

BIOGRAPHICAL SKETCH

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NAME: Maricianah Atieno Onono

eRA COMMONS USER NAME (credential, e.g., agency login): Maricianah

POSITION TITLE: Senior Principal Clinical Research Scientist, Kenya Medical Research Institute

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Nairobi, Nairobi, Kenya	M.B.Ch.B	12/2005	Medicine & Surgery
Center for AIDS prevention Studies: University of California San Francisco, CA	Certificate	09/2009	Research Methods
University of Liverpool, Liverpool, UK	MSc	12/2012	Clinical Research
University of California San Francisco, CA, NIH Fogarty	Fellowship	7/2013	Global Health
University of California San Francisco, Institute of Global Health Sciences	PhD	12/2019	Global Health Sciences
University of Nairobi, Nairobi, Kenya	MMed	2024	Psychiatry

A. Personal Statement

I am a medical doctor, psychiatrist and a senior principal clinical research scientist and the immediate past Director Scientific Programs and Partnerships at the Kenya Medical Research Institute (KEMRI). I have extensive experience in public health research and mixed methods research methodologies. I have spent more than 15 years working in 1) Sexual reproductive, adolescent and child health, 2) Disease surveillance and public health systems and, 3) Mental health research in Kenya as a medical practitioner and as a research scientist. My work is highly multidisciplinary and collaborative in nature, as reflected in the breadth of research questions and methods, diversity of funding sources (NIH; UNICEF; WHO; Bill & Melinda Gates Foundation) and number of collaborators (at least a dozen in the past five years). The proposed work is squarely within my overarching research goal: to improve the health of the most vulnerable populations in sub-Saharan Africa. I bring a proven track record of management and leadership of high-performance research teams and have conducted nearly 40 successful projects including large implementation science projects that leveraged both technology and community health workers (e.g. *Mobile phone-enhanced integrated Community Case Management of Pneumonia, Malaria, and Diarrhea in Children under 5 years in Homa Bay County, Kenya; role PI*), multi-site randomized controlled trials that contributed to global policy changes (*The Evidence for Contraceptives options and HIV Outcomes (ECHO) Trial: A Multi Center, Open-Label, Randomized Clinical Trial Comparing HIV Incidence and Contraceptive Benefits in Women using Depot Medroxyprogesterone Acetate (DMPA), Levonorgestrel (LNG) Implant, and Copper Intrauterine Devices (IUDs); role Co-PI*), as well as studies integrating critical services within the Kenyan primary health care system (*Integrating family planning and HIV services in western Kenya and The study of HIV and antenatal care integration in pregnancy in Kenya: a cluster-randomized controlled trial; role site PI*). I am currently the country director and site PI for the *Single-dose HPV catch-up vaccination efficacy: A blinded, randomized study of single-dose HPV vaccination among adolescent girls and young women in Kenya*. In this role I coordinate community, clinical, research and laboratory services across Nairobi, Thika, Kisumu and Mombasa as well as provide training and mentorship to junior scientists. Lastly, I have substantial experience in policy advocacy and analysis. I have

evaluated priority setting and political prioritization for adolescent sexual reproductive health and served on several national technical working groups (TWG) including family planning TWG, PMTCT TWG and child health TWG resulting in changes in national guidelines for RH-HIV integration, and in changes in pneumonia treatment for sick children under 5-years. I have a rich network of collaborators and access to local stakeholders and policy makers which will facilitate execution, evaluation and scale up of interventions.

Ongoing and recently completed projects that I would like to highlight include:

1RO1MH133260-01

M-Principal Investigator

09/01/2023-08/31/2028

Integration of a collaborative care model for perinatal mental health and HIV in Kenya (Tunawiri) Study

1R34MH126857 - 01A1

M-Principal Investigator

09/09/2022-08/31/2025

Adapting a lay health worker problem solving therapy intervention for at-risk pregnant/postpartum women with HIV in Kenya to promote treatment success (TATUA Study)

Contract N°: 10530sc (Bill and Melinda Gates Foundation Grant)

Co-Principal Investigator and Country Director

1/11/18 - 01/10/27

Single-dose HPV catch-up vaccination efficacy: A blinded, randomized study of single-dose HPV vaccination among adolescent girls and young women in Kenya, (KEN SHE) Study

1R21HD080477-01(Weiser)

Co-investigator/Site Principal Investigator

1/9/18 - 01/8/21

Shamba Maisha: Assessing the preliminary effects of a multisectoral agricultural intervention on the sexual and reproductive health of HIV-affected adolescent girls.

Citations

1. **Onono MA**, Frongillo EA, Sheira LA, Odhiambo G, Wekesa P, Conroy AA, Cohen CR, Bukusi EA, Weiser SD. Links between Household-Level Income-Generating Agricultural Intervention and the Psychological Well-Being of Adolescent Girls in Human Immunodeficiency Virus-Affected Households in Southwestern Kenya: A Qualitative Inquiry. *J Nutr.* 2023 Dec;153(12):3595-3603. doi: 10.1016/j.tjnut.2023.10.008. Epub 2023 Oct 18. PMID: 37863268.
2. **Onono MA**, Odhiambo G, Sheira L, Conroy A, Neilands TB, Bukusi EA, Weiser SD. The role of food security in increasing adolescent girls' agency towards sexual risk taking: qualitative findings from an income generating agricultural intervention in southwestern Kenya. *BMC Public Health.* 2021 Nov 6;21(1):2028. doi: 10.1186/s12889-021-12051-6. PMID: 34742285; PMCID: PMC8572417.
3. **Onono M**, Odwar T, Wahome S, Helova A, Bukusi EA, Hampanda K, Turan J, Abuogi L. Behavioral Interventions can Mitigate Adverse Pregnancy Outcomes Among Women Conceiving on ART and Those Initiated on ART During Pregnancy: Findings From the MOTIVATE Trial in Southwestern Kenya. *J Acquir Immune Defic Syndr.* 2021 Jan 1;86(1):46-55. doi: 10.1097/QAI.0000000000002521. PMID: 33306563; PMCID: PMC7851482.
4. **Onono MA**, Brindis CD, White JS, Goosby E, Okoro DO, Bukusi EA, Rutherford GW. Challenges to generating political prioritization for adolescent sexual and reproductive health in Kenya: A qualitative study. *PLoS One.* 2019 Dec 19;14(12):e0226426. doi: 10.1371/journal.pone.0226426. PMID: 31856245; PMCID: PMC6922405

B. Positions, Scientific Appointments and Honors

2023-2025	KEMRI Director of Scientific Programs, Partnerships & Grants Management
2023-Present	UNICEF consultant on Integrating treatment of acute malnutrition and integrated community case management in Marsabit and Turkana Counties
2020-Present	KEMRI Senior Principal Clinical Research scientist - (Public Health/ Epidemiology for

	infectious disease and reproductive health)
2018-2019	World Health Organization Evaluation Consultant on Improving access to Quality and rights-based Family Planning Services in 10 priority countries
2018-Present	Country director- Single-dose HPV catch-up vaccination efficacy
2017-2018	UNICEF consultant on integrated community case management of pneumonia: pathway to policy
2017	WHO Temporary advisor on DMPA and NET-EN and HIV acquisition
2012-2019	KEMRI Clinical research scientist
2007-2008	Clinical Instructor, Kapsowar Mission Hospital, Samaritans Purse, Rift Valley Kenya
2007-2008	Medical Officer, Kapsowar Mission Hospital, Rift Valley, Kenya
2007-2008	Assistant Study Coordinator/Medical Officer, KEMRI-UCSF Vivagel Study, Kisumu, Kenya
2006	Clinician, Tenwek Hospital, , Rift Valley, Kenya

Selected Honours and services to National and International Committees

2023	Board Member Drugs for Neglected Diseases Initiative (DNDi)
2021	KEMRI Top 20 Principal Investigators
2020	KEMRI Excellent service award
2020	KEMRI Global excellence award
2016	Top 120 under 40 Global leaders in Family Planning
2014	KEMRI Silver (the Lenana) scientific excellence achievement award
2012	Chair Scientific Committee Integration for Impact Conference 2012
2012-present	Member of the Kenya National Family Planning Technical Working Group (TWG)
2011-present	Member of the Kenya National Committee on Integration of reproductive health and HIV
2005	Outstanding Heart of Service Award, Christian Medical Fellowship of Kenya

C. Contributions to Science

1. Increasing access to public and community based health services: My research has focused in part, to the use of lay health workers to support the global response to HIV and maternal and child well-being. Community health workers (CHWs) have reemerged as significant cadres in low- and middle-income countries and are now seen as an integral part of achieving the goal of Universal Health Coverage. I have conducted studies that – for the first time in Africa- demonstrated that CHWs could diagnose and treat pneumonia using antibiotics in the community and at scale and with high acceptability. Based on this success, I collaborated with scientists from the United States to implement community mentor mothers who heretofore had only been based in the health facilities. With these studies, we are substantially advancing the field by providing the evidence for lay health workers in improving health service utilization and health outcomes.

1. **Maricianah Onono**, Mohammed Abdi, Kennedy Mutai, Elijah Asadhi, Rachel Nyamai, Peter Okoth, Shamim Ahamd Qazi. Community case management of lower chest indrawing pneumonia with oral amoxicillin in children in Kenya. *Acta Paediatr.* 2018 Dec; 107 Suppl 471:44-52. DOI: 10.1111/apa.14405 PMID: 30570795
2. Shaw BI, Asadhi E, Owuor K, Okoth P, Abdi M, Cohen CR, **Onono M** (2016). Perceived Quality of Care of Community Health Worker and Facility-Based Health Worker Management of Pneumonia in Children Under 5 Years in Western Kenya: A Cross-Sectional Multidimensional Study, *Am J Trop Med Hyg* 2016 May 4;94(5): 1170-6. Epub Mar 14. PMCID: PMC4856619
3. Iris Wanga, Lisa Abuogi, Eliud Akama, Elizabeth A. Bukusi, Anna Helova, Pamela Musoke, Wafula Nalwa, Thomas Odeny, Janet M. Turan, and **Maricianah Onono**. Acceptability of community-based mentor mothers among HIV-positive pregnant women and partners in the context of Option B plus in Kenya. *BMC Pregnancy Childbirth.* 2019 Aug 13; 19(1): 288. PMCID: PMC6693232

2. Use of technological innovations: My work also involves the use of mobile health (mHealth) technological innovations to support maternal and child health services by addressing the delays in seeking care, reaching care and quality of care. In prevention of mother to child transmission (PMTCT) studies, I have used bidirectional theory based text messages to improve retention in care for pregnant and postpartum women living with HIV and mitigate adverse pregnancy outcomes. I have also used mHealth to do real time reporting

for pneumonia, malaria and diarrhoea in sick children under 5-years at scale and subsequently developed a mobile phone enhanced 24-hour Uber-like transport navigation system that also provided personalized and interactive gestation-based text messages. This innovation improved both antenatal and postnatal clinic attendance and shortened the time to reach an appropriate facility for delivery compared to standard care.

1. **Onono M**, Odwar T, Wahome S, et al. Behavioral interventions can mitigate adverse pregnancy outcomes among women conceiving on antiretroviral therapy (ART) and those initiated on ART during pregnancy: Findings from the MOTIVATE trial in southwestern Kenya. *Journal of Acquired Immune Deficiency Syndromes* 2020 Oct. DOI: 10.1097/qai.0000000000002521 PMID: 33027156
2. **Maricianah Onono**, Mohammed Abdi, Isaya Opondo, Jane Okung'u, Elijah Asadhi, Rachel Nyamai, Lydia Karimurio, Peter Okoth, Shamim Ahmad Qazi. Using the RE-AIM framework to evaluate the Implementation of integrated community case management in Kenya. *Acta Paediatr.* 2018 Dec; 107 Suppl 471:53-62. DOI: 10.1111/apa.14662. PMID: 30570791
3. **Onono M**, Wekesa P, Adhu CK, Waguma LW, Serem T, Owenga MA, and Ong'wen P. Effects of an expanded Uber-like transport system on access to and use of maternal and newborn health services: findings of a prospective cohort study in Homabay, Kenya. *BMJ Glob Health.* 2019 May 13; 4(3): e001254. PMCID: PMC6528775.
4. **Onono M**, Odhiambo G, Congo O, Waguma LW, Serem T, Owenga MA, and Wekesa P. Narratives of women using a 24-hour ride-hailing transport system to increase access and utilization of maternal and newborn health services in rural Western Kenya: a qualitative study, *American Journal of Tropical Medicine and Hygiene* 2019 Nov; 101(5): 1000-1008 PMCID: PMC6838568

4.Related to the intersection of health and environmental health: I have developed a keen interest in the intersection of climate, environment and health. I have been the site PI on research evaluating health consequences of food nutrition and water insecurity among women of mixed HIV status in Western Kenya and among adolescents. While the ability to measure household food insecurity has been transformative, our understanding of both how to measure household-level water insecurity and its consequences is in its nascent phase. In collaboration with other investigators, I have conducted research exploring household water insecurity quantitatively and qualitatively discovering that there are surprising and far-reaching ways that water insecurity shapes well-being. I have also collaborated with scholars across the globe to create a cross-culturally validated scale of quantifying experiences with access to and use of water.

1. Godfred O. Boateng, Cassandra L. Workman, Joshua D. Miller, **Maricianah Onono**, Torsten B. Neilands, Sera L Young. The syndemic effects of food insecurity, water insecurity, and HIV on depressive symptomatology among Kenyan women. *Social Science and Medicine*, 2020 May 15; 113043. doi: 10.1016/j.socscimed.2020.113043. PMID: 32482382
2. Collins SM, Mbullo Owuor P, Miller JD, Boateng GO, Wekesa P, **Onono M**, Young SL. 'I know how stressful it is to lack water!' Exploring the lived experiences of household water insecurity among pregnant and postpartum women in western Kenya. *Global Public Health.* 2019 May 4;14(5):649-62. PMCID: PMC6414268.
3. Godfred O. Boateng, Shalean M. Collins, Patrick Mbullo, Pauline Wekesa, **Maricianah Onono**, Torsten B. Neilands, Sera L. Young (2018). A novel household water insecurity scale: Procedures and psychometric analysis among postpartum women in western Kenya, *PLOS ONE* Jun 8;13(6):e0198591. PMCID: PMC5993289
4. Krumdieck NR, Collins SM, Wekesa P, Mbullo P, Boateng GO, **Onono M**, Young SL. Household water insecurity is associated with a range of negative consequences among pregnant Kenyan women of mixed HIV status. *Journal of water and health.* 2016 Dec;14(6):1028-31. PMCID: PMC5210218

4. Feasibility, cost and effectiveness of health services: I have conducted research looking at developing health systems that can help increase utilization of sexual reproductive health services among women living with HIV, and child health services among sick children under 5-years. These publications document the feasibility, cost and overall effectiveness of integrated sexual and reproductive health services as well as that of community case management for pneumonia among sick children under 5. By providing evidence on simple cost-effective approaches, this body of work has now become the standard of care for these populations.

1. Grossman D, **Onono M**, Newmann SJ, Blat C, Bukusi EA, Shade SB, Steinfeld RL, Cohen CR. Integration of family planning services into HIV care and treatment in Kenya: a cluster-randomized trial. *AIDS.* 2013 Oct; 27 Suppl 1:S77-85. PMCID: PMC5362197
2. Shade SB, Kevany S, **Onono M**, Ochieng G, Steinfeld RL, Grossman D, Newmann SJ, Blat C, Bukusi EA, Cohen CR. Cost, cost-efficiency and cost-effectiveness of integrated family planning and HIV services. *AIDS.* 2013 Oct; 27 Suppl 1:S87-92. PMCID: PMC4894498

3. **Onono M**, Guzé MA, Grossman D, Steinfeld R, Bukusi EA, Shade S, Cohen CR, Newmann SJ. Integrating family planning and HIV services in western Kenya: the impact on HIV-infected patients' knowledge of family planning and male attitudes toward family planning. *AIDS Care*. 2015; 27(6): 743-52. Epub 2015 Jan 29. PMID: PMC4366270.
4. Joel Amehya Machuki, Dickens S. Omondi Aduda, Abong'o B. Omondi, **Maricianah Atieno Onono**. Patient Level Cost of Home and Facility Based Child Pneumonia Treatment in Suba Sub County, Kenya. *PLOS ONE* Nov 2019;14(11): e0225195. PMID: PMC6863537.

5. Policy engagement and analysis: I have conducted qualitative studies using focused ethnographic approaches into priority setting and political prioritization of adolescent sexual reproductive health using frameworks such as the Shiffman and Smith as well as the public health arena model. Moreover, my work has contributed to the development of several national guidelines on integration of family planning and HIV as well as integrated community case management of childhood illnesses.

1. **Onono MA**, Brindis CD, White JS, Goosby E, Okoro DO, Bukusi EA, Rutherford GW. Challenges to generating political prioritization for adolescent sexual and reproductive health in Kenya: A qualitative study. *PloS One*. 2019 Dec 19; 14(12): e0226426. PMID: PMC6922405.
2. **Onono MA**, Rutherford GW, Bukusi EA, White JS, Goosby E, Brindis CD. Political prioritization and the competing definitions of adolescent pregnancy in Kenya: An application of the Public Arenas Model. *PloS One*. 2020 Sep 14; 15(9): e0238136. PMID: PMC7489501.

Complete List of Published Work (96) in My Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/1Fqcc113baeQx/bibliography/public/>