

Financial Access to Healthcare among Persons with Disabilities in the Kumasi Metropolis, Ghana

Eric Badu^{1*}, Maxwell Peprah Opoku¹, Seth Christopher Yaw Appiah²,
Elvis Agyei-Okyere³

1. MSc Disability, Rehabilitation and Development, Department of Community Health, Centre for Disability and Rehabilitation Studies, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

2. MPhil Sociology (Student), Department of Sociology and Social Work, KNUST, Kumasi, Ghana

3. MSc Development Planning and Management, Department of Planning, KNUST, Kumasi, Ghana

ABSTRACT

Purpose: According to the World Health Organisation, 10% to 15% of the population of every developing country lives with disability. This amounts to about 2.4 - 3.6 million Ghanaians with disability. Since their contribution is important for the development of the country, this study aimed to assess the financial access to healthcare among persons with disabilities in the Kumasi Metropolis of Ghana.

Methods: A cross-sectional study, involving administration of a semi-structured questionnaire, was conducted among persons with all kinds of disabilities (physically challenged, hearing and visually impaired) in the Kumasi Metropolis. Multi-stage sampling was used to randomly select 255 persons with disabilities from 5 clusters of communities - Oforikrom, Subin, Asewase, Tafo and Asokwa. Data analysis involved descriptive and analytical statistics at 95% CI using SPSS software version 20.

Results: There were more male than female participants, nearly one-third of them had no formal education and 28.6% were unemployed. The average monthly expenditure on healthcare was GHC 21.46 (USD 6.0) which constituted 9.8% of the respondents' income. Factors such as age, gender, disability type, education, employment, and whether or not they stayed with family members had significant bearing on the average monthly expenses on healthcare ($p < 0.05$). Transportation cost, the travel distance to facilities, and the regular sources of payment for healthcare, had significant relationship with access to healthcare ($p < 0.05$). Although about 63.5% of the respondents used the National Health

* **Corresponding Author:** Eric Badu, Department of Community Health, Centre for Disability and Rehabilitation Studies, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana. Email: badu3eric@gmail.com

Insurance Scheme as the regular source of payment for healthcare, 94.1% reported that sources of payment did not cover all their expenses and equipment.

Conclusion: *Financial access to healthcare remains a major challenge for persons with disabilities. Measures to finance all healthcare expenses of persons with disabilities are urgently needed to improve their access to healthcare.*

Key words: *persons with disabilities, financial access, Kumasi Metropolis*

INTRODUCTION

In every society persons with disabilities seem to have lower incomes, complex health conditions and limited access to healthcare. Worldwide, 52% of persons with disabilities lack access to healthcare due to their inability to afford the visit, as compared to 32.8% of the population without disability (World Health Organisation, 2011). Therefore, financing healthcare for persons with disabilities receives much attention in international regulations and policies. For instance, the UN Convention on the Rights of Persons with Disabilities (CRPD) (2006) recognises the demand for accessibility as a way of creating equal opportunities for persons with disabilities in all aspects of life, including financial access to healthcare. The World Report on Disability also emphasises the need to ensure that persons with disabilities get the same variety, quality, and standard of free and affordable healthcare as the population without disability (WHO, 2011). In Ghana, section 31 of the Disability Act 2006 mandates the formulation of policies to provide “free general and specialist medical care, rehabilitative operation treatment and appropriate assistive devices for Persons with Disabilities” (Mensah et al, 2008). It is important to understand financial access to healthcare in order to inform policy actions. However, going by the limited special provisions for persons with disabilities in the National Health Insurance Scheme (NHIS), there appears to be limited information on the subject in Ghanaian society.

Financial accessibility is seen as the economic status of an individual that determines the ability to afford the cost of health service. Poor individuals, including persons with disabilities, are not able to mobilise revenue towards healthcare, which is attributed to the fact that they are mostly unemployed and this affects their participation in insurance schemes (Preker and Carrin, 2004). These individuals are therefore limited in contributing to decisions that affect their healthcare and as such may be excluded from the health system (Xu et al, 2006; Peters et al, 2008).

In general, researchers have established the fact that disability seems to have a direct relationship with poverty and access to healthcare in resource-poor settings (Elwan, 1999; Lwanga-Ntale, 2003). Therefore, gaining access to healthcare becomes difficult for the poor, especially for persons with disabilities. Studies have demonstrated that physical proximity and the client's ability to afford health services constitute the two major reasons why vulnerable groups like persons with disabilities in developing countries do not obtain healthcare (World Health Organisation, 2013). The cost of transportation and travel time may create barriers to healthcare for those who live at a distance from the services point. For instance, Apoya and Marriott (2011) assert that one-fourth of the Ghanaian population lives over 60 kms away from a health facility. Persons with disabilities who are unable to meet the transport costs may find this a barrier to healthcare. On this basis, Muderedzi and Ingstad (2011) posited that persons with disabilities are at high risk of developing health-related problems. This means they are unlikely to lead healthy lives and will suffer the corresponding consequences - unemployment, lower incomes, malnutrition and developing different types of diseases (Fitzgerald, 2007; WHO, 2011). For this reason, the marginalised groups who are described as poor and persons with disabilities find their way to the traditional healers (Last, 1988; Brocklehurst and Costello, 2003).

Furthermore, not all persons with disabilities have the same health needs. Some persons with disabilities require regular medical check-ups, rehabilitative (therapy services) and assistive services (DeJong et al, 2002). Financial access to healthcare may therefore limit and delay persons with disabilities from getting the regular care they need (DeJong et al, 2002; Lee et al, 2012). A recent study by Grutet al(2012), however, identified that it is essential to consider certain factors when delivering healthcare to persons with disabilities who are located in resource-poor settings. Their history, resources, needs and the capabilities of their family members should be significantly noted.

In addition, the type of healthcare required by persons with disabilities and the severity of their condition (DeJong et al, 2002) may have an influence on financial access to healthcare. While costs associated with the care of certain health conditions can be borne, to some extent, by most persons with disabilities and their families, it could be a huge financial burden for some (Scheer et al, 2003; Drainoni et al, 2006). Studies have suggested that conditions including mental disability, musculoskeletal disease, dementia, stroke and cancers are the ones with maximum healthcare costs (Meerding et al, 1998; DeJong et al, 2002; Polder et al, 2002).

Healthcare Financing in Ghana and Persons with Disabilities

Ghana is one of the nations with a Health Insurance scheme. In 2003, this policy was introduced under the Health Insurance Act 650, in place of the “cash and carry” system which demands that clients make out-of-pocket cash payment at the point of service before gaining access to health services (Abebrese, 2011; Brugiavini and Pace, 2011; Gobah and Zhang, 2011; Addae-Korankye, 2013). The primary objective of health insurance was to make healthcare affordable and increase the general utilisation of drugs and healthcare, particularly among the most vulnerable. Insured individuals have the opportunity to use outpatient facilities and public providers, especially in lower-income communities (Jowett et al, 2004). According to a study by Ansah et al (2009), individuals in Ghanaian society who are enrolled in health insurance have a better chance to visit clinics, obtain prescriptions and seek formal healthcare. Pregnant women also have the option of utilising prenatal care, giving birth in a hospital, and having skilled attendants present during delivery (Mensah et al, 2010). Witter and Garshong (2009) also found that outpatient attendance per capita had increased significantly in Ghana after the introduction of the NHIS in 2005.

According to the Ghana Federation of the Disabled (GFD), this policy is intended to remove financial barriers to healthcare for the poor in Ghanaian society; however, persons with disabilities do not realise it due to some conditions related to exemption criteria. According to these conditions, persons with disabilities will be exempted from paying the subscription fee only on condition that they are classified as being poor. In some circumstances, exemption is granted subject to payment from the Disability Common Fund (DCF). In addition, according to the GFD, the insurance covers only some accidents and most ordinary diseases, leaving out rehabilitation services and assistive devices from the insurance scheme (Ghana Federation of the Disabled, 2013).

A study conducted by Addae-Korankye (2013) on challenges of financing healthcare in Ghana showed that criteria for identifying the marginalised and the poor for exemption to pay NHIS have been ineffective and unsuccessful. The Alliance for Reproductive Health Rights reported that the NHIS in Ghana poses inequality, inefficiency and discrimination to the poor in society. Recognising the tax system in Ghana as progressive, the poor including persons with disabilities pay equally like the rich for about 15% of the tax which is allocated to the health sector.

In Ghana, there is inadequate information on financing healthcare among the vulnerable groups, particularly persons with disabilities. Inadequate financing mechanisms that fully support their healthcare, coupled with limited employment opportunities for independent living, pose serious challenges to persons with disabilities and their family members (Mensah et al, 2008).

Objective

This study seeks to provide evidence on financial access to healthcare among persons with disabilities, in order to inform policy on disability and health in the Kumasi Metropolis in Ghana.

METHODS

Study Setting

The study was conducted in the Kumasi Metropolis of Ghana, located in the forest zone and covering a total land area of 254 square kilometres (25,415 hectares). The metropolis is divided into 10 sub-metros, namely, Asokwa, Asewase, Bantama, Suame, Manhyia, Oforikrom, Tafo, Nhyiaeso, Subin and Kwadaso. As of 2010, the resident population was 2 million people with an inter-censal growth rate of 5.4%.

Kumasi metropolis is endowed with 189 health facilities, ranging from teaching hospitals to clinics. Of these, 91% are managed by private individuals. Doctor-Client and Nurse-Client ratios in the city are 1:4 and 1:8 respectively. About 81% of the population is registered under the National Health Insurance Scheme (NHIS). This arguably makes healthcare affordable in the metropolis. Over 60% of people who attend the OPD (outpatients' unit) are malaria cases, making it predominant in all the health facilities in the metropolis. There is no available data on the total number of persons with disabilities who benefit from healthcare through the NHIS each year.

Study Design, Methods and Sampling

A cross-sectional design with quantitative data collection method was employed among persons with disabilities in the Kumasi Metropolis of Ghana. The study enrolled a total of 255 persons with disabilities - physically challenged, hearing and visually impaired. Multi-stage sampling was used to randomly select 5 out of 10 clusters of communities based on the definition of sub-metro, including Oforikrom, Subin, Asokwa, Tafo and Asawase. The investigator and the research

team also used simple random sampling to select participants who were from these communities. Persons with disabilities in all the clusters were made to pick from a box which had papers with either “Yes” or “No” written on them. All those who picked a “Yes” and gave their consent were enrolled. This was repeated to obtain the required sample size. In each cluster, a snowballing technique was also used to zone households and streets in selected communities. The aim and procedures of the study were explained to all the persons with disabilities who were approached, and they were free to decide whether or not to participate. The inclusion was partly based on those who were accessible and could provide information on the topic of interest.

A structured questionnaire was administered to respondents. The questions focussed on background characteristics and issues pertaining to financial access to care. Background information included the community of residence, age, gender, occupation, education, religion and whether they were living with their family members. Questions on financial access related to the time it takes persons with disabilities to reach the facility, transportation, monthly expenditure on care, sources of payment and the coverage of expenses. The inclusion criteria included persons with disabilities of age 16 years and above, who stayed in the study area and accessed healthcare in the last 12 months within the metropolis.

Data Collection

The questionnaire was developed in English but administered in the respondents’ preferred dialect - English, Sign language or Asante Twi. A professional interpreter volunteered to assist in the study. Prior to implementation, the Principal Investigator (PI) organised a two-day training on the study tools, for 2 research assistants who were studying MPhil Sociology and MSc Disability, Rehabilitation and Development. The PI along with the 2 research assistants conducted the field work. The data was collected over a period of 2 months (February – March, 2014) to allow time to reach all participants. However, each participant spent approximately 40 minutes to answer the questions.

Data Analysis

Results of the analysis were generated using descriptive and analytical statistics. Data analysis involved the estimation of percentage of socio-demographic characteristics of respondents. The distribution of factors pertaining to financial access to healthcare, including the time taken to reach the facility, amount

spent on transportation, monthly expenditure on healthcare, regular source of healthcare and payment, were again estimated using percentages and frequency. The analyses of association between financial access and healthcare access were estimated using the Chi-square tests of significance of association. Also, one-way ANOVA was used to compare mean monthly expenditure on health among various socio-demographic characteristics of respondents. Significance was set at p-value of less than 0.05.

Ethical Consideration

The KNUST Committee for Human Research Publication and Ethics reviewed and cleared the study protocols prior to the implementation of the study. Before they were enrolled in the study, potential participants were given the translation of a written informed consent and an explanation in a language they understood well.

RESULTS

Background Characteristics of Respondents

The background characteristics of respondents are presented in Table 1. The study was conducted among 3 different disability groups, which included physically challenged and hearing and visually impaired persons. Out of 255 respondents, 85 each were from the 3 disability groups. Half (50.6%) of the respondents were males. The mean age of the respondents was 38 years. A little over one-third (34.5%) of them had no formal education, while the rest had Junior High School, Senior High School and tertiary education. While the majority of the respondents (28.6%) were unemployed, the remaining were government/civil servants, trading, farming or in apprenticeships. With respect to religion, the majority (85.1%) were Christians. Most respondents were living with their family members.

Table 1: Background Information of Respondents

Variable	Frequency	Percentage (%)
Community of Resident		
Oforikrom	49	19.2
Subin	50	19.6
Asawase	51	20.0
Tafo	55	21.6
Asokwa	50	19.6

Gender		
Male	129	50.6
Female	126	49.4
Age*		
≤20	10	3.9
21 – 30	46	18.0
31 – 40	107	42.0
41 – 50	41	16.1
>50	51	20.0
Disability Type		
Physical disability	85	33.3
Blind	85	33.3
Deaf	85	33.3
Employment		
Government/Civil Servant	28	11.0
Trading	40	15.7
Farming	28	11.0
Apprenticeship/Craft	55	21.6
None	73	28.6
Other	31	12.2
Educational Level		
No formal education	88	34.5
Primary	41	16.1
JSS/Middle School	43	16.9
SSS/Vocational School	39	15.3
Tertiary	43	16.9
Others	1	0.4
Religion		
Christianity	208	81.6
Islamic	42	16.5
Others	5	2.0
Currently stay with family member (s)		
Yes	217	85.1
No	38	14.9

*Mean (SD); Min/Max 38; 17/60

Percentage distribution of Factors affecting Financial Access to Healthcare among Persons with Disabilities

As shown in Table 2, respondents mentioned the time it takes them to walk or travel to healthcare centres. The walking time was generally 15 - 30 minutes and 30 - 60 minutes. Most of the respondents indicated that they paid GHC 2.00 - 5.00 as transportation cost. The study found that the average monthly income among respondents was GHC 218.7; however, most respondents earned between GHC 150.00 – 250.00.

Regarding the amount respondents spent on their healthcare every month, the average was GHC 21.4 which constituted 9.8% of their average monthly income. Half (50.2%) of the respondents spent GHC 11.00 - 20.00 on their healthcare in a month. The regular sources from which they sought healthcare were hospitals (68.2%), pharmacies (18.8%), rehabilitation centres (5%) and clinics (2.8%). The NHIS was cited as the most regular source of payment for health services, followed by payment from personal income, family members, social support networks and friends, as shown in Table 2.

Table 2: Percentage distribution of factors affecting Financial Access to Healthcare among Persons with Disabilities

Variables	Frequency (%)
Time to walk or travel to access healthcare	
≤ 15 minutes	44 (17.3)
16 – 30 minutes	123 (48.2)
31 – 60 minutes	78 (30.6)
> 60 minutes	10 (3.9)
Cost to reach healthcare centre	
≤ GHC 2.00	87 (34.4)
GHC 2.00 – 5.00	107 (42.3)
GHC 5.00 – 10.00	36 (14.2)
GHC 10.00 – 20.00	21 (8.3)
> GHC 20.00	2 (0.8)
Income for a month+	
≤ GHC 100	27 (11.2)
GHC 100 – 150	68 (28.2)
GHC 150 – 250	74 (30.7)
GHC 250 – 300	24 (10.0)
> GHC 300	48 (19.9)

Mean(SD); Min/Max+	
Monthly cost of healthcare	
≤ GHC 10.00	45 (17.6)
GHC 11.00 – 20.00	128 (50.2)
GHC 21.00 - 30.00	25 (9.8)
GHC 31.00 – 40.00	23 (9.0)
> GHC 40	34 (13.3)
Mean(SD); Min/Max++	
Regular source of healthcare	
Pharmacy	48 (18.8)
Hospital	174 (68.2)
Clinic	20 (7.8)
Rehabilitation centres	13 (5.1)
Regular source of payment for healthcare	
Personal income	74 (29.0)
NHIS	162 (63.5)
Social support network	6 (2.4)
Family members	10 (3.9)
Friends	3 (1.2)
Sources of payment meet equipment and other suppliers' coverage	
Yes	15 (5.9)
No	240 (94.1)

+GHC 218.7 (120.50); 45/520 ++GHC 21.46 (13.95); 3/55

Comparison of Income and Mean Monthly Expenses on Healthcare

Table 3 presents findings on the comparison of income levels and mean monthly healthcare expenses among various socio-demographic characteristics of respondents. The mean monthly income and expenses on healthcare varied among males and females. The mean expenses were significantly higher among female respondents than males. The age distribution of respondents had significant relationship with mean monthly expenses on healthcare. Also, individuals with physical disabilities spent more on their healthcare every month, than hearing and visually impaired persons did. The mean monthly expenditure on healthcare varied significantly with employment and educational levels. There was also a significant variation among those who did and those who did not stay with their family members. The mean monthly expenses on healthcare were higher for those who did not stay with their family members. Similarly, the average monthly income of respondents differed significantly according to gender, age of the respondents, as well as employment and educational levels.

Table 3: The influence of Socio-demographic Characteristics on the Monthly Healthcare Expenditure and Income of Respondents

Variable	Value	Cost of Managing Healthcare			
		Expense* Mean (Std)	p-value	Income** Mean (Std)	p-value
Gender			0.011		0.001
	o Male	19.42 (13.93)		243.10 (129.31)	
	o Female	23.55 (11.55)		192.33 (104.39)	
Age			0.000		0.000
	o ≤20	44.80 (11.57)		168.33 (65.24)	
	o 21 – 30	21.52 (13.52)		121.67 (55.71)	
	o 31 – 40	20.91 (11.53)		228.13 (114.12)	
	o 41 – 50	15.88 (8.84)		275 (144.64)	
	o >50	22.42 (13.51)		236.27 (114.30)	
Disability			0.000		0.346
	o Physical	29.51 (15.31)		206.76 (105.29)	
	o Visual	20.98 (10.37)		214.40 (140.23)	
	o Hearing	13.88 (6.4)		233.69 (111.23)	
Employment			0.002		0.000
	o Government	20.89 (12.25)		287.14 (172.44)	
	o Trading	18.92 (6.39)		246.18 (121.45)	
	o Farming	13.25 (5.91)		255.74 (128.87)	
	o Apprentice	24.73 (16.01)		175.82 (88.33)	
	o None	23.34 (12.92)		164.71 (53.71)	
	o Other	22.42 (15.40)		298.85 (132.79)	
Education			0.001		0.000
	o None	18.44 (12.27)		185.91 (96.42)	
	o Primary	22.85 (12.66)		259.63 (104.47)	
	o JSS/Middle	28.35 (14.58)		184.87 (92.83)	
	o SSS/Vocation	22.90 (10.64)		215 (122.50)	
	o Tertiary	18.14 (12.11)		297.71 (166.28)	
	o Others	20		180	
Staying with Family			0.001		0.284
	o Yes	20.38 (11.84)		222.29 (120.13)	
	o No	27.63 (16.93)		199.19 (122.31)	

*Monthly expenses on healthcare, **Monthly income

Table 4 presents findings of the Chi-square test of association between distribution of financial access and healthcare among respondents. The study found that the distance persons with disabilities walked or travelled, and the amount required to reach the healthcare setting, had a statistically significant relationship with access to services. Access to healthcare was, however, higher among those who walked or travelled between 16 - 30 minutes to reach the facility, and those who paid GHC 2.00 - 5.00 to reach the hospital. Also, the amount spent on healthcare in a month had significant relationship with access to healthcare, with access being greater among those who spent GHC 11 - 20. Similarly, a regular source of healthcare increased the likelihood of accessing the services, with access being higher among those who visited hospitals. Regular sources of payment of healthcare also had a significant relationship with access to services. Those who paid from NHIS subscription had higher access. Finally, access to healthcare did not have any significant relationship with whether respondents' source of payment for healthcare met equipment and other suppliers' coverage or not.

Table 4: Influence of Financial Access on Healthcare

Variables	Access Healthcare		Chi-Square	p-value
	Yes N (%)	No N (%)		
Time to walk or travel to access healthcare			13.9	0.003
≤ 15 minutes	44 (17.7)	-		
16 – 30 minutes	123 (49.4)	-		
31 – 60 minutes	72 (28.9)	6 (100)		
> 60 minutes	10 (4.0)	-		
Cost to reach healthcare centre			15.036	0.005
≤ GHC 2.00	85 (34.4)	2 (33.3)		
GHC 2.00 – 5.00	107 (43.3)	-		
GHC 5.00 – 10.00	32 (13.0)	4 (66.7)		
GHC 10.00 – 20.00	21 (8.5)	-		
> GHC 20.00	2 (0.8)	-		
Income for a month+			5.766	0.217
≤ GHC 100	27 (11.5)	-		
GHC 100 – 150	64 (27.2)	4 (66.7)		
GHC 150 – 250	72 (30.6)	2 (33.3)		
GHC 250 – 300	24 (10.2)	-		
> GHC 300	48 (20.4)	-		

Monthly cost of healthcare+			29.254	0.000
≤ GHC 10.00	45 (18.1)	-		
GHC 11.00 – 20.00	128 (51.4)	-		
GHC 21.00 - 30.00	25 (10.0)	-		
GHC 31.00 – 40.00	19 (7.6)	4 (66.7)		
> GHC 40	32 (12.9)	2 (33.3)		
Regular source of healthcare			144.384	0.000
Pharmacy	48 (19.3)	-		
Hospital	174 (69.9)	-		
Clinic	20 (8.0)	-		
Rehabilitation centres	7 (2.8)	6 (100)		
Regular source of payment for healthcare			150.542	0.000
NHIS	162 (65.1)	-		
Personal income	74 (29.7)	-		
Social support network	6 (2.4)	-		
Family members	4 (1.6)	-		
Friends	3 (1.2)	-		
Sources of payment meet equipment and other suppliers' coverage			0.384	0.535
Yes	15 (6.0)	-		
No	234 (94.0)	6 (100)		

DISCUSSION

For the purpose of the study, the sample consisted of 255 persons with disabilities in the Kumasi Metropolis of Ghana. There were more males with disabilities in the study, in contrast to the finding from the Ghana Statistical Services report (2012) which held that there were more females with disabilities in Ghana. The limited participation of females in the research study could be due to their preoccupation with domestic activities. Similarly, nearly one-third (constituting the majority) of the respondents had no formal education, with 28.6% being unemployed. The inaccessible environment could be responsible for limiting the participation of persons with disabilities in education. These findings corroborate previous studies which have established low participation of persons with disabilities in education and employment, and have a ripple effect on their income (Fitzgerald, 2007; World Health Organisation, 2011).

The average monthly expenses on healthcare, as found in this study, might be relatively high and a financial burden for persons with disabilities. The majority of the respondents were not employed and did not have regular incomes. Findings indicated that the mean monthly expenses on healthcare were higher among females than males. This suggests that females, especially when they are pregnant, utilise health services more than males. Despite this, the study found that males had higher mean monthly incomes than females. This is consistent with the finding from the 2010 population census in Ghana (Ghana Statistical Services, 2012).

The study also found that the mean monthly expenses on healthcare are not the same for all age groups. The expenditure on healthcare was higher when the age of respondents was lower, and vice versa. In contrast, a study in the Netherlands by Meerding et al (1998) reported that healthcare costs increase as one grows older, and increase exponentially after the age of 50 years. A possible explanation is that, in Ghana, individual families try to find lasting cures and care for young family members with a disability, leading to higher expenditure. The realisation that the disability is a permanent condition gradually discourages them from supporting healthcare of the person. This could be the reason for higher average monthly expenses on healthcare for persons with disabilities below 20 years of age, compared to the age groups of 21-30 years and 31- 40 years.

The study found that on an average, persons with physical disability spent higher amounts on their healthcare per month compared to hearing and visually impaired persons. This indicates that healthcare needs differ among persons with disabilities, according to the type and severity of disability, so that some require rehabilitation services and assistive services as reported by DeJong et al (2002). The high cost of physical rehabilitation and assistive devices is implied. Since there is only one Orthopaedic rehabilitation unit serving clients with physical disabilities in Ghana, persons with physical disabilities are likely to face financial barriers to healthcare. In some countries like the Netherlands, individuals with mental disability, musculoskeletal disease, dementia, stroke and cancers are the groups with top healthcare costs (Meerding et al, 1998; Polder et al, 2002).

Furthermore, this study demonstrates that the distance and amount respondents pay for travelling to healthcare centres have an influence on access to healthcare. Access to healthcare is, however, higher among persons with disabilities who walk or travel for 16 - 30 minutes to access services. In the view of Apoya and Marriott (2011), one-quarter of the Ghanaian population lived at a distance of over

60kms from a health facility. These findings corroborate previous findings which emphasise that factors such as transportation, distance and time taken to reach healthcare settings certainly influence healthcare utilisation among persons with disabilities in developing countries (WHO, 2013). In addition, findings indicated that regular sources of healthcare have significant relationship with access to healthcare. Access is higher among those who visit hospitals. This is an important implication, as most respondents could have access to care but hospitals may not have specialists to cater to the specific needs of persons with disabilities.

According to Peters et al (2008), affordability and measures to finance healthcare are some of the important factors determining access among poor individuals, including persons with disabilities. The present study, however, found that NHIS was a regular source of payment for healthcare. Healthcare access was higher among respondents who pay from NHIS rather than other sources. This is consistent with the finding by Ansah et al (2009) which indicated that individuals in Ghanaian society who enrolled in health insurance had a better chance of visiting clinics, obtaining prescriptions and seeking formal healthcare. Despite the use of NHIS by most respondents, it was revealed that the regular sources of payment for healthcare did not cover equipment and other suppliers. As a regular source of payment for healthcare expenses, NHIS is an important move towards universal healthcare coverage. However, the present inadequate financial coverage suggests that persons with disabilities could be dissatisfied with this source. The findings suggest that enrolment in the NHIS programme may not be adequate to ensure financial access to healthcare, as reported by Lee et al (2012). This supports the concern that has been raised by the Ghana Federation of the Disabled (GFD, 2013) about their dissatisfaction with the NHIS. Health insurance which is practised in most countries as a basic way to remove cost barriers to healthcare should therefore be made to cover all expenses for persons with disabilities. The finding has the implication that if persons with disabilities refuse to access these services because all related costs are not met by insurance coverage, it would have detrimental effects like poverty, malnutrition and secondary disability, as demonstrated by earlier studies (Fitzgerald, 2007; WHO, 2011).

CONCLUSION

Persons with disabilities are keen to become independent members of society who can contribute to development. This requires them to be healthy enough to engage in education, jobs and recreation. Financial stability would help them to sustain

independent living. The large population of persons with disabilities in Ghana have limited education and employment opportunities, which has a ripple effect on income and financing healthcare. This study concludes that financial access to healthcare remains a major challenge for persons with disabilities. The amount paid for transportation, the regular sources of payment for healthcare, as well as the distance to travel to healthcare centres, all influence access to healthcare. Though most persons with disabilities in the Kumasi Metropolis were enrolled in NHIS and used this as the source of payment for healthcare, all their healthcare expenses and suppliers were not covered. The fact remains that this will impact their utilisation of healthcare. To ensure that persons with disabilities enjoy financial risk protection, the Ministry of Health in Ghana should amend the NHIS policy and make it cover all the healthcare expenses of persons with disabilities without reservation. This would help to remove financial barriers to healthcare among persons with disabilities. Also, major stakeholders including social networks should assist in enrolling persons with disabilities into the NHIS, either through payment of subscription fee or by educating them about the programme.

Limitations

The study is limited by the possibility of subjective bias in the interpretation of deaf respondents. There is also the likelihood that persons with disabilities could exaggerate the difficulty of financial access to healthcare because they consider themselves to be disadvantaged. However, the scientific rigor followed for example in estimation of sample size, helped to reach a larger population which minimised such limitations.

ACKNOWLEDGEMENT

The authors wish to thank the Committee on Human Research, Publications and Ethics, Kwame Nkrumah University of Science and Technology (KNUST), for approving the study protocol prior to its implementation. They are grateful to all the persons with disabilities in the Kumasi Metropolis of Ghana for their support during the data collection.

REFERENCES

- Abebrese J (2011). Social protection in Ghana: an overview of existing programmes and their prospects and challenges. Fredrich Ebert Stiftung, Ghana. Available from: <http://library.fes.de/pdf-files/bueros/ghana/10497.pdf>

- Addae-Korankye A (2013). Challenges of financing health care in Ghana: the case of national health insurance scheme (NHIS). *International Journal of Asian Social Science*; 3(2): 511-522.
- Ansah EK, Narh-Bana S, Asiamah S, Dzordzordzi V, Biantey K, Dickson K, Mills A (2009). Effect of removing direct payment for healthcare on utilisation and health outcomes in Ghanaian children: a randomised controlled trial. *PLoS medicine*; 6(1): e1000007. <http://dx.doi.org/10.1371/journal.pmed.1000007> PMID:19127975 PMCID:PMC2613422
- Apoya P, Marriott A (2011). Achieving a shared goal: free universal health care in Ghana. Alliance for Reproductive Health Rights, Essential Services Platform, ISODEC and Oxfam international.
- Brocklehurst R, Costello J (2003). Health inequalities: the black report and beyond. In J. C. a. M. Haggart (Ed.), *Public Health and Society*. New York: PALGRAVE MACMILLAN: 46.
- Brugiavini A, Pace N (2011). Extending health insurance: effects of the national health insurance scheme in Ghana.
- DeJong G, Palsbo SE, Beatty PW (2002). The organisation and financing of health services for persons with disabilities. *Milbank Quarterly*; 80(2): 261-301. <http://dx.doi.org/10.1111/1468-0009.t011-1-00004> PMID:12101873 PMCID:PMC2690107
- Drainoni ML, Lee-Hood E, Tobias C, Bachman SS, Andrew J, Maisels L (2006). Cross-disability experiences of barriers to healthcare access: consumer perspectives. *Journal of Disability Policy Studies*; 17(2): 101-115. <http://dx.doi.org/10.1177/10442073060170020101>
- Elwan A (1999). Poverty and disability: A survey of the literature. Social Protection Advisory Service.
- Fitzgerald E (2007). Disability and poverty. In C. Mel (Ed.), *Welfare Policy and Poverty Ireland: Combat Poverty Agency*: 229.
- Ghana Federation of the Disabled (2013). Disability in Ghana. Available from: <http://www.gfdgh.org/index.html> [Accessed on 10 August 2013]
- Ghana Statistical Services (2012). Population & housing census: summary report of final results 2010. Accra, Ghana: Ghana Statistical Service
- Gobah FK, Zhang L (2011). The national health insurance scheme in Ghana: prospects and challenges: a cross-sectional evidence. *Global Journal of Health Science*; 3(2): 90. <http://dx.doi.org/10.5539/gjhs.v3n2p90>
- Grut L, Mji G, Braathen SH, Ingstad B (2012). Accessing community health services: challenges faced by poor people with disabilities in a rural community in South Africa. *African Journal of Disability*; 1(1): 19. <http://dx.doi.org/10.4102/ajod.v1i1.19>
- Jowett M, Deolalikar A, Martinsson P (2004). Health insurance and treatment seeking behaviour: evidence from a low-income country. *Health Economics*; 13(9): 845-857. <http://dx.doi.org/10.1002/hec.862> PMID:15362177
- Last JM (1988). *Public health and human ecology*: Springer.
- Lee JC, Hasnain-Wynia R, Lau DT (2012). Delay in seeing a doctor due to cost: disparity between older adults with and without disabilities in the United States. *Health services*

research; 47(2): 698-720. <http://dx.doi.org/10.1111/j.1475-6773.2011.01346.x> PMID:22092264
PMCID:PMC3288209

Lwanga-Ntale C (2003). Chronic poverty and disability in Uganda.

Meerding WJ, Bonneux L, Polder JJ, Koopmanschap MA, van der Maas PJ (1998). Demographic and epidemiological determinants of healthcare costs in Netherlands: cost of illness study. *Bmj*; 317(7151): 111-115. <http://dx.doi.org/10.1136/bmj.317.7151.111> PMID:9657785
PMCID:PMC28601

Mensah J, Oppong JR, Schmidt CM (2010). Ghana's National Health Insurance Scheme in the context of the health MDGs: An empirical evaluation using propensity score matching. *Health economics*; 19(S1): 95-106. <http://dx.doi.org/10.1002/hec.1633> PMID:20730999

Mensah O, Williams J, Atta-Ankomah R., Mjomba M. (2008). Contextual Analysis of the Disability situation in Ghana. Accra, Ghana: Ghana Federation of the Disabled (GFD)/The Disabled People Organisations Denmark (DPOD)/The Ghana Society of the Physically Disabled (GSPD)/Danish Association of the Physically Disabled (DAD)/The Ghana Association of the Blind (GAB)/The Danish Association of the Blind (DAB).

Muderedzi J, Ingstad B (2011). Disability and social suffering in Zimbabwe. *Disability and Poverty: A Global Challenge*. 171.

Peters DH, Garg A, Bloom G, Walker DG, Brieger WR, Hafizur-Rahman M (2008). Poverty and access to healthcare in developing countries. *Annals of the New York Academy of Sciences*; 1136(1): 161-171. <http://dx.doi.org/10.1196/annals.1425.011> PMID:17954679

Polder J, Meerding W, Bonneux L, Van Der Maas P (2002). Healthcare costs of intellectual disability in the Netherlands: a cost-of-illness perspective. *Journal of Intellectual Disability Research*; 46(2): 168-178. <http://dx.doi.org/10.1046/j.1365-2788.2002.00384.x>

Preker AS, Carrin G (2004). Health financing for poor people: resource mobilisation and risk sharing (Vol. 434): World Bank Publications.

Scheer J, Kroll T, Neri MT, Beatty P (2003). Access barriers for persons with disabilities: the consumer's perspective. *Journal of Disability Policy Studies*; 13(4): 221-230. <http://dx.doi.org/10.1177/104420730301300404>

United Nations (2006). Convention on the rights of persons with disabilities and optional protocol. In U. Nations (Ed.). New York: United Nations.

Witter S, Garshong B (2009). Something old or something new? Social health insurance in Ghana. *BMC International Health and Human Rights*; 9(1): 20. <http://dx.doi.org/10.1186/1472-698X-9-20> PMID:19715583 PMCID:PMC2739838

World Health Organisation (2011). World report on disability: World Health Organisation.

World Health Organisation (2013, November 2012). Disability and health. Available from: <http://www.who.int/mediacentre/factsheets/fs352/en/index.html>

Xu K, Evans DB, Kadama P, Nabyonga J, Ogwal PO, Nabukhonzo P, Aguilar AM (2006). Understanding the impact of eliminating user fees: utilisation and catastrophic health expenditures in Uganda. *Social Science & Medicine*; 62(4): 866-876. <http://dx.doi.org/10.1016/j.socscimed.2005.07.004> PMID:16139936