
BIOGRAPHICAL SKETCH

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NAME: Moon, D. Troy

eRA COMMONS USER NAME (agency login): moondt

POSITION TITLE: Associate Professor

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

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Florida State University, Tallahassee, Florida	BS	1992	Social Work
University of Alabama , Brimingham, Alabama	MPH	1996	Epidemiology and International Health
University of Florida, Gainesville, Florida	MD	2001	Medicine
Tulane University, New Orleans, Louisiana	OTH	2004	Internship/Residency, Pediatrics
Tulane University, New Orleans, Louisiana	OTH	2007	Fellowship, Pediatric Infectious Diseases

A. Personal Statement

As an infectious disease specialist and Pediatrician, fluent in Portuguese, I served as the in-Country Clinical and Research Director of Friends in Global Health (FGH), LLC Mozambique from 2007 to 2012 with the Vanderbilt Rural Mozambique Project supported by PEPFAR. In this role, I had the responsibility of designing approaches to assist the Mozambican National Health System's rapid scale-up of HIV care and treatment services in a remote rural province in which these services previously did not exist. Service scale-up included the conduct of numerous implementation science research evaluations for improved evidence-based practices related to pediatric and adult ART, pediatric and adult HIV-counseling and testing services, tuberculosis care and treatment, prevention of mother to child transmission (PMTCT), and cervical cancer screening. Battling poor infrastructure, inadequate numbers and poorly trained staff, inadequate supply chain systems, and minimal laboratory support, I oversaw the implementation of activities that 1) focused on the collection of quality data and on evidence-based practices to improve service efficiency and scale; and that 2) emphasized capacity building and "mentoring" of national health system personnel at all levels. Additionally, I contributed to scale-up efforts at a macro level by participating on numerous national committees and working groups to strategically plan and coordinate the Mozambican national response, and at a micro level by providing individualized one-on-one mentoring to hundreds of Mozambican health personnel (doctors, clinical officers, nurses, pharmacists, laboratory technicians, and hospital administrators).

Since returning to Nashville in January 2013, I have effectively assembled an educational/training and research enterprise built upon the service delivery activities established in Mozambique. I currently serve as a co-PI of two Fogarty International Center (FIC) training and capacity building grants (R25: Moon, Heitman co-PIs; D43: Moon, Vermund co-PIs); and an NIAID R01 (Sacarlal, Silva co-PIs, Moon PI of Vanderbilt sub-award) which represents the University Eduardo Mondlane's (Mozambique's premiere medical school) first NIH R-series grant and the direct fruit of Vanderbilt's capacity building efforts with UEM.

I continue to maintain strong ties with Mozambique through the above ongoing projects and serve as a research mentor to several Masters and Doctoral level students at UEM as well as Vanderbilt trainees doing research in Mozambique. These collaborations have resulted in several manuscripts relevant to the current proposal (see below). I will work with the PIs of other NIH funded projects at UEM and other relevant faculty and staff, to ensure we are taking full advantage of efforts and leveraging our training initiatives to the maximum extent possible.

B. Positions

Positions and Employment

1992 - 1994	Ryan White Title II and Project AIDS Care Florida Medicaid Waiver Programs: Case Manager, Big Bend CARES , Tallahassee, FL
1994 - 1995	Lab Technician, International Health Department, UAB Sch. of Public Health, Birmingham, AL
1995 - 1997	Research Assistant, Department of Epidemiology, UAB Sch. of Public Health, Birmingham, AL
2007 - 2012	Clinical and Research Director, Friends in Global Health-Mozambique, Assistant Professor, Department of Pediatrics, Division of Pediatric Infectious Diseases. Vanderbilt Institute for Global Health, Nashville, TN
2013 - pres	Associate Professor, Department of Pediatrics, Division of Pediatric Infectious Diseases, Vanderbilt Institute for Global Health, Nashville, TN

Other Experience, Professional Memberships and Honors

1990	Volunteer of the Year, Big Bend CARES
1991	Board of Directors, Big Bend CARES
1991	Leadership, Dedication, and Dependability Awardee, Big Bend CARES
2001	History of Medicine Distinguished Scholar Awardee, Okun Family
2002	Intern of the Year Nominee, Medical Center of Louisiana/Charity and University Ho
2002	Coordinator, AAP Resident Section/Orleans Parish Schools Pediatric Resident Participation in the HOSTS (Helping One Student to Succeed) Mentor Program, Orleans Parish Schools
2007-2012	Mozambican National HIV Care and Treatment working group
2007-2012	Mozambican National Pediatric HIV Care and Treatment working group
2007-2012	Mozambican National Tuberculosis working group
2008-2012	Mozambican National Cervical Cancer Screening working group
2008-2012	Zambézia Province Quality Control Committee for HIV and Malaria rapid tests
2010-2012	Mozambican National PCR scale-up working group
2010-2012	CDC-USAID joint committee for the scale-up and logistics of essential medicine supply chain in Zambézia Province
2010-2012	Zambézia Province Task Force for Cholera Outbreak responses
2010-2012	Zambézia Province working group for community-health facility linkages
2011	WHO, CDC, MOH: Joint Committee for logistics response to polio outbreak
2011-2012	Mozambican National working group for scale-up of mobile clinic strategies
2011-2012	Founding member of the Zambézia Province Inter-institutional Committee for Bioethics in Health
2012-pres	Scientific review Advisor for the Zambézia Province Inter-institutional Committee for Bioethics in Health
2014	International Academic Partnership Merit Award: In recognition of outstanding and enduring collaboration with the Faculty of Medicine: Universidade Eduardo Mondlane; Maputo, Mozambique
2015	<i>Scholar</i> - Vanderbilt Center for Health Services Research, Vanderbilt University Medical School

C. Contribution to Science

1. My work as Clinical Director of FGH in rural Mozambique has helped the Mozambican Ministry of Health scale-up and roll-out HIV care and treatment in a remote rural province in which these services previously did not exist. Several initiatives implemented in Zambézia Province have since been either adopted as the standard of care by the Mozambican Ministry of Health and US Government donors in Mozambique or have been nationally recognized and sought after for replication.
 - a. **Moon TD**, Burlison JR, Blevins M, Shepherd BE, Baptista A, Sidat M, Vergara AE, Vermund SH. Enrolment and programmatic trends and predictors of antiretroviral therapy initiation from president's emergency plan for AIDS Relief (PEPFAR)-supported public HIV care and treatment sites in rural Mozambique. *Int J STD AIDS*. 2011 Nov; 22(11):621-7. PMID: [22096045](https://pubmed.ncbi.nlm.nih.gov/22096045/).

- b. **Moon TD**, Silva-Matos C, Cordoso A, Baptista AJ, Sidat M, Vermund SH. Implementation of cervical cancer screening using visual inspection with acetic acid in rural Mozambique: successes and challenges using HIV care and treatment programme investments in Zambézia Province. *J Int AIDS Soc.* 2012 Jun 18;15(2):17406. PMID: [PMC3499800](#).
 - c. **Moon TD**, Ossemame EB, Green AF, Ndatimana E, José E, Buehler CP, Wester CW, Vermund SH, Olupona O. Antiretroviral therapy program expansion in Zambézia Province, Mozambique: geospatial mapping of community-based and health facility data for integrated health planning. *PLoS One.* 2014;9(10):e109653. PMID: [PMC4201452](#).
 - d. **Moon TD**, Jequicene T, Blevins M, José E, Lankford JR, Wester CW, Fuchs MC, Vermund SH. Mobile clinics for antiretroviral therapy in rural Mozambique. *Bull World Health Organ.* 2014 Sep 1;92(9):680-4. PMID: [PMC4208568](#).
2. While implementing studies to evaluate the performance of clinical guidelines for the management of fever and anemia in HIV-infected adults by non-physician clinicians in Mozambique, I and colleagues documented a large proportion of cases of multi drug-resistant non-typhoidal salmonella (NTS) bacteremia as the cause of that fever. To better understand this observation, genetic characterization of NTS isolates revealed a highly invasive form of NTS, designated ST313, not previously identified in Mozambique.
 - a. **Moon TD**, Silva WP, Buene M, Morais L, Valverde E, Vermund SH, Brentlinger PE. Bacteremia as a cause of fever in ambulatory, HIV-infected Mozambican adults: results and policy implications from a prospective observational study. *PLoS One.* 2013;8(12):e83591.: [PMC3875454](#).
 - b. Brentlinger PE, Silva WP, Buene M, Morais L, Valverde E, Vermund SH, **Moon TD**. Management of fever in ambulatory HIV-infected adults in resource-limited settings: prospective observational evaluation of a new Mozambican guideline. *J Acquir Immune Defic Syndr.* 2014 Nov 1;67(3):304-9. PMID: [25314251](#).
 - c. Brentlinger PE, Silva WP, Vermund SH, Valverde E, Buene M, **Moon TD**. Practical Management of HIV-Associated Anemia in Resource-Limited Settings: Prospective Observational Evaluation of a New Mozambican Guideline. *AIDS Res Hum Retroviruses.* 2015 July 15: [EPub ahead of print]. PMID: 26178574; PMID: PMC4692124 [Available 1/1/2017].
 - d. **Moon TD**, Johnson M, Foster MA, Silva WP, Buene M, Valverde E, Morais L, Williams JV, Vermund SH, Brentlinger PE. Identification of invasive *Salmonella enterica* serovar Typhimurium ST313 in ambulatory HIV-infected adults in Mozambique. *J Glob Infec Dis* 2015 Oct-Dec: 7(4):139-142. doi 10.4103/0974-777X.170496. PMID: PMC4693304.
 3. My work to date has utilized the inherent strengths of an academic institution in which capacity building efforts foster research, which then fosters further capacity building, all while providing the evidence-base needed for effective service delivery and development work in resource limited settings. I have been extremely successful in serving as a “bridge” for other research-educators at Vanderbilt University to promote and facilitate a multidisciplinary growth in activities and which strengthens the long term sustainability of research endeavors in Mozambique.
 - a. Victor B, Blevins M, Green AF, Ndatimana E, González-Calvo L, Fischer EF, Vergara AE, Vermund SH, Olupona O, **Moon TD**. Multidimensional poverty in rural Mozambique: a new metric for evaluating public health interventions. *PLoS One.* 2014;9(9):e108654. PMID: [PMC4182519](#).
 - b. Buehler CP, Blevins M, Ossemame EB, González-Calvo L, Ndatimana E, Vermund SH, Sidat M, Olupona O, **Moon TD**. Assessing spatial patterns of HIV knowledge in rural Mozambique using geographic information systems. *Trop Med Int Health.* 2015 Mar;20(3):353-64. PMID: [25430042](#).
 4. My work with trainees, from both Vanderbilt and UEM, has tackled key issues related to health literacy, adherence, and other crucial gaps leading into the field of implementation science
 - a. Ciampa PJ, Burlison JR, Blevins M, Sidat M, **Moon TD**, Rothman RL, Vermund SH. Improving retention in the early infant diagnosis of HIV program in rural Mozambique by better service integration. *J Acquir Immune Defic Syndr.* 2011 Sep 1;58(1):115-9. PubMed PMID: [21546845](#).

- b. Paulin HN, Blevins M, Koethe JR, Hinton N, Vaz LM, Vergara AE, Mukolo A, Ndatimana E, **Moon TD**, Vermund SH, Wester CW. HIV testing service awareness and service uptake among female heads of household in rural Mozambique: results from a province-wide survey. *BMC Public Health*. 2015 Feb 12;15:132. PMID: [PMC4339241](https://pubmed.ncbi.nlm.nih.gov/25096897/).
- c. Edwards LJ, Moisés A, Nzaramba M, Cassimo A, Silva L, Mauricio J, Wester CW, Vermund SH, **Moon TD**. Implementation of a health management mentoring program: year-1 evaluation of its impact on health system strengthening in Zambézia Province, Mozambique. *Int J Health Policy Manag*. 2015 Mar 12;4(6):353-61. [PMCID: PMC4450730](https://pubmed.ncbi.nlm.nih.gov/25096897/).
- d. da Silva M, Blevins M, Wester CW, Manjolo J, José E, Gonzalez LC, Shepherd BE, **Moon TD**, Vaz LM. Patient loss to follow-up before antiretroviral therapy initiation in rural Mozambique. *AIDS Behav*. 2015 Apr;19(4):666-78. PubMed PMID: [25096897](https://pubmed.ncbi.nlm.nih.gov/25096897/).

Complete List of Published Work from MYNCBI:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/14A338xU58GQa/bibliography/46175248/public/?sort=date&direction=ascending>.

D. Research Support

Active Research Support

1D43TW009745-01A1 Vermund SH, Sidat M, Moon TD (co-PIs) 2015/04/01- 2020/03/31

FIC/NIDA/NIH

UEM-Partnership for Research in Implementation Science Mozambique (PRISM).

The UEM PRISM training program partners with international collaborators from Mozambique and Brazil is designed to train foreign scientists and key research support staff to conduct independent research and training in their home countries, as well as perform at an internationally credible level in collaborations with both local and foreign scientists. Role: Co-PI

1R01AI112295-01, Sacarlal J and Silva W (PI) 2014/07/22-2019/06/30

NIAID

Bacteremia in HIV-infected children under 5 years old, hospitalized in Mozambique.

Moon, PI of Subcontract The goal of this study is to perform a prospective hospital-based observational study of HIV-infected Mozambican Children <5 years old to determine the incidence, etiology, antibiotic sensitivity patterns and molecular characterizations of culture confirmed bacteremia. Role: Co-Investigator and PI of Vanderbilt sub-contract

R25 TW009722-02, Moon TD and Heitman E. (PIs) 2015/01/01-2019/12/31

Fogarty International Center (FIC)

VU-Mozambique Collaborative Research Ethics Education Program

The goal of the program is to build capacity for research ethics training and education in Mozambican academic institutions and their national research ethics committees. Support will be given for foreign graduate students to pursue Master's in research techniques and the principals of ethics applicable to resource-limited and/or tropical countries. Role: co-PI

RFQ3569023203, Burke H, PI (FHI360) 2015/01/15-2017/05/30

FHI360/USAID

Evaluating Economic and Social Empowerment Interventions Zambézia Province, Mozambique

The goal of this subcontract is to conduct population-based surveys and program evaluations of the USAID funded Strengthening Communities through Integrated Programming (SCIP), Women's First activities. This study aims to evaluate the impact of these two programs within SCIP, in terms of the changes in economic and social empowerment of adolescents and young girl participants. Role: PI of Vanderbilt sub-contract

1D71TW010411-01 (Moon, PI) 2016/09/22 - 2017/08/31

FIC

Research Capacity Building in Post Ebola Countries

The University of Sierra Leone, College of Medicine and Allied Health Sciences, in partnership with Tulane University and the Vanderbilt Institute for Global Health; propose to train a new generation of researchers with a focus on implementation science and clinical trial capacity. Our anticipated emphasis will be to

advance clinical and translational health services research focused on efficacy studies of novel and existing therapeutics for endemic viral hemorrhagic fevers like Lassa fever, while simultaneously building indigenous capacity on how to conduct higher-level clinical trial research during an epidemic like Ebola.

Completed Research Support

3R25TW009722-02S1 (Moon, Heitman co-PIs) 2015/01/01 – 2015/12/31
FIC/NIAID

VU-Mozambique Collaborative Research Ethics Education Program-Supplement
The goal of this supplement is to provide capacity building and training to the Mozambican National Institutes of Health on research integrity and the responsible conduct of collaborative research. Role: contact PI

Program Cooperative Agreement (Moon PI) 10/01/2014- 04/30/2015
UNICEF

Baseline evaluation of Vaccine uptake in 2 districts of Zambézia Province
This subcontract was to implement population level surveys of 1500 heads of households in the districts of Milange and Gurúe related to vaccine scale-up and uptake. Role: PI

(Moon PI) 7/01/2014- 04/30/2015

World Health Organization (WHO)
Under 5 Child Health survey of Zambézia Province Mozambique
This population-based survey of 3,892 households was conducted to provide site level information related to Under 5 child health indicators as part of an evaluation of progress towards meeting Millennium Development Goal 4. Role: PI

5U2GPS000631-05 (Vermund, PI) 06/15/2007-06/14/2012
CDC-GAP

Vanderbilt Rural Mozambique Project: PEPFAR-Supported Care and Treatment.
This PEPFAR funded service program provides HIV care, treatment, prevention, surveillance, infrastructure, and training for the Zambézia Province in Mozambique. Role: In-Country Clinical and Research Director

5U2GPS000631-05 (Moon, Brentlinger PIs) 10/01/2011-09/30/2012
CDC-GAP

Public Health Evaluation:
Assessment of the effectiveness of new clinical guidelines for differential diagnosis and management of common HIV/AIDS-related conditions in Mozambique: A country-specific public health evaluation.