DISEASES OF AGEING IN GHANA

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Conflict of Interest: None declared

SUMMARY

Objective: The objective of the paper was to outline the chronic non-communicable disease burden of older adults and predict the odds of living with a chronic non-communicable disease in Ghana.

Design: The paper utilized descriptive and analytical statistical methods to assess the level of chronic non-communicable diseases among older adults.

Setting: Data from the Study on Global Ageing and Adult Health (SAGE) conducted in 2005 in Ghana were used. It comprises 507 individuals aged 50 years and over across the country.

Results: The result shows that 45% had oral health problems, 33% were hypertensive, 14% reported having arthritis; 7% had been diagnosed with diabetes , 6% had a cardiovascular condition (Angina) and 4.9% were receiving treatment for stroke or had been diagnosed with stroke. The odds ratio of having a chronic non-communicable condition for those who lived in a rural area was twice as likely as those who reside in an urban area.

Conclusions: Chronic non-communicable disease will have significant health and economic implications for the individual, family and the country. The paper posits that the prevalence of chronic non-communicable diseases among the elderly in the country will increase.

Keywords: Ageing population, older adults, chronic non-communicable diseases, Rural-urban differences, Ghana.

INTRODUCTION

Population ageing remains both a success story and a public health challenge.[1,2,3] Extensive research shows that the number of older adults 60 years and over will grow rapidly in developing countries more than anywhere in the world.[4,5,6,] Ageing is seen as a global challenge which will impact developing countries greatly; therefore investing in health during the life course will ensure that a good number of people reach old age in good health.

Murray argues that people seek healthcare in the developed world largely due to chronic non-communicable diseases.[7] In 2002, cardiovascular disease, cancer, chronic respiratory disease and diabetes cumulatively caused 29 million deaths worldwide.[15] Yach *et. al.* 2004, estimate that chronic non-communicable diseases are going to be the largest cause of death in the world by 2025.[8] Less developed countries of Africa, Asia and Latin America will experience the biggest impact of this rising global burden of chronic diseases.[9]

In a review of the burden of chronic disease in Ghana, de-Graft Aikins noted that in 2003, stroke, hypertension, diabetes and cancers had become top ten causes of death in Ghana.[10] Yet, policy makers and individuals considered chronic conditions to be uncommon and therefore not a public health threat.[10] Generally, the incidence of chronic non-communicable diseases increases rapidly with advancement in age.[7,11,12,] A study conducted among the elderly in Accra showed that major health problems for which older adults sought care in health centres were hypertension, stroke, diabetes and arthritis.[13]

Chronic diseases cause severe disruptions to lives and livelihoods. In Ghana, research shows that "diabetes caused disruption to body-self, social identity, family/social relationships, economic circumstance and nutrition".[14] This finding is important within the context of older adults who are vulnerable during the later stages of life.[1,14]

A key question in the ageing literature that remains unresolved is what proportion or of aspects of mobility loss could be attributed to the ageing process and what proportion could be associated with independent diseases? [11,12]

The objective of the paper is to outline the chronic non-communicable disease burden of the older adults and predict the odds of living with a chronic non-communicable disease in Ghana.

METHODS

The data used were drawn from the World Health Organization Study on Global Ageing and Adult Health (SAGE) conducted in 2005. The data were derived

from a pilot study conducted in Ghana with a sample size of 507 respondents. This represented a nationally representative sample of cohort of older adults aged 50 years and older. The protocol used consisted of a household roster which obtained information on demographic and socio-economic characteristics of households. Respondents aged 50 and over were interviewed using standard structured survey instruments to obtain information on self-reported general health status. Questions were asked on some common chronic conditions such as; cardiovascular diseases including hypertension, stroke and diabetes; others include arthritis, cancer, and mental health conditions.

Several studies have defined older adults as persons aged 60 years and above.[2,15,16,17] However, in this study, persons in the age group 50 to 59 years were included in the study because this age group is close to the 60+ category; they also served as a control group to compare those aged 60 years and above.[15] Independent variables used in the study included: the age, sex, marital status, type place of residence, religion affiliation, ethnicity, education, occupation, wealth quintiles, and risk factors associated with respondents. The dependent variable was conceptualized as whether a respondent was currently living with a chronic non-communicable disease or not.

Data analysis
Descriptive and analytical statistical techniques were used to assess the levels of chronic non-communicable diseases. Descriptive statistics were used to highlight differentials according to background characteristics. A binary logistic regression model was used to predict the chances of an older adult living with chronic non-communicable disease controlling for other contextual factors considered in the study.

RESULTS
Table 1 shows background characteristics of the respondents. The result shows that persons in the age group 50-59 years constituted the majority of older adults in Ghana with the oldest (80+ years old) constituting the least. In terms of the sex of respondents, a ratio of 1: 0.82 for female – male distribution was revealed. Two out of five of the elderly reported to have had at least primary education with 36% having no formal education. Almost all (99%) of the respondents were currently married or ever been married with more than half (56%) currently married or cohabiting. Approximately 41% of the respondents were in the poor wealth quintile with almost the same proportion (39%) in the rich quintile.

Table 1: Distribution of Respondents by Background Characteristics

Background Characteristics	Number	%
Age		
50-59	240	48.1
60-69	139	27.9
70-79	86	17.2
80+	34	6.8
Sex		
Male	226	44.6
Female	281	55.4
Education		
No formal education	181	35.8
Primary education	197	38.9
Secondary education	107	21.1
Higher education	21	4.2
Marital Status		
Never married	6	1.2
Married/Cohabiting	282	55.7
Separated/Divorced/Widowed	218	43.1
Occupation		
Professional	43	14.0
Clerical/Technician	17	5.5
Services/Sales	104	33.8
Agriculture/Fishery	44	14.3
Other	100	32.5
Wealth Quintile		
Poor	199	40.9
Middle	98	20.2
Rich	189	38.9
Type place of residence		
Urban	256	75.5
Rural	83	24.5
Religion		
Muslim	54	10.7
Catholic	50	9.9
Protestant	277	54.7
Other	125	24.7
Ethnicity		
Akan	137	27.1
Ga/Dangme	215	42.5
Ewe	88	17.4
Other	66	13.0
Total	507	100

Source: (SAGE, 2005)

The results showed that 45% of respondents had oral health problems, 33% were hypertensive, 14% reported having arthritis, 7% had been diagnosed with diabetes , 6% had a cardiovascular condition (Angina) and 4.9% were receiving treatment for stroke or had been diagnosed with stroke.

Table 2 shows a binary regression output that predicts whether an older adult was living with a chronic non-communicable disease based on a set of background characteristics and risk factors considered in the model. The results from the model showed that, only type place of residence was a significant predictor of whether an elderly person was living with a chronic non-communicable disease or not.

The rest of the predictive variables were not statistically significant in the model at alpha level of 0.05. The whole model explained 26.5% of the proportion of variation in the outcome variable. The odds ratio of having a chronic non-communicable condition if one lived in a rural area was twice as likely compared to those who resided in an urban area.

Table 2 Binary logistic regression predicting whether an older adult is living with a chronic non-communicable disease or not.

Independent Variables	B	S.E.	P value	Exp(B)	95.0% C.I. for EXP(B) Lower	Upper
Age						
50-59			0.080			
60-69	-1.361	1.431	0.342	0.256	0.016	4.236
70-79	-0.818	1.458	0.575	0.441	0.025	7.683
80+	1.272	1.760	0.470	3.569	0.113	112.359
Sex						
Female	-0.625	0.423	0.139	0.535	0.234	1.226
Education						
No formal education			0.294			
Primary education	-1.288	0.930	0.166	0.276	0.045	1.705
Secondary education	-1.048	0.798	0.189	0.351	0.073	1.675
Higher education	-0.264	0.764	0.730	0.768	0.172	3.435
Marital Status						
Never married			0.980			
Married/Cohabiting	-0.079	1.784	0.965	0.924	0.028	30.506
Separated/Divorced/Widowed	0.083	0.450	0.854	1.087	0.449	2.627
Type place of residence						
Rural	0.885	0.445	0.047*	2.423	1.013	5.795
Wealth quintile						
Poor			0.244			
Middle	0.859	0.522	0.100	2.360	0.848	6.567
Rich	0.151	0.520	0.771	1.164	0.420	3.226
Occupation						
Professional			0.305			
Clerical/Technician	0.489	0.577	0.397	1.630	0.526	5.053
Services/Sales	-0.465	0.691	0.501	0.628	0.162	2.432
Agriculture/Technician	0.127	0.478	0.790	1.136	0.445	2.896
Other	-1.166	0.696	0.094	0.312	0.080	1.218
Ethnicity						
Akan			0.611			
Ga/Dangme	0.725	0.689	0.293	2.065	0.535	7.965
Ewe	0.448	0.734	0.542	1.566	0.371	6.604
Other	0.830	0.706	0.240	2.292	0.575	9.143
Religion						
Muslim			0.062			
Catholic	2.125	1.001	0.034*	8.370	1.178	59.492
Protestant	0.227	0.648	0.726	1.255	0.352	4.471
Other	-0.420	0.489	0.391	0.657	0.252	1.714
Constant	1.158	1.942	0.551	3.184		

Source: (SAGE, 2005) *P<.05 r^2=26.5

DISCUSSION

The reported study profiled the diseases of individuals aged 50 years and over in Ghana. The result shows that majority of the respondents (48%) were in the age group 50¬59 years and many had either no education or only primary education. Additionally, majority of the respondents (56%) were either currently married or cohabiting.

A key limitation of this study is the small sample size used for analysis which does not allow for generalizations about the ageing population of Ghana. However, the analysis has revealed a number of insights. Mba found that the increase in the number of older adults had not had a corresponding increase in social care.[6] Chronic conditions affect the quality of life of older adults and contribute to disability and reduce their ability to live independently.[18,19] Chronic non-communicable disease literature notes that hypertension and osteoarthritis are the most frequent chronic diseases among older adults.[20,21]

The results from the paper showed that 14% had Arthritis, 5% had stroke, 6% had Angina, and 7% had diabetes. Hypertension and Oral health problems were the highest reported chronic conditions, at 33% and 45% respectively. The results from the regression model showed that type of place of residence, having controlled for other factors, was a significant predictor of an older adult living with a chronic non-communicable disease.

The odds ratio of living with a chronic non-communicable condition if one lived in a rural area was twice as likely as compared to those who reside in urban setting. This result may be partly explained by the census data of Ghana, which has consistently shown that majority of the population, reside in rural areas. Also migration to urban centers is age selective; usually young people migrate from rural to urban areas in search of jobs. Therefore the rural areas may have a higher concentration of older adults compared to the urban areas.

The paper recommends the following policy actions based on the finding that prevalence levels of non-communicable diseases will be elevated among the elderly population. The country should expedite action on the ageing bill which is at the drafting stage, which would serve as a framework to provide long term care for the elderly who are likely to be living with a number of disabilities.

Apart from hypertension and diabetes that are mentioned in the National Health Insurance policy, the rest of the chronic non-communicable diseases which affect the elderly were not mentioned explicitly. Efforts should be made to include the rest of the chronic non-communicable diseases because they affect the elderly who are most vulnerable. Further research is needed to understand the interactions between, morbidity and health seeking behaviours among the older adult population.

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