Thesis Title: A population based epidemiological study on the prevalence and risk factors of cardiovascular diseases in The Gambia

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Thesis Abstract

Introduction

Non-communicable diseases (NCDs) account for 70% of global deaths, 80% occurring in low- and middle-income countries. This study aimed to assess the magnitude of NCDs in Sub-Saharan Africa (SSA); estimate the prevalence and associated risk factors of hypertension, obesity and smoking in The Gambian adult population (25-64 years); and assess the clustering of NCD risk factors in the country.

Methods

I conducted a systematic review of WHO STEP surveys conducted in SSA and undertook secondary analysis of the nationally representative 2010 WHO STEP cross sectional survey data of The Gambia. Analyses were restricted to non-pregnant participants with three valid blood pressure measurements (n=3573) and valid weight and height measurement (n=3533) for the analyses on hypertension and obesity respectively. The analysis on smoking was restricted to men (n=1766) and that of clustering included participants with valid information on all five NCD risk factors (n=3000). I conducted gender-stratified univariate and multivariate regression analyses to identify the strongest factors associated with each of my outcome variables.

Results

The prevalence of hypertension and CVD risk factors are high in SSA. Almost one-third of adults in The Gambia were hypertensive, two-fifths were overweight/obese and 30% had three or more risk factors. Rural and semi-urban residents and overweight/obese persons had increased odds of hypertension. Urban residence was associated with obesity and was also associated with the clustering of three or more risk factors.

Conclusions

Rural residence was strongly associated with hypertension but urban residence was associated with obesity and clustering of risk factors in The Gambia. Intervention to reduce the burden of hypertension in The Gambia could be further targeted towards persons living in rural areas. Preventive efforts should focus on diet and possible socio-cultural factors that might facilitate the increasing burden of hypertension, obesity and the clustering of risk factors. These unique findings generate new hypotheses that should be explored further.

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