

## The Prevalence, Incidence, Trends, And Predictors Of Hypertension, Chronic Kidney Disease, And Dyslipidaemia Among People Living With HIV Accessing Antiretroviral Therapy In Lagos, Nigeria

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### Background

Globally 38 million people are living with the Human Immunodeficiency Virus (HIV) infection as of 2020 and over two-thirds of this population reside in sub-Saharan Africa (SSA), making HIV a major public health problem on the continent. The use of antiretroviral therapy (ART) has transformed HIV infection from a death sentence to a chronic disease. This improved longevity of people living with HIV (PLWH) is however accompanied by increased risk of non-communicable diseases (NCDs) and in particularly cardiovascular diseases (CVDs). This study aims to determine prevalence, incidence, and drivers of CVDs among PLWH in Nigeria.

The project is currently being evaluated for ethical approval by the University of Cape Town and NIMR. Concurrently, the protocol for the systematic reviews is being developed. Once the protocols have been concluded, the systematic reviews would be commenced following submission to Prospero for registration.

### Methodology

This is a secondary analysis of prospectively collected data on socio-demographics, laboratory, pharmacy, and clinical profiles of PLWH enrolled at the ART clinic of the Nigerian Institute of Medical Research (NIMR) over 10 years (2010-2019). Adult patients ( $\geq 19$  years) are included in the study. The prevalence and incidence of hypertension, chronic kidney disease (CKD) and dyslipidaemia will be determined. Two systematic reviews will be conducted to assess studies on the development and/or validation of models to predict incident hypertension and CKD as well as prevalent CKD among PLWH. Available risk models predicting incident hypertension and CKD, as well as those predicting prevalent CKD, would be assessed using discrimination and calibration measures to determine its validity in our cohort.

### Conclusion

The study outcome will assist in the early identification of patients likely to develop CVDs' risks and formulate policies towards prevention and reduction of these risks among PLWH.

### BIOSKETCH: Dr. Oluwatosin Odubela

Dr Odubela is a Medical Officer with the Clinical Sciences Department (CSD), Nigerian Institute of Medical Research (NIMR), Yaba, Lagos, Nigeria. He obtained his medical degree (M.B.Ch.B.) at Olabisi Onabanjo University, Ago-Iwoye in 2005 and Master's in Public Health (MSc. Public Health) Epidemiology Option at University of Lagos, Lagos in 2018.

His research interests focus on epidemiological and implementation research in communicable diseases with particular interest in HIV care.

He has been involved in research projects and activities within and outside the institute. Notably, he was part of a nationwide survey of sudden death among adult Nigerians, for which a technical report on the findings has been submitted to the relevant health authorities.

