

## RESEARCH REPORT: HUMAN NUTRITION 2016

### Journal Articles (subsidised)

1. AWOTIWON OF, PILLAY-VAN WYK V, DHANSAY MA, DAY C, BRADSHAW D. Diarrhoea in children under five years of age in South Africa (1997 - 2014). *Tropical Medicine and International Health* 2016; **21**(9):1060-1070.
2. DU PLESSIS LM, HERSELMAN MG, MCLACHLAN MH, NEL JH. Selected facets of nutrition during the first 1 000 days of life in vulnerable South African communities. *South African Journal of Child Health* 2016; **10**(1):37-42.
3. DU PLESSIS LM, PEER N, HONIKMAN S, ENGLISH R. Breastfeeding in South Africa: are we making progress? *South African Health Review* 2016; **2016**(0):109-123.
4. FOUCHE C, VAN NIEKERK E, DU PLESSIS LM. Differences in breast milk composition of HIV-infected and HIV-uninfected mothers of premature infants: Effects of antiretroviral therapy. *Breastfeeding Medicine* 2016; **11**(9):455-460.
5. FREETH R, DRIMIE SE. Participatory Scenario Planning: From Scenario 'Stakeholders' to Scenario 'Owners'. *Environment: science and policy for sustainable development* 2016; **58**(4):32-43.
6. HENJUM S, KJELLEVOLD M, ULAK M, CHANDYO RK, SHRESTHA PS, FROYLAND L, STRYDOM EE, DHANSAY MA, STRAND TA. Iodine concentration in breastmilk and urine among lactating women of Bhaktapur, Nepal. *Nutrients* 2016; **8**:doi:3390 pg.1-11.
7. JOUBERT EM. A coordinated collaborative response to rehabilitation needs of persons with disabilities. *Physical Medicine and Rehabilitation Clinics of North America* 2015; **2**(7):1-7.
8. KOEN N, BLAAUW R, WENTZEL-VILJOEN E. Food and nutrition labelling: the past, present and the way forward. *South African Journal of Clinical Nutrition* 2016; **29**(1):13-21.
9. LABUSCHAGNE IL, VAN NIEKERK E. Diet and childhood asthma: review. *South African Family Practice* 2016; **58**(S1):S9-S11.
10. MARAIS ML, MCLACHLAN MH, EIDE WB. The NOMA track module on nutrition, human rights and governance: Part 1. Perceptions held by Master's students. *African Journal of Health Professions Education* 2016; **8**(2):152-159.
11. MARAIS ML, MCLACHLAN MH, EIDE WB. The NOMA track module on nutrition, human rights and governance: Part 2. A transnational curriculum using a human rights-based approach to foster key competencies in nutrition professionals. *African Journal of Health Professions Education* 2016; **8**(2):160-165.
12. MAVENGAHAMA S, DE CLERCQ WP, MCLACHLAN MH. Effect of soil amendments on yield of wild okra (*Corchorus olitorius*) in northern KwaZulu-Natal, South Africa. *South African Journal of Plant and Soil* 2016; **33**(2):153-156.
13. M'KAIBI FK, STEYN NP, OCHOLA S, DU PLESSIS LM. The relationship between agricultural biodiversity, dietary diversity, household food security, and stunting of children in rural Kenya. *Food Science and Nutrition* 2016; **1**(1):doi:10.1002/fsn3.387 p1-11.
14. MKHAWANI K, MOTADI SA, MABAPA NS, MBHENYANE XG, BLAAUW R. Effects of rising food prices on household food security on femaleheaded households in Runnymede Village, Mopani District, South Africa. *South African Journal of Clinical Nutrition* 2016; **29**(2):69-74.

15. MYERS NM, STRYDOM EE, SWEET J, SWEET C, SPOHRER R, DHANSAY MA, LIEBERMAN M. saltPAD: A new analytical tool for monitoring salt iodization in low resource settings. *Nano Biomedicine* 2016; **3**(5):1-9.
16. NIENABER A, DOLMAN RC, VAN GRAAN AE, BLAAUW R. Prevalence of glutamine deficiency in ICU patients: a cross-sectional analytical study. *Nutrition Journal* 2016; **15**(73):DOI 10.1186/s12937-016-0188-3 pg1-9.
17. SIBANDA NM, MBHENYANE XG, MUSHAPHI LF. Caregivers' interpretation of the growth chart and feeding practices of children under five years: A case of greater Tzaneen Municipality, South Africa. *Journal of Food and Nutrition Research* 2016; **4**(6):369-376.
18. PEREIRA L, DRIMIE SE. Governance arrangements for the future food system: Addressing complexity in South Africa. *Environment: science and policy for sustainable development* 2016; **58**(4):18-31.
19. PILLAY M, BESTER J, BLAAUW R, HARPER A, MSINDWANA AA, MULLER JV, PHILIPS LA. Allied health professional rural education: Stellenbosch University learners' experiences. *African Journal of Health Professions Education* 2016; **8**(2):169-173.
20. ROOMANEY RA, PILLAY-VAN WYK V, AWOTIWON A, DHANSAY MA, GROENEWALD P, JOUBERT JD, NGLAZI MD, NICOL E, BRADSHAW D. Epidemiology of lower respiratory infection and pneumonia in South Africa (1997-2015): a systematic review protocol. *BMJ Open* 2016; **6**(e012154):1-6.
21. VAN ZYL ZA, MASLIN K, DEAN T, BLAAUW R, VENTER C. The accuracy of dietary recall of infant feeding and food allergen data. *JOURNAL OF HUMAN NUTRITION AND DIETETICS* 2016; **29**:777-785.
22. VELDSMAN L, RICHARDS GA, BLAAUW R. The dilemma of protein delivery in the intensive care unit. *NUTRITION* 2016; **32**:985-988.

#### Chapters in Books

1. DRIMIE SE, YOSEF S. Reducing risk, strengthening resilience: Social protection and nutrition. In: Gillespie S, Hodge J, Yosef S, Pandya-Lorch R (eds.) *Nourishing millions: stories of change in nutrition*, International Food Policy Research Institute, Washington, DC, USA, 2016: 65-72.
2. DU PLESSIS LM, NAUDE CE, SWART R. Nutrition During the First Thousand days of life, Part II. In: Temple NJ, Steyn NP (eds.) *Community Nutrition for Developing Countries*, AU Press, Athabasca Univeristy, Canada, Alberta, Canada, 2016: 1-493.
3. DU PLESSIS LM, NAUDE CE. Nutrition during the first thousand days of life, Part I. In: Temple NJ, Steyn NP (eds.) *Community Nutrition for Developing Countries*, AU Press, Athabasca Univeristy, Canada, Alberta, Canada, 2016: 1-493.
4. NISBETT N, WACH E, HADDAD L, REDDIN S, GATELLIER K, COVIC N, DRIMIE SE, HARRIS J, YOSEF S. Championing Nutrition: Effective Leadership for Action. In: Gillespie S, Hodge J, Pandya-Lorch R, Yosef S (eds.) *Nourishing millions: Stories of change in nutrition*, International Food Policy Research Institute, Washington, DC, USA, 2016: 163-174.

#### Masters completed

1. BOSHOFF CY. *Perceptions of adolescents from the Sterkspruit area (Eastern Cape) regarding the underlying factors that have an impact on their right to adequate food*. Master of Nutrition, 2016. 152 pp. Supervisor: MARAIS ML. Co-supervisor: DRIMIE SE.

2. CHIKOTO LL. *The relationship between household food gardens and household food security in an urban area in Harare, Zimbabwe: A right to food perspective*. Master of Nutrition, 2016. 144 pp. Supervisor: MCLACHLAN MH. Co-supervisor: Zanamwe L.
3. COURTENAY A. *Breastfeeding self-efficacy and the duration of exclusive breastfeeding in HIV-infected and uninfected mothers*. Master of Nutrition, 2016. 158 pp. Supervisor: VAN NIEKERK E. Co-supervisor: MacDougall C.
4. DE HAAS JC. *Unintentional weight loss in older adults: Nutrition-related knowledge, perceptions and practices of nursing staff working in long-term care facilities in the Cape Metropole*. Master of Nutrition, 2016. 146 pp. Supervisor: MARAIS ML. Co-supervisor: Van Zyl E.
5. DU TOIT A. *Fistuloclysis: A feasible option for the nutritional management of adult intestinal failure patients in South Africa*. Master of Nutrition, 2016. 158 pp. Supervisor: BLAAUW R. Co-supervisor: Boutall A.
6. FERGUSON JK. *Risk factors in the development of severe acute malnutrition in vulnerable children under five years of age living in Region B and surrounding referral areas of the City of Johannesburg, South Africa*. Master of Nutrition, 2016. 204 pp. Supervisor: VAN NIEKERK E. Co-supervisor: Steenkamp L.
7. FOUCHÉ C. *Breastmilk composition of HIV-infected mothers receiving antiretroviral therapy who gave birth to premature infants*. Master of Nutrition, 2016. 178 pp. Supervisor: VAN NIEKERK E. Co-supervisor: DU PLESSIS LM, DELPORT S.
8. JENKINGS TC. *Determinants of the realisation of the right to adequate food of children (1 - 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape*. Master of Nutrition, 2016. 158 pp. Supervisor: MARAIS ML. Co-supervisor: Lessing E.
9. JOOSTE M. *The prevalence, knowledge and reasons for carbohydrate, protein, creatine and glutamine use among first team rugby players in premier rugby schools in the Western Cape Province*. Master of Nutrition, 2016. 158 pp. Supervisor: POTGIETER S. Co-supervisor: Havemann-Nel L.
10. MAIDMENT CM. *An investigation of possible contributing risk factors related to diet and lifestyle which may cause hypertension in male employees of Hotazel manganese mines (Northern Cape Province, South Africa)*. Master of Nutrition, 2016. 143 pp. Supervisor: HERSELMAN MG. Co-supervisor: MARAIS ML.
11. MOENS M. *Prevalence of risk of malnutrition in hospitalised adult patients in a tertiary hospital setting in South Africa*. Master of Nutrition, 2016. 243 pp. Supervisor: BLAAUW R. Co-supervisor: VISSER J.
12. NAPANJE MC. *Exploring the status of the School health and Nutrition Programme in Government Schools in Lusaka District, Zambia*. Master of Nutrition, 2016. 115 pp. Supervisor: DU PLESSIS LM. Co-supervisor: MARAIS ML.
13. NKOMANI S. *Assessing the extent and effectiveness of diabetes self-management education in public health care institutions in Harare, Zimbabwe*. Master of Nutrition, 2016. 187 pp. Supervisor: BLAAUW R. Co-supervisor: Rusakaniko S.
14. OGACHI S. *Factors that influence dietary diversity of school feeding programs in slums of Nairobi, Kenya: a perspective of school principals/teachers in charge*. Master of Nutrition, 2016. 133 pp. Supervisor: LOMBARD MJ. Co-supervisor: MARAIS ML.
15. PADAYACHEE M. *A systematic review of the efficacy and safety of Saccharomyces boulardii in the treatment of acute gastroenteritis in the pediatric population*. Master of Nutrition, 2016. 117 pp. Supervisor: BLAAUW R. Co-supervisor: VISSER J.

16. RIBEIRO NP. *A prospective, cross-over randomized controlled trial to determine whether end stage renal disease patients receiving chronic renal replacement therapy at Charlotte Maxeke Johannesburg Academic Hospital are more likely to have an improved lipid profile after including plant sterols as part of their dietary intake for eight weeks.* Master of Nutrition, 2016. 125 pp. Supervisor: POTGIETER S. Co-supervisor: Naicker S.
17. SAMUELS S. *Field testing of the revised Paediatric Food-Based Dietary Guidelines among mothers/caregivers of children aged 12–36 months in the Stellenbosch Municipality in the Western Cape province, South Africa.* Master of Nutrition, 2016. 159 pp. Supervisor: DU PLESSIS LM. Co-supervisor: DANIELS LC.
18. SNYMAN S. *The role of selected duty-bearers in realising the right to water of children (0-24) months in Colesberg, Northern Cape, during the nutritional management of diarrhoea in primary health care institutions.* Master of Nutrition, 2016. 123 pp. Supervisor: KOEN N. Co-supervisor: MARAIS ML.
19. VAN NIEKERK M. *The effect of an enriched nutritional supplement on growth and inflammatory markers in underweight HIV-positive children aged 24-72 months.* Master of Nutrition, 2016. 181 pp. Supervisor: LABADARIOS D. Co-supervisor: DU PLESSIS LM.

Poster presentations (national & international)
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1. Maidment C, Herselman MG, Marais, ML. *An investigation of possible contributing risk factors related to diet and lifestyle which may cause hypertension in male employees of Hotazel Manganese mines (Northern Cape Province, South Africa).* World Nutrition Congress Cape Town, 2016. University of the Western Cape, South Africa, 30 August – 2 September 2016.
2. Ogachi S, Lombaard M, Marais ML. *Dietary diversity of the school feeding program and factors influencing the program in the urban slums of Nairobi Kenya: A perspective of school principals/ teachers in charge.* World Nutrition Congress Cape Town, 2016. University of the Western Cape, South Africa, 30 August – 2 September 2016.
3. Snyman S, Koen N, Marais ML. *The role of selected duty-bearers in realising the right to water of children (0-24 MONTHS) in Colesberg, Northern Cape, during the nutritional management of diarrhoea in primary health care institutions.* World Nutrition Congress Cape Town, 2016. University of the Western Cape, South Africa, 30 August – 2 September 2016.
4. De Haas JC, Marais ML, van Zyl ML. *Nurses' challenges with managing unintentional weight loss in older adults in long-term care facilities (Cape Metropole).* Nutrition Congress Somerset West, South Africa, 3 September 2016.
5. Du Toit A, Boutall AB, Blaauw R. *The use of fistuloclysis in an adult intestinal failure population in a South African tertiary hospital.* 38<sup>th</sup> ESPEN Congress Copenhagen, Denmark, 17 - 20 September 2016.
6. Stevensen C, Blaauw R, Fredericks E, Visser J, Roux S. *Nutrient intakes and the validity and reliability of dietary data in irritable bowel syndrome patients.* 38<sup>th</sup> ESPEN Congress, Copenhagen, Denmark, 17 – 20 September 2016.
7. Van Niekerk E, Kirsten G, Blaauw R. *Probiotics feeding tolerance and growth in HIV exposure.* Nutrition Congress, Somerset West, South Africa, 3 - 5 September 2016.

8. Philips L, Visser J, Blaauw R. *The Association between Tuberculosis and the Development of Insulin Resistance in adults with Pulmonary Tuberculosis*. Nutrition Congress, Somerset West, South Africa, 3 - 5 September 2016.
9. Fouché C, du Plessis L, van Niekerk E. *Differences in Breastmilk Composition of HIV-Infected and HIV-uninfected mothers of Premature Infants: Effects of Anti-Retroviral Therapy*. ISRHML Congress, Spier, Stellenbosch, South Africa, 3 - 5 September 2016.
10. Smit Y, Koen N, Kassier SM, Nel D. *Food choices of mothers with children attending primary schools in the Metro North Education District of the Western Cape Province, South Africa*. Nutrition Congress, Somerset West, South Africa, 3 - 5 September 2016.
11. Schiever JF, Visser J, Van der Merwe, M. *Evaluation of nutrition care to adult patients on HAART attending primary healthcare facilities in Mpumalanga*. Nutrition Congress, 3 – 5 September 2016, Somerset West, South Africa.

<p>Oral Presentations (national &amp; international)</p>
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1. Koornhof HE, Marais ML, du Plessis LM, Daniels LC. *Assessing food and nutrition security of Stellenbosch University (SU) main campus undergraduate students*. Nutrition Congress, Somerset West, South Africa, 3 September 2016.
2. Blaauw R. *The double-burden of Malnutrition*. 38<sup>th</sup> ESPEN Congress, Copenhagen, Denmark, 17 - 20 September 2016.
3. Blaauw R. *Lipids in parenteral nutrition: The South African perspective*. 12<sup>th</sup> Congress of the International Society for the Study of Fatty Acids and Lipids (ISSFAL). Stellenbosch, 5 - 9 September 2016.
4. Blaauw R, Erasmus N, Lenhoff A, Jamieson M, Zhang ZE. *Risk of malnutrition in hospitalized children*. Nutrition Congress, Somerset West, South Africa, 3 September 2016.
5. Blaauw R. *Malnutrition screening tools*. Nutrition Congress, Somerset West, South Africa, 3 - 5 September 2016.
6. Koen N, Blaauw R, Wentzel-Viljoen E. *The influence of nutrition labelling and logos on food purchasing behaviour in the City of Cape Town, Western Cape, South Africa*. Nutrition Congress, Somerset West, South Africa, 3 September 2016.
7. Winskill T, Kruger S, Blaauw R. *Dietary adherence amongst adults with type 2 Diabetes Mellitus: A South African urban population perspective*. Nutrition Congress, Somerset West, South Africa, 3 September 2016.
8. Du Plessis LM, Mclachlan MH, Drimie SE. *Exploring stakeholder commitment and capacity to address infant and young child nutrition in the capital of the Breede Valley, Western Cape, South Africa*. Biennial Nutrition Congress, Cape Town, South Africa, 3 - 5 September 2016.
9. Tarumbwa C, Naude CE, du Plessis LM, Makura L. *Malnutrition-related morbidity and mortality in HIV-exposed infants of mothers enrolled in the PMTCT programme at a Namibian district hospital: the role of infant feeding practices*. Annual Academic Year Day, Faculty of Medicine and Health Sciences, 11 August 2016.
10. Visser, J. *Hospital malnutrition – are we winning the battle?* Nutrition Congress, Somerset West, South Africa, 3 - 5 September 2016.

11. Mabasa E, Mabapa NS, Jooste PL, Mbhenyane XG. *Iodine status of pregnant women and children aged 6 to 12 years feeding from the same food basket in Mopani district, South Africa*. Nutrition Congress, Somerset West, South Africa, October 2016.

Published abstracts (national & international)

1. Du Toit, Boutall AB, Blaauw R. *The use of fistuloclysis in an adult intestinal failure population in South African tertiary hospital*. 38<sup>th</sup> ESPEN Congress, Copenhagen, Denmark, 17 – 20 September 2016.
2. Stevensen C, Blaauw R, Fredericks E, Visser J, Roux S. *Nutrient intakes and the validity and reliability of dietary data in irritable bowel syndrome patients*. 38<sup>th</sup> ESPEN Congress, Copenhagen, Denmark, 17 – 20 September 2016.
3. Coutsoudis A, Adair LS, Kuhn L, Matare CR, Mbuya MN, Tavengwa NV, Ntozini R, Stoltzfus RJ, Humphrey JH, Berbari LS, Ochoa TJ, van Niekerk E. *Abstracts from the 18<sup>th</sup> International Society for Research in Human Milk and Lactation Conference*. Breastfeeding Medicine, March 2016.
4. Smit Y, Koen N, Kassier SM, Nel D. *Food choices of mothers with children attending primary schools in the Metro North Education District of the Western Cape Province, South Africa*. Nutrition Congress, 2016.
5. Koen N, Blaauw R, Wentzel-Viljoen E. *The influence of nutrition labelling and logos on food purchasing behaviour in the City of Cape Town, Western Cape, South Africa*. Nutrition Congress, 2016.
6. Schiever JF, Visser J, Van der Merwe, M. *Evaluation of nutrition care to adult patients on HAART attending primary healthcare facilities in Mpumalanga*. Nutrition Congress, 2016.
7. Philips L, Visser J, Nel DG, Blaauw R. *The association between tuberculosis and the development of insulin resistance in adults with pulmonary tuberculosis*. Nutrition Congress, 2016.
8. Koornhof HE, du Plessis LM, Marais ML, Daniels LC. *Assessing food and nutrition security of Stellenbosch University main campus undergraduate students*.

Other material published in accredited/ non-accredited journals

1. Mbhenyane XG, Labuschagne I. *Sub-Saharan Africa has a long way to go before it cracks food insecurity*. The Conversation June 2016.

Other (patents, reports, creative works, and popular works: public or any other relevant research output)

1. Mbhenyane XG. *The contribution of 'indigenous foods' to the elimination of hidden hunger and food insecurity: An illusion or innovation?* Inaugural lecture, 25 October 2016, Stellenbosch University. Editor: SU Language Centre, Printing: Sun Media. ISBN: 978-0-7972-1655. Copyright © 2016 Xikombiso Mbhenyane

Ongoing projects
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1. Blaauw R. *Prevalence and impact of hospital malnutrition on associated outcomes*. Ethics Approval number: N14/06/061.
2. Blaauw R. *Plasma glutamine levels in relation to ICU patient outcome*. Ethics Approval number: N14/08/114.
3. Blaauw R, du Plessis LM, Daniels LC, Smit Y, van Niekerk E. *Investigating Nutrition and Physical Activity Behaviour of Adolescents in the School Environment*. Ethics Approval number: N16/08/100.
4. Visser J, Blaauw R, Cederholm, T. *Addressing malnutrition in hospitalised adults: a South African perspective*.
5. Visser J, Blaauw R, Visser, W. *Determinants of serum 25-hydroxyvitamin D levels in adults in the Western Cape Province of South Africa*.
6. Shabangu SV, Beukes R. *Management of Severe Acute Malnutrition in children aged 6 - 59 months by Professional Nurses in Primary Health Care Facilities in Johannesburg Health District, South Africa*.
7. Kimani IW, Beukes R. *Evaluation of the Supplementary Feeding programme targeted at moderately malnourished children aged 6 to 59 months in Baringo County, Kenya*. (Data collection completed. Thesis in first stage of writing)
8. Mbhenyane XG, Mandiwana TC, Mbhatsani HV, Mushaphi LF, Mabapa NS, Motadi SA, Mabasa E, Masia TA. *The impact of BFHI on breastfeeding practices by Women in Mopani and Vhembe districts, Limpopo, South Africa*.
9. Mabapa NS, Mbhatsani HV, Mbhenyane XG, Mandiwana TC, Mushaphi LF, Motadi SA, Mabasa E, Masia TA. *Determination of eating patterns, cultural perspectives, household food security, physical activity and health risk in Limpopo*.
10. Mbhenyane XG, Makuse SHN, Mushaphi LF, Dlamini N. *Improving food and nutrition security, nutritional and health status of rural communities*.