CaDERAL Project 1: Details in Cameroon

Co-morbid Cardiometabolic Diseases among people living with HIV/AIDS in Cameroon

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Background

The burden of cardiometabolic diseases (CMDs) is increasing in Sub-Saharan Africa, a region that carries the largest burden HIV/AIDS. Cameroon has the largest burden in Central Africa with an estimated 510,000 people living with HIV/AIDS (PLHIV) in 2019. This PhD project will determine the baseline distribution and trajectories over time of cardiometabolic risk factors (CMRFs) in adult Cameroonians included in the International Epidemiological Databases to Evaluate AIDS (IeDEA) and effects of both traditional and HIV-specific factors, and examine the effects of strategies for handling missing data on those estimates.

Methodology

Systematic reviews will be conducted to 1) Assess the prevalence of CMRFs amongst ART-naïve PLHIV, 2) Investigate the frameworks used to assess causal relationships or mediations in studies on determinants of CMRFs amongst PLHIV, and 3) explore how missing data have been reported and handled in reported studies of prevalent CMRFs. Using data from the IeDEA, we will: 1) Assess the prevalence of CMRFs and determinants with a focus on HIV-specific factors and their mediators; using multivariable logistic regressions and mediation analyses. 2) Assess the incidence of hypertension and incidence and remission of obesity, using Poisson regressions and survival analyses. 3) Determine the trajectories of blood pressure and adiposity over time, and effects of traditional and HIV-specific factors on the observed patterns, using linear mixed-effects models. 4) Assess the effects of different strategies for handling missing data on the prevalence and change of levels of CMRFs over time.

Progress to date

Systematic review protocols have been registered on PROSPERO and/or are under peer-review. External reviewers and Faculty approval has been obtained. Ethical clearance from the Faculty and IeDEA Cameroon data has equally been obtained.

Expected impact

This work will contribute to the body of knowledge that is necessary to plan and organize a robust integration of CMDs prevention and management in routine HIV/AIDS care.

BIOSKETCH: Peter Vanes Ebasone

Doctor Ebasone is a physician and graduate of the Faculty of Health Sciences of the University of Buea. He is a Research Fellow, Research Coordinator and Project leader at the Clinical Research Education Networking and Consultancy (CRENC) in Cameroon.

His key areas of interest are in NCDs and HIV/AIDs research, genomics, development of digital health solutions for less developed countries, Web and Mobile development and UX/UI design, AI, and Big Data for healthcare.

Peter Vanes currently leads the CRENC eLearning and Digital Program.