DIABETES AND PRE- DIABETES AMONG HIV-POSITIVE PERSONS AGED 18 YEARS AND ABOVE IN KABAROLE DISTRICT: PREVALENCE AND ASSOCIATED FACTORS

BY: RUHINDA NATHAN

REGISTRATION NUMBER: 2014/HD07/1548U

SUPERVISORS

ASSOC. PROF. DAVID GUWATUDDE

Department of Epidemiology and Biostatistics

Makerere University, School of Public Health

DR. JOAN MUTYOBA

Department of Epidemiology and Biostatistics

Makerere University, School of Public Health

A DISSERTATION SUBMITTED TO SCHOOL OF PUBLIC HEALTH FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTERS DEGREE IN PUBLIC HEALTH OF MAKERERE UNIVERSITY

September, 2016

ABSTRACT

Background: The relationship of HIV-AIDS and NCDs is a complex web that includes; the effect of ART therapy and its associated metabolic disorders, nutritional counselling given to HIV/AIDS patients and the lifestyle exhibited by HIV/AIDS patients (Hagos, 2015) (Ga & Wunamir, 2015).

Objective: The study aimed at determining the prevalence of diabetes and pre-diabetes and the factors associated among persons aged 18 years and above living with HIV/AIDS in Kabarole district.

Methods: This was a health facility based cross sectional study that was conducted in 16 ART clinics in Kabarole District. A total of 480 participated in the study. Data was collected using the WHO STEPS tool.

Results: The prevalence of diabetes among persons aged I8 years and above was 2.5% whereas that of pre- diabetes was 10.2%. Body Mass Index (BMI) was significantly associated with both pre-diabetes and diabetes. Participants whose BMI was $\geq$25.0kg/M^2 were about 10 times likely to be found with pre-diabetes compared with their counterparts with a BMI $\leq$24.9kg/M^2 (aOR 9.6 95% CI 4.00-23.00). Among participants that were found with diabetes a BMI $\geq$25.0kg/M^2 increased the likelihood by about 16 fold (aOR 15.5 95%CI (2.58-98.96) compared with those with a BMI $\leq$24.9kg/M^2. Participants that had a high blood pressure were 27 times likely to be diabetic compared to their counterparts with normal blood pressure(aOR 26.81 95%CI 4.43-162.33). Urban residents were about 4 times more likely to have pre-diabetes compared to rural residents (aOR 3.75 95%CI 1.58-8.93). Similarly participants that had ART regimens containing Zidovidin (AZT) were 2 times more likely to be diagnosed with Pre-Diabetes compared to those with Tenefovir (TDF) containing regimens (aOR 2.84 95%CI 1.07-7.57).

Conclusion: Body mass index is a strong predictor of diabetes and pre-Diabetes but the association is stronger with diabetes. HIV patients taking AZT containing regimens have about 2 times more the risk of developing abnormal glucose regulation (Pre-Diabetes) compared to those on TDF based regimens.