



CELEBRATES SCIENCE



NOVEMBER 2016

TOP 5 ARTICLES

Director: Prof Stephen Tollman



Article:

Pettifor A, MacPhail C, Hughes JP, Selin A, Wang J, Gomez-Olive FX, Eshleman SH, Wagner RG, Mabuza W, Khoza N, Suchindran C, Mokoena I, Twine R, Andrew P, Townley E, Laeyendecker O, Agyei Y, Tollman S, Kahn K. The effect of a conditional cash transfer on HIV incidence in young women in rural South Africa (HPTN 068): A phase 3 randomised controlled trial. *Lancet Global Health*. 2016 Nov 01. [Original]
DOI: 10.1016/S2214-109X(16)30253-4
Impact Factor: 14.722

Summary:

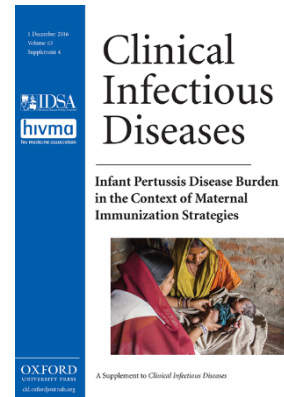
Background: Cash transfers have been proposed as an intervention to reduce HIV-infection risk for young women in sub-Saharan Africa. However, scarce evidence is available about their effect on reducing HIV acquisition. We aimed to assess the effect of a conditional cash transfer on HIV incidence among young women in rural South Africa.

Methods: We did a phase 3, randomised controlled trial (HPTN 068) in the rural Bushbuckridge subdistrict in Mpumalanga province, South Africa. We included girls aged 13-20 years if they were enrolled in school grades 8-11, not married or pregnant, able to read, they and their parent or guardian both had the necessary documentation necessary to open a bank account, and were residing in the study area and intending to remain until trial completion. Young women (and their parents or guardians) were randomly assigned (1:1), by use of numbered sealed envelopes containing a randomisation assignment card which were numerically ordered with block randomisation, to receive a monthly cash transfer conditional on school attendance ($\geq 80\%$ of school days per month) versus no cash transfer. Participants completed an Audio Computer-Assisted Self-Interview (ACASI), before test HIV counselling, HIV and herpes simplex virus (HSV)-2 testing, and post-test counselling at baseline, then at annual follow-up visits at 12, 24, and 36 months. Parents or guardians completed a Computer-Assisted Personal Interview at baseline and each follow-up visit. A stratified proportional hazards model was used in an intention-to-treat analysis of the primary outcome, HIV incidence, to compare the intervention and control groups. This study is registered at ClinicalTrials.gov ([NCT01233531](https://www.clinicaltrials.gov/ct2/show/study/NCT01233531)).

Findings: Between March 5, 2011, and Dec 17, 2012, we recruited 10 134 young women and enrolled 2537 and their parents or guardians to receive a cash transfer programme (n=1225) or not (control group; n=1223). At baseline, the median age of girls was 15 years (IQR 14-17) and 672 (27%) had reported to have ever had sex. 107 incident HIV infections were recorded during the study: 59 cases in 3048 person-years in the intervention group and 48 cases in 2830 person-years in the control group. HIV incidence was not significantly different between those who received a cash transfer (1.94% per person-years) and those who did not (1.70% per person-years; hazard ratio 1.17, 95% CI 0.80-1.72, p=0.42).

Interpretation: Cash transfers conditional on school attendance did not reduce HIV incidence in young women. School attendance significantly reduced risk of HIV acquisition, irrespective of study group. Keeping girls in school is important to reduce their HIV-infection risk.

Director: Prof Shabir Madhi



Article:

Nunes MC, Downs S, Jones S, van Niekerk N, Cutland CL, Madhi SA. Bordetella pertussis infection in South African HIV-infected and HIV-uninfected mother-infant dyads: A longitudinal cohort study. *Clinical Infectious Diseases*. 2016 Nov 2. [Original]

DOI: 10.1093/cid/ciw527

Impact Factor: 8.736

Summary:

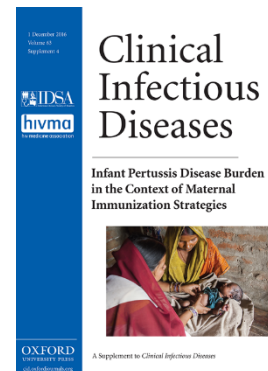
Background: There is a paucity of data regarding the burden of Bordetella pertussis in African women and young infants, and particularly the impact of maternal Human Immunodeficiency Virus (HIV) infection thereon. We performed a retrospective analysis of respiratory illness samples from longitudinal cohorts of HIV-uninfected and HIV-infected women and their infants to evaluate the burden of pertussis illness in a black-African community.

Methods: The women were followed up for respiratory illness from midpregnancy and together with their infants until 24 weeks postpartum. Respiratory samples obtained at the time of illness visits were tested for B. pertussis by Polymerase Chain Reaction (PCR).

Results: The study included 194 HIV-infected and 1060 HIV-uninfected women, and 188 and 1028 infant offspring, respectively. There were 7 PCR-confirmed pertussis cases in the HIV-exposed infants and 30 in HIV-unexposed infants (7.4 vs 5.5 episodes per 1000 infant-months; $P = .47$), at a mean age of 70.9 days. All infant pertussis cases had a history of cough (mean duration, 6.3 days). Six of 17 (35.3%) pertussis-confirmed cases in infants <2 months of age were admitted to hospital within 21 days of B. pertussis detection, whereas none of the 20 cases ≥ 2 months of age required hospitalization. Ten PCR-positive pertussis-associated illnesses were detected in HIV-infected women compared with 32 in the HIV-uninfected women (6.8 vs 3.9 episodes per 1000 person-months; $P = .12$).

Conclusions: Bordetella pertussis identification was common among young infants with respiratory illness, most of whom were too young to be fully protected through direct vaccination. Vaccination of pregnant women might be a valuable strategy in a setting such as ours to prevent B. pertussis-associated illness in women and their young infants.

Director: Prof Shabir Madhi



Article:

Soofie N, Nunes MC, Kgagudi P, van Niekerk N, Makgobo T, Agosti Y, Hwinya C, Pathirana J, Madhi SA. The burden of pertussis hospitalization in HIV-exposed and HIV-unexposed South African infants. *Clinical Infectious Diseases*. 2016 Nov 02. [Original]

DOI: 10.1093/cid/ciw545

Impact Factor: 8.736

Summary:

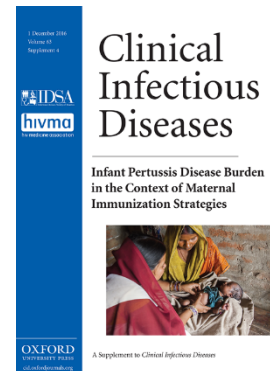
Background: There are limited data on pertussis in African children, including among Human Immunodeficiency Virus (HIV)-exposed infants. We conducted population-based hospital surveillance to determine the incidence and clinical presentation of *Bordetella pertussis*-associated hospitalization in perinatal HIV-exposed and -unexposed infants.

Methods: Children <12 months of age hospitalized with any sign or symptom of respiratory illness (including suspected sepsis or apnea in neonates) were enrolled from 1 January 2015 to 31 December 2015. Detailed clinical and demographic information was recorded and respiratory samples were tested by Polymerase Chain Reaction (PCR).

Results: The overall *B. pertussis* PCR positivity was 2.3% (42/1839), of which 86% (n = 36) occurred in infants <3 months of age. *Bordetella pertussis* was detected in 2.1% (n = 26/1257) of HIV-unexposed and 2.7% (n = 16/599) of HIV-exposed infants. The incidence (per 1000) of *B. pertussis*-associated hospitalization was 2.9 (95% confidence interval [CI], 1.8-4.5) and 1.9 (95% CI, 1.3-2.6) in HIV-exposed and HIV-unexposed infants, respectively (P = .09). The overall in-hospital case fatality ratio among the cases was 4.8% (2/42), both deaths of which occurred in HIV-exposed infants <3 months of age. Among cases, presence of cough \geq 14 days (20.5%) and paroxysmal coughing spells (33.3%) at diagnosis were uncommon. Only 16 (38%) *B. pertussis*-associated hospitalizations fulfilled the Centers for Diseases Control and Prevention case definition of "definite" pertussis.

Conclusions: *Bordetella pertussis* contributed to a modest proportion of all-cause respiratory illness hospitalization among black-African children, with a trend for higher incidence among HIV-exposed than HIV-unexposed infants. Maternal vaccination of pregnant women should be considered to reduce the burden of pertussis hospitalization in this population.

Director: Prof Shabir Madhi



Article:

Nunes MC, Soofie N, Downs S, Tebeila N, Mudau A, de Gouveia L, Madhi SA.

Comparing the yield of nasopharyngeal swabs, nasal aspirates, and induced sputum for detection of bordetella pertussis in hospitalized infants. *Clinical Infectious Diseases*. 2016 Nov 02. [Original]

DOI: 10.1093/cid/ciw521

Impact Factor: 8.736

Summary:

Background: Advances in molecular laboratory techniques are changing the landscape of Bordetella pertussis illness diagnosis. Polymerase Chain Reaction (PCR) assays have greatly improved the sensitivity detection and the turnaround time to diagnosis compared to culture. Moreover, different respiratory specimens, such as flocked Nasopharyngeal Swabs (NPSs), Nasopharyngeal Aspirates (NPAs), and induced sputum, have been used for B. pertussis detection, although there is limited head-to-head comparison to evaluating the PCR yield from the 3 sampling methods.

Methods: Hospitalized infants <6 months of age who fulfilled a broad syndromic criteria of respiratory illness were tested for B. pertussis infection by PCR on paired NPSs and NPAs; or paired NPSs and induced sputum. An exploratory analysis of B. pertussis culture was performed on induced sputum specimens and in a subset of NPSs.

Results: From November 2014 to May 2015, 484 infants with paired NPSs and NPAs were tested; 15 (3.1%) PCR-confirmed pertussis cases were identified, 13 of which were PCR positive on both samples, while 1 each were positive only on NPS or NPA. From March to October 2015, 320 infants had NPSs and induced sputum collected, and 11 (3.4%) pertussis cases were identified by PCR, including 8 (72.7%) positive on both samples, 1 (9.1%) only positive on NPS, and 2 (18.2%) only positive on induced sputum. The 3 types of specimens had similar negative predictive value >99% and sensitivity >83%. Compared to PCR, culture sensitivity was 60% in induced sputum and 40% in NPSs.

Conclusions: Flocked nasopharyngeal swabs, nasopharyngeal aspirates, and induced sputum performed similarly for the detection of B. pertussis infection in young infants by PCR.

Director: Prof Gita Ramjee



Article:

Hanass-Hancock J, Chappell P, Myezwa H, Kwagala B, Boivin JM, Lloyd J, Wolvaardt G, Simwaba P, Chetty V. Committing to disability inclusion to end AIDS by 2030. *Lancet HIV*. Nov 22. [Comment]
DOI: 10.1016/S2352-3018(16)30194-1
Impact Factor: 8.364

Summary:

Disability inclusion is finally an integral part of the political Declaration on HIV and AIDS, but people with disabilities, researchers, and representatives from the UN and funding agencies at the recent 21st International AIDS Conference in Durban warned that concrete actions are needed to ensure pledges do not become further political rhetoric.

1. INTRAMURAL RESEARCH UNITS

Alcohol, Tobacco and Other Drug

1. **Kekwaletswe CT**, Jordaan E, **Nkosi S**, **Morojele NK**. Social Support and the mediating roles of alcohol use and adherence self-efficacy on Antiretroviral Therapy (ART) adherence among ART recipients in Gauteng, South Africa. *AIDS and Behavior*. 2016 Nov 11. [Original]
DOI: 10.1007/s10461-016-1595-3
Impact Factor: 3.063
2. Magidson JF, Gouse H, Burnhams W, Wu CY, **Myers B**, Joska JA, Carrico AW. Beyond methamphetamine: Documenting the implementation of the Matrix model of substance use treatment for opioid users in a South African setting. *Addictive Behaviors*. 2016 Nov 17. [Original]
DOI: 10.1016/j.addbeh.2016.11.014
Impact Factor: 2.795

Biomedical Research and Innovation Platform

1. Matsha TE, **Pheiffer C**, Mutize T, Erasmus RT, Kengne AP. Glucose Tolerance, *MTHFR* C677T and *NOS3* G894T Polymorphisms, and global DNA methylation in mixed ancestry African individuals. *Journal of Diabetes Research*. 2016 Nov 20. [Original]
DOI: 10.1155/2016/8738072
Impact Factor: 2.431
2. **Patel O**, **Muller C**, Joubert E, **Louw J**, Rosenkranz B, **Awortwe C**. Inhibitory interactions of aspalathus linearis (rooibos) extracts and compounds, aspalathin and Z-2-(β -d-glucopyranosyloxy)-3-phenylpropenoic acid, on cytochromes metabolizing hypoglycemic and hypolipidemic drugs. *Molecules*. 2016 Nov 12; 21(11): E1515. [Original]
DOI: 10.3390/molecules21111515
Impact Factor: 2.465

Biostatistics

1. Fairall LR, Folb N, Timmerman V, **Lombard C**, Steyn K, Bachmann MO, Bateman ED, Lund C, Cornick R, Faris G, Gaziano T, Georgeu-Pepper D, Zwarenstein M, Levitt NS. Educational outreach with an integrated clinical tool for nurse-led non-communicable chronic disease management in primary care in South Africa: A pragmatic cluster randomised controlled trial. *PLoS Medicine*. 2016 Nov 22; 13(11): e1002178. [Original]
DOI: 10.1371/journal.pmed.1002178
Impact Factor: 13.585
2. Botha UA, Koen L, Mazinu M, **Jordaan E**, Niehaus DJ. Brief report: A randomized control trial assessing the influence of a telephone-based intervention on readmissions for patients with severe mental illness in a developing country. *Community Mental Health Journal*. 2016 Nov 30. [Original]
DOI: 10.1007/s10597-016-0069-4
Impact Factor: 0.979

Centre for Tuberculosis

1. **du Plessis N**, **Jacobs R**, **Gutschmidt A**, **Fang Z**, **van Helden PD**, Lutz MB, Hesselning AC, **Walzl G**. Phenotypically resembling myeloid derived suppressor cells are increased in children with HIV and exposed/infected with *Mycobacterium tuberculosis*. *European Journal of Immunology*. 2016 Nov 8. [Original]
DOI: 10.1002/eji.201646658
Impact Factor: 4.179

2. **van Rensburg IC, Kleynhans L, Keyser A, Walzl G, Loxton AG.** B-cells with a FasL expressing regulatory phenotype are induced following successful anti-tuberculosis treatment. *Immunity, Inflammation and Disease*. 2016 Nov. [Original]
DOI: 10.1002/iid3.140
Impact Factor: None

Environment and Health

1. **Nkosi V, Hoek G, Wichmann J, Voyi K.** Acute respiratory health effects of air pollution on asthmatic adolescents residing in a community in close proximity to-mine dump in South Africa: Panel study. *International Research Journal of Public and Environmental Health*. 2016 Nov 11; 3(11): 257-69. [Original]
DOI: 10.15739/irjpeh.16.032
Impact Factor: None

Health Systems

1. **Mason-Jones AJ, Sinclair D, Mathews C, Kagee A, Hillman A, Lombard C.** School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. *Cochrane Database of Systematic Reviews*. 2016 Nov 8; 11: CD006417. [Review]
DOI: 10.1002/14651858.CD006417.pub3
Impact Factor: 6.103
2. **Magasana V, Zembe W, Tabana H, Naik R, Jackson D, Swanevelder S, Doherty T.** An assessment of quality of home-based HIV counseling and testing performed by lay counselors in a rural sub-district of KwaZulu-Natal, South Africa. *SAHARA J*. 2016 Nov 01. [Original]
DOI: 10.1080/17290376.2016.1248477
Impact Factor: 0.423
3. **Ngandu NK, Manda S, Besada D, Rohde S, Oliphant NP, Doherty T.** Does adjusting for recall in trend analysis affect coverage estimates for maternal and child health indicators? An analysis of DHS and MICS survey data. *Global Health Action*. 2016 Nov 07; 9: 32408. [Original]
DOI: 10.3402/gha.v9.32408
Impact Factor: 1.712
4. **Besada D, Rohde S, Goga A, Raphaely N, Daviaud E, Ramokolo V, Magasana V, Noveve N, Doherty T.** Strategies to improve male involvement in PMTCT Option B⁺ in four African countries: A qualitative rapid appraisal. *Global Health Action*. 2016 Nov 07; 9: 33507. [Original]
DOI: 10.3402/gha.v9.33507
Impact Factor: 1.712
5. **Levin M, Goga A, Doherty T, Coovadia H, Sanders D, Green RJ, Kling S.** Allergy and infant feeding guidelines in the context of resource-constrained settings. *Journal of Allergy and Clinical Immunology*. 2016 Nov 14. [Review]
DOI: 10.1016/j.jaci.2016.09.039
Impact Factor: 12.485

- Timol F, Vawda MY, **Bhana A**, Moolman B, Makoae M, Swartz S. Addressing adolescents' risk and protective factors related to risky behaviours: Findings from a school-based peer-education evaluation in the Western Cape. SAHARA J. 2016 Nov 28. [Original]
DOI: 10.1080/17290376.2016.1241188
Impact Factor: 0.423

HIV Prevention

- Montgomery ET, Mensch B, Musara P, Hartmann M, **Woeber K**, Etima J, van der Straten A. Misreporting of product adherence in the MTN-003/VOICE Trial for HIV prevention in Africa: Participants' explanations for dishonesty. AIDS and Behavior. 2016 Nov 17. [Original]
DOI: 10.1007/s10461-016-1609-1
Impact Factor: 3.063
- Hanass-Hancock J**, Chappell P, Myezwa H, Kwagala B, Boivin JM, Lloyd J, Wolvaardt G, Simwaba P, Chetty V. Committing to disability inclusion to end AIDS by 2030. Lancet HIV. 2016 Nov 22. [Comment]
DOI: 10.1016/S2352-3018(16)30194-1
Impact Factor: 8.364

Non-Communicable Disease

- Halle MP, Ashuntantang G, Kaze FF, Takongue C, **Kengne AP**. Fatal outcomes among patients on maintenance haemodialysis in sub-Saharan Africa: A 10-year audit from the Douala General Hospital in Cameroon. BMC Nephrology. 2016 Nov 3; 17(1): 165. [Original]
DOI: 10.1186/s12882-016-0377-5
Impact Factor: 2.289
- NCD Risk Factor Collaboration (NCD-RisC) [includes: **Kengne AP**, Peer N, Schutte AE]. Worldwide trends in blood pressure from 1975 to 2015: A pooled analysis of 1479 population-based measurement studies with 19·1 million participants. Lancet. 2016 Nov 15. [Original]
DOI: 10.1016/S0140-6736(16)31919-5
Impact Factor: 44.002
- Goedecke JH**, George C, Veras K, Peer N, Lombard C, Victor H, Steyn K, Levitt NS. Sex differences in insulin sensitivity and insulin response with increasing age in black South African men and women. Diabetes Research and Clinical Practice. 2016 Nov 17. [Original]
DOI: 10.1016/j.diabres.2016.11.005
Impact Factor: 3.045
- Malambo P, **Kengne AP**, de Villiers A, Lambert EV, Puoane T. Built environment, selected Risk factors and major cardiovascular disease outcomes: A systematic review. PLoS One. 2016 Nov 23; 11(11): e0166846. [Original]
DOI: 10.1371/journal.pone.0166846
Impact Factor: 3.057
- Pefura-Yone EW, Balkissou AD, **Kengne AP**. Determinants of restrictive spirometric pattern in a sub-Saharan urban setting: A cross-sectional population-based study. Open Respiratory Medicine Journal. 2016 Nov 30; 10: 86-95. [Original]
DOI: 10.2174/1874306401610010086
Impact Factor: None

6. Pule GD, Ngo Bitoungui VJ, Chetcha Chemegni B, **Kengne AP**, Wonkam A. Studies of novel variants associated with Hb F in Sardinians and Tanzanians in sickle cell disease patients from Cameroon. Hemoglobin. 2016 Nov 10: 1-4.
DOI: 10.1080/03630269.2016.1251453
Impact Factor: 0.747

South African Cochrane Centre

1. **Machingaidze S, Zani B, Abrams A, Durao S, Louw Q, Kredo T**, Grimmer K, **Young T**. Quality and reporting standards of South African primary care clinical practice guidelines. Journal of Clinical Epidemiology. 2016 Nov 4. [Original]
DOI: 10.1016/j.jclinepi.2016.09.015
Impact Factor: 4.703
2. Lawrence M, Naude C, Armstrong R, Bero L, Covic N, **Durao S**, Ghersi D, Macdonald G, MacLehose H, Margetts B, Tovey D, **Volmink J, Young T**. A call to action to reshape evidence synthesis and use for nutrition policy. Cochrane Database of Systematic Reviews. 2016 Nov 21; 11: ED000118. [Editorial]
DOI: 10.1002/14651858.ED000118
Impact Factor: 6.103

Violence, Injury and Peace

1. **van Niekerk A, Govender R, Hornsby N, Swart L**. Household and caregiver characteristics and behaviours as predictors of unsafe exposure of children to paraffin appliances. Burns. 2016 Nov 16. [Original]
DOI: 10.1016/j.burns.2016.10.022
Impact Factor: 1.904

2. EXTRAMURAL RESEARCH UNITS

Anxiety and Stress Disorders

1. Thomas E, **Stein DJ**. Novel pharmacological treatment strategies for posttraumatic stress disorder. *Expert Review of Clinical Pharmacology*. 2016 Nov 11: 1-11. [Review]
DOI: 10.1080/17512433.2017.1260001
Impact Factor: 2.488
2. Frodl T, Janowitz D, Schmaal L, Tozzi L, Dobrowolny H, **Stein DJ**, Veltman DJ, Wittfeld K, van Erp TGM, Jahanshad N, Block A, Hegenscheid K, Völzke H, Lagopoulos J, Hatton SN, Hickie IB, Frey EM, Carballedo A, Brooks SJ, Vuletic D, Uhlmann A, Veer IM, Walter H, Schnell K, Grotegerd D, Arolt V, Kugel H, Schramm E, Konrad C, Zurowski B, Baune BT, van der Wee NJA, van Tol M-J, Penninx BWJH, Thompson PM, Hibar DP, Dannlowski U, Grabe HJ. Childhood adversity impacts on brain subcortical structures relevant to depression. *Journal of Psychiatric Research*. 2016 Nov 19. [Original]
DOI: 10.1016/j.jpsychires.2016.11.010
Impact Factor: 4.465
3. Bachem R, Perkonig A, **Stein DJ**, Maercker A. Measuring the ICD-11 adjustment disorder concept: Validity and sensitivity to change of the adjustment disorder - new module questionnaire in a clinical intervention study. *International Journal of Methods in Psychiatric Research*. 2016 Nov 09. [Original]
DOI: 10.1002/mpr.1545
Impact Factor: 2.857

Child and Adolescent Lung Health

1. **Gray D, Willemse L, Visagie A**, Czövek D, Nduru P, **Vanker A**, Stein DJ, Koen N, Sly PD, Hantos Z, Hall GL, **Zar HJ**. Determinants of early-life lung function in African infants. *Thorax*. 2016 Nov 17. [Original]
DOI: 10.1136/thoraxjnl-2015-207401
Impact Factor: 8.121

Developmental Pathways for Health

1. Uys M, Bassett S, Draper CE, **Micklesfield L**, Monyeki A, de Villiers A, Lambert EV; HAKSA 2016 Writing Group. Results from South Africa's 2016 report card on physical activity for children and youth. *Journal of Physical Activity and Health*. 2016 Nov; 13(11 Suppl 2): S265-S273.
DOI: 10.1123/jpah.2016-0409
Impact Factor: 1.884
2. Ramsay M, Crowther N, Tambo E, Agongo G, **Baloyi V**, Dikotope S, Gómez-Olivé X, Jaff N, Sorgho H, Wagner R, Khayeka-Wandabwa C, Choudhury A, Hazelhurst S, Kahn K, Lombard Z, Mukomana F, Soo C, Soodyall H, Wade A, Afolabi S, Agorinya I, Amenga-Etego L, Ali SA, Bognini JD, Boua RP, Debpuur C, Diallo S, Fato E, Kazienga A, Konkobo SZ, Kouraogo PM, Mashinya F, **Micklesfield L**, Nakanabo-Diallo S, Njamwea B, Nonterah E, Ouedraogo S, Pillay V, Somande AM, Tindana P, Twine R, Alberts M, Kyobutungi C, **Norris SA**, Oduro AR, Tinto H, Tollman S, Sankoh O. H3Africa AWI-Gen Collaborative Centre: A resource to study the interplay between genomic and environmental risk factors for cardiometabolic diseases in four sub-Saharan African countries. *Global Health, Epidemiology and Genomics*. 2016 Nov 22; 1: e20. [Original]
DOI: 10.1017/ghg.2016.16
Impact Factor: None

Drug Discovery and Development

1. Adams M, de Kock C, Smith PJ, **Chibale K**, Smith GS. Evaluation of ferrocenyl-containing benzothiazoles as potential antiplasmodial agents. *European Journal of Inorganic Chemistry*. 2016 Nov 17. [Original]
DOI: 10.1002/ejic.201601000
Impact Factor: 2.686
2. le Manach C, Nchinda AT, Paquet T, Gonzalez Cabrera D, Younis Y, Han Z, Bashyam S, Zabiulla M, Taylor D, Lawrence N, White KL, Charman SA, Waterson D, Witty MJ, Wittlin S, Botha ME, Nondaba SH, Reader J, Birkholtz LM, Jimenez-Diaz MB, Martinez MS, Ferrer S, Angulo-Barturen I, Meister S, Antonova-Koch Y, Winzeler EA, Street LJ, **Chibale K**. Identification of a potential antimalarial drug candidate from a series of 2-aminopyrazines by optimization of aqueous solubility and potency across the parasite life cycle. *Journal of Medicinal Chemistry*. 2016 Nov 10. [Original]
DOI: 10.1021/acs.jmedchem.6b01265
Impact Factor: 5.589
3. Adams M, Stringer T, de Kock C, Smith PJ, Land KM, Liu N, Tam C, Cheng LW, Njoroge M, **Chibale K**, Smith GS. Bioisosteric ferrocenyl-containing quinolines with antiplasmodial and antitrichomonal properties. *Dalton Transactions*. 2016 Nov 15; 45(47): 19086-95. [Original]
DOI: 10.1039/C6DT03175G
Impact Factor: 4.177

Herbal Drugs

1. de Rapper S, **Viljoen A**, van Vuuren S. The *in vitro* antimicrobial effects of *Lavandula angustifolia* essential oil in combination with conventional antimicrobial agents. *Evidence-Based Complementary and Alternative Medicine*. 2016 Nov; 2016: 2752739. [Original]
DOI: 10.1155/2016/2752739
Impact Factor: 1.931

HIV/TB Pathogenesis and Treatment

1. **Daftary A, Padayatchi N**. Provider perspectives on drug-resistant tuberculosis and human immunodeficiency virus care in South Africa: A qualitative case study. *International Journal of Tuberculosis and Lung Disease*. 2016 Nov 1; 20(11): 1483-8. [Original]
DOI: 10.5588/ijtld.16.0111
Impact Factor: 2.148

Human Genetics

1. **Roberts L**, Ratnapriya R, **du Plessis M**, Chaitankar V, **Ramesar RS**, Swaroop A. Molecular diagnosis of inherited retinal diseases in indigenous African populations by whole-exome sequencing whole exome analysis of South African IRD Families. *Investigative Ophthalmology & Visual Science*. 2016 Nov 01; 57(14): 6374-81. [Original]
DOI: 10.1167/iovs.16-19785
Impact Factor: 3.427

Hypertension and Cardiovascular Disease

1. Charlton K, Ware LJ, Menyau E, Biritwum RB, Naidoo N, Pieterse C, Madurai SL, Baumgartner J, Asare GA, Thiele E, **Schutte AE**, Kowal P. Leveraging ongoing research to evaluate the health impacts of South Africa's salt reduction strategy: A prospective nested cohort within the WHO-SAGE multicountry, longitudinal study. *BMJ Open*. 2016 Nov 30; 6(11): e013316. [Original]
DOI: 10.1136/bmjopen-2016-013316

Maternal and Infant Health Care Strategies

1. Soma-Pillay P, **Pattinson RC**. Barriers to obstetric care among maternal near misses. *South African Medical Journal*. 2016 Nov 2; 106(11): 1110-1113. [Original]
DOI: 10.7196/SAMJ.2016.v106i11.10726
Impact Factor: 1.500

Microbial Water Quality Monitoring

1. **Falade AO**, Oboh G, **Okoh AI**. Potential health implications of the consumption of thermally-oxidized cooking oils - A review. *Polish Journal of Food and Nutrition Sciences*. 2016 Nov 30. [Review]
DOI: 10.1515/pjfn-2016-0028
Impact Factor: 0.679
2. **Msolo L, Igbiosa EO, Okoh AI**. Prevalence and antibiogram profiles of *Escherichia coli* O157:H7 isolates recovered from three selected dairy farms in the Eastern Cape Province, South Africa. *Asian Pacific Journal of Tropical Disease*. 2016 Nov 22. [Original]
DOI: 10.1016/S2222-1808(16)61170-2
Impact Factor: None
3. **Okoh SO, Iweriegbor BC, Okoh OO, Nwodo UU, Okoh AI**. Bactericidal and antioxidant properties of essential oils from the fruits *Dennettia tripetala* G. Baker. *BMC Complementary and Alternative Medicine*. 2016 Nov 28; 16(1): 486. [Original]
DOI: 10.1186/s12906-016-1459-4
Impact Factor: 1.987
4. **Mmango-Kaseke Z, Okaiyeto K, Nwodo U, Mabinya L, Okoh A**. Optimization of cellulase and xylanase production by micrococcus species under submerged fermentation. *Sustainability*. 2016 Nov 11; 8(11): 1168. [Original]
DOI: 10.3390/su8111168
Impact Factor: 1.343

Respiratory and Meningeal Pathogens

1. **Nunes MC, Downs S, Jones S, van Niekerk N, Cutland CL, Madhi SA**. Bordetella pertussis infection in South African HIV-infected and HIV-uninfected mother-infant dyads: A longitudinal cohort study. *Clinical Infectious Diseases*. 2016 Nov 2. [Original]
DOI: 10.1093/cid/ciw527
Impact Factor: 8.736

2. **Soofie N, Nunes MC, Kgagudi P, van Niekerk N, Makgobo T, Agosti Y, Hwinya C, Pathirana J, Madhi SA.** The burden of pertussis hospitalization in HIV-exposed and HIV-unexposed South African infants. *Clinical Infectious Diseases*. 2016 Nov 02. [Original]
DOI: 10.1093/cid/ciw545
Impact Factor: 8.736
3. **Nunes MC, Soofie N, Downs S, Tebeila N, Mudau A, de Gouveia L, Madhi SA.** Comparing the yield of nasopharyngeal swabs, nasal aspirates, and induced sputum for detection of bordetella pertussis in hospitalized infants. *Clinical Infectious Diseases*. 2016 Nov 02. [Original]
DOI: 10.1093/cid/ciw521
Impact Factor: 8.736
4. van Dyke MK, Pirçon J-Y, Cohen R, **Madhi SA**, Rosenblüt A, Parra MM, Al-Mazrou K, Grevers G, Lopez P, Naranjo L, Pumarola F, Sonsuwan N, Hausdorff WP. Etiology of acute otitis media in children less than 5 years of age: A pooled analysis of 10 similarly designed observational studies. *Pediatric Infectious Disease Journal*. 2016 Nov 30. [Original]
DOI: 10.1097/INF.0000000000001420
Impact Factor: 2.587
5. McAnerney JM, Walaza S, Tempia S, Blumberg L, Treurnicht FK, **Madhi SA**, Valley-Omar Z, Cohen C. Estimating vaccine effectiveness in preventing laboratory-confirmed influenza in outpatient settings in South Africa, 2015. *Influenza and Other Respiratory Viruses*. 2016 Nov 08. [Original]
DOI: 10.1111/irv.12436
Impact Factor: 2.378
6. **Albrich WC, Pride MW, Madhi SA, Callahan J, Adrian PV, French R, van Niekerk N, Sebastian S, Souza V, Telles JN, Paranhos-Baccala G, Jansen KU, Klugman KP.** Multiplex urinary antigen detection for 13 streptococcus pneumoniae serotypes improves diagnosis of pneumococcal pneumonia in South African HIV-infected adults. *Journal of Clinical Microbiology*. 2016 Nov 09. [Original]
DOI: 10.1128/JCM.01573-16
Impact Factor: 3.631

Rural Public Health and Health Transition

1. Barr AL, Young EH, Smeeth L, Newton R, Seeley J, Ripullone K, Hird TR, Thornton JRM, Nyirenda MJ, Kapiga S, Adebamowo CA, Amoah AG, Wareham N, Rotimi CN, Levitt NS, Ramaiya K, Hennig BJ, Mbanya JC, **Tollman S**, Motala AA, Kaleebu P, Sandhu MS. The need for an integrated approach for chronic disease research and care in Africa. *Global Health, Epidemiology and Genomics*. 2016 Nov 29; 1: e19. [Review]
DOI: 10.1017/ghg.2016.16
Impact Factor: None
2. **Pettifor A, MacPhail C, Hughes JP, Selin A, Wang J, Gomez-Olive FX, Eshleman SH, Wagner RG, Mabuza W, Khoza N, Suchindran C, Mokoena I, Twine R, Andrew P, Townley E, Laeyendecker O, Agyei Y, Tollman S, Kahn K.** The effect of a conditional cash transfer on HIV incidence in young women in rural South Africa (HPTN 068): A phase 3 randomised controlled trial. *Lancet Global Health*. 2016 Nov 01. [Original]
DOI: 10.1016/S2214-109X (16)30253-4
Impact Factor: 14.722

3. GRANT FUNDED RESEARCH

1. Visagie MH, Jaiswal SR, **Joubert AM**. In vitro assessment of a computer-designed potential anticancer agent in cervical cancer cells. *Biological research*. 2016 Nov 02; 49(1): 43. [Original]
DOI: 10.1186/s40659-016-0104-5
Impact Factor: 1.328
2. Moosa S, **Ntusi NAB**. Role of cardiovascular magnetic resonance in the evaluation of cardiomyopathy. *South African Journal of Radiology*. 2016 Nov 11; 20(2): a1055. [Review]
DOI: 10.4102/sajr.v20i2.1055
Impact Factor: None
3. Power RA, Parkhill J, **de Oliveira T**. Microbial genome-wide association studies: Lessons from human GWAS. *Nature Reviews: Genetics*. 2016 Nov 14. [Review]
DOI: 10.1038/nrg.2016.132
Impact Factor: 35.898
4. **Rebello TM, Chetty CJ, Ferreira E, Weiss SF**. Anti-LRP/LR-specific antibody IgG1-iS18 impedes adhesion and invasion of pancreatic cancer and neuroblastoma cells. *BMC Cancer*. 2016 Nov 24; 16(1): 917. [Original]
DOI: 10.1186/s12885-016-2953-2
Impact Factor: 3.265
5. **Soares NC**, Bou G, Blackburn JM. Editorial: Proteomics of microbial human pathogens. *Frontiers in Microbiology*. 2016 Nov 04; 7: 3. [Editorial]
DOI: 10.3389/fmicb.2016.01742
Impact Factor: 4.165
6. Myburgh EJ, Langenhoven L, Grant KA, van der Merwe L, **Kotze MJ**. Clinical overestimation of HER2 positivity in early estrogen and progesterone receptor-positive breast cancer and the value of molecular subtyping using BluePrint. *Journal of Global Oncology*. 2016 Nov 16: JGO.2016.006072. [Original]
DOI: 10.1200/JGO.2016.006072
Impact Factor: None
7. **Aderibigbe BA**, Ray SS. Gum acacia polysaccharide-based pH sensitive gels for targeted delivery of neridronate. *Polymer Bulletin*. 2016 Nov 16: 1-15. [Original]
DOI: 10.1007/s00289-016-1857-2
Impact Factor: 1.371
8. van der Walt MM, **Terre'Blanche G**, Petzer JP, Petzer A. Benzyloxynitrostyrene analogues – A novel class of selective and highly potent inhibitors of monoamine oxidase B. *European Journal of Medicinal Chemistry*. 2016 Nov 09. [Original]
DOI: 10.1016/j.ejmech.2016.11.016
Impact Factor: 3.902
9. Alula MT, Krishnan S, Hendricks NR, Karamchand L, **Blackburn JM**. Identification and quantitation of pathogenic bacteria via in-situ formation of silver nanoparticles on cell walls, and their detection via SERS. *Microchimica Acta*. 2016 Nov 12. [Original]
DOI: 10.1007/s00604-016-2013-2
Impact Factor: 4.831

4. RESEARCH UNITS WITH NO QUALIFYING PUBLICATIONS

Intramural

- Burden of Disease
- Gender and Health
- Office of AIDS
- Office of Cancer
- Office of Malaria
- Office of Tuberculosis

Extramural

- Antiviral Gene Therapy
- Bioinformatics Capacity Development
- Common Epithelial Cancer
- Diarrhoeal Pathogens
- Gynaecological Cancer
- Health Services to Systems
- Immunology of Infectious Disease
- Medical Imaging
- Molecular Mycobacteriology
- Prospective Gastrointestinal Cancer
- Receptor Biology
- Stem Cell Research and Therapy

5. GRANTS AWARDED

SAMRC LIST OF CONTRACTS FOR NOVEMBER 2016					
SAMRC Unit	Funder	Main Funder	Project Title/Description	Contract Value	
				Rand	Foreign Currency
Health Systems	New York University	National Institutes of Health	African regional research partnerships for scaling up child mental health EBP's.	634 668	\$45 360
Grants Innovation & Product Development	Bill & Melinda Gates Foundation	Bill & Melinda Gates Foundation	Initiate an ecosystems to support the local commercialisation of medical device & diagnostics and other health technologies in South Africa.	19 343 076	\$1 382 458
HIV Prevention	The Health Systems Trusts	The Health Systems Trusts	Evaluation of the status of disability and rehabilitation services within the Public Sector.	208 120	-
	National Institutes of Health	Department of Health & Human Services	CTU	15 176 486	\$1 084 670
Office of Malaria	Bayer (Pty) Ltd	Bayer (Pty) Ltd	Fields trials to evaluate the efficacy of the Fludora Fusion (Bayer) mixture against susceptible An. gambiae.	925 795	-

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 South African Medical Research Council
 PO Box 19070, Tygerberg 7505,
 Cape Town, South Africa,
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