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**FESTSCHRIFT** 

# 'n Festschrift ter ere van die wetenskaplike bydrae van prof Esté (HH) Vorster tot die studieveld van Voeding

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Wyle prof Esté (HH) Vorster (11 Januarie 1942-23 Junie 2020) was 'n wêreldbekende Suid-Afrikaanse voedingkundige. Tydens 'n akademiese loopbaan van meer as 45 jaar ontwikkel sy die vakgebied Voeding tot 'n multidissiplinêre domein met die slagspreuk van molekules tot die samelewing. Hierdie Festschrift poog om die diepte, omvang en impak van haar wetenskaplike bydrae tot die veld saam te vat deur 185 artikels te ontleed. Die bibliometriese resultate getuig van die toonaangewende navorsingsbydrae en baanbrekerswerk wat Vorster tydens haar loopbaan tot Voeding bygedra het.



Skets 1: Prof Esté (HH) Vorster.

Vorster het in die vroeë 1980's haar navorsing in Voeding by die Potchefstroomse Universiteit vir Christelike Hoër Onderwys (PU vir CHO) begin. Sy verwerf in 1989 'n DSc in Fisiologie met 'n proefskrif wat handel oor dieetvesel en risikofaktore van nieoordraagbare siektes aan dieselfde universiteit. Vorster dien van 2008 tot en met 2011 as Direkteur van die Sentrum van Uitnemendheid vir Voeding aan die Noordwes-Universiteit, waarna prof Johann Jerling die direkteurskap oorneem. Sy dien daarna as 'n buitengewone navorsingsprofessor in die Fakulteit Gesondheidswetenskappe tot en met haar afsterwe in 2020.

Vorster het as voorsitter en president van die Voedingsvereniging van Suid-Afrika gedien en ontvang hul toekenning vir Uitstaande Bydraes tot Voedingsnavorsing in 1996. Sy het ook gedien as lid van die Suid-Afrikaanse Akademie vir Wetenskap en Kuns. Sy het hul gesogte Havenga-Medalje vir Geneeskunde in 2007 vir wetenskaplike uitsette in Mediese Wetenskappe asook hul prys vir die beste artikel in Natuurwetenskap in 2014 ontvang. In 2012 ontvang sy ook die Nevin Scrimshaw-toekenning vir visie en leierskap in voedingsopleiding en lewer diens aan internasionale voeding van die Afrika-Voedingsvereniging.

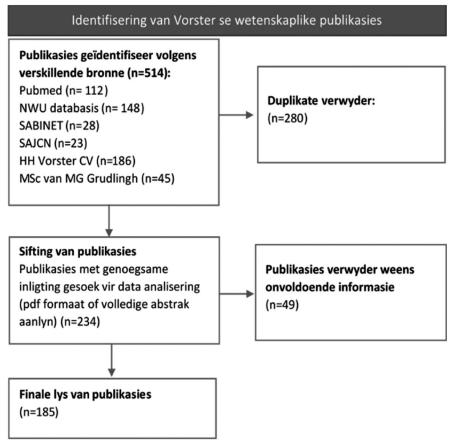
Sy dien as sekretaris-generaal in die Raad van die Akademie vir Wetenskap van Suid-Afrika. Sy was ook in die direksie van die Suid-Afrika-Nederlandse Program vir Alternatiewe in Ontwikkeling. Verder was sy 'n direkteur van die Women's Outreach Foundation, en trustee en wetenskaplike adviseur van die "5-a-day-for-better health trust". Vorster het ook dikwels as konsultant en wetenskaplike raadgewer gedien vir die Nasionale Departement van Gesondheid, sowel as vir die Wêreldgesondheidsorganisasie (WGO), die Voedsel- en Landbou-organisasie (Food and Agriculture Organization (FAO)) en die Verenigde Nasies se Internasionale Noodfonds vir Kinders (United Nations International Children's Emergency Fund (UNICEF)). Sy dien ook onder meer as lid van die Deskundige Voedingsvoorligtingadviesgroep (Nutrition Guidance Expert Advisory Group, NUGAG) (die komitee wat die WGO oor voedingsaanbevelings adviseer). Hier konsulteer sy oor voedselgebaseerde dieetriglyne, koolhidrate en energie. Sy koördineer internasionaal die benaderings vir die ontwikkeling van nutriëntgebaseerde dieetstandaarde.

Die verkorte biografiese skets van Vorster is 'n duidelike illustrasie van die indrukwekkende mens en wetenskaplike wat sy was. Dit word gestaaf deur die ontleding van haar wetenskaplike bydrae.

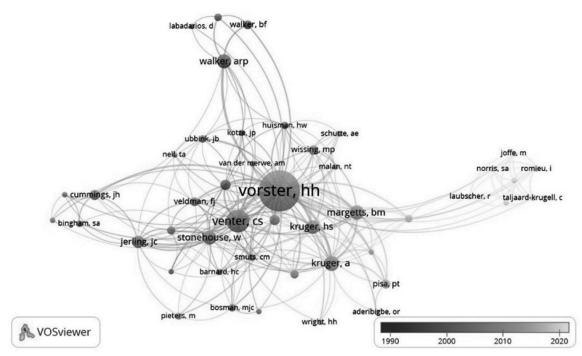
Die omvang van Vorster se wetenskaplike publikasies in geakkrediteerde vaktydskrifte is bepaal deur elektroniese soektogte na wetenskaplike publikasies op PubMed, SABINET en die Noordwes-Universiteit se biblioteeksoekenjin. Die soektog is beperk tot artikeluitsette. Die naam van die skrywer is as soekterm gebruik (Vorster HH, Vorster E, Vorster Hester Hendriena, Vorster Hester, Vorster Esté). Verder is soektogte in twee Suid-Afrikaanse vaktydskrifte, die South African Journal of

Clinical Nutrition en die Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie gedoen, terwyl die bibliografieë van 'n onlangs gepubliseerde meestersverhandeling ontleed is (Grundlingh, 2020). Haar mees onlangse CV is ook geraadpleeg. Alle ewekniegeëvalueerde artikels waarvoor daar genoegsame inligting in Afrikaans of Engels beskikbaar was, is in die databasis ingesluit. 'n Vloeidiagram van die literatuursoektog en siftingsproses kan in Figuur 1 gesien word. Dataonttrekking is onafhanklik deur die twee outeurs gedoen. Dataontledings is in Stata, Endnote en VosViewer uitgevoer.

Altesaam 185 wetenskaplike publikasies is ontleed, waarvan 57,8% in internasionale valtydskrifte gepubliseer is. Bylae A sluit in 'n verwysingslys van al 185 publikasies. 'n Derde (32,4%) van alle publikasies was eerste-outeurpublikasies. Waarnemingstudies het 'n derde van alle studies uitgemaak, gevolg deur eksperimentele studies (21,7%) en oorsigartikels (21,3%). Vorster het met verskeie medewerkers oor 29 lande heen saamgewerk. 'n Visuele uitbeelding van haar medewerkers tussen 1990 en 2020 kan gesien word in Skets 2. Die meeste van haar publikasies het medewerkers van Suid-Afrika (86,8%), die Verenigde Koninkryk (15,1%) en die Verenigde State van Amerika (7,1%) ingesluit. Haar publikasies het hoofsaaklik gefokus op nie-oordraagbare siektes (21,1%), nutriëntvereistes en dieetriglyne (9,7%), fibrinogeen (9,7%) en die glukemiese indeks (8,1%).



Figuur 1: Vloeidiagram van die literatuursoektog en siftingsproses



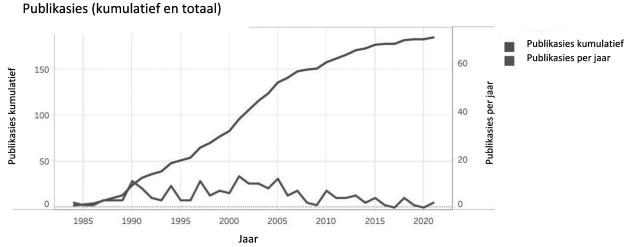
Skets 2: 'n Visuele uitbeelding van die medewerkers van Vorster tussen 1990 en 2020.

Die grootte van die sirkels is 'n aanduiding van die getal kere wat 'n medewerker Vorster in 'n artikel genoem het. Hieruit is dit duidelik dat Venter, CS gereeld saam met Vorster gepubliseer het, terwyl 'n medewerker soos Romieu, I minder gereeld saam met Vorster gepubliseer het. Die tydlyn word deur die aangeduide kleure voorgestel.

Teen die einde van 1990 het Vorster 24 artikels gepubliseer, waarvan 11 in 1990 gepubliseer is. In die volgende dekade (1990–2000) styg haar uitsette tot 83 artikels en ontvang sy in hierdie tyd haar C<sub>1</sub> Nasionale Navorsingstigting-gradering (bekend as die "NRF"- gradering). Die dekade van 2000 tot 2010 is Vorster se goue navorsingsjare, en haar uitsette verdubbel tot 158 artikels. Teen die einde van Vorster se loopbaan het sy 'n

indrukwekkende somtotaal van 185 artikels gepubliseer, waarvan meer as die helfte in internasionaal geakkrediteerde valtydskrifte geplaas was (Figuur 2). Sy handhaaf ook van 2004 tot 2016 'n Nasionale Navorsingstigting-B<sub>1</sub>gradering. Deur haar loopbaan werk Vorster aan sleutelstudies waar sy haar slagspreuk "van molekules tot by die samelewing" uitleef. Hierdie studies word saamgevat in Figuur 3.

Die bibliometriese resultate getuig van die toonaangewende navorsingsbydrae en baanbrekerswerk wat Vorster tydens haar loopbaan bygedra het tot voeding. Hierdie bydrae was verreikend en het plaaslik, nasionaal, kontinentaal en internasionaal 'n impak gemaak. Vanuit die sleutelstudies waaraan Vorster gewerk het, is dit duidelik dat sy getrou was aan



Figuur 2: 'n Voorstelling van Vorster se wetenskaplike publikasies uitgebeeld as kumulatiewe publikasies oor tyd (links) en publikasies per jaar (regs).

haar eie leuse van "van molekules tot die samelewing". Haar navorsing strek van navorsingsmetodologieë, tot 'n molekulêre en tot 'n epidemiologiese vlak en bevorder die begrip van voeding. Sodoende word plaaslike en globale beleid deur haar beïnvloed.

Prof. Esté Vorster het ongetwyfeld die voedingsnavorsingsveld in Suid-Afrika as multidissiplinêre wetenskap gedefinieer. Sy was nie bloot indrukwekkend as wetenskaplike nie, maar ook as mens. Vorster was geken aan haar analitiese en helderdenkende intellek, haar passie vir onderrig, werksetiek, onwrikbare integriteit en haar beskeidenheid. Hierdie eienskappe kom ook duidelik na vore in die Esté (HH) Vorster-aanlynherdenkingsblad (Bylae B). Die unieke kombinasie van besonderse karaktereienskappe het van haar 'n uitsonderlike akademikus en mens gemaak. Vorster het diegene wat saam met haar gewerk het, bemagtig, uitgedaag en altyd tot hoër hoogtes geneem. Uit die huldeblyke is dit duidelik dat Vorster lief was vir haar medemens, en in besonder haar familie. Sy het graag gelag. Waardegedrewe lewenslesse soos doen die regte ding, omdat dit die regte ding is om te doen" sal nog lank in vele voedingsgesprekke weerklink.

Die impak van Vorster se lewe is steeds sigbaar en sal ook vir dekades nog wees. Hierdie Festschrift dien as eerbetoon aan Prof. Esté Vorster vir haar bydrae tot die veld van voeding.

## **Erkennings**

Ons opregte dank word hiermee oorgedra aan mev Gerda Beukman van die Ferdinand Postmabiblioteek, Noordwes-Universiteit, vir haar hulp met die soektog na wetenskaplike artikels. Ons dank ook aan mev Madelé Morkel vir grafiese dienste gelewer, asook aan dr Elsa Krugell vir die taalversorging.

## **Befondsing**

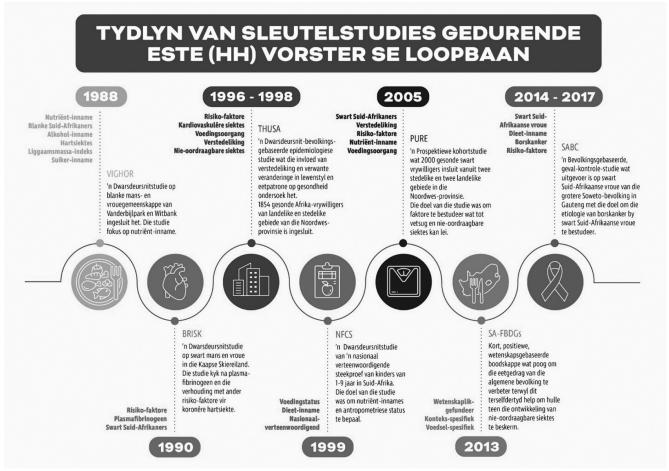
Met dank aan die PUK-Kanselierstrust

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## **Verwysings**

Grundling, M., 2020, Nutritional research at North-West University 1998-2018: Impact, scope and reach through evidence mapping. MSc mini dissertation, North-West University.



Figuur 3: Tydlyn van sleutelstudies gedurende Vorster se loopbaan

# **Bylae A**

- Aderibigbe, O., Pisa, P., Mamabolo, R., et al., 2011a, Iron status and cardiovascular disease risk in black South African women: the PURE study South African Journal of Clinical Nutrition 24, 179-185. <a href="https://doi.org/10.1080/16070658.2">https://doi.org/10.1080/16070658.2</a> 011.11734385.
- Aderibigbe, O., Pisa, P., Mamabolo, R., et al., 2011b, The relationship between indices of iron status and selected anthropometric cardiovascular disease risk markers in an African population: the THUSA study: cardiovascular topics, Cardiovascular Journal of Africa 22, 249-256. <a href="https://doi.org/10.5830/CVJA-2011-015">https://doi.org/10.5830/CVJA-2011-015</a>.
- Aderibigbe, O., Pisa, P., Vorster, H., et al., 2014, The relationship between iron status and adiposity in women from developing countries: a review, *Critical Reviews* in Food Science and Nutrition 54, 553-560. <a href="https://doi.org/10.1080/10408398.2011.594914">https://doi.org/10.1080/10408398.2011.594914</a>.
- Beauman, C., Cannon, G., Elmadfa, I., et al., 2005, The principles, definition and dimensions of the new nutrition science, *Public Health Nutrition* 8, 695-698. https://doi.org/10.1079/PHN2005820.
- Bingham, S., Vorster, H., Jerling, J., et al., 1997, Effect of black teadrinking on blood lipids, blood pressure and aspects of bowel habit, *British Journal of Nutrition* 78, 41-55. https://doi.org/10.1079/BJN19970117.
- Bosman, M., Vorster, H., Drewnowski, A., et al., 1996, Characteristics of high-fibre muffins containing various levels of fat substitute, *South African Journal of Food Science and Nutrition*.
- Bosman, M., Van Aardt, A., Vorster, H., et al., 1997, Dietitians' attitude towards fat substitutes and the acceptability of high-fibre muffins containing Simplesse\*, South African Journal of Food Science and Nutrition 9, 61-68.
- Bosman, M., Vorster, H., Drewnowski, A., et al., 1997, Consumer acceptance of high-fibre muffins containing Simplesse\*, *Journal of Diet Home & Economics* 25, 90-99.
- Bosman, M., Vorster, H., Setser, C., et al., 2010, The effect of batter refrigeration on the characteristics of high-fibre muffins with oil replaced by a protein-based fat substitute, *Journal of Family Ecology and Consumer Sciences /Tydskrif vir Gesinsekologie en Verbruikerswetenskappe* 28. <a href="https://doi.org/10.4314/jfecs.y28i1.52778">https://doi.org/10.4314/jfecs.y28i1.52778</a>.
- Botha, E., Wissing, M., Ellis, S., et al., 2007, Psychological well-being and the metabolic syndrome in African and Caucasian women in South Africa, *Journal of Psychology in Africa* 17, 85-92. <a href="https://doi.org/10.1080/14330237.2007.108">https://doi.org/10.1080/14330237.2007.108</a> 20149.
- Cummings, J., Mann, J., Nishida, C., et al., 2009, Dietary fibre: an agreed definition, *Lancet* 373, 365-366. https://doi.org/10.1016/S0140-6736(09)60117-3.
- Gibney, M. & Vorster, H., 2001, South African food-based dietary guidelines, South African Journal of Clinical Nutrition 14, S2.
- Gibson, G., Cummings, J., Macfarlane, G., et al., 1990, Alternative pathways for hydrogen disposal during fermentation in the human colon, *Gut* 31, 679-683. https://doi.org/10.1136/gut.31.6.679.
- Gopane, R., Pisa, P., Vorster, H., et al., 2010, Relationships of alcohol intake with biological health outcomes in an African population in transition: the Transition and Health during Urbanisation in South Africa (THUSA) study, South African Journal of Clinical Nutrition 23, 16-21. https://doi.org/10.1080/ 16070658.2010.11734297.
- Gray, P., Kruger, A., Huisman, H., et al., 2006, Predictors of South African male testosterone levels: the THUSA study, American Journal of Human Biology 18, 123-132. https://doi.org/10.1002/ajhb.20471.
- Gresse, A. & Vorster, H., 1992, The glycaemic index and second meal effect of a typical African meal in black non-insulin dependent diabetic subjects, South African Journal of Food Science and Nutrition 4, 64-69.
- Gresse, A., Vorster, H., Dauth, J., et al., 1993, Effects of a typical African diet on metabolic control of black non-insulin dependent diabetes mellitus patients, South African Journal of Food Science and Nutrition 5, 43-48.
- Human, J., Ubbink, J., Jerling, J., et al., 1997, The effect of Simvastatin on the plasma antioxidant concentrations in patients with hypercholesterolaemia, *Clinica Chimica Acta* 263, 67-77. https://doi.org/10.1016/S0009-8981(97)06557-1.
- Jacobs, I., Taljaard-Krugell, C., Ricci, C., et al., 2019, Dietary intake and breast cancer risk in black South African women: the South African Breast Cancer study, *British Journal of Nutrition* 121, 591-600. <a href="https://doi.org/10.1017/S0007114518003744">https://doi.org/10.1017/S0007114518003744</a>.
- James, S., Vorster, H., Venter, C., et al., 2000, Nutritional status influences plasma fibrinogen concentration: evidence from the THUSA survey, *Thrombosis Research* 98, 383-394. https://doi.org/10.1016/S0049-3848(00)00197-3.
- Jerling, J., Vorster, H., Stonehouse, W., et al., 1994, Differences in plasminogen activator inhibitor 1 activity between blacks and whites may be diet related, Pathophysiology of Haemostasis and Thrombosis 24, 364-368. <a href="https://doi.org/10.1159/000217128">https://doi.org/10.1159/000217128</a>.
- King, J., Vorster, H., Tome, D., 2007, Nutrient intake values (NIVs): a recommended terminology and framework for the derivation of values, *Food and Nutrition Bulletin* 28, S16-S26. <a href="https://doi.org/10.1177/156482650702815103">https://doi.org/10.1177/156482650702815103</a>.
- Kruger, A., Vorster, H., Venter, C., et al., 1994, Increased plasma fibrinogen with age-

- eugeriatric or pathogeriatric phenomenon? *Cardiovascular Journal of Africa* 5, 110-116.
- Kruger, A., Vorster, H., Viljoen, M., 1993, Nutritional status of healthy elderly Caucasians: Evaluation of standard criteria in a group of 100 freeliving subjects. South African Food Science and Nutrition 5, 85-89.
- Kruger, H., Kruger, A., Vorster, H. et al., 2005, Urbanization of Africans in the North West Province is associated with better micronutrient status: the Transition and Health during Urbanization Study in South Africa, Nutrition Research 25, 365-375. https://doi.org/10.1016/j.nutres.2005.01.004.
- Kruger, H., Margetts, B., Vorster, H., 2004, Evidence for relatively greater subcutaneous fat deposition in stunted girls in the North West Province, South Africa, as compared with non-stunted girls, *Nutrition* 20, 564-569. https://doi.org/10.1016/j.nut.2004.03.002.
- Kruger, H., Veldman, F., Vorster, H. et al., 1998, Combination anti-oxidant supplement increases resistance of low-density lipoprotein to oxidation and improves lipoprotein profile of hypercholesterolaemic men, South African Medical Journal 88, 646-652.
- Kruger, H., Venter, C., Vorster, H., 2001, Obesity in African women in the North West Province, South Africa is associated with an increased risk of non-communicable diseases: the THUSA study. Transition and Health during Urbanisation of South Africans, *British Journal of Nutrition* 86, 733-740. <a href="https://doi.org/10.1079/BJN2001469">https://doi.org/10.1079/BJN2001469</a>.
- Kruger, H., Venter, C., Vorster, H., 2003, Physical inactivity as a risk factor for cardiovascular disease in communities undergoing rural to urban transition: the THUSA study, Cardiovascalur Journal of South Africa 14, 16-23, quiz 23, 28.
- Kruger, H., Venter, C., Vorster, H., et al., 2002, Physical inactivity is the major determinant of obesity in black women in the North West Province, South Africa: the THUSA study. Transition and Health During Urbanisation of South Africa, Nutrition 18, 422-427. https://doi.org/10.1016/S0899-9007(01)00751-1.
- Kruger, H., Vorster, H., Stegman, I., et al., 2012, Beneficial effect of physical activity on linear growth rate of adolescents in a South African shanty town and physical activity, African Journal for Physical Health Education, Recreation and Dance 18, 251-266.
- Krüger, L., Slabber, M., Joubert, G., et al., 2003, Intra-and inter-individual variation in blood glucose response to white bread and glucose in patients with type 2 diabetes mellitus, *South African Journal of Clinical Nutrition*.
- Kruger, M., De Winter, R., Becker, P., et al., 2004, Changes in markers of bone turnover following urbanisation of black South African women, *Journal of Endocrinology, Metabolism and Diabetes of South Africa* 9, 8-14. <a href="https://doi.org/10.1080/22201009.2004.10872329">https://doi.org/10.1080/22201009.2004.10872329</a>.
- Labadarios, D., Mitchell, L., Vorster, H., et al., 1991a, Nutrition in heart disease (I): A round-table discussion, *Cardiovascular Journal of Africa* 2, 129-137.
- Labadarios, D., Mitchell, L., Vorster, H., et al., 1991b, Nutrition in heart disease (II): A round-table discussion. *Cardiovascular Journal of Africa* 2. 171-174.
- Labadarios, D., Steyn, N., Maunder, E., et al., 2005, The national food consumption survey (NFCS): South Africa, 1999, *Public Health Nutrition* 8, 533-543. <a href="https://doi.org/10.1079/PHN2005816">https://doi.org/10.1079/PHN2005816</a>.
- Lemke, S., Jansen van Rensburg, F., Vorster, H., et al., 1999, Interdisciplinary Research on Food Security in African "Households": Exploratory Directives, *Journal of Social Sciences* 3, 255-264. https://doi.org/10.1080/09718923.199
- Lemke, S., Vorster, H., van Rensburg, N., et al., 2003, Empowered women, social networks and the contribution of qualitative research: broadening our understanding of underlying causes for food and nutrition insecurity, *Public Health Nutrition* 6, 759-764. <a href="https://doi.org/10.1079/PHN2003491">https://doi.org/10.1079/PHN2003491</a>.
- Loktionov, A., Bingham, S., Vorster, H., et al., 1998, Apolipoprotein E genotype modulates the effect of black tea drinking on blood lipids and blood coagulation factors: a pilot study, *British Journal of Nutrition* 79, 133-139. https://doi.org/10.1079/bjn19980024.
- Loktionov, A., Moore, W., Spencer, S., et al., 2002, Differences in N-acetylation genotypes between Caucasians and Black South Africans: implications for cancer prevention, *Cancer Detection and Prevention* 26, 15-22. <a href="https://doi.org/10.1016/S0361-090X(02)00010-7">https://doi.org/10.1016/S0361-090X(02)00010-7</a>.
- Loktionov, A., Vorster, H., O'Neill, I., et al., 1999, Apolipoprotein E and methylenetetrahydrofolate reductase genetic polymorphisms in relation to other risk factors for cardiovascular disease in UK Caucasians and Black South Africans, Atherosclerosis 145, 125-135. https://doi.org/10.1016/S0021-9150(99)00022-2.
- Loots, D., Stonehouse, W., Pieters, M., et al., 2004, Foodstate vitamin C complex may beneficially affect haemostasis and fibrin network structure in hyperlipidaemic patients, *Blood coagulation & fibrinolysis* 15, 677-685. <a href="https://doi.org/10.1097/00001721-200412000-00008">https://doi.org/10.1097/00001721-200412000-00008</a>.
- MacIntyre, U., Kruger, H., Venter, C., et al., 2002, Dietary intakes of an African population in different stages of transition in the North West Province, South Africa: the THUSA study, *Nutrition research* 22, 239-256. <a href="https://doi.org/10.1016/S0271-5317(01)00392-X">https://doi.org/10.1016/S0271-5317(01)00392-X</a>.
- MacIntyre, U., Venter, C., Vorster, H., 2001a. A culture-sensitive quantitative food frequency questionnaire used in an African population: 1, *Development*

- and reproducibility. Public Health Nutrition 4, 53-62. https://doi.org/10.1079/PHN200040.
- MacIntyre, U., Venter, C., Vorster, H., 2001b, A culture-sensitive quantitative food frequency questionnaire used in an African population: 2. Relative validation by 7-day weighted records and biomarkers, *Public Health Nutrition* 4, 63-71. https://doi.org/10.1079/PHN200040.
- MacIntyre, U., Venter, C., Vorster, H., et al., 2001, A combination of statistical methods for the analysis of the relative validation data of the quantitative food frequency questionnaire used in the THUSA study, *Transition, Health* and Urbanisation in South Africa. Public Health Nutrition 4, 45-51. <a href="https://doi.org/10.1079/PHN200039">https://doi.org/10.1079/PHN200039</a>.
- Malan, L., Schutte, A., Malan, N., et al., 2006a, Coping mechanisms, perception of health and cardiovascular dysfunction in Africans, *International Journal of Psychophysiology* 61, 158-166. https://doi.org/10.1016/j.ijpsycho.2005.07.015.
- Malan, L., Schutte, A., Malan, N., et al., 2006b, Specific coping strategies of Africans during urbanization: comparing cardiovascular responses and perception of health data. *Biology Psychology* 72, 305-310. <a href="https://doi.org/10.1016/j.biopsycho.2005.11.010">https://doi.org/10.1016/j.biopsycho.2005.11.010</a>.
- Mann, J., Cummings, J., Englyst, H., et al., 2007, FAO/WHO scientific update on carbohydrates in human nutrition: conclusions, European Journal of Clinical Nutrition 61, S132-S137. https://doi.org/10.1038/sj.ejcn.1602943.
- Margetts, B., Vorster, H., Venter, C., 2002, Evidence-based nutrition (part 1), *South African Journal of Clinical Nutrition* 15, 7-13.
- Margetts, B., Vorster, H., Venter, C., 2002, Evidence-based nutrition-review of nutritional epidemiological studies, *South African Journal of Clinical Nutrition*.
- Margetts, B., Vorster, H., Venter, C., 2003, Evidence-based nutrition-the impact of information and selection bias on the interpretation of individual studies, South African Journal of Clinical Nutrition.
- Mbhenyane, X., Christine, C., Vorster, H., et al., 2001, The glycaemic index of indigenous South African foods, South African Journal of Clinical Nutrition.
- Mbhenyane, X., Venter, C., Vorster, H., et al., 2005, Nutrient intake and consumption of indigenous foods among college students in Limpopo Province, *South African Journal of Clinical Nutrition* 18, 32-38. https://doi.org/10.1080/16070658.2005.11734035.
- Mia, F. & Vorster, H., 2000, Coronary heart disease risk factors in Indian adolescents the role of diet, *Cardiovascular Journal of South Africa* 11, 68-75.
- Moss, S., Malan, M., Dreyer, L., et al., 2001, Fibrin network structure. Changes in characteristics in response to physical activity in combination with a preexercise meal, *Annals of the New York Academy of Sciences* 936, 634-638. https://doi.org/10.1111/j.1749-6632.2001.tb03553.x.
- Murphy, S. & Vorster, H., 2007, Methods for using nutrient intake values (NIVs) to assess or plan nutrient intakes, Food and Nutrition Bulletin 28, S51-S60. <a href="https://doi.org/10.1177/15648265070281S106">https://doi.org/10.1177/15648265070281S106</a>.
- Nell, T., Venter, C., Vorster, H., et al., 2003, Intra-and inter-individual variation in glucose response to white bread and oral glucose in healthy women, South African Journal of Clinical Nutrition.
- Nesamvuni, A., Vorster, H., Margetts, B., et al., 2005, Fortification of maize meal improved the nutritional status of 1-3-year-old African children, *Public Health Nutrition* 8, 461-467. <a href="https://doi.org/10.1079/PHN2005782">https://doi.org/10.1079/PHN2005782</a>.
- Nienaber, C., Pieters, M., Kruger, S., et al., 2008, Overfatness, stunting and physical inactivity are determinants of plasminogen activator inhibitor-1activity, fibrinogen and thrombin-antithrombin complex in African adolescents, Blood Coagulation & Fibrinolysis 19, 361-368. https://doi.org/10.1097/ MBC.0b013e328304b61a.
- Oosthuizen, W., van Graan, A., Kruger, A., et al., 2006, Polyunsaturated fatty acid intake is adversely related to liver function in HIV-infected subjects: the THUSA study, *The American Journal of Clinical Nutrition* 83, 1193-1198. <a href="https://doi.org/10.1093/ajcn/83.5.1193">https://doi.org/10.1093/ajcn/83.5.1193</a>.
- Oosthuizen, W., Vorster, H., Jerling, J., et al., 1994, Both fish oil and olive oil lowered plasma fibrinogen in women with high baseline fibrinogen levels, *Thrombosis & Haemostasis* 72, 557-562. https://doi.org/10.1055/s-0038-1648914.
- Oosthuizen, W., Vorster, H., Vermaak, W., et al., 1998, Lecithin has no effect on serum lipoprotein, plasma fibrinogen and macro molecular protein complex levels in hyperlipidaemic men in a double-blind controlled study, European Journal of Clinical Nutrition 52, 419-424. https://doi.org/10.1038/sj.ejcn.1600580.
- Opperman, A., Venter, C., Oosthuizen, W., et al., 2004, Meta-analysis of the health effects of using the glycaemic index in meal-planning, *British Journal of Nutrition* 92, 367-381. <a href="https://doi.org/10.1079/BJN20041203">https://doi.org/10.1079/BJN20041203</a>.
- Pieters, M., & Vorster, H., 2008, Nutrition and hemostasis: a focus on urbanization in South Africa, Molecular Nutrition & Food Research 52, 164-172. https://doi. org/10.1002/mnfr.200700373.
- Pieters, M., Vorster, H., Jerling, J., et al., 2010, The effect of ethanol and its metabolism on fibrinolysis, *Thrombosis and haemostasis* 104, 724-733. <a href="https://doi.org/10.1160/TH10-01-0048">https://doi.org/10.1160/TH10-01-0048</a>.
- Pisa, P., Behanan, R., Vorster, H., et al., 2012, Social drift of cardiovascular disease risk factors in Africans from the North West Province of South Africa: the PURE study: cardiovascular topics, *Cardiovascular Journal of Africa* 23, 371-388. https://doi.org/10.5830/CVJA-2012-018.

- Pisa, P., Kruger, A., Vorster, H., et al., 2010, Alcohol consumption and cardiovascular disease risk in an African population in transition: the Prospective Urban and Rural Epidemiology (PURE) study, South African Journal of Clinical Nutrition 23, 29-37. https://doi.org/10.1080/16070658.2010.11734299.
- Pisa, P., Landais, E., Margetts, B., et al., 2018, Inventory on the dietary assessment tools available and needed in Africa: a prerequisite for setting up a common methodological research infrastructure for nutritional surveillance, research, and prevention of diet-related non-communicable diseases, *Critical Reviews* in Food Science and Nutrition 58, 37-61. https://doi.org/10.1080/10408398.20 14.981630.
- Pisa, P., & Vorster, H., 2011, Cardiovascular disease and nutrition: the use of foodbased dietary guidelines for prevention in Africa: nutrition and cardiovascular disease, SA Heart 8, 38-47.
- Pisa, P., Vorster, H., Kruger, A., et al., 2015, Association of alcohol consumption with specific biomarkers: a cross-sectional study in South Africa, *Journal of Health, Population, and Nutrition* 33. 146.
- Romieu, I., Biessy, C., Joffe, M., et al., 2021, Reproductive factors and risk of breast cancer in black South African women, *Cancer Causes & Control* 32, 415-422. https://doi.org/10.1007/s10552-021-01390-9.
- Romieu, I., Margetts, B., Barquera, S., et al., 2016, Strengthening the evidence base for nutrition and cancer in low and middle income countries, *Journal of Global Health* 6, 020306. https://doi.org/10.7189/jogh.06.020306.
- Schmidt, M. & Vorster, H., 1995, The effect of communal vegetable gardens on nutritional status, *Development Southern Africa* 12, 713-724. <a href="https://doi.org/10.1080/03768359508439851">https://doi.org/10.1080/03768359508439851</a>.
- Scholtz, S., Pieters, M., Stonehouse, W., et al., 2004, The effect of red palm olein and refined palm olein on lipids and haemostatic factors in hyperfibrinogenaemic subjects, *Thrombosis Research* 113, 13-25. <a href="https://doi.org/10.1016/j.thromres.2004.02.004">https://doi.org/10.1016/j.thromres.2004.02.004</a>.
- Scholtz, S., Wright, H., Matshego, L., et al., 2001, Foods from animals can be eaten everyday-not a conundrum! South African Journal of Clinical Nutrition 14, S39-S47.
- Schutte, A., Kruger, H., Wissing, M., et al., 2005, The emergence of the metabolic syndrome in urban obese African women: the POWIRS study, *South African Journal of Science* 101, 61-67.
- Schutte, A., Schutte, R., Huisman, H., et al., 2012, Are behavioural risk factors to be blamed for the conversion from optimal blood pressure to hypertensive status in Black South Africans? A 5-year prospective study, *International Journal of Epidemiology* 41, 1114-1123. https://doi.org/10.1093/ije/dys106.
- Segal, I., Walker, A., Vorster, H., 1991, Dietary factors associated with duodenal ulcer, *Gut* 32, 456. https://doi.org/10.1136/gut.32.4.456.
- Silvis, N., Vorster, H., Mollentze, W., et al., 1990, Metabolic and haemostatic consequences of dietary fibre and N-3 fatty acids in black type 2 (NIDDM) diabetic subjects: a placebo controlled study, *International Clinical Nutrition Review* 10, 362-380.
- Stonehouse, W., Van der Merwe, A., Kotze, J., et al., 1996, Alcohol consumption and it's relationship with risk factors for coronary heart disease in white South Africans: The Vighor Study, South African Food Science and Nutrition 39-42.
- Stonehouse, W., Kruger, A., Smuts, C., et al., 2010, Plasma polyunsaturated fatty acids and liver enzymes in HIV-infected subjects: the Prospective Urban and Rural Epidemiology (PURE) Study, *The American Journal of Clinical Nutrition* 91, 729-735. https://doi.org/10.3945/ajcn.2009.28874.
- Stonehouse, W., Scholtz, C., Vorster, H., et al., 2000, Extruded dry beans and serum lipoprotein and plasma haemostatic factors in hyperlipidaemic men, *European Journal of Clinical Nutrition* 54, 373-379. https://doi.org/10.1038/sieirn.1600966
- Stonehouse, W., Van der Merwe, A., Kotze, J., et al., 1998, Dietary composition and body mass index at different levels of added sugar consumption-the VIGHOR study, South African Medical Journal 88, 1212-1216.
- Stonehouse, W., Vorster, H., Kruger, A., et al., 2002, Impact of urbanisation on serum lipid profiles--the THUSA survey, *South Africa Medical Journal* 92, 723-728.
- Taljaard-Krugell, C. & Vorster, H., 2018. Belasting op suikerversoete koeldranke in Suid-Afrika: Perspektiewe uit die voedingsveld, Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie 37, 1-11.
- Umugwaneza, M., Havemann-Nel, L., Vorster, H., et al., 2021, Factors influencing complementary feeding practices in rural and semi-urban Rwanda: a qualitative study, *Journal of Nutritional Science*. <a href="https://doi.org/10.1017/ins.2021.37">https://doi.org/10.1017/ins.2021.37</a>.
- Van Rooyen, J., Kruger, H., Huisman, H., et al., 2000, An epidemiological study of hypertension and its determinants in a population in transition: the THUSA study, *Journal of Human Hypertension* 14, 779-787. <a href="https://doi.org/10.1038/si.jhh.1001098">https://doi.org/10.1038/si.jhh.1001098</a>.
- Veldman, F., Nair, C., Vorster, H., et al., 1997, Dietary pectin influences fibrin network structure in hypercholesterolaemic subjects, *Thrombosis Research* 86, 183-196. https://doi.org/10.1016/S0049-3848(97)00062-5.
- Veldman, F., Nair, C., Vorster, H., et al., 1999, Possible mechanisms through which dietary pectin influences fibrin network architecture in hypercholesterolaemic subjects, *Thrombosis Research* 93, 253-264. <a href="https://doi.org/10.1016/S0049-3848(98)00170-4">https://doi.org/10.1016/S0049-3848(98)00170-4</a>.

- Venter, C., Kruger, H., Vorster, H., et al., 1987, The effects of the dietary fibre component konjac-glucomannan on serum cholesterol levels of hypercholesterolaemic subjects, Human Nutrition Food Sciences and Nutrition 41, 55-61. https://doi.org/10.1080/09528954.1987.11904101.
- Venter, C., MacIntyre, U., Vorster, H., 2000, The development and testing of a food portion photograph book for use in an African population, *Journal* of Human Nutrition and Diet 13, 205-218. <a href="https://doi.org/10.1046/j.1365-277x.2000.00228.x">https://doi.org/10.1046/j.1365-277x.2000.00228.x</a>.
- Venter, C., Nel, C., Vorster, H., et al., 1997, Soluble-fibre concentrate lowers plasminogen activator inhibitor-1 in baboons (*Papio ursinus*), *British Journal of Nutrition* 78, 625-637. https://doi.org/10.1079/BJN19970179.
- Venter, C., Slabber, M., Vorster, H., 2003, Labelling of foods for glycaemic indexadvantages and problems, South African Journal of Clinical Nutrition.
- Venter, C. & Vorster, H., 1989, Possible metabolic consequences of fermentation in the colon for humans, *Med Hypotheses* 29, 161-166. <a href="https://doi.org/10.1016/0306-9877(89)90188-6">https://doi.org/10.1016/0306-9877(89)90188-6</a>.
- Venter, C., Vorster, H., Cummings, J., 1990, Effects of dietary propionate on carbohydrate and lipid metabolism in healthy volunteers, *American Journal* of *Gastroenterology* (Springer Nature) 85.
- Venter, C., Vorster, H., Ochse, R., et al., 2013, "Eat dry beans, split peas, lentils and soya regularly": a food-based dietary guideline, South African Journal of Clinical Nutrition 26, S36-S45.
- Venter, C., Vorster, H., Van der Nest, D., 1990, Comparison between physiological effects of konjac-glucomannan and propionate in baboons fed "Western" diets, Journal of Nutrition 120, 1046-1053. <a href="https://doi.org/10.1093/jn/120.9.1046">https://doi.org/10.1093/jn/120.9.1046</a>.
- Venter, C., Vorster, H., Van der Nest, D., et al., 1991, Effects of konjac-glucomannan and propionate on plasma fibrinogen and serum and liver lipids in Zucker rats, South African Journal of Clinical Nutrition 4, 6-11.
- Venter, C., Vorster, H., Van Rooyen, A., et al., 1990, Comparison of the effects of maize porridge consumed at different temperatures on blood glucose, insulin and acetate levels in healthy volunteers, South African Journal of Food Science and Nutrition 2, 2-5.
- Vorster, H., Venter, C., Kruger, M., et al., 2002, Impact of urbanisation on risk factors for osteoporosis in postmenopausal black South African women, Journal of Endocrinology, Metabolism and Diabetes of South Africa 7, 459-464.
- Vorster, H., 2002, The 2002 World Summit on Sustainable Development: A more holistic approach for public health nutrition? *Public Health Nutrition* 5, 707-708. https://doi.org/10.1079/PHN2002421.
- Vorster, H., 1984, Hypocholesterolemic effects of pectin in cholesterol-fed and hypothyroid rats, *Nutrition Reports International* 29, 1107-1113.
- Vorster, H., 1990, Cachexia: causes, effects, prevention and treatment = Kageksie: oorsake, gevolge, voorkoming en behandeling, South African Journal of Continuing Medical Education 209-219.
- Vorster, H., 1994, The dietary fibre hypothesis--does it 'work'? South African Medical Journal 1, 33-35.
- Vorster, H., 1999a, Die gevolge van Vigs vir Suid-Afrika, Word And Action, 4-7.
- Vorster, H., 1999b, Fibrinogen and women's health, *Thrombosis Research* 95, 137-154. https://doi.org/10.1016/S0049-3848(99)00033-X.
- Vorster, H., 2001, Sponsorship of nutrition research in developing countries, *Public Health Nutrition* 4, 1023-1024. https://doi.org/10.1079/PHN2001254.
- Vorster, H., 2002, The emergence of cardiovascular disease during urbanisation of Africans, *Public Health Nutrition* 5, 239-243. <a href="https://doi.org/10.1079/PHN2001299">https://doi.org/10.1079/PHN2001299</a>.
- Vorster, H., 2005a, 18th International Congress of Nutrition 20-23 September 2005, Durban, South Africa An agenda for the future, *Nutrition & Dietetics* 62, 7-8. https://doi.org/10.1111/j.1747-0080.2005.tb00002.x.
- Vorster, H., 2005b, The glycaemic index in practice-consensus statement of a small group of South African dietitians, South African Journal of Clinical Nutrition 18, 260-264. https://doi.org/10.1080/16070658.2005.11734076.
- Vorster, H., 2007, Dr Alexander Robert Pettigrew Walker (13 September 1913-21 May 2007): in memoriam, South African Journal of Clinical Nutrition 20, 82. https://doi.org/10.1080/16070658.2007.11734128.
- Vorster, H., 2010, The link between poverty and malnutrition: A South African perspective, Health SA Gesondheid: Journal of Interdisciplinary Health Sciences 15. https://doi.org/10.4102/hsag.v15i1.435.
- Vorster, H., 2011, Die voedingsoorgang in Suid-Afrika: 'n uitdaging vir verbeterde voeding en die verligting van armoede: oorspronklike navorsing, Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie 30, 1-7. <a href="https://doi.org/10.4102/satnt.v30i1.29">https://doi.org/10.4102/satnt.v30i1.29</a>.
- Vorster, H., 2013, Revised food-based dietary guidelines for South Africa: challenges pertaining to their testing, implementation and evaluation, South African Journal of Clinical Nutrition 26, S3-S4.
- Vorster, H., 2013, "Make starchy foods part of most meals": a food-based dietary guideline for South Africa, South African Journal of Clinical Nutrition 26, S28-S35.
- Vorster, H., 2015. Nutrient adequacy. In Nutrition for the Primary Care Provider, vol. 111, pp. 7-12: Karger Publishers. https://doi.org/10.1159/000362290.

- Vorster, H., 2015. Undernutrition in the developing world. In Nutrition for the primary care provider, vol. 111, pp. 179-185: Karger Publishers. <a href="https://doi.org/10.1159/000362322">https://doi.org/10.1159/000362322</a>.
- Vorster, H., Venter, C., Silvis, N., et al., 1988, Influence of a habitual high egg intake on serum lipid levels in a rural coloured population, South African Medical Journal 74, 554-559.
- Vorster, H., Badham, J., Venter, C., 2013, An introduction to the revised food-based dietary guidelines for South Africa, South African Journal of Clinical Nutrition 6. S1-S164.
- Vorster, H., Barnard, H., Reitsma, G., et al.,1994, Nutritional status of eight to tenyear-old white, black, coloured and Indian boys in a multi-cultural school, South African Journal of Food Science and Nutrition 6, 18-23.
- Vorster, H., Benade, A., Barnard, H., et al., 1992, Egg intake does not change plasma lipoprotein and coagulation profiles, *The American Journal of Clinical Nutrition* 55, 400-410. https://doi.org/10.1093/aicn/55.2.400.
- Vorster, H., Beynen, A., Berger, G., et al., 1995, Dietary cholesterol--the role of eggs in the prudent diet, *South African Medical Journal* 85, 253-256.
- Vorster, H., Bourne, L., Venter, C., et al., 1999, Contribution of nutrition to the health transition in developing countries: a framework for research and intervention, *Nutrition Reviews* 57, 341-349. <a href="https://doi.org/10.1111/j.1753-4887.1999.">https://doi.org/10.1111/j.1753-4887.1999.</a> tb06911.x.
- Vorster, H., Cummings, J., Jerling, J., 1997, Diet and haemostatic processes, *Nutrition Research Reviews* 10, 115-135. https://doi.org/10.1079/NRR19970007.
- Vorster, H., Cummings, J., Veldman, F., 1997, Diet and haemostasis: time for nutrition science to get more involved, *British Journal of Nutrition* 77, 671-684. <u>https://doi.org/10.1079/BJN19970067</u>.
- Vorster, H., De Hoop, M., Silvis, N., et al., 1990, Partial substitution of milk powder with soya meal in a carbohydrate formula: effects on blood glucose and insulin response in healthy volunteers, South African Journal of Food Science and Nutrition 2, 6-9.
- Vorster, H. & De Jager, J., 1984, The effect of the long-term ingestion of konjacglucomannan on glucose tolerance and immunoreactive insulin values of baboons, South African Medical Journal 65, 805-808.
- Vorster, H., Jerling, J., Steyn, K., et al., 1998, Plasma fibrinogen of black South Africans: the BRISK study, Public Health Nutrition 1, 169-176. <a href="https://doi.org/10.1079/PHN19980026">https://doi.org/10.1079/PHN19980026</a>.
- Vorster, H., Jerling, J., Stonehouse, W., et al., 1996, Tea drinking and haemostasis: a randomized, placebo-controlled, crossover study in free-living subjects, *Haemostasis* 26, 58-64. https://doi.org/10.1159/000217188.
- Vorster, H. & Kruger, A., 2006, Chronic diseases of lifestyle in South Africa: the role of public health nutrition in the promotion of health, and prevention and treatment of disease: a review, South African Journal of Diabetes and Vascular Disease 3, 179-181.
- Vorster, H. & Kruger, A., 2007, Poverty, malnutrition, underdevelopment and cardiovascular disease: a South African perspective Cardiovascular Journal of Africa 18, 321-324.
- Vorster, H., Kruger, A., Margetts, B., 2011, The nutrition transition in Africa: can it be steered into a more positive direction? *Nutrients* 3, 429-441. <a href="https://doi.org/10.3390/nu3040429">https://doi.org/10.3390/nu3040429</a>.
- Vorster, H., Kruger, A., Margetts, B., et al., 2004, The nutritional status of asymptomatic HIV-infected Africans: directions for dietary intervention? Public Health Nutrition 7, 1055-1064. https://doi.org/10.1079/PHN2004643.
- Vorster, H., Kruger, A., Venter, C., et al., 2007, Cardiovascular disease risk factors and socio-economic position of Africans in transition: the THUSA study: cardiovascular topics *Cardiovascular Journal of Africa* 18, 282-289.
- Vorster, H., Kruger, A., Wentzel-Viljoen, E., et al., 2014, Added sugar intake in South Africa: findings from the Adult Prospective Urban and Rural Epidemiology cohort study, *The American Journal of Clinical Nutrition* 99, 1479-1486. <a href="https://doi.org/10.3945/ajcn.113.069005">https://doi.org/10.3945/ajcn.113.069005</a>.
- Vorster, H., Kruger, A., Wright, H., et al., 2005, Prevention of type 2 diabetes mellitus in developing countries, South African Journal of Diabetes and Vascular Disease 2. 3-4.
- Vorster, H., Kruger, H., Frylinck, S., et al., 1985, Physiological effects of the dietary fibre component Konjac-G Lucomannan in rats and baboons, *Journal of Plant Foods* 6, 263-274. https://doi.org/10.1080/0142968X.1985.11910763.
- Vorster, H., Lotter, A., Odendaal, I., 1986, Effects of an oats fibre tablet and wheat bran in healthy volunteers, *South African Medical Journal* 69, 435-438.
- Vorster, H., Love, P., Browne, C., 2001, Development of food-based dietary guidelines for South Africa-the process, South African Journal of Clinical Nutrition 14, S3-S6.
- Vorster, H., Margetts, B., Venter, C., et al., 2005, Integrated nutrition science: from theory to practice in South Africa, *Public Health Nutrition* 8, 760-765. <a href="https://doi.org/10.1079/PHN2005775">https://doi.org/10.1079/PHN2005775</a>.
- Vorster, H., Murphy, S., Allen, L., et al., 2007, Application of nutrient intake values (NIVs), Food and Nutrition Bulletin 28, S116-S122. https://doi.org/10.1177/15648265070281S110.
- Vorster, H., & Nell, T., 2001, Make starchy foods the basis of most meals, *The South African Journal of Clinical Nutrition*.

- Vorster, H., Nell, T., Kumanyika, S., et al., 2004, Fats and oils-towards more specific quantitative and qualitative guidelines for South Africans? South African Journal of Clinical Nutrition 17, 44-52. <a href="https://doi.org/10.1080/16070658.200">https://doi.org/10.1080/16070658.200</a> 4.11734014.
- Vorster, H., Raal, F., Ubbink, J., et al., 2003, Phytosterols-a new dietary aid for the treatment of hypercholesterolaemia: clinical practice: SAMJ forum, South African Medical Journal 93, 581-582.
- Vorster, H., Raal, F., Ubbink, J., et al., 2003, Functional foods with added plant sterols for treatment of hypercholesterolaemia and prevention of ischaemic heart disease, South African Journal of Clinical Nutrition.
- Vorster, H., Silvis, N., Venter, C., et al., 1987, Serum cholesterol, lipoproteins, and plasma coagulation factors in South Africa blacks on a high-egg but low-fat intake, American Journal of Clinical Nutrition 46, 52-57. <a href="https://doi.org/10.1093/ajcn/46.1.52">https://doi.org/10.1093/ajcn/46.1.52</a>.
- Vorster, H., Stonehouse, W., Jerling, J., et al., 1997, The nutritional status of South Africans: a review of the literature from 1975-1996, *Public Health Nutrition* 8, 480-490
- Vorster, H., Stonehouse, W., Steyn, H., et al., 1995, Nutrient intakes of white South Africans-a cause for concern: The VIGHOR Study, *The South African Journal of Food Science and Nutrition*.
- Vorster, H., van Tonder, E., Kotzé, J., et al., 1987, Effects of graded sucrose additions on taste preference, acceptability, glycemic index, and insulin response to butter beans, American Journal of Clinical Nutrition 45, 575-579. <a href="https://doi.org/10.1093/ajcn/45.3.575">https://doi.org/10.1093/ajcn/45.3.575</a>.
- Vorster, H. & Venter, C., 1992, School feeding programmes: strategies for South Africa, South African Journal of Food Science and Nutrition 4, 95-102.
- Vorster, H. & Venter, C., 1993, Why fibrinogen should be measured as part of the coronary heart disease risk profile, South African Journal of Food Science and Nutrition 83, 309-310.
- Vorster, H. & Venter, C., 1994, Fibrinogen-a cardiovascular risk factor, *Cardiovascular Journal of Africa* 5, 117-124.
- Vorster, H. & Venter, C., 1994, Health benefits of dry beans (Phaseolus vulgaris): a review, South African Journal of Food Science and Nutrition 6, 72-76.
- Vorster, H., Venter, C., Silvis, N., et al., 1988, Dietary influences on haemostasis may affect risk for coronary heart disease, South African Journal of Science 84, 289.
- Vorster, H., Venter, C., Coetsee, E., et al., 1991, Effects of type of protein on glucose and insulin response after carbohydrate ingestion in healthy volunteers. South African Journal of Food Science and Nutrition 3, 55-58.
- Vorster, H., Venter, C., Kruger, H., et al., 2000, The impact of urbanization on physical, physiological and mental health of Africans in the North West Province of South Africa: the THUSA study, South African Journal of Science 96.
- Vorster, H., Venter, C., Silvis, N., 1990. Dietary Fibre: Clinical Perspectives South African Family Practice 11.
- Vorster, H., Venter, C., Silvis, N., 1990, The glycaemic index of foods: a critical evaluation, South African Journal of Food Science and Nutrition 2, 13-17.
- Vorster, H., Venter, C., Thompson, R., et al., 2003, Evidence-based nutrition-using a meta-analysis to review the literature, *South African Journal of Clinical Nutrition*.
- Vorster, H., Venter, C., Wissing, M., et al., 2005, The nutrition and health transition in the North West Province of South Africa: a review of the THUSA (Transition and Health during Urbanisation of South Africans) study, *Public Health Nutrition* 8, 480-490. <a href="https://doi.org/10.1079/PHN2005784">https://doi.org/10.1079/PHN2005784</a>.
- Vorster, H., Wenhold, F., Wright, H., et al., 2013, "Have milk, maas or yoghurt every day": a food-based dietary guideline for South Africa, South African Journal of Clinical Nutrition 26, S57-S65.
- Wadee, A., Kuschke, R., Botha, Y., et al., 2002, Low serum prostate-specific antigen levels in elderly rural African men at very low risk of prostate cancer, European Journal of Cancer Prevention 11, 63-65. <a href="https://doi.org/10.1097/00008469-200202000-00009">https://doi.org/10.1097/00008469-200202000-00009</a>.
- Walker, A., Labadarios, D., Benadé, A., et al., 1991, Natural foods--are current restrictions excessive? South African Medical Journal 80, 311-312.

- Walker, A., Labadarios, D., Vorster, H., et al., 1990, Our daily bread--is it threatened? South African Medical Journal 78, 504-505.
- Walker, A., Shipton, E., Walker, B. et al., 1989, Appendicectomy incidence in black and white children aged 0 to 14 years with a discussion on the disease's causation, *Tropical Gastroenterology: Official Journal of the Digestive Diseases Foundation* 10.96-101.
- Walker, A., Sitas, F., Cleaton-Jones, P., et al., 1997, Desegregating health statistics and health research in South Africa. Author's reply, South African Medical Journal 87, 329-331.
- Walker, A. & Vorster, H., 1988, Coronary heart disease avoidance--the dilemma, South African Medical Journal 74, 482-484. https://doi.org/10.1177% 2F014107689709000108.
- Walker, A. & Vorster, H., 1997, Dietary Guidelines A Case of Public Indifference, South African Food Science and Nutrition 9.
- Walker, A., Walker, B., Glatthaar, I., et al., 1994, Maximal genetic potential for adult stature: is this aim desirable? *Nutrition Reviews* 52, 208-210. <a href="https://doi.org/10.1111/j.1753-4887.1994.tb01422.x">https://doi.org/10.1111/j.1753-4887.1994.tb01422.x</a>.
- Walker, A., Walker, B., Manetsi, B., et al., 1991, Obesity in indigent elderly rural African women: effects on hypertension, hyperlipidaemia and hyperglycaemia, *International Journal for Vitamin and Nutrition Research* 61, 244-250.
- Walker, A., Walker, B., Vorster, H., 1989, The Victorian Nutrition Survey, Medical Journal of Australia 150, 110-111. <a href="https://doi.org/10.5694/j.1326-5377.1989">https://doi.org/10.5694/j.1326-5377.1989</a>. tb136383.x.
- Walker, A., Walker, B., Vorster, H., 1990, Functional significance of mild-to-moderate malnutrition, *The American Journal of Clinical Nutrition* 52, 178-179. <a href="https://doi.org/10.1093/ajcn/52.1.178">https://doi.org/10.1093/ajcn/52.1.178</a>.
- Walker, A., Walker, B., Vorster, H., et al., 1991, Early nutrition and later achievement, South African Medical Journal 79.
- Walker, A., Walker, B., Vorster, H., et al., 1992, Fiber, phytic acid, and mineral metabolism, American Journal of Clinical Nutrition 56, 607-609. <a href="https://doi.org/10.1111/j.1753-4887.1992.tb02464.x">https://doi.org/10.1111/j.1753-4887.1992.tb02464.x</a>.
- Walker, A., Walker, B., Vorster, H., et al., 1994, Poorly nourished children and psychometric measurements, South African Medical Journal.
- Walker, A., Walker, B., Walker, A., et al., 1989, Low frequency of adverse sequelae of obesity in South African rural black women, *International Journal of Vitamin Nutrition Research* 59, 224-228.
- Wentzel-Viljoen, E., Laubscher, R., Vorster, H., 2018, Changes in food intake from 2005 to 2010 by a cohort of black rural and urban African men and women in the North West Province of South Africa: the PURE-NWP-SA study, *Public Health Nutrition* 21, 2941-2958. https://doi.org/10.1017/S1368980018001878.
- Wentzel-Viljoen, E., Lee, S., Laubscher, R., et al., 2018, Accelerated nutrition transition in the North West Province of South Africa: results from the Prospective Urban and Rural Epidemiology (PURE-NWP-SA) cohort study, 2005 to 2010, *Public Health Nutrition* 21, 2630-2641. https://doi.org/10.1017/S1368980018001118.
- Wissing, M., Thekiso, S., Stapelberg, R., et al., 2010, Validation of three Setswana measures for psychological wellbeing, *South African Journal of Industrial Psychology* 36, 1-8. <a href="https://doi.org/10.4102/sajip.v36i2.860">https://doi.org/10.4102/sajip.v36i2.860</a>.
- Wolever, T., Vorster, H., Björck, I., et al., 2003, Determination of the glycaemic index of foods: interlaboratory study, *European Journal of Clinical Nutrition* 57, 475-482. https://doi.org/10.1038/sj.ejcn.1601551.
- Wolmarans, P., Laubscher, J., van der Merwe, S., et al., 1999, Effects of a prudent diet containing either lean beef and mutton or fish and skinless chicken on the plasma lipoproteins and fatty acid composition of triacylglycerol and cholesteryl ester of hypercholesterolemic subjects, *Journal of Nutrition and Biochemistry* 10, 598-608. <a href="https://doi.org/10.1016/S0955-2863(99)00048-0">https://doi.org/10.1016/S0955-2863(99)00048-0</a>.
- Yach, D., Eloff, T., Vorster, H., et al., 2005, Report of a pre ICN workshop on Negotiating the Future of Nutrition, Johannesburg, South Africa, 18 September 2005, *Public Health Nutrition* 8, 1229-1230. https://doi.org/10.1079/PHN2005893.
- York, D., Rössner, S., Caterson, I., et al., 2004, Prevention Conference VII: Obesity, a worldwide epidemic related to heart disease and stroke: Group I: worldwide demographics of obesity, Circulation 110, e463-470. <a href="https://doi.org/10.1161/01.CIR.0000140125.26161.49">https://doi.org/10.1161/01.CIR.0000140125.26161.49</a>.

## **Bylae B**

Sincere belated condolences to Prof Este's family. As an old student it was not lost on me that the NWU nutrition department had a special magic. Now many years later having had exposure to various other tertiary centres and research, I'm deeply grateful for the vision she instilled for CEN and commitment from her researcher team to create that physical space for nutrition excellence. What I learned at CEN transcended beyond realising my dream to be a healthcare professional whose advice people can count on (due to principles of EBN) but also helped prepare me as young professional how to conduct myself based on the example that was set at that department. This I believe changed my life for the better. Just shows the power of the ripple effect. – Jacqueline van Druten

My heart-felt condolences to Hattie and Jan on your loss! Este's heart-warming smile and her hospitality will remain in my memory forever! She is a great loss for many in South Africa and abroad..., but her spirit lives on through her students! Rest in Peace, Este! – Santha James

My heartfelt condolences to the family of Prof Este' Vorster and the Nutrition Society of South Africa. Prof Vorster was so committed in improving Nutrition in Africa. She anchored the first IUNS meeting held in African soil in 2005 in Durban South Africa. She has been very supportive to both FANUS and ANS in their efforts to improve nutrition in Africa. Africa has missed a great giant in the field of Nutrition. On behalf of the Federation of African Nutrition Societies (FANUS) I commiserate with our South Africa Nutrition Fraternity, the children of Prof Vorster and their families on the passing on of this Great African Nutrition Icon. May her soul rest in peace. Professor Ngozi Nnam, President Federation of Africa Nutrition Societies (FANUS). – Professor Ngozi Nnam

My sincere condolences to the family for loosing such a resourceful person in the society. May she rest in peace. – Silvester Jaika

Prof Este Vorster left behind a rich legacy of scholarship in Africa. I had read and respected her publications long before I met her, but was even more inspired when eventually I was privileged to meet her in person. Rest in peace, great leader. – Folake Samuel

My deepest condolences to Prof Este's family and the entire CEN team. – Oluwatosin Leshi

My deepest sympathies, prayers and condolences to the family and friends of Prof Este Vorster. A great loss to the nutrition fraternity and the science world. May her soul rest in eternal peace. – Mary Obade

My condolences to Este's family and sadness for the loss to them and the nutrition community. I knew her through the preparations for the IUNS meeting in Durban and our work on harmonization of nutrient intake recommendations. She impressed me not only for her nutrition knowledge but for her ability to work with a team to produce a balanced and high-

quality outcome. I always learned much from informal conversations with her. Africa and the international nutrition community have lost a great champion, and I am privileged to have known her. – Lindsay Allen

My deepest condolences to Prof Este's family, friends and colleagues. She will be deeply missed. – Sabina Rinaldi

Prof Vorster was a true African Nutrition Leader. She touched our lives in many ways. My deepest condolences to her family. She will live on in the hearts and work of the countless lives she touched, in Africa and the rest of the world. May her soul rest in eternal peace. With love, Pauline Andang'o.

The Council of the International Union of Nutritional Sciences (IUNS) was very sad to hear of the demise of Este Vorster. She was a towering figure in the field of Nutrition in Africa and Internationally, closely involved in IUNS in many ways including organising and chairing the International Nutrition Congress in Durban in 2005 and being elected a Fellow in 2013 for rendering outstanding service to the cause of Nutrition. We send our sincere condolences to her family and other friends. – IUNS council

My deepest condolences to Prof Este's family and friends. I am honoured and blessed to have had Prof Este on my PhD supervisory team. She was truly an inspiration to me. May her soul rest in peace. – Maryse Umugwaneza

My opregte meegevoel met julle verlies Hattie, Jan en julle gesinne. Este was 'n formidabele wetenskaplike en ryk kollega om om jou te hê. Sy was ook braaf in haar stryd teen die kanker. Dankie dat ek gister kon deel wees van haar afskeidsdiens. Dit was 'n besonderse ervaring. Groete, Prof Minrie Greeff

My heartfelt condolences to Hattie, Jan and families. I am deeply sad. Este has a special place in my heart. I am with you in my thoughts in this difficult time. Sterkte en liefde, Stefanie Lemke

My sincere condolences to Prof Este Vosters family and the Northwest University fraternity. May God strengthen and comfort you all as you celebrate a life well lived. ANLP alumni beneficiary of her initiatives. – Louis

Sterkte aan julle, Hattie, Lawrie, Jan en Anzelle en kinders. Ons het soveel van Esté geleer van wetenskap, maar ook in besonder hoe sy haar siekte aanvaar en hanteer het sonder om ooit te kla. Mag julle troos vind in al die mooi herinneringe. Julle bly in ons gebed. – Salome Kruger

Este was the Doyenne of Nutrition in South Africa. Remarkable women and leader on so many fronts. My diep en innige simpatie aan Hattie en gesin. Rus sag, Este. Tot weersiens. Liefde, Lisanne du Plessis

My heartfelt condolences to the family, friends, colleagues, and members of CEN on the demise of Prof Este Vorster. May her gentle soul rest in the bosom of the Lord. Amen. – Patricia Ukegbu

We are so fortunate to have had Este's wisdom and thoughtful scholarship in nutrition. I have known her through work with the international nutrition community and will miss her many contributions to making the world a better place. – Barbara Schneeman

Este I will forever hold you dearly in my heart. You contributed to my growth as a Nutrition professional, you supported my efforts, gave me guidance and Love. I know you are smiling kindly from heaven at all of us feeling so sad. Rest in peace. You will forever be remembered. – Duduzile Mthuli

Prof Este, you were one of a kind, I was privileged... Because of you, I am... My diepste leedwese aan Hattie, Jan en hul gesinne. My bede dat God julle in hierdie moeilike tyd sal onderskraag, lei en versterk. – Averalda van Graan

My sincerest condolences to the family, friends and colleagues of Prof Esté during this difficult time. I had the pleasure of being part of a study that Prof Vorster conducted during my time at the NWU and later had the sincere privilege of working with her in an administrative capacity. She was inspirational and caring and will be missed. May she rest in peace and may her loved ones find peace in this trying time. – Matthys Bornman

My sincere condolences on the passing of Prof. A very balanced person I must say as i refer to her lecture during the closure of my ANLP 2013 cohort. I remember her analogy of the balls of life. I keep making a lot of reference to that and it has been therapeutic. I looked forward to meet her at the 2019 FANUS conference where she was to co-facilitate a pre-conference session but it wasn't to be. Journey well prof and may God receive you well for the service to humanity. Fare thee well. – Silvenus Konyole

Prof Vorster was an asset to the International Scientific Community and has contributed immensely in finetuning career of young and growing scientists across the African continent and beyond!!!! Surely she will be greatly missed! – Oluwatoyin Oluwole

My innige simpatie aan almal wie vir Este lief was en naby haar was. Sy het 'n groot rol gespeel in menige mense se lewens, nie net in die werksomgewing nie, maar op persoonlike vlak en sy het ook wêreldwyd 'n impak gehad. Ek het as jong direkteur saam met Este begin werk – daar was net twee navorsingsdirekteure in Gesondheidswetenskappe op daardie tyd. Sy het vir my waardevolle lesse geleer en ek het getap uit haar bron van kennis en ervaring. Die belangrikste les wat sy my geleer het is "'n Navorser word gebore. Jy kan nie van iemand wat nie daardie passie het, 'n Navorser maak nie" Elke dag van my lewe onthou ek hierdie woorde en spandeer my energie op die gebore navorsers. Haar plekkie is leeg! – Jeanetta du Plessis

My innige meegevoel aan die familie van Porf Este. Haar liefde vir julle het sy geen geheim van gemaak nie. Mag die Here julle troos in hierdie hartseer tyd en mag haar mooi herinneringe julle dra in die verlange. – Hanlie Moss Brave, generous, kind. Prof. Esté was a mentor to many, but I don't think she ever realised just to how many. I will be forever grateful to have known her, to be inspired by her as it has changed the whole direction of my research career. Together with her colleague at the time, Prof. Nico Malan, they have shaped me in my early career in 2000 and onward. Her encouragement to go for the best possible quality, to not be scared but brave, has stuck with me. Only by being challenged one improves. When I returned from a conference in Germany in 2003, having met Prof Salim Yusuf who invited the University to join the PURE study, it was her encouragement and that of Prof. Annamarie Kruger, who put NWU in the driving seat to run one of the first large longitudinal studies in Africa. I was hesitant and inexperienced, they were brave. Ek is hartseer, maar ek is ook diep dankbaar dat sy nou by haar geliefdes kan rus. Ek bid dat Hattie en familie groot berusting en vertroosting kan vind deur almal se liefdevolle herinneringe. – Alta Schutte

I am deeply sad to learn about the death of Prof Este Vorster. Truly, she was a blessing to our world, especially the nutrition world. A woman with an open and loving heart; always willing and ready to help. She only saw the good in everyone and went all out to pave way for as many that crossed her path. Prof Este Vorster was my PhD supervisor, she gave me equal opportunities even as a foreigner. You inspired me a lot. I know you are in a better place now. My thoughts and prayers are with the family as they go through this time, may her found memories bring comfort to her family. – Olaide Aderibigbe

She was a great leader and a true example to many ANLPers. I have heard a lot about her efforts in realization of ANLP. My deepest condolences to her family and friends. May her soul rest in peace. – Aragash

Beste Hattie en familie, innige simpatie met die groot verlies. Prof Este was een van my gunsteling mense; altyd 'n glimlag. Baie sterkte, julle is in my gebede. Mag sy nou in vrede rus. – Marlena Kruger

Africa and the world have lost a great Nutritionist. I remember Este for her contribution to the success of the IUNS-ICN in Durban. Her biggest worry about that conference was that people would not respect time. With her guidance, it was a great success. Este was gentle, tactful and although she achieved a lot in her professional life, she had this air of humility around her. Our deepest condolences to her family. May her soul rest in perfect peace. – Anna Lartey

Rus in Vrede Prof Esté. Jou plek is leeg, maar 'n rolmodel duisend, 'n mens met deernis, respek en liefde teenoor haar medemens en soveel herrinerings nagelaat vir ieder en elk, ook diep spore gelaat in vele se lewens. Vorster en Wright gesinne, mag julle as kinders en kleinkinders vertroosting vind in die goeie moeder en ouma wat sy was in hierdie hartseer dae. – Ronel Benson

What a great loss. My deepest condolences for her family and friends. May her soul rest in peace. – Meron Regu

Beste Hattie en Jan My innige meegevoel met julle ontsaglike verlies. Baie sterkte aan julle, julle gesinne, die groter familie en vriende in hierdie routydperk. Mag julle 'n geseënde tyd beleef met hartseer maar ook vreugde vir die mens wat sy was en haar ongelooflike nalatenskap. Sy laat 'n leemte maar sy laat ook monumente in haar kinders, vriende, studente en kollegas in wie sy belê het op soveel verskillende maniere en in wie haar waardes en wysheid neerslag gevind het. Ek sal haar mis. – Johann Jerling

My deepest sympathies to Dr Vorster's family and friends. I had the pleasure to collaborate with her in work related to the development of Food-based dietary guidelines. Beyond providing valuable contributions to the work during the workshops showing her competence as a nutrition professional, she was always kind and her characteristic smile also contributed to the joy of the workshops. She will be missed. – Ana Islas Ramos

I'd like to express my heartfelt condolences to those who will miss Este most: her children, grandchildren and other family. She has been a true leader in nutrition science and a role model for many, both for women and for men. I met Este in 1999 during a PhD tour from Wageningen University, and she made an open invitation to all of us to come to her group for a postdoctoral period after completing our PhD. That yielded 4 responses (Hilda, Machteld, Tiny and I), and I was lucky enough to spent ~2 years in Potchefstroom with my husband and 2 children. Este was still heading the CEN at that time. She did that with all of her energy, always equally optimistic and cheerful, with plenty of humour and a kind word for everyone. Dear Este, rest in peacel – Alida Melse

I met Prof Este Vorster in 2004 when I attended ANLP. Her smile, compassion and kindness made me feel safe whenever I was around her. I soon enrolled at NWU-PUK for my postgraduate studies, and she became my mentor and a friend. I will forever remember the day; she invited me over to her house for lunch and she introduced me to her wonderful family. That was one of the best lunches I ever had in Potchefstroom, all prepared by her. May your soul Rest In Peace, my dear Prof. You will forever be remembered, loved and cherished. – Daisy Chasauka-Maradzika

Prof Este Vorster: huldeblyk 26 Junie 2020 Met die heengaan van Prof Esté Vorster die afgelope week het ons weereens bewus geword van die fenomenale rol wat sy gedurende haar kleurryke loopbaan as voedingwetenskaplike nasionaal en internasionaal gespeel het. Op nasionale vlak het sy kop en skouers uitgestaan as 'n hoogs gerespekteerde en produktiewe voedingkundige op 'n wye gebied en later het sy ook dieselfde hoogtes op die internasionale verhoog bereik. Ja, sy was een van die gróótste Suid-Afrikaanse voeding wetenskaplikes wat ons land nog opgelewer het. Sonder om in die fyner detail van al haar menige prestasies en erkenning in te gaan, kan ons byvoeg dat sy dit alles met 'n glimlag en warm medemenslikheid vermag het. As familie mens was sy ewe eens gebalanseerd en het sy haar familie lewe uitstekend prioritiseer te midde van 'n uitdagende professionele loopbaan, veral toe haar familie vir haar die

nodigste gehad het. Ons is tegelykertyd hartseer omdat sy weg is, dankbaar omdat ons fasette van haar lewe kon deel, vol bewondering en waardering vir haar wetenskaplike bydraes tot die voedingsveld, en eer haar ryke persoonlike en professionele nalatenskap. Dit bring troos om te weet sy is nou in 'n beter plek. – Pieter Jooste

Such sadness at the death of my very dear mentor of 25 years, Este Vorster. Not only did she play a major role in shaping my professional career but also has shaped who I am personally. Este opened so many doors for me and then gave me the courage and confidence to walk through them and seize the opportunities on the other side. My international career in nutrition is largely due to her and every career decision I have made was always bounced off her first. Often when making decisions, I have held onto the words of wisdom she shared over the years – 'Do the right thing because it is the right thing to do'; "In life, we have to juggle many balls, some are rubber and some are glass, make sure you don't let the glass ones (values, family, faith) fall". So many more I could share. Because of Este, I have embraced the value of mentorship and have strived to mentor and support younger nutritionist/dietitians. What a role model, what an honour to have had her in my life. My heart beats alongside those of her beloved Jan and Hattie and their families as they mourn the gap she leaves behind but I smile knowing that her darling Ig and Jana were with the Lord, who she loved and served, to welcome her in heaven. Hamba kahle Este. – Jane **Badham** 

My innige medelye aan die familie van Prof Este. Sy was so 'n spesiale persoon met soveel uitmuntende kwaliteite. Ek het vir haar net die hoogste agting gehad. Sy het my altyd so geïnspireer, nie net met haar bekwaamhede nie, maar ook hoe sy mens kon motiveer. Mag sy sag rus by haar Hemelse Vader. – Anita Pienaar

As an old student, it was not lost on me that the NWU nutrition department had a special magic. Now many years later, having had exposure to various other tertiary centres and research, I'm deeply grateful for the vision she instilled for CEN and the commitment from her researcher team to create that physical space for nutrition excellence. What I learned at CEN transcended beyond realising my dream to be a healthcare professional whose advice people can count on (due to principles of EBN) but also helped prepare me as a young professional how to conduct myself based on the example that was set at that department. This I believe changed my life for the better. Just shows the power of the ripple effect in just three generations. – Jacqueline van Druten

I came to Potchefstroom "out of the blue" in 1997, in search of an academic home to do my PhD. My partner Robert had left Germany to start his PhD at Wits University in 1996. After a meeting with Este in the lovely former little office next to the car park, she offered that I could take part in the THUSA study. Equipped with a confirmation letter signed by her I went back home to Germany, quit my job, and was in Potch a few months later. This has set me on a journey that changed my life. I have many fond memories of Este. She visited me for the first time in

Bavaria, Germany in 2001 for my PhD defence, where she was co-supervisor (for formal reasons my first supervisor was in Germany). While she was able to combine this visit with some other important board meetings, in Rome or elsewhere, she made this huge effort and detour, despite her busy schedule. This meant a lot to me at the time, and also in hindsight, knowing how busy life can get. During the defence, which was rather stiff and formal, she encouragingly smiled at me the whole time, as if saying all will go well. She stayed with us at my parents house. When she had her first Weissbier (a traditional Bavarian beer that tastes not as bitter as a Lager), sitting barefoot at our dining table, she said this is so delicious and enjoyable that it kicks her off her feet (as most of you will know she did not really like beer). We also went for hikes in the mountains. She was amazed by the diversity of mountain flowers and could not say this often enough. During this visit she talked a lot about Ig and how much she would love him to come, too. Which they did, a few years later. They stayed at a farm B&B close by, in the midst of green pastures, with a view to the mountains. It was touching to see how Este enjoyed being here with Ig, and how she could relate to his joy to visit the "Germany of his childhood dreams" (Ig spoke German very well, which he had learned with his German teacher Herr Hesse). We undertook hikes in the mountains, visited monasteries and beer gardens, and had wonderful get-togethers with the rest of my family. In Potch, Este and Ig hosted me on numerous occasions and for extended periods of time in their garden flat. This helped me a lot, especially as I was waiting for research funds to come through - I was very grateful for this support. Much later, when I was not engaged so much anymore in research in the North West Province, I still regularly visited Potch, and it was a priority for me to see Este and Ig, they always made time in their busy schedules. Este was always interested in what happened in your personal and professional life. It was wonderful for me that the personal relationship endured, and I am grateful for the precious moments we shared. Este was a wonderful person and an inspiring and supportive mentor. Despite my research focus being quite different at the time I started as part of the THUSA team, she respected what I did and allowed me to find my niche. Baie dankie vir alles, I will not forget you Este. Liefde Stefanie Lemke

On 31 October last year I visited Esté in her house in Potchefstroom. We had, as usual, a lovely discussion and we shared, enjoyed and remembered the many times we met during the past 30 years in friendship and work. Esté was without any doubt the "First Lady of Nutrition in Africa". She was dedicated to her work and she build up a leading and excellent nutrition department with a highly quality staff. At my visit last year she asked me to make a selfie with her. These days I looked again to this selfie and I could see that she was not well. However she was talking so lively, positive and full of interest that I was not so aware of her illness at that time, a strong woman without any doubt. When we say farewell we embraced and we both were aware that this was the last time we met. Esté, thank you for all your love and friendship. Jo and Marylou Hautvast

I recently had the opportunity to reflect on female leadership, and at the time, I wrote the following about prof Este whom I

called prof M. Nowadays, prof M is an elderly lady and one can say - workwise- she made it in her research career. She contributed greatly to some of the largest epidemiological studies in South Africa, established research centres, published extensively and sat on various high-profile WHO steering committees. In my field, everybody knows about prof M, but I was blessed to get to know her during my post-doc years. At the time, she had already been retired for 6 or 7 years but was still actively involved in research. We were doing a large breast cancer study at Baragwanath hospital and had to drive through from Potchefstroom to administer certain questionnaires. Everybody knows that by the time you are a professor, you train other people to do the questionnaires - its often seen as lowlevel work and you have more important things to do. But for three-four years prof M drove with me on Thursdays and Fridays, to administer questionnaires and to collect data. She always told me, 'Christine - it is important to know what is going on in your data!' (I still think we have the best dietary data that have ever been collected:) At the time, she had already been carrying a heavy burden of some of the side effects of her treatment, but not once did I ever hear prof Este complain. I absolutely cherished these drives and the discussions that followed. I have the utmost respect for the humble way in which she engaged with all people and will forever be thankful for the time I could spend with her. - Christine Taljaard-Krugell

So many good memories: Prof Este in her white lab coat walking very fast from her home in Venter Street to Physiology Building with a small dog 'Stompie' (she saved him from somewhere) at her heels. Prof Este behind her desk covered with files and photocopies, writing those 300+ publications, in pen during the early days. Prof Este driving Ig's red pick up truck ('bakkie'), stacked with a freezer and boxes filled with lab stuff, into the rural areas of North West province. She led a large multidisciplinary team in the THUSA study. And when it was hot in those rural areas, she drove back into town to buy ice-cream for everyone. So many researchers started their careers in this team and learned from her. Thank you for all the advice, feedback ("spoggerig!") and fun times we shared with 'binnepret'. – Salome Kruger

What a privilege it's been to have had Prof Este as my supervisor and mentor. She's had a major impact on my career and the person I am today. I did not plan to become a scientist, but I am a scientist because of her. She made science fun and I have so many fond memories of research projects with Prof Este. She gave me numerous opportunities, she trusted me and believed in me and stretched me to take on tasks that I did not know I could achieve, but she knew I could. She taught me the importance of contributing to and supporting our science community. Because of her and what she instilled in me as a young scientists, I believe that I've been able to impact other's careers, create opportunities for others and support my science community. She was brilliant, inspiring, a visionary leader and a great role model. The world will be poorer without her. But as Johann mentioned, she is probably already designing the perfect experiment in 'heaven', solving the world's problems using state-of-the art technologies. Prof Este was truly a legend in Nutrition! - Welma Stonehouse

As a 2nd year student in Physiology, 1989, Prof Vorster crossed my path. The way she made digestion seem so easy and understandable left a lasting impression on me as a student. Little did I know, that when I indicated that I would like to pursue a PhD in Human Movement Sciences, that she would be my copromotor. As one of the first few students embarking on research in fibrin network structures, her positive attitude and motivation assisted me in completing my PhD in the shortest possible time. Prof Este never flinched at a challenge. May she rest in peace. Her inputs have formed me as a researcher and her kind heart and strong belief in the good of people will always inspire me. – Hanlie Moss

I met Prof Este Vorster for the first time in January 1990. On that first opportunity: I came to the university looking to start a post graduate degree programme in physiology. All the projects in the programme were full and she said she would take me into a research project even though I did not take nutrition as a subject. This was my first encounter with this incredible woman who always went the extra mile. The project was on the effects of an alpha glucosidase inhibitor (now known as Glucophage) on obesity in Zucker fatty rats – my comrade in arms was Welma Stonehouse and she did a feeding trial in these same rats using fish oil. And so we lived our first experience of the way in which she empowered.

The field trips: After completion of my Hons degree there were numerous field studies and trips – the ministers of the Reformed Church, Slough in the Kalahari with Isabel Schmidt, the trips to Tshikundamalema in Venda with the Hans Snyckers Institute and to!Xun and Khwe communities at Schmidtsdrift with Marius Coetzee of the University of the Free State. Then came some of the bigger studies – the start of the Lipid Clinic and the THUSA study, PURE and the numerous smaller nutrition intervention studies that she initiated. Everywhere we went the blood flowed, the centrifuges spun and the people had fun (mostly).

On gathering and scattering: She had a fantastic network of likeminded people who shaped her. I am reminded by a quote by Helen Walton "It is not what you gather but what you scatter that tells what kind of life you have lived". Prof Vorster had an abundance mentality – she kept on scattering, sharing, empowering, creating opportunity. She was never concerned that people might steal her ideas – simply because she had so many!

On sticking your neck out: I remember how she pushed us to present at conferences as junior post grad students without us even thinking we would be able to do it – That first physiology conference in Gordons Bay, then Pretoria, Langebaan, Durban and the world. she taught me that to make things happen, to make change happen, one has to take risks and often bite off more than you think you can chew. Growth does not happen in the comfort zone.

On showing confidence in others: I always respected and appreciated that she had more confidence in our (my) ability than we had. I remember the day she waltzed into the office –

extremely excited – with a paper in her hand. To this day I remember the title – the Normal and Morbid Biology of Fibrinogen. My job was to study this paper so that would know what there is to know about fibrinogen. There was not a single sentence in the whole paper that I understood – but she understood the importance of challenge and how to get the best from people in a positive constructive way.

On conflict resolution: I remember one day being summoned to her office. In the office she had a post grad student and her parents – all extremely upset. It turned out that the student had been working on my computer without me knowing and I had then deleted all her data. I recall seeing the strange files and simply deleting them (in the days before "undo" and "trash"). That day she taught me something about keeping calm and paying attention to motives and giving benefit of the doubt as a default response.

On values: "Do the right thing because it is the right thing to do" – this is something that she often said and she lived by this value in all her dealings in all situations – also when things were really difficult and she could have chosen for a course of action that could have greater benefit for herself she always chose to do the right thing because it was the right thing to do. This is something that has stuck with me and I am grateful for such a life lesson.

On air-conditioning: I recall the time we went to the Kruger Park with Christine Edwards from Scotland (in February). We were so excited to show her something of our country and went to great efforts to make this a memorable trip. The whole trip Christine was quiet and slept a lot – even in the park. We were really "surprised" at this only later to learn that she felt that she was going to die of the heat! Note to self: DO NOT take guests to the park in February without air-conditioning.

On making mistakes: Prof Vorster was often very philosophical about things that went wrong and she would often say that it is only in heaven that we will be able to do the perfect study with the ideal design. With the greatest respect – Some part of me hopes that she is already organising the study participants for THAT study.

On the enjoyment of work: Yes, she worked hard and with great dedication but my lesson here was that she also enjoyed every minute of it (unless it was bureaucratic nonsense). She enjoyed the discovery, the intellectual stimulation and the thrill of learning and creating. She was an academic at heart and loved it.

On leaving a legacy: The legacy of a great leader and academic does not lie in the publications, prizes and grants – it lies in the people she helped develop, the opportunities she shared. It lies in the giving, in the scattering and not the gathering. What a fantastic legacy she has left behind! It has been an absolute honour being her student, sidekick and colleague. She has made me who I am as a professional and shaped who I am as a person. Johann Jerling