

# Health Care Facilities Utilization in the Core Area of Akure, Nigeria

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**Abstract** - This study examined the utilization of health care facilities in the core area of Akure, Nigeria. The study adopted random sampling technique in selecting 392 residents drawn from five residential areas randomly selected from the 25 residential areas that made up the core area of Akure. Findings from the study revealed that socio-economic characteristics of the people play a significant role in the utilization and patronage of health care facilities. Further analysis revealed that availability of health care facilities, minimal commuting distance to the available health care facilities as well as the moderate cost of treatment, the fairly adequate facilities are some of the factors that influence residents utilization and patronage of health care facilities in the study area. The study therefore concludes by advocating for the improvement in the socio-economic characteristics of the people as well as provision of more health care facilities located very close to the people which will no doubt increase the patronage and utilization of health care facilities in the study area.

**Keywords:** Core Area, Health care, Socio-Economic, Utilization

## 1 INTRODUCTION

Infrastructure has been defined as those facilities and services that provide the backbone for the development of other sectors of the economy [1]. It plays an important role in development of natural and human resources of both developed and developing countries. This is because it is seen as one of the basic physical and organizational structure needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. Infrastructure is of various types which include health infrastructure that have been conceived by [2] to include health system, financial management, institution and legal frame work, operation and monitoring. It can be used in judging a country or region's development because it contributes positively to economic development by creating healthy work force, which leads to increasing productivity. Therefore its importance to the existence of human being cannot be overemphasized [3].

Health has been defined variously by many organizations and scholars but all have the same conclusion. The [4] defined health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. [5] described health as a state whereby one is free from either physical or spiritual (mental) illness, or by any kind of injury. Also, [6] sees health as a state of well-being which is denoted by a physical and mental ability that satisfies the dictate of life and commensurable with age, culture, and individual responsibility. By these it is obvious that health have a great impact on peoples income and efficiency, it also affects educational performance (which in turn determines employment prospects); and it is also major determinant of people willingness to enjoy and treasure all other facets of life [7].

It is evident from the above definitions that without having a good health sector that is, a government department which sees to the provision and management of health care facilities and services in a country, a healthy population cannot be totally achieved. By these, [5] defined health care facilities as those facilities or equipment that are provided for an improved healthy living of the patients which include availability of drugs, vaccines, potable water, constant electricity supply and availability of competent health workers. Moreover, [8] defined health care utilization as the use of health care services by the people which is said to be determined by several factors, among which are: availability of facilities, quality as well as cost of services, and also the socio-economic characteristics of the patrons [9].

Studies have shown that many urban residents especially the urban poor in cities of developing nations travelled over a considerable distance and spend a sizeable part of their earnings so as to utilize health care facilities and services [10]; [11] and [12]. These studies further revealed that most low income earners make fewer trips to health care facilities because of high cost of transport as well as high cost of treatment. Several researches have also shown that there is a high level of association between the socio-economic characteristics of residents and their level of utilization of health care facilities [13]; [14]; [15] and [3]. [15] was of the opinion that the socio-economic attribute of a country will probably influence the health status of her residents, in other words, better economy indicator will lead to better condition of health of the residents. This study therefore examines the utilization of health care facilities in the core area of Akure, Nigeria which is hoped to add to the body of knowledge in health care delivery system in Nigeria.

## 2 STUDY AREA

The study area is Akure in south western part of Nigeria, Akure is a medium-sized urban centre that has been in existence long before the emergence of colonialism in the country. It became the provincial headquarter of Ondo province in 1939, the capital city of Ondo State and a local government headquarter in 1976. Akure lies between latitude 7° 15' north of the

equator and longitude 5° 15' east of the Greenwich meridian (Figure 1a). The study area is bounded by Akure North local government area (LGA) to the North East, Ifedore LGA to the North West and Idanre to the west and Southern part. It is about 250 metres above the sea level. It occupies a land area of 2,303 square kilometres. The core area of Akure occupies a land area of about 3.6sq. km with a population of about 33,303 inhabitants.



Figure 1a: Ondo State in the context of Nigeria

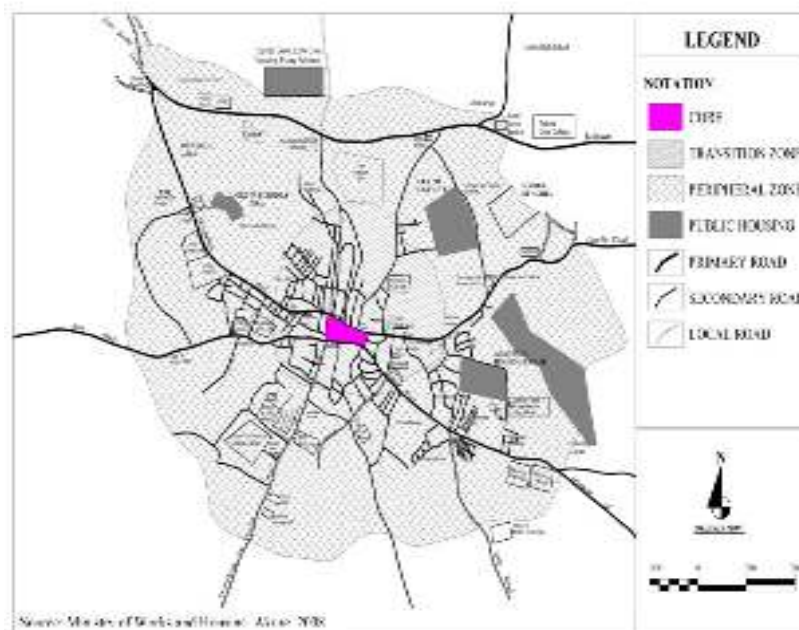


Figure 1b: Residential Areas of Akure

The city is divided into four zones, these are the core area, the transition zone, the peripheral zone and the public housing districts. The core area is situated at the centre of the town (figure 1b). This is the area of the city that houses pre-colonial development with long historical origin. Mainly occupied by indigenes, the area mainly consists of old buildings built before the colonial period. Buildings in the zone are usually built closely together with footpaths as the main means of accessibility. The buildings are overpopulated with majority of the people residing in houses that are mainly of traditional courtyard system and popularly called face-me-I-face-you. The core area in Akure covers Araromi, Oja Oshodi, Isolo, Ijomu, Odo-Ikoyi, Igann, Odo-Ijoka, Isolo, Erekefa, Erekesan, and Oritagun, amongst others. According to [16], the core area of Akure is predominantly made up of urban dwellers exemplified by low socio-cultural adaptation to present day city technologies; hence the twist observed in the zone

### 3. RESEARCH METHODS

The study was conducted in the core area of Akure, the capital city of Ondo State. The study area comprised a total of twenty five (25) residential areas. Systematic sampling technique was employed in selecting one out of every five residential areas without replacement, this result in selection of five residential areas for study. The names of the selected residential areas are Araromi, Odo-Ikoyi, Isolo, Oja Oshodi and Ijomu, 1305 residential buildings were identified in the selected residential areas. The study adopted random sampling technique in selecting 30% of the identified buildings in each residential area for survey, in the selected areas, household heads were the targeted respondents in the identified residential buildings but where the selected building is not residential the next residential building was sampled. In all a total of 392 respondents were sampled in the study area.

### 4. RESEARCH FINDINGS

#### 4.1 Socio-Economic Characteristics of Residents

It is a well established fact that socio-economic attributes of residents play significant role in influencing their health seeking behavior [17]. The socio-economic variables investigated include age, gender, marital status, level of education, occupational status, average monthly income and residents' length of stay.

**Table 1: Socio-Economic Characteristics of Residents**

Socio-Economic Status	Frequency	Percentage
<b>Gender</b>		
Male	182	46.4
Female	210	53.6
<b>Age</b>		
18 – 35 years	78	19.9
36 – 60 years	227	57.9
Above 60 years	87	22.2
<b>Marital Status</b>		
Single	54	13.8
Married	296	75.5
Separated/ Divorced	27	6.9
Widowed	15	3.8
<b>Educational Level</b>		
No formal education	56	14.3
Primary	95	24.2
Secondary/Technical	158	40.3
Tertiary	83	21.2
<b>Occupation</b>		
Farming	129	32.9
Trading	63	16.1
Civil Servant	67	17.1
Artisan	100	25.5
Schooling	33	8.4
<b>Income</b>		
Below ₦ 30,000 (LI)	203	51.8
₦ 30,000 – ₦ 60,000 (MI)	153	39.0
Above ₦ 60,000 (HI)	36	9.2
<b>Household Size</b>		
Small	125	31.9
Medium	182	46.4
Large	85	21.7
<b>Residents Length of Stay</b>		
1 – 10 years	15	3.8
11 – 20 years	36	9.2
21 – 30 years	101	25.8
31 – 40 years	170	43.4
Above 40 years	70	17.8

Source: Authors Fieldwork, 2019

Presented in Table 1 is respondents socio-economic profile. Findings revealed that 46.4% of the residents were male while 53.6% were female, this implied that most of the household heads in the core area of Akure are females. Age is expected to play an important role in the utilization and patronage of health care facilities. [17] opined that age is a major determinant in knowledge of accessibility and patronage of health care facility. This implies that older residents are expected to patronize health care facilities than the younger ones. For this study, age of the household heads were grouped into three:

18-35 years (classified as youths), 36-60 years (classified as young adults) and those above 60 years (classified as old people/adults). Majority of the residents (57.9%) in the core area were young adults (36 – 60 years), 22.2% were adults/old people while the remaining 19.9% were youths. This finding revealed that there are more active population (36 – 60 years) and this will require health care facilities and services for better and productive population. From the summary presented in Table 1, 75.5% of the respondents are married, while 13.8%, 6.9% and 3.8% of respondents were single, separated/divorced and widowed respectively.

Education needless to say is a priority sector in every well-being society and it is an important variable in determining health care facility utilization [18]. Findings on residents' educational qualification revealed that 40.3%, 24.2% and 21.2% of the residents had secondary, primary and tertiary educational qualification respectively while those with no formal education accounted for 14.3%.

Income is a measure of wealth and has been identified as part of the important indicators of service utilization and degree to which income influences health seeking behaviour [19]. Income is expected to greatly influence or determine the type of health care facility a household/resident will utilize. In this study, the income of household heads were categorized into three: low income earners (LI), middle income earners (MI) and high income earners (HI), those who earn below ₦30,000.00 per month are low income earners, those that earn between ₦30,000.00–₦60,000.00 per month are medium income earners, ₦60,000.00 and above are the high income earners. Findings presented in Table 1 revealed that more than half of the population (51.8%) earn below ₦30,000.00, 39.0% were middle income earners, while the remaining 9.2% were high income earners in the core area of Akure. This result shows that more than half of the residents earn below the country's minimum wage of ₦30,000.00, the effect of this is that the people will lack the economic power to utilize health care facilities especially when they are sick which will invariably lead them to seek for alternatives like visiting spiritual homes, traditional healers and also practicing self medication. This result validates the findings of [20] that income level of residents influences health care service utilization. It was evident from the analysis presented in Table 1 that 32.9% of the residents engaged in farming as their main occupation while 16.1%, 17.12%, 25.5% and 8.4% are traders, civil servants, artisans and students respectively. This shows that farming is the predominant occupation in the study area.

Household size of the respondents was also

considered and was grouped into three. These are household with 1 - 5 members (small sized), household that contains 6 - 10 members (medium sized) and household with 10 and more members (classified as large sized). From the findings, majority (46.4%) of the residents of the core area of Akure have a family size of 6 - 10 members, those with family members of below 5 accounted for 31.9% while the remaining 21.7% are those with large family size of above 10 members. [21] was of the opinion that the longer the years a resident stays in a specific location, the better the opportunity to have the understanding about the availability, adequacy, the cost of receiving treatment as well as attitude of workers in health care facilities within and outside their place of residence. Findings revealed that majority of the residents (43.4%) had resided in the core area of Akure between 31-40 years, those who have lived in the area between 21-30 years accounted for 25.8% while the remaining 17.8%, 9.2% and 3.8% have resided in the area for more than 40 years, between 10-20 years and 1-10 years respectively.

#### 4.2 Utilization of Health care Facilities

Utilization of health care facilities to a greater extent is influenced by availability and accessibility of health care facilities to the residents of a particular locality. In health care delivery, availability shows the number of healthcare facilities that are ready to be used by the residents. Observations in recent periods indicate that even at the state level, there is marked variation among local government areas. This is why some local governments have a reasonable concentration of healthcare facilities relative to their population sizes; others do not have adequate healthcare facilities [22]. In most developing countries, over 60 percent of medical facilities are concentrated in the urban areas [23]. Presented in Table 2 is the information on the type of healthcare facilities available in respondents' place of abode. The table revealed that 71.7% of the residents are aware of the availability of State Specialist Hospital (SSH) in Akure, 20.8% were of the opinion that the SSH is not available while the remaining 8% claimed they are not aware of its availability. Majority of the respondents (88.5%) affirmed to the availability of Mother and Child Hospital in Akure, 9.6% were of the opinion that the MCH is not available and the remaining 1.9% claimed that they are not aware of its availability. Findings also revealed that majority, a greater proportion of the residents are of the opinion that Comprehensive Health Centre, Basic Health Centre and Maternity centre are available to the residents of the core area of Akure. The respondents equally affirmed to the availability and presence of private hospitals in the study area, 98.9% were of the opinion

that private hospitals are available to the residents while only 1.1% claimed that they are not aware of its availability. The residents further revealed that they prefer to utilize government owned health care facilities because they are better staffed and are provided

with adequate personnel with low cost of treatment, this findings corroborate the findings of [24] and [25] that patrons prefer to patronize public health facilities

**Table 2: Type of Health care Facilities Available in Respondents Place of abode**

	SSH	MCH	CHC	BHC	PH	LH	Maternity Centre	Private Hospital
Available	281 (71.7)	347 (88.5)	144 (36.7)	347 (88.5)	18 (4.6)	65 (16.6)	299 (76.3)	387 (98.7)
Not Available	79 (20.2)	38 (9.7)	71 (18.1)	18 (4.6)	199 (50.8)	302 (77.0)	93 (23.7)	0 (0.0)
Not Aware	32 (8.1)	7 (1.8)	177 (45.2)	27 (6.9)	175 (44.6)	25 (6.4)	0 (0.0)	5 (1.3)
<b>Total</b>	<b>392</b>	<b>392</b>	<b>392</b>	<b>392</b>	<b>392</b>	<b>392</b>	<b>392</b>	<b>392</b>

Key: *SSH* (State Specialist Hospital), *MCH* (Mother and Child Hospital), *CHC* (Comprehensive Health Centre), *BHC* (Basic Health Centre), *PH* (Psychiatric Hospital), *LH* (Leprosy Hospital)

Source: Authors Fieldwork, 2019

To further ascertain the utilization of health care facilities in the study area, duration of visiting the available health care facilities by the residents was investigated and the result of the findings as presented in Table 3 revealed that a larger percentage of residents accounting for 44.9%, 62.3%, 48.9%, 57.3% and 40.6% in Araromi, Odo Ikoyi, Isolo, Oja Osodi and Ijomu respectively had visited the facilities in the past 5 years, those that had visited the available facilities between 5

and 10 years accounted for 33.2%, 30.2%, 33.7%, 29.4% and 37.6% while 17.9%, 7.5%, 17.4%, 9.8% and 21.8% of the residents across the different residential areas visited the facilities in the past 10 years and above.

**Table 3: Duration of Visiting the Healthcare Facilities**

Residential Area	Duration of Visiting the Facilities			Total
	Past 5 Years	Between 5 and 10 Year <sub>1</sub>	Above 10 Years	
<b>Araromi</b>	35 (44.9)	29 (33.2)	14 (17.9)	<b>78 (19.9)</b>
<b>Odo Ikoyi</b>	33 (62.3)	16 (30.2)	4 (7.5)	<b>53 (13.5)</b>
<b>Isolo</b>	45 (48.9)	31 (33.7)	16 (17.4)	<b>92 (23.5)</b>
<b>Oja Oshodi</b>	39 (57.3)	20 (29.4)	9 (9.8)	<b>68 (16.3)</b>
<b>Ijomu</b>	41 (40.6)	38 (37.6)	22 (21.8)	<b>101 (25.8)</b>
<b>Total</b>	<b>193 (47.2%)</b>	<b>134 (36.2%)</b>	<b>65 (16.6%)</b>	<b>392 (100.0)</b>

Source: Authors Fieldwork, 2019

Presented in Table 4 is the summary of the actions taken by residents during illness. As revealed in the Table, majority of the residents (32.5%) across the different residential areas indicated that they visit the chemist after sickness, 22.6% were of the opinion that they result to the use of traditional/local herbs whenever they are sick. Those that seek medical attention by visiting the hospital accounted for 22.1% of the total responses, while 11.8% of the population represents

percentage of people that resulted into self medication after sickness. The remaining 7.5% and 3.5% of the population are those that did nothing after sickness and those that visit the spiritualist respectively across the different residential areas. The above analysis shows that majority of the residents across the different residential areas of the core area of Akure (32.5%) resulted into patronizing the chemist whenever they are sick.

**Table 4: Action taken by Residents when Sick**

Senatorial Distric	Action taken after Sickness						Total
	Self Medication	Visit the Hospital	Visit the Chemist	Visit the Spiritualist	Use Herbs	Did Nothing	
Araromi	23 (20.9%)	25 (22.7%)	31 (28.2%)	4 (3.6%)	17 (15.5%)	10 (9.1%)	110 (19.3)
Odo Ikoyi	13 (16.0%)	18 (22.2%)	26 (32.1%)	3 (3.7%)	15 (18.5%)	6 (7.4%)	81 (14.2)
Isolo	10 (7.7%)	23 (17.7%)	46 (35.4%)	6 (4.6%)	37 (28.5%)	8 (6.2%)	130 (22.8)
Oja Osodi	9 (9.7)	21 (22.3)	35 (37.2)	2 (2.1)	16 (17.0)	11 (11.7)	94 (16.5)
Ijomu	12 (7.7)	39 (25.2)	47 (30.3)	5 (3.2)	44 (28.4)	8 (5.2)	155 (27.2)
<b>Total</b>	<b>67 (11.8%)</b>	<b>126 (22.1%)</b>	<b>185 (32.5%)</b>	<b>20 (3.5%)</b>	<b>129 (22.6%)</b>	<b>43 (7.5%)</b>	<b>570 (100.0)</b>

*Note \** The total exceeded the number of questionnaire administered because of multiple responses.

Source: Authors Fieldwork, 2019

Another factor that influenced utilization of health care facility is the cost of treatment/services rendered at the healthcare facilities. Residents view on the cost of treatment were sought and their responses as presented in Table 5 revealed that 27.0% of the respondents rated the cost of receiving treatment in the study area to be very high. Residents that adjudged the money paid for treatment to be high accounted for 25.3%, while majority of the residents (35.2%) see

the price paid for receiving treatment to be moderate. The Table further revealed that 9.4% and 3.1% of the residents were of the opinion that the cost of treatment is low and very low respectively. There is no doubt that moderate and low cost of treatment/service rendered in the health care facilities will encourage usage of the facilities in the study area.

**Table 5: Cost of Treatment**

Cost of Treatment	Frequency	Percentage (%)
Very High	106	27.0
High	99	25.3
Moderate	138	35.2
Low	37	9.4
Very Low	12	3.1
Total	392	100.0

Source: Authors Fieldwork, 2019

Accessibility of residents to the available health care facilities was also examined. Accessibility

according to [26] is an important factor determining usage of health care facilities in developing nations.

Accessibility is examined in this study as the average distance residents covered to the nearest health care facility and this was grouped into three according to [27]. These were below 400 m (5 minutes walk) as short distance, 401 – 800 m (10 minutes walk) as normal distance and 801 – 1200 m (20 minutes walk) as long distance. From the analysis in Table 6, majority of the residents (53.8%) covered distance below 400 metres to the nearby health care facilities. Also, residents that covered a distances of between 401 to 800 metres accounted for 36.8%, while the remaining 9.4% of the population covered a space of between 801 and 1200 meters to the available health care facilities. This finding corroborate

the works of [28], [29] that residents lived close to their preferred health care facilities also the distance residents covered to health care facilities is within the standard distance recommended by World Health organization that an intermediate hospital should have a maximum radius of 60 kilometers [30]. This result is in perfect agreement with the distance decay function which states that interaction between two places decreases as the distance increases. This implies that health care facilities close to the people will enjoy higher patronage and utilization.

**Table 6: Distance of Health Care Facilities from Home**

Distance	Frequency	Percentage (%)
Below 400m	211	53.8
401 – 800m	144	36.8
801 – 1200m	37	9.4
Total	392	100.0

Source: Authors Fieldwork, 2019

Residents were further asked to assess the adequacy of the available health care facilities within the core area of Akure and the responses as presented in Table 7 shows that 26.0% of the residents were of the opinion that the available health care facilities were adequate while the remaining 41.3% and 32.7% of the respondents claimed that the health care facilities located within their neighbourhood are fairly adequate and inadequate respectively. The implication of this is

that the rate of populace falling ill will be high and the residents will depend more on seeking alternatives to healthcare services which can also lead to a high mortality rate as a result of inadequate health care facilities. The residents further opined that the availability of different tiers of health care facilities in the city of Akure and the limited distances covered enhanced their access to health care facilities

**Table 7: Adequacy of Health care facilities**

Adequacy of Facilities	Frequency	Percentage (%)
Adequate	102	26.0
Fairly Adequate	162	41.3
Inadequate	128	32.7
Total	392	100.0

Source: Authors Fieldwork, 2019

### 4.3 Residents' Reasons(s) for Utilizing Available Health care Facilities

In order to determine this, residents were provided with various options on why they patronize or utilize the available facilities in the core area of Akure. They expressed their options on each available facility

using five point Likert scales of *Very Important (VI)*, *Important (I)*, *Moderately Important (MI)*, *Not Important (NI)*, *Just Not Important (JNI)*. The data analysis was done using the index called 'Resident Level of Importance Index' (RLII).

**Table 8: Residents’ view of reasons for utilizing health care facilities**

Reasons	NI	JNI	MI	I	VI	SWV	RLII
The only available healthcare facility	0	0	31	103	258	1895	4.83
It is essential for my survival	0	0	0	137	253	1813	4.65
Quality of personnel	0	0	20	149	222	1766	4.52
Charges (medical cost) are moderate (affordable)	0	0	14	199	179	1766	4.42
Nearest to my Residence	0	0	0	235	157	1725	4.40
Availability of Drugs	0	0	10	171	211	1769	4.51
Level of awareness	5	4	79	116	188	1654	4.22
Quality of service	0	0	50	211	131	1649	4.20
Proximity to my place of work	25	19	108	129	111	1458	3.72
Type of sickness	48	31	98	120	95	1359	3.47
Family hospital	40	31	135	97	88	1335	3.41
Attitude of workers/staff	86	96	59	79	72	1134	2.89
Religious belief	102	96	105	45	44	1009	2.57
The environment of the healthcare facility is neat	95	113	99	47	38	1006	2.57
Payment Procedure is Quick and Simple	139	142	61	22	28	834	2.13

Key: NI (Not Important), JNI (Just Not Important), MI (Moderately Important), I (Important), VI (Very Important)  
 Source: Authors Fieldwork, 2019

$$\sum RLII = 56.51, \overline{RLII} = \frac{\sum RLII}{(N = 15)} = \frac{56.51}{15} = 3.77$$

Presented in Table 8 are the residents perceived reasons for utilizing the available health care facilities. The RLII was 3.77, this implied that the residents attached more importance to these reasons in utilizing the available facilities in the study area. The reasons with the highest mean in the study area include: the only available health care facility (4.83), it is essential for my survival (4.65), quality of personnel (4.52), availability of Drugs (4.51), charges (medical cost) are moderate (affordable) (4.42), nearest to my Residence (4.40), level of awareness (4.22) and quality of service (4.20). The residents perceived the above reasons as very important in utilizing health care facilities in the core area of Akure. Three of the reasons are in moderately important category, they are proximity to my place of work (3.72), type of sickness (3.47) and family hospital (3.41). The remaining four reasons are classified by the residents as not important reasons for utilizing health care facilities, they are attitude of workers/staff (2.89), religious belief (2.57), the environment

of the health care facility is neat (2.57) and payment procedure is quick and simple (2.13). It can be concluded from the above that the residents attached very important reasons to several factors that enhances their utilization of health care facilities in the core area of Akure.

## 5. Conclusion

This paper has examined the utilization of health care facilities in the core area of Akure in southwestern part of Nigeria. The analysis revealed that the socio-economic attribute of the people play a significant role in the utilization and patronage of health care facilities in the core area of Akure. Also the availability of the healthcare facilities within a commuting distance which falls within the WHO recommended distance which also is in agreement with the distance decay function which states that interaction between two location decreases as the distance increases enhances the residents utilization of health care facilities in the



study area. This paper therefore advocate for the improvement of the socio-economic status of the residents which is believed will invariably improve their utilization and patronage of the available health care facilities. Also, more healthcare facilities should be made available, accessible, well equipped with adequate and modern medical facilities and be located very close to the residents of the core area at minimal cost, this will invariably reduce the commuting distance in term of time spent and cost of traveling to the health care facilities and this is expected to reduce invariably the waiting time, cost of travel as well as cost of treatment and this will increase access to and the utilization of the available health care facilities in the core area of Akure and in the core areas of similar cities in Nigeria.

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