

Well-being, Social Cohesion and Dietary Intake of People Living with Non-communicable Diseases: Results from World Health Organization Study on Global Ageing and Adult Health, Ghana

## **EXTENDED ABSTRACT**

### **Introduction**

The quest to find the primary cause of most non-communicable diseases (NCDs), their cure and preventive measures has so far been unsuccessful (Barker 2012). Although NCDs are experienced across all age groups, there is a disproportionate impact adult and the aged (Daar et al 2007). That notwithstanding few studies in the sub-Saharan Africa have examined how NCDs affect the subjective well-being of the adult and aged population. Given that the region is currently experiencing population aging and an upsurge in NCDs, studies on the NCDs, recommended lifestyle modification and well-being becomes important (Dalal et al 2011, Kalasa 2001). This study aimed firstly, to examine the relationship between individuals NCD Status and their subjective well-being. Secondly, the influence of selected sociodemographic characteristics, social cohesion, fruits and vegetables intake of individuals living with NCDs on their subjective well-being is also investigated.

### **Methods**

*Data:* Data employed for present analysis was cross-sectional (SAGE Wave 1, Ghana) which was collected via in-person structured interviews. For a nationally representative sample, household-level and person-level analysis weights, based on the selection probability at each stage of sampling along with post stratification corrections were applied.

*Sample:* The sample in this study was adults aged 18 years and over. There were 5,573 observations. This comprised of 1,391 individuals living with at least an NCD and 4,182 individuals not living with an NCD.

*Variables used.* Dependent variables: Two dependent variables—individuals NCDs Status and Subjective well-being (SWB). Individuals diagnosed with at least one of the following; Arthritis, Stroke, Angina, Diabetes, Chronic lung disease, Asthma and hypertension were considered to being living with an NCD. Subjective well-being and (SWB) was derived from response given to the question “Taking all things together, how would you say you are these days? Are you... (4= Very happy, 3= Happy, 2= neither happy nor unhappy, 1=Unhappy, 0= Very unhappy)?

Independent variables: Some independent variables explored were, age, educational status of the respondent and marital status and religious affiliation. Whether or not the respondent was taking his/her medication 2 weeks prior to data collection day, and the number of servings of fruits and vegetables per day was also controlled for. Respondents social cohesion status / score was access

by the frequency for which an individual is involve/participate in community events such as; attain community meetings, working with other people in the neighborhood to improve something, attain weddings, funerals and socialize with coworkers or visits friends and family.

*Statistical analyses*

Descriptive statistics for socio-demographic variables are presented as proportions. Ordinal logistic regression was employed to examine predictors of the well-being. Diagnostic checks were undertaken on models and no violations of assumptions were found. STATA Version 13 (StataCorp, 2009) was used for all statistical analyses. All associations were tested at 95% confidence intervals.

**Results**

*Background characteristics*

Table1 presents a description of selected respondent characteristics. About two-thirds of the respondents were married. Majority (approximately 64%) of the sample belonged to the Christian faith. Individuals with no formal education were about fifty-five percent. Individuals living with at least one NCD constituted a quarter of the sampled population.

**Table 1:** Descriptive Statistics of selected variables used in the empirical model

<b>Variables</b>	<b>Percentage (Number)</b>
Marital status	
Married	59.4 (3,308)
Single	40.6 (2,265)
Religion	
Christians	63.6 (3,546)
Islam	14.3 (797)
Other	22.1 (1,230)
Education	
No education	54.7 (3,050)
Primary	21.4 (1,192)
Secondary	20.6 (1,146)
Tertiary and above	3.32 (185)
Non communicable disease (NCDs) status	
With an NCD	75.0 (4,182)
Without NCD	25.0 (1,391)
Age <sup>1</sup>	60.2 ± 14.1

All value represent percentage (Number) except otherwise indicated

<sup>1</sup>Represent Mean ±SD

Approximately 40% had not taken any form of medication or treatment 2 weeks prior to the data collection. Having an NCD negatively predicts SWB (p≤0.001). Among individuals with NCDs, significant positive predictors of SWB were respondents’ increased involvement in community and social events (p≤0.001); having secondary or tertiary education -compared to no education (p≤0.001); and being married (p≤0.046).

*Predictors of Subjective well-being among individuals with NCDs*

Results of the regression presented in Table 2, indicates that in our study sample, the education status of respondents, social cohesion and religious affiliation and being a male predicted the subjective well-being of individuals with NCDs.

Social cohesion- Result implies that an increased involvement in community and social events by individuals with NCDs improves their well-being. Specifically a unit increase in the social cohesion score, increases the odds of a higher well-being classification by 1.05 times, given the other variables held constant.

Formal education - Compared with respondents with no education, respondents with a secondary and tertiary education were 1.63 and 2.40 times more likely to have improved well-being respectively.

Religion- Muslims were 1.70 more likely to have an improved wellbeing compared to individuals belonging to other religious faith besides Christianity.

Fruit Intake-A unit increase in the number of servings of fruit intake by individuals living with NCD increase the likelihood of a higher well-being classification by 1.21 times.

**Table 2:** The effect of social cohesion and selected sociodemographic factors on the subjective well-being of people living with NCDs

	Subjective well-being		
	Odds Ratio		Std. Error
<b>Social cohesion</b>	1.052	***	(0.008)
<b>Fruits intake</b>	1.214	***	(0.038)
<b>Formal education</b> (ref: no education)			
Primary	1.005		(0.140)
Secondary	1.630	***	(0.238)
Tertiary	2.368	***	(0.627)
<b>Religion</b> (ref: Other)			
Christian	1.246		(0.228)
Islam	1.696	**	(0.390)
<b>Married</b> (=1, 0 otherwise)	1.232	*	(0.158)
<b>Male</b> (=1, 0 otherwise)	0.755	**	(0.100)
N	1332		

$Pseudo R^2 = 0.028$ ; Log likelihood = -1543.22

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Significance at 1 percent \*\*\*; 5percent level\*\*; 10 percent \*

### **Conclusion and policy implication**

The current study buttresses the emerging burden of NCDs in sub-Saharan Africa, particularly in the Ghanaian context, and its impact on well-being. Findings of this study call for policies and/or programs to improve the social cohesion of people living with NCDs and increased intake of fruits to enhance their well-being. Findings may also calls for the exploration of systems of support within different social groups, example religious groups that improves the well-being of people with NCDs.

### **Reference**

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