DOI: 10.1002/14651858.CD009855.pub2

Impact Factor: 6.103

Summary

Background: Governments use different approaches to ensure that private for-profit healthcare services meet certain quality standards. Such government guidance, referred to as public stewardship, encompasses government policies, regulatory mechanisms, and implementation strategies for ensuring accountability in the delivery of services. However, the effectiveness of these strategies in low- and middle-income countries (LMICs) have not been the subject of a systematic review.

Objectives: To assess the effects of public sector regulation, training, or co-ordination of the private for-profit health sector in Low- and Middle-Income countries.

Search Methods: For related systematic reviews, we searched the Cochrane Database of Systematic Reviews (CDSR) 2015, Issue 4; Database of Abstracts of Reviews of Effectiveness (DARE) 2015, Issue 1; Health Technology Assessment Database (HTA) 2015, Issue 1; all part of The Cochrane Library, and searched 28 April 2015. For primary studies, we searched MEDLINE, Epub Ahead of Print, In-Process & Other Non-Indexed Citations, MEDLINE Daily and MEDLINE 1946 to Present, OvidSP (searched 16 June 2016); Science Citation Index and Social Sciences Citation Index 1987 to present, and Emerging Sources Citation Index 2015 to present, ISI Web of Science (searched 3 May 2016 for papers citing included studies); Cochrane Central Register of Controlled Trials (CENTRAL), 2015, Issue 3, part of The Cochrane Library (including the Cochrane Effective Practice and Organisation of Care (EPOC) Group Specialised Register) (searched 28 April 2015); Embase 1980 to 2015 Week 17, OvidSP (searched 28 April 2015); Global Health 1973 to 2015 Week 16, OvidSP (searched 30 April 2015); WHOLIS, WHO (searched 30 April 2015); Science Citation Index and Social Sciences Citation Index 1975 to present, ISI Web of Science (searched 30 April 2015); Health Management, ProQuest (searched 22 November 2013). In addition, in April 2016, we searched the reference lists of relevant articles, WHO International Clinical Trials Registry Platform, Clinicaltrials.gov, and various electronic databases of grey literature.

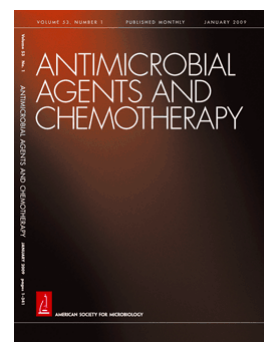
Selection Criteria: Randomised trials, non-randomised trials, interrupted time series studies, or controlled before-after studies.

Data Collection and Analysis: Two authors independently assessed study eligibility and extracted data, comparing their results and resolving discrepancies by consensus. We expressed study results as risk ratios (RR) or mean differences (MD) with 95% confidence intervals (CI), where appropriate, and assessed the certainty of the evidence using Grades of Recommendation, Assessment, Development and Evaluation (GRADE). We did not conduct meta-analysis because of heterogeneity of interventions and study designs.

Main Results: We identified 20,177 records, 50 of them potentially eligible. We excluded 39 potentially eligible studies because they did not involve a rigorous evaluation of training, regulation, or co-ordination of private for-profit healthcare providers in LMICs; five studies identified after the review was submitted are awaiting assessment; and six studies met our inclusion criteria. Two included studies assessed training alone; one assessed regulation alone; three assessed a multifaceted intervention involving training and regulation; and none assessed co-ordination. All six included studies targeted private for-profit pharmacy workers in Africa and Asia. Three studies found that training probably increases sale of oral rehydration solution (one trial in Kenya, 106 pharmacies: RR 3.04, 95% CI 1.37 to 6.75; and one trial in Indonesia, 87 pharmacies: RR 1.41, 95% CI 1.03 to 1.93) and dispensing of anti-malarial drugs (one trial in Kenya, 293 pharmacies: RR 8.76, 95% CI 0.94 to 81.81); moderate-certainty evidence. One study conducted in the Lao People's Democratic Republic shows that regulation of the distribution and sale of registered pharmaceutical products may improve composite pharmacy indicators (one trial, 115 pharmacies: improvements in four of six pharmacy indicators; low-certainty evidence). The outcome in three multifaceted intervention studies was the quality of pharmacy practice; including the ability to ask questions, give advice, and provide appropriate treatment. The trials applied regulation, training, and peer influence in sequence; and the study design does not permit separation of the effects of the different interventions. Two trials conducted among 136 pharmacies in Vietnam found that the multifaceted intervention may improve the quality of pharmacy practice; but the third study, involving 146 pharmacies in Vietnam and Thailand, found that the intervention may have little or no effects on the quality of pharmacy practice (low-certainty evidence). Only two studies (both conducted in Vietnam) reported cost data, with no rigorous assessment of the economic implications of implementing the interventions in resource-constrained settings. No study reported data on equity, mortality, morbidity, adverse effects, satisfaction, or attitudes.

Authors' Conclusions: Training probably improves quality of care (i.e. adherence to recommended practice), regulation may improve quality of care, and we are uncertain about the effects of co-ordination on quality of private for-profit healthcare services in LMICs. The likelihood that further research will find the effect of training to be substantially different from the results of this review is moderate; implying that monitoring of the impact is likely to be needed if training is implemented. The low certainty of the evidence for regulation implies that the likelihood of further research finding the effect of regulation to be substantially different from the results of this review is high. Therefore, an impact evaluation is warranted if government regulation of private for-profit providers is implemented in LMICs. Rigorous evaluations of these interventions should also assess other outcomes such as impacts on equity, cost implications, mortality, morbidity, and adverse effects.

Director: Prof Valerie Mizrahi



Article:

Naran K, Moosa A, Barry CE^{3rd}, Boshoff HI, Mizrahi V, Warner DF. Bioluminescent reporters for rapid mechanism of action assessment in tuberculosis drug discovery. *Antimicrobial Agents and Chemotherapy*. 2016 Aug 29. [Original]
DOI: 10.1128/AAC.01178-16
Impact Factor: 4.415

Summary:

The tuberculosis (TB) drug discovery pipeline is fuelled by compounds identified in whole-cell screens against the causative agent, *Mycobacterium tuberculosis*. Phenotypic screening enables selection of molecules that inhibit essential cellular functions in live, intact bacilli grown under a chosen in vitro condition. However, deducing the mechanism of action (MOA), which is important to avoid promiscuous targets, often requires significant biological resources in a lengthy process that risks decoupling medicinal chemistry and biology efforts. Therefore, there is a need to develop methods enabling rapid MOA assessment of putative "actives" for triage decisions. Here, we describe a modified version of a bioluminescence reporter assay that allows non-destructive detection of compounds targeting either of two macromolecular processes in *M. tuberculosis*: cell wall biosynthesis or maintenance of DNA integrity. Coupling the luxCDABE operon from *Photobacterium luminescens* to mycobacterial promoters driving expression of the iniBAC operon (PiniB-LUX) or the DNA damage-inducible genes, recA (PrecA-LUX) or radA (PradA-LUX), provided quantitative detection in real-time of compounds triggering expression of any of these promoters over an extended 10-12-day incubation. Testing against known anti-TB agents confirmed the specificity of each reporter in registering the MOA of the applied antibiotic in *M. tuberculosis*, independent of bactericidal or bacteriostatic activity. Moreover, profiles obtained for experimental compounds indicated the potential to infer complex MOAs in which multiple cellular processes are disrupted. These results demonstrate the utility of the reporters for early triage of compounds based on provisional MOA, and suggest their application to investigate polypharmacology in known and experimental anti-TB agents.

Director: Assoc Prof Catherine Mathews



Article:

Doherty T, Rohde S, Besada D, Kerber K, Manda S, Loveday M, Nsibande D, Daviaud E, Kinney M, Zembe W, Leon N, Rudan I, Degeffie T, Sanders D. Reduction in child mortality in Ethiopia: Analysis of data from demographic and health surveys. *Journal of Global Health*. 2016 Aug 29. [Original]
DOI: 10.7189/jogh.06.020401
Impact Factor: 3.559

Summary

Background: To examine changes in under-5 mortality, coverage of child survival interventions and nutritional status of children in Ethiopia between 2000 and 2011. Using the Lives Saved Tool, the impact of changes in coverage of child survival interventions on under-5 lives saved was estimated.

Methods: Estimates of child mortality were generated using three Ethiopia Demographic and Health Surveys undertaken between 2000 and 2011. Coverage indicators for high impact child health interventions were calculated and the Lives Saved Tool (LiST) was used to estimate child lives saved in 2011.

Results: The mortality rate in children younger than 5 years decreased rapidly from 218 child deaths per 1000 live births (95% confidence interval 183 to 252) in the period 1987–1991 to 88 child deaths per 1000 live births in the period 2007–2011 (78 to 98). The prevalence of moderate or severe stunting in children aged 6–35 months also declined significantly. Improvements in the coverage of interventions relevant to child survival in rural areas of Ethiopia between 2000 and 2011 were found for tetanus toxoid, DPT3 and measles vaccination, oral rehydration solution (ORS) and care-seeking for suspected pneumonia. The LiST analysis estimates that there were 60 700 child deaths averted in 2011, primarily attributable to decreases in wasting rates (18%), stunting rates (13%) and water, sanitation and hygiene (WASH) interventions (13%).

Conclusions: Improvements in the nutritional status of children and increases in coverage of high impact interventions most notably WASH and ORS have contributed to the decline in under-5 mortality in Ethiopia. These proximal determinants however do not fully explain the mortality reduction which is plausibly also due to the synergistic effect of major child health and nutrition policies and delivery strategies.

1. INTRAMURAL RESEARCH UNITS

Biomedical Research and Innovation Platform

1. Matsha TE, **Pheiffer C**, Mutize T, Erasmus RT and Kengne AP. Glucose tolerance, MTHFR C677T, NOS3 G894T polymorphisms and global DNA methylation in mixed-ancestry African individuals. *Journal of Diabetes Research*. 2016 Aug 14. [Original]
DOI: 10.1155/2016/8738072
Impact Factor: 2.431

Biostatistics

1. Phakathi BP, Basson G, Karusseit VO, **Olorunju SA**, Mokoena T. The effect of HIV infection on the surgical, chemo- and radiotherapy management of breast cancer. A prospective cohort study. *International Journal of Surgery*. 2016 Aug 26; 34: 109-115. [Original]
DOI: 10.1016/j.ijssu.2016.08.520
Impact Factor: 1.657

Burden of Disease

1. **Neethling I**, Jelsma J, Ramma L, Schneider H, **Bradshaw D**. Disability weights from a household survey in a low socio-economic setting: How does it compare to the global burden of disease 2010 study? *Global Health Action*. 2016 Aug 17; 9: 31754. [Original]
DOI: 10.3402/gha.v9.31754
Impact Factor: 1.712

Centre for Tuberculosis

1. Devonshire AS, O'Sullivan DM, Honeyborne I, Jones G, Karczmarczyk M, Pavšič J, Gutteridge A, Milavec M, Mendoza P, Schimmel H, Van Heuverswyn F, Gorton R, Cirillo DM, Borroni E, Harris K, **Barnard M**, **Heydenrych A**, Ndusilo N, Wallis CL, Pillay K, Barry T, Reddington K, Richter E, Mozioglu E, Akyürek S, Yalçinkaya B, Akgoz M, Žel J, Foy CA, McHugh TD, Huggett JF. The use of digital PCR to improve the application of quantitative molecular diagnostic methods for tuberculosis. *BMC Infectious Diseases*. 2016 Aug 3; 16: 366. [Original]
DOI: 10.1186/s12879-016-1696-7
Impact Factor: 2.690
2. Shenai S, **Ronacher K**, **Malherbe S**, **Stanley K**, **Kriel M**, Winter J, Peppard T, Barry CE, Wang J, Dodd LE, Via LE, Barry CE^{3rd}, **Walzl G**, Alland D. Bacterial loads measured by the Xpert MTB/RIF assay as markers of culture conversion and bacteriological cure in pulmonary TB. *PLoS One*. 2016 Aug 10; 11(8): e0160062. [Original]
DOI: 10.1371/journal.pone.0160062
Impact Factor: 3.057

Gender and Health

1. Gibbs A, Govender K, **Jewkes R**. An exploratory analysis of factors associated with depression in a vulnerable group of young people living in informal settlements in South Africa. *Global Public Health*. 2016 Aug 17: 1-16. [Original]
DOI: 10.1080/17441692.2016.1214281
Impact Factor: 1.978

2. Miedema SS, Yount KM, Chirwa E, **Dunkle K**, Fulu E. Integrating male sexual diversity into violence prevention efforts with men and boys: Evidence from the Asia-Pacific region. *Culture, Health & Sexuality*. 2016 Aug 24: 1-17. [Original]
DOI: 10.1080/13691058.2016.1214747
Impact Factor: 1.588
3. Mathews S, **Hendricks N**, **Abrahams N**. A psychosocial understanding of child sexual abuse disclosure among female children in South Africa. *Journal of Child Sexual Abuse*. 2016 Aug 25. [Original]
DOI: 10.1080/10538712.2016.1199078
Impact Factor: 0.536

Health Systems

1. **Doherty T**, **Rohde S**, **Besada D**, Kerber K, Manda S, **Loveday M**, **Nsibande D**, **Daviaud E**, Kinney M, **Zembe W**, **Leon N**, Rudan I, Degefi T, Sanders D. Reduction in child mortality in Ethiopia: Analysis of data from demographic and health surveys. *Journal of Global Health*. 2016 Aug 29. [Original]
DOI: 10.7189/jogh.06.020401
Impact Factor: 3.559
2. Padayatchi N, Mahomed S, **Loveday M**, Naidoo K. Antibiotic stewardship for drug resistant tuberculosis. *Expert Opinion on Pharmacotherapy*. 2016 Aug 29. [Editorial]
DOI: 10.1080/14656566.2016.1225724
Impact Factor: 3.543
3. **Goga AE**, **Singh Y**, **Singh M**, **Noveve N**, **Magasana V**, **Ramraj T**, Abdullah F, Coovadia AH, Bhardwaj S, Sherman GG. Enhancing HIV treatment access and outcomes amongst HIV infected children and adolescents in resource limited settings. *Maternal and Child Health Journal*. 2016 Aug 11. [Letter]
DOI: 10.1007/s10995-016-2074-1
Impact Factor: 1.917
4. Toews I, Glenton C, **Lewin S**, Berg RC, Noyes J, Booth A, Marusic A, Malicki M, Munthe-Kaas HM, Meerpohl JJ. Extent, Awareness and perception of dissemination bias in qualitative research: An explorative survey. *PLoS One*. 2016 Aug 03; 11(8): e0159290. [Original]
DOI: 10.1371/journal.pone.0159290
Impact Factor: 3.057

HIV Prevention

1. Thornhill J, Inshaw J, Kaleebu P, Cooper D, **Ramjee G**, Schechter M, Tambussi G, Fox J, Samuel M, Miro JM, Weber J, Porter K, Fidler S. Brief Report: Enhanced normalization of CD4/CD8 ratio with earlier antiretroviral therapy at primary HIV infection. *Journal of Acquired Immune Deficiency Syndromes*. 2016 Aug 11. [Original]
DOI: 10.1097/QAI.0000000000001013
Impact Factor: 3.086

MRC Office of Malaria

1. **Maharaj R**, Moonasar D, Baltazar C, Kunene S, Morris N. Sustaining control: Lessons from the Lubombo spatial development initiative in southern Africa. *Malaria Journal*. 2016 Aug 12; 15(1): 409. [Original]
DOI: 10.1186/s12936-016-1453-9
Impact Factor: 3.079
2. Moonasar D, **Maharaj R**, Kunene S, Candrinho B, Saute F, Ntshalintshali N, Morris N. Towards malaria elimination in the MOSASWA (Mozambique, South Africa and Swaziland) region. *Malaria Journal*. 2016 Aug 18; 15(1): 419. [Letter]
DOI: 10.1186/s12936-016-1470-8
Impact Factor: 3.079

MRC Office of Tuberculosis

1. Grobler L, Mehtar S, Dheda K, Adams S, Babatunde S, **van der Walt M**, Osman M. The epidemiology of tuberculosis in health care workers in South Africa: A systematic review. *BMC Health Services Research*. 2016 Aug 20; 16(1): 416. [Original]
DOI: 10.1186/s12913-016-1601-5
Impact Factor: 1.606
2. **Malinga LA**, Stoltz A, **Van der Walt M**. Efflux pump mediated second-line tuberculosis drug resistance. *Mycobacterial Diseases*. 2016 Aug 31; 6: 222. [Review]
DOI:10.4172/2161-1068.1000222
Impact Factor: None

Non-Communicable Disease

1. Mazidi M, Vadadian P, Rezaie P, Azarpazhooch MR, Esmaeili H, Ghayour-Mobarhan M, **Kengne AP**, Ferns GA. Levels of physical activity are correlated with intima media ratio in subjects without but not with metabolic syndrome: A study of Iranians without a history of cardiovascular events. *Diabetes and Metabolic Syndrome*. 2016 Aug 23. [Original]
DOI: 10.1016/j.dsx.2016.08.001
Impact Factor: None

South African Cochrane Centre

1. **Wiysonge CS**, Abdullahi LH, Ndze VN, Hussey GD. Public stewardship of private for-profit healthcare providers in low- and middle-income countries. *Cochrane Database of Systematic Reviews*. 2016 Aug 11; (8): CD009855. [Review]
DOI: 10.1002/14651858.CD009855.pub2
Impact Factor: 6.103
2. Stewart BT, Tansley G, Gyedu A, Ofosu A, Donkor P, Appiah-Denkyira E, Quansah R, Clarke DL, **Volmink J**, Mock C. Mapping population-level spatial access to essential surgical care in Ghana using availability of Bellwether procedures. *JAMA Surgery*. 2016 Aug 17; 151(8): e161239. [Original]
DOI: 10.1001/jamasurg.2016.1239
Impact Factor: 5.661

3. Sileo KM, Simbayi LC, **Abrams A**, Cloete A, Kiene SM. The role of alcohol use in antiretroviral adherence among individuals living with HIV in South Africa: Event-level findings from a daily diary study. *Drug and Alcohol Dependence*. 2016 Aug 10. [Original]
DOI: 10.1016/j.drugalcdep.2016.07.028
Impact Factor: 3.349

2. EXTRAMURAL RESEARCH UNITS

Antiviral Gene Therapy

1. **Dreyer T, Nicholson S, Ely A, Arbuthnot P, Bloom K.** Improved antiviral efficacy using TALEN-mediated homology directed recombination to introduce artificial primary miRNAs into DNA of hepatitis B virus. *Biochemical and Biophysical Research Communications*. 2016 Aug 30. [Original]
DOI: 10.1016/j.bbrc.2016.08.152
Impact Factor: 2.371

Anxiety and Stress Disorders

1. Meier IM, Bos PA, Hamilton K, **Stein DJ, van Honk J**, Malcolm-Smith S. Naltrexone increases negatively-valenced facial responses to happy faces in female participants. *Psychoneuroendocrinology*. 2016 Aug 23. [Letter]
DOI: 10.1016/j.psyneuen.2016.08.022
Impact Factor: 4.704
2. Ioannidis K, Chamberlain SR, Treder MS, Kiraly F, Leppink EW, Redden SA, **Stein DJ, Lochner C**, Grant JE. Problematic Internet Use (PIU): Associations with the impulsive-compulsive spectrum. An application of machine learning in psychiatry. *Journal of Psychiatric Research*. 2016 Aug 15. [Original]
DOI: 10.1016/j.jpsychires.2016.08.010
Impact Factor: 4.465
3. **Stein DJ.** Psychiatric classification: Merely repetitive and problematic? *Australian and New Zealand Journal of Psychiatry*. 2016 Aug; 50(8): 716-7. [Letter]
DOI: 10.1177/0004867416660386
Impact Factor: 3.536

Child and Adolescent Lung Health

1. **Gray DM, Turkovic L, Willemse L, Visagie A, Vanker A, Stein DJ, Sly PD, Hall GL, Zar HJ.** Lung function in African infants in the Drakenstein child health study: Impact of lower respiratory tract illness. *American Journal of Respiratory and Critical Care Medicine*. 2016 Aug 10. [Original]
DOI: 10.1164/rccm.201601-0188OC
Impact Factor: 13.118

Developmental Pathways for Health

1. **Rochat TJ, Mitchell J, Stein A, Mkwanazi NB, Bland RM.** The Amagugu Intervention: A conceptual framework for increasing HIV disclosure and parent-led communication about health among HIV-infected parents with HIV-uninfected primary school-aged children. *Frontiers in Public Health*. 2016 Aug 31; 4: 183. [Original]
DOI: 10.3389/fpubh.2016.00183
Impact Factor: None

HIV/TB Pathogenesis and Treatment

1. **Yende-Zuma N, Naidoo K.** The effect of timing of initiation of antiretroviral therapy on loss to follow-up in HIV-Tuberculosis coinfecting patients in South Africa: An open-label, randomized, controlled trial. *Journal of Acquired Immune Deficiency Syndromes*. 2016 Aug 1; 72(4): 430-6. [Original]
DOI: 10.1097/qai.0000000000000995
Impact Factor: 3.086

Hypertension and Cardiovascular Disease

1. Maritz M, Fourie CM, van Rooyen JM, Moss SJ, **Schutte AE.** Large artery stiffness is associated with gamma-glutamyltransferase in young, healthy adults: The African-PREDICT study. *Journal of the American Society of Hypertension*. 2016 Aug 04. [Original]
DOI: 10.1016/j.jash.2016.07.006
Impact Factor: 2.656

Human Genetics

1. **Dalvie S,** Brooks SJ, Cardenas V, Fein G, **Ramesar R,** Stein DJ. Genetic variation within GRIN2B in adolescents with alcohol use disorder may be associated with larger left posterior cingulate cortex volume. *Acta Neuropsychiatrica*. 2016 Aug 8: 1-7.
DOI: 10.1017/neu.2016.41
Impact Factor: 0.760
2. Kumuthini J, Mbiyavanga M, Chimusa ER, Pathak J, Somervuo P, van Schaik RH, Dolzan V, Mizzi C, **Kalideen K, Ramesar RS,** Macek M, Patrinos GP, Squassina A. Minimum information required for a DMET experiment reporting. *Pharmacogenomics*. 2016 Aug 22.
DOI: 10.2217/pgs-2016-0015
Impact Factor: 2.710

Gynaecological Cancer

1. **Passmore J-AS, Williamson A-L.** host immune responses associated with clearance or persistence of human papillomavirus infections. *Current Obstetrics and Gynecology Reports*. 2016 Aug 01.
DOI: 10.1007/s13669-016-0163-1
Impact Factor: None
2. Hoffman LD, **Wu HT.** The histological significance of atypical glandular cells on cervical cytology: Experience at Groote Schuur Hospital, Cape Town, South Africa. *South African Medical Journal*. 2016 Aug 04.
Impact Factor: 1.500

Maternal and Infant Health Care Strategies

1. Allanson ER, Tunçalp Ö, Gardosi J, **Pattinson RC,** Vogel JP, Erwich J, Flenady VJ, Frøen JF, Neilson J, Quach A, Francis A, Chou D, Mathai M, Say L, Gülmezoglu AM. Giving a voice to millions: Developing the WHO application of ICD-10 to deaths during the perinatal period: ICD-PM. *BJOG*. 2016 Aug 16. [Letter]
DOI: 10.1111/1471-0528.14243
Impact Factor: 4.096

2. Allanson ER, Tunçalp Ö, Gardosi J, **Pattinson RC**, Francis A, Vogel JP, Erwich J, Flenady VJ, Frøen JF, Neilson J, Quach A, Chou D, Mathai M, Say L, Gülmezoglu AM. The WHO application of ICD-10 to deaths during the perinatal period (ICD-PM): results from pilot database testing in South Africa and United Kingdom. *BJOG*. 2016 Aug 16. [Original]
DOI: 10.1111/1471-0528.14244
Impact Factor: 4.096
3. Allanson ER, Vogel JP, Tunçalp Ö, Gardosi J, **Pattinson RC**, Francis A, Erwich J, Flenady VJ, Frøen JF, Neilson J, Quach A, Chou D, Mathai M, Say L, Gülmezoglu AM. Application of ICD-PM to preterm-related neonatal deaths in South Africa and United Kingdom. *BJOG*. 2016 Aug 16. [Original]
DOI: 10.1111/1471-0528.14245
Impact Factor: 4.096
4. Allanson ER, Tunçalp Ö, Gardosi J, **Pattinson RC**, Francis A, Vogel JP, Erwich J, Flenady VJ, Frøen JF, Neilson J, Quach A, Chou D, Mathai M, Say L, Gülmezoglu AM. Optimising the international classification of diseases to identify the maternal condition in the case of perinatal death. *BJOG*. 2016 Aug 16. [Original]
DOI: 10.1111/1471-0528.14246
Impact Factor: 4.096

Molecular Mycobacteriology

1. Kumar M, Singh K, **Naran K**, Hamzabegovic F, Hoft DF, **Warner DF**, Ruminski P, Abate G, Chibale K. Design, synthesis, and evaluation of novel hybrid efflux pump inhibitors for use against *Mycobacterium tuberculosis*. *ACS Infectious Diseases*. 2016 Aug 24. [Original]
DOI: 10.1021/acsinfecdis.6b00111
Impact Factor: Not Available
2. **Singh V**, Donini S, Pacitto A, Sala C, Hartkoorn RC, Dhar N, Keri G, Ascher DB, Mondesert G, Vocat A, Lupien A, Sommer R, Vermet H, Lagrange S, Buechler J, **Warner DF**, McKinney JD, Pato J, Cole ST, Blundell TL, Rizzi M, **Mizrahi V**. The inosine monophosphate dehydrogenase, GuaB2, is a vulnerable new bactericidal drug target for tuberculosis. *ACS Infectious Diseases*. 2016 Aug 30. [Original]
DOI: 10.1021/acsinfecdis.6b00102
Impact Factor: Not Available
3. **Naran K**, **Moosa A**, Barry CE ^{3rd}, Boshoff HI, **Mizrahi V**, **Warner DF**. Bioluminescent reporters for rapid mechanism of action assessment in tuberculosis drug discovery. *Antimicrobial Agents and Chemotherapy*. 2016 Aug 29. [Original]
DOI: 10.1128/AAC.01178-16
Impact Factor: 4.415

Receptor Biology

1. **Newton CL, Anderson RC, Katz AA, Millar RP.** Loss-of-function mutations in the human luteinizing hormone receptor predominantly cause intracellular retention. *Endocrinology*. 2016 Aug 17.
DOI: 10.1210/en.2016-1104
Impact Factor: 4.159

Rural Public Health and Health Transition

1. Abler L, Hill L, Maman S, DeVellis R, **Twine R, Kahn K**, MacPhail C, Pettifor A. Hope Matters: Developing and validating a measure of future expectations among young women in a high HIV prevalence setting in rural South Africa (HPTN 068). *AIDS and Behavior*. 2016 Aug 20. [Original]
DOI: 10.1007/s10461-016-1523-6
Impact Factor: 3.063
2. **Garenne M.** The enigma of ethiopian sex ratios at birth. *Journal of Biosocial Science*. 2016 Aug 11: 1-12. [Original]
DOI: 10.1017/S0021932016000407
Impact Factor: 1.056
3. **Garenne M, Collinson MA, Kabudula CW, Gomez-Olive FX, Kahn K, Tollman S.** Improving completeness of birth and death registration in rural Africa. *Lancet Global Health*. 2016 Aug 15. [Letter]
DOI: 10.1016/S2214-109X (16)30146-2
Impact Factor: 14.722

Stem Cell Research and Therapy

1. Dzobo K, Turnley T, Wishart A, Rowe A, **Kallmeyer K, van Vollenstee FA**, Thomford NE, Dandara C, Chopera D, **Pepper MS**, Parker MI. Fibroblast-derived extracellular matrix induces chondrogenic differentiation in human adipose-derived mesenchymal stromal/stem cells in vitro. *International Journal of Molecular Sciences*. 2016 Aug 3; 17(8): pii: E1259. [Original]
DOI: 10.3390/ijms17081259
Impact Factor: 3.257
2. **Nicholson SA, Pepper MS.** CRISPR-Cas: Revolutionising genome engineering. *South African Medical Journal*. 2016 Aug 1; 106(9): 870-1. [Other]
DOI: 10.7196/SAMJ.2016.v106i9.11061
Impact Factor: 1.500

3. GRANT FUNDED RESEARCH

1. Lamprecht DA, Finin PM, Rahman MA, Cumming BM, Russell SL, Jonnala SR, Adamson JH, Steyn AJ. Turning the respiratory flexibility of Mycobacterium tuberculosis against itself. Nature Communications. 2016 Aug 10; 7: 12393. [Original]
DOI: 10.1038/ncomms12393
Impact Factor: 11.329
2. Moyo S, **Vandormael A**, Wilkinson E, Engelbrecht S, Gaseitsiwe S, Kotokwe KP, Musonda R, **Tanser F**, Essex M, Novitsky V, **de Oliveira T**. Analysis of viral diversity in relation to the recency of HIV-1C infection in Botswana. PLoS One. 2016 Aug 23; 11(8): e0160649. [Original]
DOI: 10.1371/journal.pone.0160649
Impact Factor: 3.057
3. **Moore PL**, Williamson C. Approaches to the induction of HIV broadly neutralizing antibodies. Current Opinion in HIV and AIDS. 2016 Aug 26. [Review]
DOI: 10.1097/COH.0000000000000317
Impact Factor: 4.378
4. Riou C, Bunjun R, Müller TL, Kiravu A, Ginbot Z, Oni T, Goliath R, **Wilkinson RJ**, **Burgers WA**. Selective reduction of IFN- γ single positive mycobacteria-specific CD4⁺ T cells in HIV-1 infected individuals with latent tuberculosis infection. Tuberculosis. 2016 Aug 09. [Original]
DOI: 10.1016/j.tube.2016.07.018
Impact Factor: 2.952
5. Whitehead BC, Bezuidenhout D, Chokoza C, **Davies NH**, Goetsch KP. Cast tube assay: A 3-D in vitro assay for visualization and quantification of horizontal chemotaxis and cellular invasion. Biotechniques. 2016 Aug 01; 61(2): 66-72. [Original]
DOI: 10.2144/000114442
Impact Factor: 2.298
6. Stringer T, de Kock C, Guzgay H, Okombo J, Liu J, Kanetake S, Kim J, Tam C, Cheng LW, Smith PJ, Hendricks DT, Land KM, **Egan TJ**, Smith GS. Mono- and multimeric ferrocene congeners of quinoline-based polyamines as potential antiparasitics. Dalton Transactions. 2016 Aug 03. [Original]
DOI: 10.1039/C6DT02685K
Impact Factor: 4.177
7. **Shires K**, Wienand K. Cancer testis antigen MAGE C1 can be used to monitor levels of circulating malignant stem cells in the peripheral blood of multiple myeloma patients. Journal of Cancer Research and Clinical Oncology. 2016 Aug 31. [Original]
DOI: 10.1007/s00432-016-2231-3
Impact Factor: 3.141

4. RESEARCH UNITS WITH NO QUALIFYING PUBLICATIONS

Intramural

- Alcohol, Tobacco and Other Drug
- Environment and Health
- MRC Office of AIDS
- MRC Office of Cancer
- Primate
- Violence, Injury and Peace

Extramural

- Bioinformatics Capacity Development
- Common Epithelial Cancer
- Diarrhoeal Pathogens
- Drug Discovery and Development
- Health Policy
- Health Services to Systems
- Herbal Drugs
- Immunology of Infectious Disease
- Medical Imaging
- Microbial Water Quality Monitoring
- Prospective Gastrointestinal Cancer
- Respiratory and Meningeal Pathogens

5. GRANTS AWARDED

SAMRC LIST OF NEW CONTRACTS FOR AUGUST 2016					
SAMRC Unit	Funder	Main Funder	Project Title/Description	Contract Value	
				Rand	Foreign Currency
Environmental & Health	CSIR	DST	The establishment of early warning system for infectious Disease in Southern Africa. Incorporating Climate Predictions	1 128 000.00	-
Health Systems	University of Connecticut	NIH	Enhanced STI/HIV Partner Notification in South Africa	2 669 416	\$184 951
HIV Prevention	Fred Hutchinson Cancer Research Center	Bill & Melinda Gates Foundation	HIV Vaccine Trial Site Development in Southern Africa for the P5 Program & HVTN 702 Site Readiness: Isipingo Clinical Research Site	888 487	\$61 559
		NIH	HVTN		1 066 981

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