

CURRICULUM VITAE

Samwel Mbugua

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EDUCATION

2014 – On going	Doctoral Candidate (PhD Nutritional Sciences)	Egerton University
2009	M.Sc. Nutritional Sciences	Egerton University
1999	B.Sc. Foods Nutrition and Dietetics	Egerton University

WORK EXPERIENCE

2014 – Present	Lecturer, Department of Human Nutrition
2009- 2014	Assistant Lecturer, Department of Human Nutrition
2001 - 2009	Teaching Assistant, Department of Human Nutrition

AREAS OF INTEREST AND EXPERIENCE

(Maternal Infant and young child Nutrition (MIYCN), Food security, Agri-Nutrition, nutritional epidemiology, Implementation science)

KEY RESEARCH PROJECTS

2015-2018	PhD Candidate: HealthyLAND–Crops for Healthy Diets: Linking Agriculture and Nutrition in Kenya, Uganda and Malawi. Collaborative project between Egerton University, Giessen and Hohenheim Universities, Germany and Makerere University Uganda.
2014 - 2017	Researcher: INSPIRE Track 1: What is Normal Milk? Socio-cultural, Evolutionary, Environmental, and Microbial Aspects of Human Milk Composition. Award Number:1344288; National Science Foundation (NSF). Researcher working on Kenyan data collection for the Multi-country study (Central Africa Republic, Gambia, Ghana, Kenya, Spain, Sweden, USA).
2014-2016	Training coordinator, Egerton University, UHIV capacity building project. PEPFAR/CDC/University of Nairobi/Egerton University short course curriculum development and implementation on Biostatistics and epidemiology for health care workers.
2012	Research fellow: ICF Macro International, MEASURE DHS (Demographic and Health Survey) fellows program. Complex nationwide data reanalysis program.
2010 - 2013	Co-PI: Randomized control study on impact of peer support groups and cell phones in supporting exclusive breastfeeding in Kenya. www.clinicaltrials.gov registry no. <i>NCT01385410</i> . Funded through Alive and Thrive fund of the Bill Gates Foundation and the Global Alliance for Improved Nutrition (GAIN) (USD). Collaboration between Egerton University, University of Toronto, University of California Davies.

2006- 2009	Researcher and Site Coordinator: CIDA/CGIAR-Canada linkage fund Project: Combating HIV/AIDS in urban communities through food and nutrition security: The role of women led micro-livestock enterprises and household food production in Nakuru Municipality, Kenya. Collaborative project; Egerton University, University of Toronto, Ryerson University, CGIAR (International Potato Centre, International livestock Research Institute).
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CONSULTANCY PROJECTS

November 2018-January 2019: Lead Consultant Assessment for deeper Nutrition integration into PREG. **USAID Partnership for Resilience and Economic Growth. Africa Lead II.**

August 2017 – Mar 2018: UNOPS Consultant for MIYCN survey in four UNICEF priority Counties of Kenya. KAP survey using mixed methods approach to understand maternal infant and young child nutrition and health seeking practices in; Kitui, Wajir, Mandera and Tana River Counties, Kenya. **Agency UNICEF KENYA OFFICE.**

May-June 2017: Consultant for MIYCN and Communication for Development KAP Survey for ACF Kenya. KAP Survey on nutrition practices and communication intervention programs in West Pokot County on Behavior Change Communication (C4D) approaches to improving maternal, infant and child nutrition.

December 2016 – On going: Lead Consultant ICF International Maternal Health Study: Further analysis of Kenya Demographic and Health Survey 2015, to develop 2 Further analysis working papers on Maternal health care in Kenya (Specifically the 10 USAID Maternal mortality high risk counties in Kenya).

October – December 2016: **Technical consultant, World Vision Kenya, Enhancing Nutrition Services to Improve Maternal and Child Health in Africa (ENRICH) Elgeyo Marakwet County Project.** Development of baseline tools and undertaking survey in Elgeyo Marakwet and Baringo Counties together with University of Toronto, World Vision Canada, and World Vision Kenya.

September 2016: Lead Consultant CAFOD Eritrea food security health and livelihood improvement project. Undertook project evaluation on impact assessment of the CIDA and CI funded projects on maternal and child mortality reduction, food provision, environment and water provision.

July 2015: Lead Consultant CAFOD Eritrea food security and livelihood improvement project. Undertook impact assessment of the CIDA and CI funded projects in Eritrea.

December 2014 - Consultant MIYCN and Communication for Development (C4D) KAP Survey for Samburu Central Sub-County. KAP Survey on nutrition practices and communication intervention programs in Marsabit county on Behavior Change Communication (C4D) approaches to improving maternal, infant and child nutrition. On behalf of Ministry of Health, World Vision Kenya.

July 2014 - Consultant MIYCN and Communication for Development (C4D) KAP Survey for Turkana County. KAP Survey on nutrition and health practices practices and communication intervention programs for Turkana County on Behavior Change Communication (C4D) approaches to improving maternal, infant and child nutrition. On behalf of Ministry of Health, IRC-Kenya.

May 2014 Facilitator, ICF Macro International; DHS Data use training for Pwani University and Technical University of Mombasa.

February 2014 – Consultant for MIYCN and Communication for Development KAP Survey for ACF Kenya. KAP Survey on nutrition practices and communication intervention programs in West Pokot county on Behavior Change Communication (C4D) approaches to improving maternal, infant and child nutrition. ACF-Kenya.

November 2013: Consultant ILRI (International Livestock Research Institute), Nairobi. **Project:** Value Chain (VC) assessment and analysis tools validation on Sheep and goat and field training of data collection in Ethiopia. For the CGIAR system wide initiative CRP 3.7 activities.

September 2013: Co-facilitator ICF Macro 2013 DHS (Demographic and Health Survey) Tanzania Malaria and HIV data users training on further analysis of TDHS data.

November to January 2013: Consultant ILRI (International Livestock Research Institute), Nairobi. **Project:** Design and preparation of Value Chain (VC) assessment and analysis tools on Livestock and fish and field training of data collection in Ethiopia. For the CGIAR system wide initiative CRP 3.7 activities.

2012 ICF Macro DHS research fellow for further data analysis and development of a working paper.

December 2011 – Lead Consultant for KAP survey for International Medical Corps KAP survey on nutrition interventions in Samburu district for improving maternal and child nutrition (MIYCN).

October 2011 – Lead Consultant for IYCF KAP Survey for Concern Worldwide Kenya KAP Survey on nutrition intervention programs in Korogocho, Mukuru Njenga and Nyalenda slums on Behavior Change Communication approaches to improving infant and child nutrition.

January 2011 – March 2011: Consultant on High Impact Nutrition Interventions (HINI). **Project:** Lead Consultant on mainstreaming Infant and young child feeding in to the UNICEF, HINI Program on behalf of **FHI (Family Health International)** for Samburu, Marsabit and Isiolo. Tools development, formative assessment and intervention planning.

January 2011: Consultant on IYCF mainstreaming for ChildFund Kenya.

Project: Qualitative assessment of IYCF practices in Naro Moru, Isiolo and Mlolongo and assessment of potential mainstreaming of IYCF into development programs for ChildFund International, Kenya.

**2010 May: Validation of a Measure of Household Hunger for Cross Cultural Use.
FANTA/AED FAO Project.**

Project: A six country (Kenya, Zimbabwe, Mozambique, Malawi, West Bank, and South Africa) study on validation of a cross-cultural household food security and hunger measure tool.

Role: Study Collaborator responsible for collection of the Kenyan data.

2006/2007 - Associate Research fellow

Funding: Social Science Research Council (SSRC), HIV/AIDS and public health research in Africa, 2006/07 New York.

Project: Effectiveness and utilization of comprehensive care services by people living with HIV/AIDS: A case study at Provincial general hospital, Nakuru, Kenya.

Role: Design and evaluation assessment.

PROFESIONAL ROLES

2009 – Present: Chairman – Kenya Bureau of Standards (KEBS) Nutrition and Special dietary Foods Technical Committee. *Outputs:* Successfully developed and *gazettement* many standards, Lead Kenyan delegation to the 33rd Codex Alimentarius committee meeting, Bad Soden, Germany, November 2011 and EAC standards meetings.

2009-2010: Chairman – Ministry of Medical Services, National Clinical Nutrition Technical Committee. *Output:* Successfully led the technical working group in drafting, editing and published first ever dietetic manual for Kenya.

2015-2016: Member, MoH NIWG Technical committee reviewing and piloting the MIYCN national tool.

2003-2004: Member Egerton Univeristy Agricultural Show committee.

Journal Reviewer: Public Health Nutrition Journal, Journal of Human Milk and lactation.

2012 - August 2015: Examinations officer, Department of Human Nutrition Egerton University.

2017: Examiner (Faculty Volunteer) - Kenya Nutritionists and Dietitians Institute (KNDI).

PROFESSIONAL AFFILIATIONS AND TRAININGS

Registered Nutritionist/Dietitian – Kenya Nutritionists and Dietitians Institute – 2009
Registration number G/0426/09.

Member, Technical Centre for Agricultural and Rural Cooperation (CTA), 2002 – Present.
Membership no. 153020.

UNDSS (August 2017) Basic security in the field II online course. United Nations Department of Security and Safety.

UNDSS (October 2017) Advanced security in the field on line course. United Nations Department of Security and Safety.

NUTRITION POLICY AND PRACTICE AUTHORSHIP PUBLICATIONS

1. Technical Authorship team; Republic of Kenya (2018 Draft) Kenya National Nutrition Action Plan –KNNAP 2018-2022.
2. Technical Authorship team; Republic of Kenya (2017) Kenya Nutrition Advocacy, Communication, and Social Mobilization Strategy 2016-2020.
3. Samwel Mbugua, Lucy Maina-Gahtigi, Betty Samburu (2017) Infant and Young Child Nutrition (IYCN); Assessment protocols development, status, and lessons learnt 2013-2017. Ministry of Health, **Kenya Nutrition Bulletin August 2017**.
4. Authorship team; Ministry of Medical Services (2010) Kenya National Clinical Nutrition and Dietetics Manual. First Edition.

RESEARCH PUBLICATIONS

1	Mbugua, Samwel, and Kerry L. D. MacQuarrie. 2018. <i>Determinants of Maternal Care-Seeking in Kenya</i> . DHS Further Analysis Reports No. 111. Rockville, Maryland, USA: ICF.
2	Mbugua, Samwel, and Kerry L. D. MacQuarrie. 2018. <i>Maternal Health Indicators in High-Priority Counties of Kenya: Levels and Inequities</i> . DHS Further Analysis Reports No. 110. Rockville, Maryland, USA: ICF.
3	Walton C, VanLeeuwen J, MacLellan D, Taylor J, & S. Mbugua (2017) Effects of nutrition education and dairy group membership on nutrition knowledge, practices and diet quality for rural Kenyan women . <i>African Journal of Food, Agriculture, Nutrition and Development (AJFAND)</i> Vol. 17 No. 3.
4	Lorena Ruíz, Susana Manzano, Michelle K. McGuire, Courtney L. Meehan, Mark A. McGuire, Janet E. Williams, Sarah Brooker, James Foster, Daniel W. Sellen, Elizabeth W. Kamau-Mbuthia, Egidioh W. Kamundia, Samwel Mbugua , Sophie E. Moore, Linda J. Kvist, Gloria E. Otoo, Kimberly A. Lackey, Rossina Pareja, Lars Bode, and Juan M. Rodríguez (2017) What's normal? Immune profiling of human milk from healthy women living in different geographical and socio-economical settings . <i>Front. Immunol.</i> 8;696. doi:10.3389/frimmu.2017.00696.
5	Michelle K. McGuire, Courtney L. Meehan, Mark A. McGuire, Janet E. Williams, James Foster, Daniel W. Sellen, Elizabeth W. Kamau-Mbuthia, Egidioh W. Kamundia,

	Samwel Mbugua , Sophie Moore, Linda J. Kvist, Gloria E. Otoo, Sarah L. Brooker, William J. Price, Caitlyn Placek, Kimberly A. Lackey, Bianca Robertson, Susana Manzano, Juan Miguel Rodriguez Gomez,, Rossina Pareja, and Lars Bode (2017) What's normal? Oligosaccharide concentrations in milk produced by healthy women vary geographically and are related to secretor status, maternal body weight, and time postpartum. <i>American Journal of Clinical Nutrition. Am J Clin Nutr</i> 2017;105:1–15.
6	Mbugua Samwel , Musikoyo Eddison, Ndungi Faith, Sang Richard, Kamamu-Mbuthia Elizabeth & Ngotho Douglas (2014) Determinants of diarrhea among young children under the age of five in Kenya; Evidence from KDHS 2008-09. <i>African Population Studies Vol. 28 No. 2, Supplement, July 2014.</i>
7	Judith Nekesa Mangeni, Ann Mwangi, Samwel Mbugua , Vincent Mukthar (2013) Male Involvement in Maternal Health Care as a Determinant of Utilization of Skilled Birth Attendants in Kenya. <i>East African Medical Journal Vol. 1 No.1. 2013.</i>
8	Walton C., Taylor J., Van Leeuwen J., Yeudall F., & Mbugua S. (2012) Association of diet quality with dairy group membership and membership duration for Kenyan farm women and children. <i>Public Health Nutrition Journal.</i> pp 1-10. DOI: http://dx.doi.org/10.1017/S1368980012005010 .
9	Webb, A., Cherobon, A., Mbugua, S. , Kamau-Mbuthia, E., Amin, A., Sellen, D. (2010) Food Insecurity is associated with attitudes towards exclusive breastfeeding among women in urban Kenya. <i>Maternal and child nutrition journal.</i> DOI: 10.1111/j.1740-8709.2010.00272.x
10	Karanja, N., Yeudall, F., Mbugua, S. , Njenga, M., Prain, G., Cole, D.C., Webb, A.L., Levy, J.M., Gore, C., Sellen, D. (2010) Strengthening capacity for sustainable livelihoods and food security through urban agriculture among HIV and AIDS affected households in Nakuru, Kenya. <i>International Journal of Agricultural Sustainability Vol. 8 (1&2) 2010.</i>
11	Njenga, M., Karanja, N., Gathuru, K., Mbugua, S. , Fedha, N., and Ngoda, B. (2009). The role of women-led micro-farming activities in combating HIV/AIDS in Nakuru, Kenya. In: Hovorka, A., de Zeeuw, H. and Njenga, M. (ed.) <i>Women Feeding Cities Mainstreaming gender in urban agriculture and food security.</i> Rugby (UK): Practical Action Publishing.
12	Mbugua, S. (2009) Food and nutrition status of low socio-economic HIV and AIDS affected households: <i>The case of Nakuru Municipality, Kenya. MSc. Thesis. Egerton University.</i> Kenya.
13	Mbugua Samwel , Yeudall Fiona, Tuitoek Prisca, Cole Donald, Sellen Daniel, Webb Aimee, Karanja Nancy, Prain Gordon, Njenga Mary (2009) Measuring the level of household food insecurity among the urban poor: The case of HIV/AIDS affected households in Nakuuru Municipality, Kenya. <i>Proceedings of the 8th International</i>

	Conference on Urban Health, ICUH 2009, Nairobi, Kenya.
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INTERNATIONAL CONFERENCE PRESENTATIONS

Samwel Mbugua, Elizabeth Kamau-Mbuthia, Irmgard Jordan, Ann Mwangi, Julius Khaemba, Lydia Maruti-Waswa, Thomas Hilger, Ernst-August Nuppenau (2018) Nutrition education and kitchen garden interventions improve dietary diversity among 6-59 months old children in Kenya. Presented at the *International Research on Food Security, Natural Resource Management and Rural Development, Tropentag 2018*, Ghent, Belgium. Poster ID 522.

Irmgard Jordan, Jan Welsch, Anna Röhlig, Sahrah Fischer, **Samwel Mbugua**, Julius Twinamasiko, Paul Fatch, Michael B. Krawinkel, Julius Masinde, Lydia Waswa, Jeninah Karungi, Gabriella Chiutsi Phiri, Erick M. Maina, Elizabeth Mbuthia, Johnny Mugisha, Charles Masangano, Thomas Hilger, Ernst-August Nuppenau (2016) Crops for Healthy Diets: Linking Agriculture and Nutrition (HealthyLAND). Presented at the *International Research on Food Security, Natural Resource Management and Rural Development, Tropentag 2016*, Vienna Austria. Poster.

S. Mbugua, E. Kamau-Mbuthia, A. Webb-Girard, S. Kalungu, C.S. Sarange, W. Lou, C-L Nommsen-Rivers, B. Aidam, D. Sellen (2013) Process Indicators for a randomized trial of cell phone based peer counseling to support exclusive breastfeeding in Kenya. In: *Ann. Nutr. Metab. 63(suppl 1) 1-1960 (2013)*. 20th International Congress on Nutrition September 15 – 20th 2013, Granada, Spain. Abstract No. PO1033, pg. 751. Poster.

D. Sellen, **S. Mbugua**, A. Webb-Girard, S. Kalungu, C.S. Sarange, W. Lou, C-L Nommsen-Rivers, B. Aidam, E. Kamau-Mbuthia (2013) A randomized control trial indicates benefits of a cellphone based peer counseling to support exclusive breastfeeding in Kenya. In: *Ann. Nutr. Metab. 63(suppl 1) 1-1960 (2013)*. 20th International Congress on Nutrition September 15 – 20th 2013, Granada, Spain. Abstract No. PO1032, pg. 751. Poster.

Webb-Girard, E. Kamau-Mbuthia, **S. Mbugua**, A. Webb-Girard, S. Kalungu, C.S. Sarange, W. Lou, C-L Nommsen-Rivers, B. Aidam, D. Sellen (2013) Infant medication, illness and growth in a randomized control trial of exclusive breastfeeding support in Kenya. In: *Ann. Nutr. Metab. 63(suppl 1) 1-1960 (2013)*. 20th International Congress on Nutrition September 15 – 20th 2013, Granada, Spain. Abstract No. PO1034, pg. 752. Poster.

E. Kamau-Mbuthia, **S. Mbugua**, A. Webb-Girard, S. Kalungu, C.S. Sarange, W. Lou, C-L Nommsen-Rivers, B. Aidam, D. Sellen (2013) Cell phone based peer counseling to support exclusive breastfeeding is associated with more frequent help and decreased breast feeding problems. In: *Ann. Nutr. Metab. 63(suppl 1) 1-1960 (2013)*. 20th International Congress on Nutrition September 15 – 20th 2013, Granada, Spain. Abstract No. O079, pg. 196. Oral.

Mbugua S, Kamau-Mbuthia, E, Webb Girard AL; Lou, W, Dennis, C-L, Aidam, B and DW Sellen (2012) *Providing peer support through cell phones and group meetings to increase exclusive breastfeeding in Kenya*. National Symposium on Scaling up Nutrition: Nutrition is Key; Take up your role, Act now, Ministry of Public Health and Sanitation, Republic of Kenya. Nairobi. Kenya, November 5-6, 2012. (Poster).

DW Sellen, **Mbugua S**, Kamau-Mbuthia, E, Webb Girard AL; Lou, W, Dennis, C-L, Aidam, B (2012) *Lessons learnt in providing peer support through cell phones and group meetings to increase exclusive breastfeeding in Kenya*. International Society for Research on Human Milk and Lactation (ISRHML), Trieste, Italy, September 25, 2012 (Poster).

Mbugua S, Kamau-Mbuthia, E, Webb Girard AL; Lou, W, Dennis, C-L, Aidam, B and DW Sellen (2012) *Providing peer support through cell phones and group meetings to increase exclusive breastfeeding in Kenya*. Nutrition Congress Africa (NCA 2012), African Nutrition Society, Bloemfontein, Republic of South Africa, October 02, 2012 (Poster).

Mbugua S., Tuitoek PJ., Yeudall F., Andersen NA., Cole DC., Karanja N., Webb AL., Sellen D., Njenga M., Prain G. (2009) *Association between socio-demographic factors and household food security among HIV and AIDS affected households in Nakuru Municipality, Kenya*. Paper presented at the Fourth Annual Research and International Conference, Egerton University Njoro Kenya. 15th – 17TH September 2009. Oral presentation.

Mbugua S, Andersen NA., Cole DC., Webb AL., Sellen D., Njenga M., Prain G., Karanja N., Tuitoek PJ., Yeudall F. (2009) *Food and nutrition security of HIV affected households in Nakuru Kenya*. Paper presented at the 19th International Congress on Nutrition, 4th – 9th October 2009. Bangkok, Thailand. Poster presentation (Abstract #2899).

Webb AL, **Mbugua S**, Anderson N, Levy J, Njenga M, Karanja M, Cole D, Gore D, Jundi N, Yeudall F, Sellen DW, Prain G. (2009) *Determinants of participation in an urban agricultural intervention designed to improve food security and livelihoods in HIV-affected households in Nakuru Kenya*. International Congress of Nutrition, Abstract DP7-02 Bangkok 10/2009 (Distinguished Poster)

Webb AL, Cherobon A, **Mbugua S**, Kamau-Mbuthia E, Sellen D. (2009) *Impact of food insecurity on Knowledge, Attitudes, and practices of urban Kenyan mothers towards exclusive breastfeeding*. International Congress of Nutrition, Abstract DP10-03 Bangkok, 10/2009 (Distinguished poster).

E. Mbuthia, S. Muthoka, **S. Mbugua** (2008) *Utilization of comprehensive care centre services (CCC) by People living with HIV/Aids: The case of nutrition counseling in Kenya*. Paper presented at The 3rd Africa Nutritional Epidemiology Conference, 13th – 16th October, Cairo. Oral presentation NO5.

Andersen, N., **Mbugua, S.**, Sellen, D., Cole, D., Karanja, N., Yeudall, F., Prain, G., and Njenga, M. (2008). Applications of the sustainable livelihoods framework to assess households affected by HIV/AIDS in Nakuru, Kenya. In: *XVII International AIDS Conference Abstract Book Volume 1*, p253, www.aids2008.org

Cole, D., Andersen, N., **Samuel, M.**, Karanja, N., Yeudall, F., Njenga, M., Sellen, D., Prain, G., and SEHTUA. (2008). SEHTUA: community based action research project to strengthen livelihood and food security for households affected by HIV/AIDS through urban agriculture. In: *XVII International AIDS Conference Abstract Book Volume 1*, p319, www.aids2008.org

Mbugua, S., Andersen, N., Tuitoek, P., Yeudall, F., Sellen, D., Karanja, N., Cole, D., Njenga, M., Prain, G., and SEHTUA partnership. (2008) Assessment of food security and nutrition status among households affected by HIV/AIDS in Nakuru Municipality, Kenya. In: *XVII International AIDS Conference Abstract Book Volume 1*, p493, www.aids2008.org

Mbugua S., Andersen N., Karanja N., Yeudall F., Tuitoek P., Prain G., Cole D., Sellen D., Randolph T., Njenga M. (2007) *Combating HIV/AIDS in Urban Communities through Food and Nutrition Security: The role of women led microlivestock enterprises and horticultural Production in Nakuru town*. Paper presented at From Research to Action: Mitigating the impact of HIV/AIDS on Agriculture and food security in West Africa. 1 -4 October, Cotonnougou Benin. Oral presentation.

S. Mbugua, S. Muthoka, E. Kamau-Mbuthia (2007) *Effectiveness and utilization of comprehensive care services by people living with HIV/AIDS: A case study at Provincial general hospital, Nakuru, Kenya*. Paper presented at The HIV/AIDS and Public Health Research Fellowship Workshop, 11th – 12th March, Durban.

S. Mbugua (2005) *Nutrition and MDG's: The research challenges for African Universities*. Paper presented at The Regional conference and workshop on the role of African Universities in the attainment of millennium development goals. 14th – 18th November, Nairobi. Oral presentation.

P.J. Tuitoek, **S. Mbugua** (2005) *Use of ICT in food and nutrition training in African Universities*. Paper presented at The 2nd Information technology and the advancement of nutrition in Africa (ITANA). 16th -18th September, Cape Town. Oral presentation.

REFEREES

1. Regina Mbochi
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2. Ms Betty Samburu
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