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ABSTRACT

Background: People living with HIV (PLWH) are at an increased risk of developing additional chronic conditions, globally. In South Africa, the prevalence of HIV Chronic Co-Morbidities (HIV CCMs) ranges from 20% to 60%. Both PLWH and HIV negative people with a family history of chronic conditions and who engage in chronic risk factors - such as smoking, alcohol use, physical inactivity, and poor diet – have an increased risk of developing hypertension and other cardiovascular diseases. Older age, females and low levels of income are other known predictors of HIV CCMs. Further, research shows that Anti-Retroviral Therapy (ART) and duration of HIV infection increase the risk of HIV CCMs. With the growing prevalence (20.4%) of HIV among adults in South Africa and the progress made to initiate all HIV infected persons on ART, the rate of HIV CCMs is expected to rise. The increase in HIV CCMs is a challenge because the treatment and care for patients places strain on the health system. It is associated with increased health costs and resources, both financially and in the use of health services and healthcare providers. More so, HIV CCMs may result in an overall decrease in quality of life and, worse, mortality. Research has identified the levels, factors and consequences associated with HIV CCMs. Therefore, the main objectives of this study are to assess the time taken before adults living with HIV develop a second chronic condition and the challenges experienced by persons living with HIV CCMs in South Africa.

Methods: This study applied a mixed-methods research design. It began by retrospectively analysing longitudinal data from the National Income Dynamics Survey (NIDS). This was done to assess the time (represented by age) before PLWH develop either hypertension, diabetes, cardiovascular disease, stroke, or cancer. The data comprises of five waves between 2008 and 2017. The target population was adults aged 18 – 75 years' old who were HIV positive at wave 1 (n=95 701) and developed any of the chronic conditions by wave 3 (2015) or wave 5 (2017). Analysis was conducted in STATA using the Cox Proportional Hazard Models. Further, to understand challenges pertaining to prevention, access to treatment and management faced by persons living with of HIV CCMs, in-depth interviews using a phenomenological approach were conducted with HIV CCM diagnosed patients as well as healthcare providers.

Results: In this study, out of all chronic conditions assessed, PLWH were at higher risk of hypertension (10.59%). The outcomes of the Kaplan Meier estimates show that the risk of developing HIV and hypertension Comorbidity is highest between the ages 30 – 46 years. In other words, a person diagnosed with HIV between the age of 15 - 24 is likely to become at risk of hypertension at minimum after 15 years of HIV diagnosis if diagnosed at the age of 15 and remain at risk for over 15 proceeding years. Results from the adjusted Cox model show that none of the demographic and socio-economic (marital status; level of income; level of education; place of residence; ethnicity; religion) and health characteristics (alcohol and tobacco use; exercise, perceived health status and last doctor's consultation) were significantly associated with the development of hypertension adults living with HIV in this study. Additionally, the interviews with the HCWs and patients show that lack of adequate information on the prevention of HIV CCMs, polypharmacy, stigma, unemployment, and long travel distance to the health facility are barriers for the prevention and management of HIV CCMs for patients. At a health system level, limited staff capacity and lack of training in the delivery of the Integrated Chronic Disease Model (ICDM) threaten the ability of healthcare providers to adequately treat and care for persons living with HIV CCMs.

Conclusion: This study concludes that HIV infected persons need to routinely screen for chronic diseases, especially hypertension during ART consultation. These screening services, HIV and chronic disease prevention programmes should include all persons infected with HIV, particularly the youth who have shown to be at increased risk of not only HIV but hypertension Comorbidity as well. This should be done in order to assist them to prevent the development of HIV CCMs. Educational institutions organisations should be engaged in HIV and chronic prevention initiates as they are a trusted source of information for young people. As a step to address some of the socio-economic challenges affecting persons with HIV CCMs, HIV and chronic disease programmes in South Africa can invest in transferring HIV and chronic care services from the clinic to the home and providing food aids. Finally, the ICDM model in South Africa needs to be strengthened by increasing training initiatives, ensuring that the training and guidelines are standardized, and investing in health and promotion.