# **Correlates of Residents Socio-Economic Characteristics and Frequency of Visits to Healthcare Facilities in Ondo State, Nigeria**

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#### Abstract

This paper examines the relationship that exists between the socio-economic characteristics of residents and their frequency of visits to healthcare facilities in Ondo State, Nigeria. The data utilized in the paper draws on systematic sampling of 1,181 health consumers in the three senatorial districts of the State. Findings revealed that socio-economic characteristics play a significant role in determining the frequency of visits to healthcare facilities, this is substantiated with the chi-square test result that revealed a significant relationship between marital status and frequency of visits to healthcare facilities with  $\chi^2 = 39.387$  and significant at p = 0.000 level, also a significant relationship exists between education and frequency of visits ( $\chi^2 = 31.354$  and significant at p = 0.012 levels), the test result equally revealed a significant difference between income of households and the frequency of visits to healthcare facilities with  $\chi^2 = 30.936$  and significant at p = 0.000 levels. The paper therefore concluded that efforts should be put in place in order to improve or enhance the socio-economic characteristics of residents which will invariably improve their access or frequency of visits to healthcare facilities.

Keywords: Frequency of visits, healthcare, Ondo State, socio-economic

#### 1. Introduction

Health is a basic element of every citizen in a country. According to the UN (2000) "health is a fundamental human right indispensable for the exercise of other human rights. Every human being is entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity". The health of man has been regarded as most important, because all economic activities are mainly carried on by man. Adeyinka (2006) opined that health is the output that people desire and not health services (input) *per se* for the accomplishment of improved standard of living for them. Indeed, the health of the people not only contributes to better quality of life but is also essential for the sustained economic and social development of a country as a whole (Federal Ministry of Health (FMOH), 2004). Health related issues therefore are of strategic concern to all including government, professionals and consumers, hence government and stakeholders in the health sector are concerned and focused on the provision and maintenance of such levels of healthcare that will make it possible for individuals to live socially and economically a productive life.

The major concern of the World Health Organization (WHO) is the provision of quality healthcare for everyone irrespective of varying levels of living (Ibor and Atomode, 2014). In other words, whether in the advanced or poor countries, rural or urban, poor or rich; provision, accessibility and utilization of healthcare facilities remain the focus of all governments in the world. Healthcare therefore is defined as a programme of services that should make available all facilities of health and allied services required to promote and maintain the health of mind and body (Agnihotri, 1995). Eme, Uche and Uche (2014) define healthcare facilities as those facilities or equipment which make it possible for the improvement of the patients healthy living including stock of drugs, vaccines, potable water, constant supply of energy (power), medical record tools, ambulances for mobility of patients, solar freezers and availability of competent health workers

Provision of healthcare facilities therefore, guarantee the prevention, treatment, and management of illness and the preservation of mental and physical well being through the services offered by the medical, nursing, and allied health professions. Healthcare facilities provision embraces all the goods and services designed to promote health, including "preventive, curative and palliative interventions, whether directed to individuals or to population" (Eyo and Edem, 2009).

Access to healthcare facilities varies across space because of uneven distribution of healthcare providers and consumers and also varies among population groups. In Nigeria, concerted efforts by governments at all levels to achieve equitable distribution of healthcare facilities over the years have not yielded the desired results. This has led to the emergence of many regions within the country where both public and private healthcare facilities are sparsely provided (Agaja, 2012). According to Owoola (2002) spatial distribution of healthcare facilities was not considered by government, leading to a very high ratio of the country's population been underserved by these facilities. This often brings about lopsidedness in the spatial accessibility of these facilities with one section of a state or local government area having more facilities at the detriment of others. The spatial inequality in the distribution of healthcare facilities is also reflected in the provision of hospital beds, nurses and doctors, despite the substantial increase in manpower resources in the country. WHO (2006) documented that one of the problems affecting the health sector is the lopsided distribution of healthcare facilities and professionals in favour of the urban centres.

Almost everywhere in the world, the people of low socio-economic status are vulnerable to a lot of health hazards some of which can actually be preventable and curable even with the existing healthcare facilities in their immediate communities. Unfortunately a lot of mortality are recorded and are continued to be recorded against the people of low socio-economic status consequence of their deficient utilization or visit to existing healthcare facilities in their immediate community (Owoseni *et al* 2014). It will therefore be necessary to investigate the role that socio-economic characteristics of patrons play in determining their utilization or frequency of visits to healthcare facilities. Against this background, this study examines the residents socio-economic characteristics and frequency of visits to healthcare facilities in Ondo State, Nigeria.

#### 2 Literature Review

All over the world, debates abound on the roles that socio-economic status of people play in influencing their level of patronage, utilization, health seeking behavior and information about healthcare facilities in order to aid their general health condition. Studies have shown that there is a correlation between residents social and economic characteristics and their level of patronage of infrastructural facilities such as healthcare facilities (Becker and Newsom, 2003; Adeyemi, 2003; Olawuni, 2008; Riman and Akpan 2012, Owoseni *et al*, 2014). Owoseni *et al*, (2014) affirmed that the socio-economic status of a country will most likely affect the health situation, generally, the better the economy indicators, the better the health condition of the residents.

Specifically, Gender, one of the variables of socio-economic characteristics has been broadly defined as the array of societal beliefs, norms, customs and practices that define masculine and feminine attributes and behaviours which often acts as a filter leading to patterns of inclusion in access to basic needs and services, including those related to health. Chen and Narasimha, (2003) noted that gender affects the ability to protect oneself from disease, violence and fear.

The educational level of household members is among the most important characteristics of a household because it is associated with many factors that have a significant impact on health-seeking behaviours, reproductive behaviours, use of contraception, and children's health status. Baker (2005) in his study on spatial pattern of primary healthcare utilization in Southern Honduras revealed that education is a priority sector in every well-being society and it is an important variable in determining healthcare facility utilization. In the same vein, Riman and Akpan (2012) posited that an improvement in educational status of the population is more likely to improve the health status of the people.

Studies have also shown that occupation of residents or the profession an individual engages in is a determinant of their level of income (Jayamala, 2008; Sanni *et al*, 2010). Okafor (1983) in his study on factors affecting the frequency of hospital trips among a predominantly rural population observed that civil servant utilize healthcare facilities more than farmers, traders and craftsmen, and suggests that such differential utilization can be accounted for by time factor. He elaborates this by noting that while visits to hospital by civil servants are not accompanied by loss of income, the same cannot be said of those that are self employed. The implication of such finding for health shopping is a tendency for unemployed persons and those not in government services to seek medical services at later stage of illness.

Income of residents is another important variable in explaining patronage of any social services in any given area. The income is a measure of wealth and will reflect the ability of a household/resident to make decision on the type of healthcare facility to patronize. The type of facility visited, duration of visit and action taken after sickness is a function of their income. Where the household income is not sufficient, it will leave the household less with no option than to resolve to self medication. Some early studies show a positive correlation between income and patronage of available healthcare facilities (Buor, 2005; Olawuni, 2008; Adeyinka, 2013; Owoseni *et al*, 2014). These studies established that income level of household dictate their ability to patronize and pay for available healthcare services. Adeyinka (2013) in his work on spatial distribution, pattern and accessibility of urban population to health facilities in southwestern Nigeria: the case study of Ilesa posited that low income earners make less frequent visits to healthcare facilities because of cost of transport and charges.

It has also been established that the longer the years of stay in any particular locality, the better the opportunity to have the knowledge about the competence, the cost of treatment and hospitality of workers in health facilities within and outside their place of residence (Olujimi, 2006). The length of stay in a particular area provides very good background knowledge in the successful treatment history on available healthcare facilities in and around the community. Therefore the longer the years of stay in a particular locality the better the opportunity to have the knowledge about the competence, cost of treatment and hospitality of workers in healthcare facilities within and outside the community of their residence.

#### **3** The Study Area

The study area is Ondo State. Ondo State is in the southwestern part of Nigeria and is one of the seven states created on 3<sup>rd</sup> February, 1976. It was carved out of the erstwhile western region created in 1915 with Akure as

the provincial headquarter.

The State lies between latitudes 5°45' and 7°52'North and longitudes 4°20' and 6°05'East. The State has a surface area of approximately 15,317 square kilometre, which represents 1.66% of the total surface area of Nigeria. With its 18 Local Government Areas structure, the southern tip of the State rests on a 71 km coastline of the Atlantic Ocean with considerable territorial waters offshore. Therefore, the State is rich in aquatic resources. Ondo State is bounded on the east by Edo and Delta States, on the west by Ogun and Osun States, on the north by Ekiti and Kogi States and to the south by the Bight of Benin and the Atlantic Ocean (see figure 1).



**Figure 1:** Map of Ondo State in relation to the 18 Local Government Areas. Source: Ondo State Ministry of Housing and Urban Development, Akure (2015).

Based on the 1991 population census figure in Nigeria, the population of the State was 2.25m. The 2006 population census figure put Ondo State as 3.4 million comprising of 1.06 million in Ondo North, 1.24 million in Ondo Central and 1.14 million in Ondo South senatorial districts. The 2015 projected population figure with a growth rate of 3% put the State at approximately 4.49 million people.

## 4 Methodology

The data set utilized for the study were collected using a structured questionnaire administered on selected residents (health consumers) living in different settlements of Ondo State. Ondo State was first stratified into three statutory senatorial districts namely Ondo North, Ondo Central and Ondo South. Each senatorial district has 6 local government areas (LGA) from which one (1) LGA was purposively selected. The selected local government areas are Owo, Akure South and Okitipupa from Ondo North, Ondo Central and Ondo South senatorial districts respectively. The LGAs were selected based on the criteria that they have more healthcare facilities and the most urbanized in each of the senatorial district. The settlements in each of the LGAs were classified into urban and rural using population size. The study area comprised of a total of three hundred and fifty four (354) settlements. Stratified random sampling technique was employed in selecting 10% from both the urban and rural settlements. In all, three urban and 39 rural settlements emerged.

In the selected settlements, the respondents were the household heads but where the household head was not available, an adult was sampled. The buildings in each settlement were first listed from which 1.5% of them were surveyed. In all a total of 1,181 household head/adults were contacted.

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# 5 Findings and Discussion

#### 5.1 Socio-Economic Characteristics of Respondents

The variables investigated include gender, age, marital status, educational attainment, income, occupation and residents' length of stay.

## 5.1.1 Gender Status of Respondents

The gender distribution of household heads in the study area as presented in Table 1 revealed that 52.5% of the residents were female while 47.2% were male. The Chi-Square test results ( $\chi^2 = 10.879$ , p< 0.000) revealed that there existed a significant relationship between the gender of respondents and the patronage of healthcare facilities.

#### 5.1.2 Age Distribution of Respondents

The age of the household heads in the three Senatorial district of Ondo State were grouped into three. These were: 19-30 years (the youths), 31-55 years (the young adults) and 55 years and above (the adults) (Badiora, 2012).

From the summary of age distribution of respondents presented in Table 1, it was evident that 52.0% of respondents in the study area were young adults. The youth and adult respondents accounted for 40.0% and 8.0% respectively. However, the age distribution of residents within the senatorial district of Ondo State revealed that young adults were dominant in Ondo Central. This accounted for 63.7% while youth and young adult accounted for 29.0% and 7.3% respectively. In Ondo South, it was revealed that youth dominated the area with 149 (59.1%) while 36.9% and 4.0% accounted for young adults and adult respectively. On the other hand, young adults and youths dominated Ondo North Senatorial District with 45.0% and 43.4% respectively while 11.6% accounted for adult respondents. This shows that the area has a more active population which requires health services for better productivity. The above findings is in agreement with previous studies that age is a determinant factor in knowledge of availability and patronage of healthcare facility (Adamu, 2011). Result of one way ANOVA computed also revealed that age distribution varied significantly in the three senatorial districts of Ondo State. The F-value of 24.416 was significant at 0.000 level.

#### 5.1.3 Marital Status of Residents

From the summary presented in Table 1, 59.8% of household heads in the study area were married while 33.0%, 4.3% and 2.9% of respondents were single, divorced and widowed respectively. Investigation of the same social attribute in the different senatorial district revealed that married household heads were the most predominant group in Ondo North and Ondo Central. This group constituted 60.1% and 66.6% respectively in Ondo North and Ondo Central. The Chi-Square results ( $\chi^2 = 94.834$ ; p< 0.000) indicated that marital status of residents varies significantly in the different senatorial districts of Ondo State.

## 5.1.4 Educational Level of Residents

Presented in Table 1 is the information on the educational level of respondents across the three senatorial districts. The Table revealed that respondents that had at least secondary/technical education accounted for 50.6%, tertiary level of education (34.0%) residents with primary and other levels of education accounted for 7.2% and 3.6% respectively while residents that had no formal education accounted for 4.7%. Specifically, it is shown in the Table that there was variation in the educational distribution of respondents across the senatorial districts of the study area.

Further analysis revealed that variation in educational level of respondents across the three senatorial districts was statistically significant (F = 41.913 and p = 0.000). It is worthy to note that education improves awareness on the consequences of poor health habits, improved living condition and good nutrition.

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Socio-Economic	Ondo North	<b>Ondo</b> Central	Ondo South	Total				
Characteristics								
Gender	·							
Male	200(52.9)	234(42.5)	127(50.4)	561(47.5)				
Female	178(47.1)	317(57.5)	125(49.6)	620(52.5)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Age Distribution								
19 – 30 Years	164(43.4)	160(29.0)	49(59.1)	473(40.0)				
31 – 55 Years	170(45.0)	351(63.7)	93(36.9)	614(52.0)				
Above 55 Years	44(11.6)	40(7.3)	10(4.0)	94(8.0)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Marital Status								
Single	121(32.0)	134(24.3)	135(53.6)	390(33.0)				
Married	227(60.0)	367(66.6)	112(44.4)	706(59.8)				
Separated/Divorced	9(2.4)	40(7.3)	2(0.8)	51(4.3)				
Widowed	21(5.6)	10(1.8)	3(1.2)	34(2.9)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Educational Level								
No Formal Education	37(9.8)	12(2,2)	7(2.8)	56(4.7)				
Primary	48(12.7)	25(4.5)	12(4.8)	85(7.2)				
Secondary/Technical	196(51.9)	269(48.8)	91(36.1)	597(50.6)				
Tertiary	89(23.5)	221(40.1)	132(52.4)	401(34.0)				
Others	8(2.1)	24(4.4)	10(4.0)	42(3.6)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Occupation								
Farming	51(13.5)	38(6.9)	13(5.2)	102(8.6)				
Trading	109(28.8)	145(26.3)	28(11.1)	282(23.9)				
Civil Servant	55(14.6)	162(29.4)	40(15.9)	257(21.8)				
Artisan	75(19.8)	66(12.0)	6(2.4)	147(12.4)				
Schooling	64(16.9)	124(22.5)	164(65.1)	352(29.8)				
Others	24(6.3)	16(2.9)	1(0.4)	41(3.5)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Income Status of Residents	Income Status of Residents (¥)							
Below 20,000 (LI)	281(74.3)	168(30.5)	224(88.9)	73(57.0)				
20,000-60,000 (MI)	78(20.6)	329(59.7)	23(9.1)	430(36.4)				
Above 60,000 (HI)	19(5.0)	54(9.8)	5(2.0)	78(6.6)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Household Size	· · · ·	• • •	• • •	· · · · · · ·				
Small	282(74.6)	167(30.3)	249(98.8)	698(56.1)				
Medium	63(16.7)	267(48.5)	2(0.8)	332(28.1)				
Large	33(8.7)	117(21.2)	1(0.4)	151(12.8)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				
Residents Length of Stay	Residents Length of Stay							
1 - 10 Years	228(60.3)	253(45.9)	124(49.2)	605(51.2)				
11 – 25 Years	91(24.1)	172(31.2)	72(28.6)	335(28.4)				
26 – 40 Years	32(8.5)	74(13.4)	49(19.4)	155(13.1)				
Above 40 Years	27(7.1)	52(9.4)	7(2.8)	86(7.3)				
Total	378(32.0)	551(46.7)	252(21.3)	1181(100.0)				

Source: Authors Field Survey, 2015

#### 5.1.5 Occupation of Residents

From the summary presented in Table 1, it was evident that 29.8% of the residents were schooling, thus accounting for the largest population. The Table further revealed that residents that were traders, civil servants, artisans and farmers accounted for 23.9%, 21.8%, 12.4% and 8.6% respectively.

The difference in the occupational status of residents across the three senatorial districts of Ondo State were found to be significant using the ANOVA (F-value = 82.645 and p = 0.000).

## 5.1.6 Income of Residents

Household heads who earn below N20,000.00 per month were regarded as low income earners (LI), N20,000.00

- N60,000.00 per month were referred to as middle income earners (MI), while the high income earners (HI) earn above N60,000.00 per month. From the classification and as presented in Table 1, it was revealed that larger percentage of respondents were low income earners. This accounted for 57.0% of the total respondents while 36.4% were middle income earners and only 6.6% residents were categorized as high income earners in the state. The Table further revealed that low income earners dominated Ondo North and Ondo South accounting for 74.3% and 88.9% respectively. However, Ondo Central senatorial district was dominated by middle income earners accounting for 59.7% of the total respondents.

Further analysis revealed that variation in income of respondents across the three senatorial zones was statistically significant. The F-value of 67.508 was significant at 0.000 level.

## 5.1.7 Household Size of Residents

For the purpose of this study, household size was categorized into three. These are household with 6 members and below, household that contains 7 to 10 members and household with more than 10 members. These were respectively regarded as the small sized, medium and large sized household.

From the summary presented in Table 1, Ondo South had the largest proportion of respondents with small sized household. This group accounted for 98.8% of the households within the senatorial district. Households in the Ondo North and South senatorial district with small sized household were 74.6% and 30.3% respectively. Also, the analysis of the household that were of medium sized revealed that the largest proportions were in the Ondo Central. This group accounted for 48.5%. However, 16.7% and 0.8% of the respondents in Ondo North and Ondo South respectively were of medium sized household. Ondo Central had the largest proportion of respondents with large sized household. This group accounted for 21.2% in the district while 8.7% and 0.4% accounted for residents that had large sized household in Ondo North and Ondo South respectively.

## 5.1.8 Residents Length of Stay

Presented in Table 1 is the length of stay of residents in the study area with the proportion of residents who had resided in the study area between 1-10 years accounting for 51.2% while residents that had resided in the study area between 11-25 years and 26-40 years accounted for 28.4% and 13.1% respectively. The Chi-Square test results ( $\chi^2 = 104.709$ , p < 0.000) revealed that there existed a significant relationship between residents length of stay in the community and the patronage of healthcare facilities

## 5.1.9 Percentage of Income Residents Spent on Healthcare

Figure 2 is the analysis of the percentage of income which residents spent on healthcare related matters in Ondo State. As revealed in the figure, less than 5% of household income was spent on healthcare services by 51.1% of the respondents and 30.5% of them spent between 5-10%. Also, 11.5% of residents spent 11-15% on health related issues. The figure further revealed that respondents that spent less than 5% of their income on health services constitute a larger percentage of the total sample. This accounted for 60.6%, 50.5% and 38.5% of respondents in Ondo North, Central and South senatorial districts respectively; this is in line with WHO (2000) suggestion that not more than 5% of individuals' income is supposed to be spent on health. Thus a household spending less than 5% enjoyed high accessibility to healthcare facilities. Result of Chi-Square computed also revealed that there is a significant relationship between the percentage of income spent on healthcare services and the patronage of healthcare facilities in the study area ( $\chi^2 = 127.892$ , p = 0.000).



Figure 2: Percentage of Income spent on Healthcare Services Source: Authors Field Survey, 2015

## 5.2 Residents' Socio-Economic Characteristics and Frequency of Visits to Healthcare Facilities

In many societies, socio-economic position of individuals plays a significant role in influencing or determining their patronage patterns of healthcare facilities. Even in some societies or communities where healthcare facilities are fairly equitably distributed, the socio economic positions of individuals sometimes limit the individuals from effective utilization of such facilities. This could either be that the individual cannot afford the utilization of the healthcare facilities or do not have adequate information that can enhance their visit to such facilities. Both of these problems can be attributed to the socio-economic status in which the individual is placed in the society.

Table 2 revealed that the male patrons that visited the healthcare facilities in less than 5 times accounted for 67.9% and between 5 - 10 times (22.3%); 11 - 15 times (7.3%); 16 - 20 times (2.0%) and visits of over 20 times accounted for 0.5%. for the females visits of less than 5 times accounted for 60.2%; 5 - 10 times (27.3%); 11 - 15 times (9.2%); 16 - 20 times (2.3) and visits of above 20 times (1.1%). The information presented on the gender frequency of visits revealed a decline in the number of people visiting the healthcare facilities as the number of visits increased. This is true for other socio-economic characteristics across the Table. The chi-square test result revealed that the  $\chi^2$  value at the degree of freedom of 4 is 8.315 and significant at p = 0.08 levels.

The study further revealed that majority of the different categories of age group (63.8%) patronized the healthcare facilities less than 5 times. This is followed by those who have visited the facilities between 5 - 10 times which accounted for 24.9%. The least proportion (0.8%) of visit is recorded for those that have visited the facilities more than 20 times. The chi-square test revealed that statistically significant variation exist between the age and frequency of visits with  $\chi^2$  value of 26.278 at degree of freedom of 8 and significant at p=0.001 levels.

Findings presented in Table 2 on marital status in relation to frequency of visits to healthcare facilities showed that majority of the patrons who are single (73.6%) patronized less than 5 times; between 5 – 10 times (19.0%); 11 – 15 times (6.3%). Furthermore, it was established that 59.9% of the married respondents visited less than 5 times, 5 – 10 times (27.2%) and the remaining 9.2%, 2.5% and 0.8% visited the facilities between 11 - 15 times, 16 – 20 times and more than 20 times respectively. On the other hand 56.9%, 25.5%, 9.8% and 7.8% of the separated/divorced visited the facilities less than 5 times, 5 – 10 times and 16 - 20 times respectively while 44.1% of the widowed visited less than 5 times, 24.9% for 5 – 10 times, 14.7% for 11 – 15 times and 2.9% for visitations of more than 20 times. The chi-square test revealed that significant relationship exists between marital status and frequency of visits to healthcare facilities with  $\chi^2 = 39.837$  at the degree of freedom of 12 and significant at p = 0.000 levels.

Findings from the Table further revealed the relationship between educational level and frequency of visits to facilities centres. For respondents with no formal education (66.1%) visited the facilities less than 5 times, those between 5 - 10 times accounted for 19.6% while the remaining 10.7% and 3.6% visited the facilities between 10 - 15 times and over 20 times respectively. Those with primary education patronized the healthcare facilities more in less than 5 times (60.0%), 25.9% visited between 5 - 10 times and 2.4% patronized the healthcare facilities 16 - 20 times.

Furthermore, it was established that those with secondary/technical education patronized less than 5 times (59.6%), 27.0% of this category visit between 5 – 10 times, 11 – 15 times, 16 – 20 times and more than 20 times represent 9.7%, 2.7% and 1.0% respectively. Those with tertiary education accounted for 70.3%, 22.9%, 5.2%, 1.0% and 0.5% of the visitation in less than 5 and between 5 – 10, 11 – 15, 16 – 20 and over 20 times respectively. The chi-square test revealed that  $\chi^2 = 31.354$  at the degree of freedom of 16 and significant at p = 0.012 levels.

In the occupation category and frequency of visits, 68.5% of students patronized the facilities less than 5 times, 21.9% between 5 - 10 times, 8.0% between 10 - 15 times, 0.9% between 16 - 20 times and over 20 times respectively. It further established that 62.7% of farmers visit less than 5 times, while those that visited between 5 - 10, 11 - 15, 16 - 20 and over 20 times accounted for 25.5%, 7.8%, 2.9% and 1.0% respectively. Moreover, traders accounted for 56.4% of the patrons that visited in less than 5 times while 29.1%, 10.3%, 3.5% and 0.7% visited between 5 - 10, 11 - 15, 16 - 20 and over than 20 times respectively.

The study further revealed that majority of the civil servants (63.8%) visit in less than 5 times and 25.7% visited between 5 – 10 times, 11 – 15 times (8.2%), 16 – 20 times (1.6%) and more than 20 times (0.8%). Artisans accounted for 69.4% of less than 5 times visits, 22.4 % between 5 – 10 times, 5.4% (11 – 15 times) and 2.4% (over 20 times). This is validated by the chi-square test with the  $\chi^2$  value of 26.798 at df of 20 and significant at 0.141 indicating a significant relationship between occupation and frequency of visits to available healthcare facility centres.

Table 2:	Relationship betw	veen Resident's	Socio-Economic	Characteristics	and	Frequency	of	Visits to	
	<b>Healthcare Facilit</b>	ties in Ondo Stat	te						

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Frequency (	Total				
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Less than	5 - 10	11_ 15	16 - 20	Above 20	1000
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		5 times	times	times	times	times	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Gender	e times	times	times	times	times	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Male	381(67.9)	125(22.3)	41(7 3)	11(2,0)	3(0.5)	516(46.7)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Female	373(60.2)	169(27.3)	57(9.2)	14(2.3)	7(1.1)	620(53 3)
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Age of Respondents	, e ((65.6)		) ((0.2)		10(0.0)	1101(100.0)
$\begin{array}{c ccccc} 31-55 & 364(59.3) & 167(27.2) & 59(9.6) & 18(2.9) & 6(1.0) & 614(52.0) \\ Above 55 & 57(60.6) & 22(23.4) & 9(9.6) & 3(3.2) & 3(3.2) & 94(8.0) \\ \hline Total & 754(63.8) & 294(24.9) & 98(8.3) & 25(2.1) & 10(0.8) & 1181(100.0) \\ \hline Married & 423(59.9) & 194(27.5) & 65(9.2) & 18(2.5) & 6(0.8) & 706(59.8) \\ Separated/Divorced & 29(56.9) & 13(25.5) & 5(9.8) & 4(7.8) & - & 51(4.3) \\ Widowed & 15(44.1) & 13(38.2) & 5(14.7) & - & 1(2.9) & 34(2.9) \\ Total & 754(63.8) & 294(24.9) & 98(8.3) & 25(2.1) & 10(0.8) & 1181(100.0) \\ \hline Educational Level & & & & & & & \\ No Formal Education & 37(66.1) & 11(19.6) & 6(10.7) & - & 2(3.6) & 56(4.7) \\ Primary & 51(60.0) & 22(25.9) & 10(1.8) & 2(2.4) & - & 85(7.2) \\ Secondary/Technical & 356(59.6) & 161(27.0) & 58(9.7) & 16(2.7) & 6(1.0) & 597(50.6) \\ Tertiary & 282(70.3) & 92(22.9) & 21(5.2) & 4(1.0) & 20(0.5) & 401(34.0) \\ Others & 28(66.7) & 8(19.0) & 3(7.1) & 3(7.1) & - & 42(3.5) \\ Total & 754(63.8) & 294(24.9) & 98(8.3) & 25(2.1) & 10(0.8) & 1181(100.0) \\ \hline Cccupation & & & & & & & & & \\ Schooling & 241(68.5) & 77(219) & 28(8.0) & 30(9) & 30(9) & 352(29.8) \\ Farming & 64(62.7) & 26(25.5) & 8(7.8) & 3(2.9) & 1(1.0) & 102(8.6) \\ Trading & 159(56.4) & 82(29.1) & 29(10.3) & 10(3.5) & 20(7) & 282(23.9) \\ Civil Servant & 164(63.8) & 294(24.9) & 98(8.3) & 25(2.1) & 10(0.8) & 1181(100.0) \\ \hline Income & & & & & & & & & & & \\ Below N20,000 & 471(70.0) & 144(21.4) & 45(6.7) & 8(1.2) & 5(0.7) & 673(57.0) \\ N20,000 - N60,000 & 471(50.1) & 124(28.8) & 48(11.2) & 14(3.3) & 4(0.9) & 430(36.4) \\ Above N0,000 & 471(50.1) & 124(28.8) & 48(11.2) & 14(3.3) & 4(0.9) & 430(36.4) \\ Above N0,000 & 471(50.8) & 124(28.8) & 48(11.2) & 14(3.3) & 4(0.9) & 430(36.4) \\ Above N0,000 & 471(50.8) & 294(24.9) & 98(8.3) & 25(2.1) & 10(0.8) & 1181(100.0) \\ \hline Income & & & & & & & & & & & & & & & & & & &$	19 - 30	333(70.4)	105(22.2)	30(6.3)	4(0.8)	1(0.2)	473(40.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	31 - 55	364(59.3)	167(27.2)	59(9.6)	18(2.9)	6(1.0)	614(52.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Above 55	57(60.6)	22(23.4)	9(9.6)	3(32)	3(32)	94(8.0)
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Marital Status	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, (()))			()
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Single	287(73.6)	74(19.0)	23(5.9)	3(0.8)	3(0.8)	390(33.0)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Married	423(59.9)	194(27.5)	65(9.2)	18(2.5)	6(0.8)	706(59.8)
Widowed15(44.1)13(38.2) $5(14.7)$ $ 1(2.9)$ $34(2.9)$ Total754(63.8)294(24.9)98(8.3) $25(2.1)$ $10(0.8)$ $1181(100.0)$ Educational LevelNo Formal EducationNo Formal Education $37(66.1)$ $11(19.6)$ $6(10.7)$ $ 23(6.7)$ Primary $51(60.0)$ $22(25.9)$ $10(11.8)$ $2(2.4)$ $ 85(7.2)$ Secondary/Technical $356(59.6)$ $161(27.0)$ $58(9.7)$ $16(2.7)$ $6(1.0)$ $597(50.6)$ Tertiary $282(70.3)$ $92(22.9)$ $21(5.2)$ $4(1.0)$ $2(0.5)$ $401(34.0)$ Others $28(6.7)$ $8(19.0)$ $3(7.1)$ $ 42(3.5)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$ OccupationSchooling $241(68.5)$ $77(21.9)$ $28(8.0)$ $3(0.9)$ $3(0.9)$ $352(29.8)$ Farming $64(62.7)$ $26(25.7)$ $8(7.8)$ $3(2.9)$ $1(1.0)$ $102(8.6)$ Trading $159(56.4)$ $82(29.1)$ $29(10.3)$ $10(3.5)$ $2(0.7)$ $282(23.9)$ Civil Servant $164(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$ IncomeIncomeBelow N20,000 $471(70.0)$ $144(21.4)$ $45(6.7)$ $8(1.2)$ $5(0.7)$ $673(57.0)$ N20,000 $461(66.0)$ $167(23.9)$ $33(9.9)$ $8(2.4)$ $1(0.3)$ $332($	Separated/Divorced	29(56.9)	13(25.5)	5(9.8)	4(7.8)	-	51(4.3)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Widowed	15(44.1)	13(38.2)	5(14.7)	-	1(2,9)	34(2.9)
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Educational Level	()		- ()			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	No Formal Education	37(66.1)	11(19.6)	6(10.7)	-	2(3.6)	56(4.7)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Primary	51(60.0)	22(25.9)	10(11.8)	2(2.4)	-	85(7.2)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Secondary/Technical	356(59.6)	161(27.0)	58(9.7)	16(2.7)	6(1.0)	597(50.6)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Tertiary	282(70.3)	92(22.9)	21(5.2)	4(1.0)	2(0.5)	401(34.0)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Others	28(66.7)	8(19.0)	3(7.1)	3(7.1)	-	42(3.5)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Occupation						
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Schooling	241(68.5)	77(21.9)	28(8.0)	3(0.9)	3(0.9)	352(29.8)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Farming	64(62.7)	26(25.5)	8(7.8)	3(2.9)	1(1.0)	102(8.6)
$\begin{array}{c cccccc} Civil Servant & 164(63.8) & 66(25.7) & 21(8.2) & 4(1.6) & 2(0.8) & 257(21.8) \\ Artisan & 102(69.4) & 33(22.4) & 8(5.4) & 4(2.7) & - & 147(12.4) \\ Others & 24(58.5) & 10(24.4) & 4(9.4) & 1(2.4) & 2(4.9) & 41(3.5) \\ \hline Total & 754(63.8) & 294(24.9) & 98(8.3) & 25(2.1) & 10(0.8) & 1181(100.0) \\ \hline \textbf{Income} & & & & & & \\ \hline Below \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Trading	159(56.4)	82(29.1)	29(10.3)	10(3.5)	2(0.7)	282(23.9)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Civil Servant	164(63.8)	66(25.7)	21(8.2)	4(1.6)	2(0.8)	257(21.8)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Artisan	102(69.4)	33(22.4)	8(5.4)	4(2.7)	-	147(12.4)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Others	24(58.5)	10(24.4)	4(9.4)	1(2.4)	2(4.9)	41(3.5)
IncomeImage of the second	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Income		, <i>, , , , , , , , , , , , , , , , , , </i>	• • •			• • • •
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Below ₩20,000	471(70.0)	144(21.4)	45(6.7)	8(1.2)	5(0.7)	673(57.0)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	₩20,000 - ₩60,000	240(55.8)	124(28.8)	48(11.2)	14(3.3)	4(0.9)	430(36.4)
Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$ Household SizeSmall $461(66.0)$ $167(23.9)$ $48(6.9)$ $14(2.0)$ $8(1.1)$ $698(59.1)$ Medium $213(64.2)$ $77(23.2)$ $33(9.9)$ $8(2.4)$ $1(0.3)$ $332(28.1)$ Large $80(53.0)$ $50(33.1)$ $17(11.3)$ $3(2.0)$ $1(0.7)$ $151(12.8)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$ Length of Stay1 - 10 years $414(68.4)$ $141(23.3)$ $39(6.4)$ $8(6.4)$ $3(0.5)$ $605(51.2)$ $11 - 25$ Years $202(60.3)$ $91(27.2)$ $37(11.0)$ $3(11.0)$ $2(0.6)$ $335(28.4)$ $26 - 40$ years $88(56.8)$ $40(25.8)$ $15(9.7)$ $9(9.7)$ $3(1.9)$ $155(13.1)$ Above 40 years $50(58.1)$ $22(25.6)$ $7(8.1)$ $5(5.8)$ $2(2.3)$ $86(7.3)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$	Above ₦60,000	43(55.1)	26(33.3)	5(6.4)	3(3.8)	1(1.3)	78(6.6)
Household SizeSmall $461(66.0)$ $167(23.9)$ $48(6.9)$ $14(2.0)$ $8(1.1)$ $698(59.1)$ Medium $213(64.2)$ $77(23.2)$ $33(9.9)$ $8(2.4)$ $1(0.3)$ $332(28.1)$ Large $80(53.0)$ $50(33.1)$ $17(11.3)$ $3(2.0)$ $1(0.7)$ $151(12.8)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$ Length of Stay1 - 10 years $414(68.4)$ $141(23.3)$ $39(6.4)$ $8(6.4)$ $3(0.5)$ $605(51.2)$ $11 - 25$ Years $202(60.3)$ $91(27.2)$ $37(11.0)$ $3(11.0)$ $2(0.6)$ $335(28.4)$ $26 - 40$ years $88(56.8)$ $40(25.8)$ $15(9.7)$ $9(9.7)$ $3(1.9)$ $155(13.1)$ Above 40 years $50(58.1)$ $22(25.6)$ $7(8.1)$ $5(5.8)$ $2(2.3)$ $86(7.3)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Household Size	,	• • • •	• • •			• • • •
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Small	461(66.0)	167(23.9)	48(6.9)	14(2.0)	8(1.1)	698(59.1)
Large $80(53.0)$ $50(33.1)$ $17(11.3)$ $3(2.0)$ $1(0.7)$ $151(12.8)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$ Length of Stay1 - 10 years $414(68.4)$ $141(23.3)$ $39(6.4)$ $8(6.4)$ $3(0.5)$ $605(51.2)$ $11 - 25$ Years $202(60.3)$ $91(27.2)$ $37(11.0)$ $3(11.0)$ $2(0.6)$ $335(28.4)$ $26 - 40$ years $88(56.8)$ $40(25.8)$ $15(9.7)$ $9(9.7)$ $3(1.9)$ $155(13.1)$ Above 40 years $50(58.1)$ $22(25.6)$ $7(8.1)$ $5(5.8)$ $2(2.3)$ $86(7.3)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $1181(100.0)$	Medium	213(64.2)	77(23.2)	33(9.9)	8(2.4)	1(0.3)	332(28.1)
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Large	80(53.0)	50(33.1)	17(11.3)	3(2.0)	1(0.7)	151(12.8)
Length of Stay $1 - 10$ years $414(68.4)$ $141(23.3)$ $39(6.4)$ $8(6.4)$ $3(0.5)$ $605(51.2)$ $11 - 25$ Years $202(60.3)$ $91(27.2)$ $37(11.0)$ $3(11.0)$ $2(0.6)$ $335(28.4)$ $26 - 40$ years $88(56.8)$ $40(25.8)$ $15(9.7)$ $9(9.7)$ $3(1.9)$ $155(13.1)$ Above 40 years $50(58.1)$ $22(25.6)$ $7(8.1)$ $5(5.8)$ $2(2.3)$ $86(7.3)$ Total $754(63.8)$ $294(24.9)$ $98(8.3)$ $25(2.1)$ $10(0.8)$ $11$ $81(100.0)$	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	1181(100.0)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Length of Stay	· · ·	• • •	• • •	•	· · ·	· · ·
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 - 10 years	414(68.4)	141(23.3)	39(6.4)	8(6.4)	3(0.5)	605(51.2)
$            \begin{array}{ c c c c c c c c c c c c c c c c c c c$	11 -25 Years	202(60.3)	91(27.2)	37(11.0)	3(11.0)	2(0.6)	335(28.4)
Above 40 years50(58.1)22(25.6)7(8.1)5(5.8)2(2.3)86(7.3)Total754(63.8)294(24.9)98(8.3)25(2.1)10(0.8)11 81(100.0)	26 – 40 years	88(56.8)	40(25.8)	15(9.7)	9(9.7)	3(1.9)	155(13.1)
Total754(63.8)294(24.9)98(8.3)25(2.1)10(0.8)11 81(100.0)	Above 40 years	50(58.1)	22(25.6)	7(8.1)	5(5.8)	2(2.3)	86(7.3)
	Total	754(63.8)	294(24.9)	98(8.3)	25(2.1)	10(0.8)	11 81(100.0)

Source: Author's Field Survey, 2015

Table 2 also established the relationship between income level and frequency of visits to healthcare facilities. For instance 70.0% of those earning below \$20,000 patronized the healthcare facilities less than 5 times while 21.4% of them visited 5 – 10 times, 6.7% visited 11 – 15 times, 1.2% (16 – 20 times) while the remaining 0.7% visited more than 20 times. Also, 55.8% of those earning between \$20,000 - \$60,000 patronized for less than 5 times, 28.8% (5 – 10 times), 11.2% (11 – 15 times). For those earning above \$60,000, 63.5% visited for less than 5 times, 33.3% (5 – 10 times), 6.4% (11 – 15 times), 16 – 20 times (3.8%) and over

20 times (1.3%). The chi-square test conducted revealed a statistically significant difference between income of household and the frequency of visits to healthcare facilities with  $\chi^{a} = 30.936$  at the degree of freedom of 8 and significant at p = 0.000 level.

As for the length of stay in relation to frequency of visits to healthcare facilities 68.4% of those that have stayed in their respective localities between 1 to 10 years patronized the facilities less than 5 times, 5 - 10 times (23.3%), 11 - 15 and 16 - 20 accounted for 6.4% each and over 20 times (0.5%). Those that have stayed for between 11 to 25 years visited the facilities for less than 5 times (60.3%), 27.2% (5 to 10 times) and between 11 - 15 and 16 - 20 times accounted for 11.0% each and over 20 times (0.6%). While 56.8% that have stayed for between 26 - 40 years visited less than 5 times, 5 - 10 times (25.8%), visits between 11 - 15 and 16 - 20 times accounted for 55.1%, 25.6%, 8.1%, 5.8% and 2.3% visits less than 5 times, 5 - 10 times, 11 - 15 times, 16 - 20 times and over 20 times respectively. The chi-square test result revealed that  $\chi^2 = 36.786$  at the degree of freedom of 12 and significant at p = 0.000 level.

All in all the overall results from the Table revealed a sharp decline in the number of respondents visiting the healthcare facilities as the frequency of visits increased for the socio-economic determinant variables.

#### 6 Policy Option

Based on the analysis in this study, it has been revealed that as the frequency of visits increased, there is a sharp decrease in the number of respondents visiting the healthcare facilities. This is true for all the socio-economic determinant variables. Thus, this study recommends the following:

More healthcare facilities be provided and should be located closer to the people within shortest possible distance especially in Ondo North and Ondo South senatorial district, this will help in reducing the distance covered thereby reducing the amount residents spend in assessing healthcare. Efforts should be made to ensure equity in the distribution of public healthcare facilities across the three senatorial districts of Ondo State and this should take into consideration the location of the existing healthcare facilities and apply the planning standard so as to promote equitable distribution of the healthcare facilities. Moreover, in order to achieve the objective of the National Health Policy, provision of adequate healthcare facilities in rural areas of the State is necessary since accessibility is regarded as a very fundamental issue in patronage/frequency of visits to healthcare facilities. Also the number of facilities provided should be proportional to the population size of the area.

In addition, government should put in place strategies that will make healthcare affordable to citizens of the country irrespective of their social status, this can be achieved through increase in minimum wage, expansion of the National Health Insurance Scheme (NHIS) to cover all and sundry. Government must realize that the wellbeing of its citizens depends on how much commitment they have for their welfare. Healthcare is a welfaristic venture or exercise that government must be involved in, for the sake of enhancing the quality of life of its people.

## 7 Conclusion

This study has examined the relationship between socio-economic characteristics of residents and frequency of visits to healthcare facilities in Ondo State. Socio-economic factors considered were gender, age, marital status, educational attainment, income, occupation and residents' length of stay. The study revealed that the number of people visiting the health facilities diminishes as the number of visits increases. A significant difference exists between the age of residents and frequency of visits to healthcare facilities, also, there is also a significant difference between marital status and frequency of visits to healthcare facilities across the three senatorial districts. On the relationship between education and frequency of visits to healthcare facilities, differences exist between the levels of education and their pattern of visits to healthcare facilities.

It was observed that socio-economic characteristics of residents plays a significant role in determining their frequency of visits to healthcare facilities therefore efforts should be put in place in order to improve or enhance the socio-economic characteristics of residents which will improve their access to healthcare facilities.

#### References

- Adamu, H.S (2011): Utilization of Maternal Health Care Services in Nigeria: An Analysis of Regional Differences in the Patterns and Determinants of Maternal Health Care Use. M.Sc. thesis, Department of Public Health, The University of Liverpool.
- Adeyemi, E.O. (2003): Socio-Economic Differentials in Healthcare Choices: Implications for Maternal Mortality in Nigeria. http://paa2009.princeton.edu/papers/90996. Accessed on 16th June, 2014
- Adeyinka, M.A. (2013): Spatial Distribution, Pattern and Accessibility of Urban Population to Health Facilities in Southwestern Nigeria: The Case Study of Ilesa. *Mediterranean Journal of Social Science*. 4(2): 425-436.

- Adeyinka, S.A (2006): Locational Analysis of Health Care Facilities in Ife Region. Ph.D Thesis Department of Urban and Regional Planning, Obafemi Awolowo University, Ile-Ife, Nigeria.
- Agaja, S.A. (2012): Spatial Distribution of Primary Health Care Centres in Ughelli South and Warri South Local Government Areas of Delta State, Nigeria. *International Journal of Scientific & Technology Research*, 1 (9): 38-41.
- Agnihotri, R.C. (1995): Geomedical Environment and Health Care, Rawat Publications, Jaipur: 193, 195,198, 205.
- Badiora, A. I. (2012). Spatio-Temporal Pattern of Crime and Delinquency in Ile-Ife, Nigeria. M.Sc.Dissertation, Department of Urban and Regional Planning, Obafemi Awolowo University, Ile-Ife, Nigeria.
- Baker, J.B. (2005): Examining Spatial Patterns of Primary Healthcare Utilization in Southern Honduras. Ph.D. Dissertation, Department of Geography, University of Cincinnati.
- Becker, G and Newsom, E. (2003): Socio Economic Status and Dissatisfaction with Health Care and Chronologically African America. American Journal of Public Health. 93(5): 742-748. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447830/ Accessed on 2<sup>nd</sup> November, 2015.
- Buor, D. (2005): Determinants of Utilization of Healthservices by Women in Rural and Urban Areas in Ghana. *GeoJournal*, 61(1): 89-102.
- Chen, L. and Narasimhau, V. (2003): Human Security and Global Health, *Journal of Human Development*, 4(2): 181-190. http://home.hiroshima-u.ac.jp/heiwa/Pub/E19/chap8.pdf
- Eme, O.I, Uche O.A and Uche, I.B. (2014): Building a Solid Healthcare System in Nigeria: Challenges and Prospects. *Academic Journal of Interdisplinary Studies*. MCSER 3(6): 501-510
- Eyo, E and Edem, E. (2009): E-Health Services in Rural Communities of Developing Countries, Munich, GRIN Publishing GmbH, http://www.grin.com/en/e-book/158436/e-health-services-in-rural-communities-ofdeveloping-countries.
- Federal Ministry of Health (FMOH) (2004): Health Care in Nigeria. Annual Bulletin of the Federal Ministry of Health, Abuja, Nigeria
- Ibor, U.W. and Atomode, T.I. (2014): Health Service Characteristics and Utilization in Calabar Metropolis, Cross River State, Nigeria. *Academic Journal of Interdisciplinary Studies*.3(1): 265-270
- Jayamala, M (2008): Trends and Spatial Patterns of Crime in India: A Case Study of a District in India. A Doctoral Dissertation in Sociology, Annamalai University, India.
- Okafor, S.I. (1983): Factors Affecting the Frequency of Hospital Trips among a Predominantly Rural Population. Social Science and Medicine. 16: 19-21
- Olamiju, I.O. and Olujimi, J.A.B. (2011): Regional Analysis of Locations of Public Educational Facilities in Nigeria: The Akure Region Experience. *Journal of Geography and Regional Planning* 4(7): 428-442
- Olawuni, P.O. (2008): Socio-Economic Factors and Residents Health in Nigerian Urban Centres. African Research Review. 2 (3): 236-248.
- Olujimi, J.A.B. (2006): Significant Factors Affecting Patronage of Health Facilities by Rural Dwellers in Owo Region, Nigeria. *The Social Sciences* 1 (3):206-215.
- Owoola, M.A. (2002): Between policy and practice: A Spatial Decision Support System-Based Assessment of Facility Location Planning in Nigeria. Ottawa: Symposium on Geospatial Theory, Processing and Applications. www.isprs.org/proceedings/xxxiv/part4/pdfpapers/086
- Owoseni, J. S, Oluwadare, C.T., Jegede, L. I. and Ibikunle, A. M. (2014): Socio-economic status and utilization of healthcare facilities in rural Ekiti, Nigeria. *Standard Research Journal of Medicine and Medical Sciences*. 2(1): 001-043. http://www.standresjournals.org/journals/SRJMMS
- Riman, H.B. and Akpan E.S (2012): Healthcare Financing and Health Outcome in Nigeria: A State Level Study Using Multiviarate Analysis. *International Journal of Humanities and Social Science*. 2(15): 296-309
- Sanni, L. (2010): Distribution Pattern of Healthcare Facilities in Osun State, Nigeria. *Ethiopian Journal of Environmental Study and Management.* 3(2): 65.
- UN. (2000): The Right to the Highest Attainable Standard of Health: 11/08/2000. E/C.12/2000/4. (General Comments). Office of the United Nations High Commissioner for Human Rights. http://www.unhchr.ch/tbs/doc.nsf/(symbol)/E.C.12.2000.4.En. Accessed on 9<sup>th</sup> May, 2016 World Health Organization (WHO) (2000): The World Health Report 2000- Health Systems: Improving performance. Geneva, World Health Organization.
- World Health Organization (2006): World Health Statistics, http://hdr.undp.org/hdr2006/statistics/indicators/58.html. Accessed on 14<sup>th</sup> January, 2014