

SPATIAL DISTRIBUTION AND ACCESSIBILITY TO HEALTHCARE FACILITIES IN AKURE SOUTH LOCAL GOVERNMENT AREA OF ONDO STATE, NIGERIA

Omotayo Ben OLUGBAMILA*

Department of Urban and Regional Planning, Obafemi Awolowo University, Ile-Ife, Nigeria,
e-mail: olugbamilao@gmail.com

Abstract: This study examines the distribution and accessibility to healthcare facilities in Akure South Local Government Area of Ondo State. GPS was used to pinpoint the location of each of the existing healthcare facilities in the 11 political wards of the study area. In order to establish the distribution pattern of public and private healthcare facilities, the Nearest Neighbour Analysis was used. Data were also collected using structured questionnaire administered on the residents of the 11 political wards in order to assess the accessibility pattern of residents to healthcare facilities in the study area, a total of 551 questionnaire were randomly administered on the residents. The result revealed that the distribution of healthcare facilities were random rather than being clustered or dispersed and that commuting distance to the healthcare facilities is within the WHO recommended distance. The study therefore recommend that stakeholders in the health sector and Town Planners should ensure equity in the distribution of public healthcare facilities across the Local Government Area 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.

Key words: Access, Akure South LGA, Health, Healthcare facilities, Spatial Distribution,

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INTRODUCTION

Health is a basic element of every citizen in a country. The health of man has been regarded as most important, because all economic activities are mainly carried on by man. Adeyinka (2006) posited 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 (FMOH, 2004). Health related issues therefore are of strategic concern to all including government, professionals and consumers. 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 maintenance of good health therefore and easy access to adequate healthcare has been a challenge to mankind because healthcare as a public right is the responsibility of the governments

* Corresponding Author

and it is to provide this care to all people in equal measure (Spencer and Angeles, 2007). This challenge has led to attempts by government(s) and non-governmental organizations/outfits to set up public healthcare facilities in various parts of the world.

Access to healthcare facilities therefore varies across space because of uneven distribution of healthcare providers and consumers and also varies among population groups. In Nigeria, explicit consideration has not been given to the need for equity in the planning and distribution of healthcare facilities over the years. 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) cited in Adeyinka and Olugbamila (2016) 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 man power resources in the country. Available healthcare facilities are unevenly distributed. Tertiary hospitals in secured areas where large population concentrate and without adequate first contact capacity in their proximity, tend to be overcrowded with patients suffering from common conditions (WHO, 2010). Conversely, many peripheral primary healthcare facilities were not patronized because of the poor services they provide, lack of access, and competition by alternative provider. Also, informal charging by health workers may also deter service consumption (WHO, 2010). A number of factors are responsible for the variation in the spatial distribution of healthcare facilities among the states in Nigeria. Among these are population growth, economic development, increase in human knowledge, social transformation, psychological motives, political strategies, role of missionaries, roles of community development, self-help activities and as well as the nature of settlement pattern and distribution (Onokerhoraye, 1995 cited in Balogun and Alaegor, 2006).

Every government in Nigeria holds the view that a healthy population is essential for rapid socio-economic development of the country hence, healthcare is on the concurrent list in the Nigerian constitution and its allocation comes next to education and defence in the national budget. Moreover, the Federal, State and Local Governments have formulated various policies, at one time or the other, which tended to focus attention on providing and equipping health facilities and recruitment of more health work force to make health services more accessible to the people.

In spite of all this, Nigeria is still in a very poor state of health (Olujimi, 2003), because the population with access to modern health care services is 57% compared to 75% for the industrialized countries (Olujimi, 2003). Furthermore, the infant mortality rate is put at about 73 per 1000 while the life expectancy of an average Nigerian is 54 years (CIA World Factbook, 2013), as against the infant mortality rate of 5 per 1000, and 80 years as life expectancy for the countries of the western Europe and United States of America (CIA World Factbook, 2013) where access to health and medical facilities is better. In view of the foregoing, this study attempt to examine the spatial distribution and accessibility to healthcare facilities among the residents of Akure South local Government area of Ondo State with a view to provide information that will enhance healthcare facility planning.

MATERIALS AND METHODS

The study area, Akure South Local Government Area (LGA) is one of the six (6) Local Government areas classified as the Ondo central senatorial district and one of the eighteen (18) LGAs in Ondo State with its headquarter in Akure which equally doubles as the state capital and the most populated local government area in the State. It is located between latitude 7°21'N and 7°50'N and Longitude 5°50' and 7°25'. It is about 250 metres above the sea level with a landmass covering an area of 331 square kilometers. It is bonded on the north east by Akure North Local Government Area and on the North West by Ifedore Local Government Area, Idanre Local

Government Area bonded it on the southern part (see figure 1). The population of Akure South LGA in 2006 was put at 353,211 (NPC, 2006) and with an annual growth rate of 3.03% (NPC web) the projected population of the LGA in year 2015 is put at 471,100. The increase in annual growth of the population is as a result of the administrative role of the town and as well as its long standing role as a centre of economic activities which keep attracting a large number of immigrants into it.

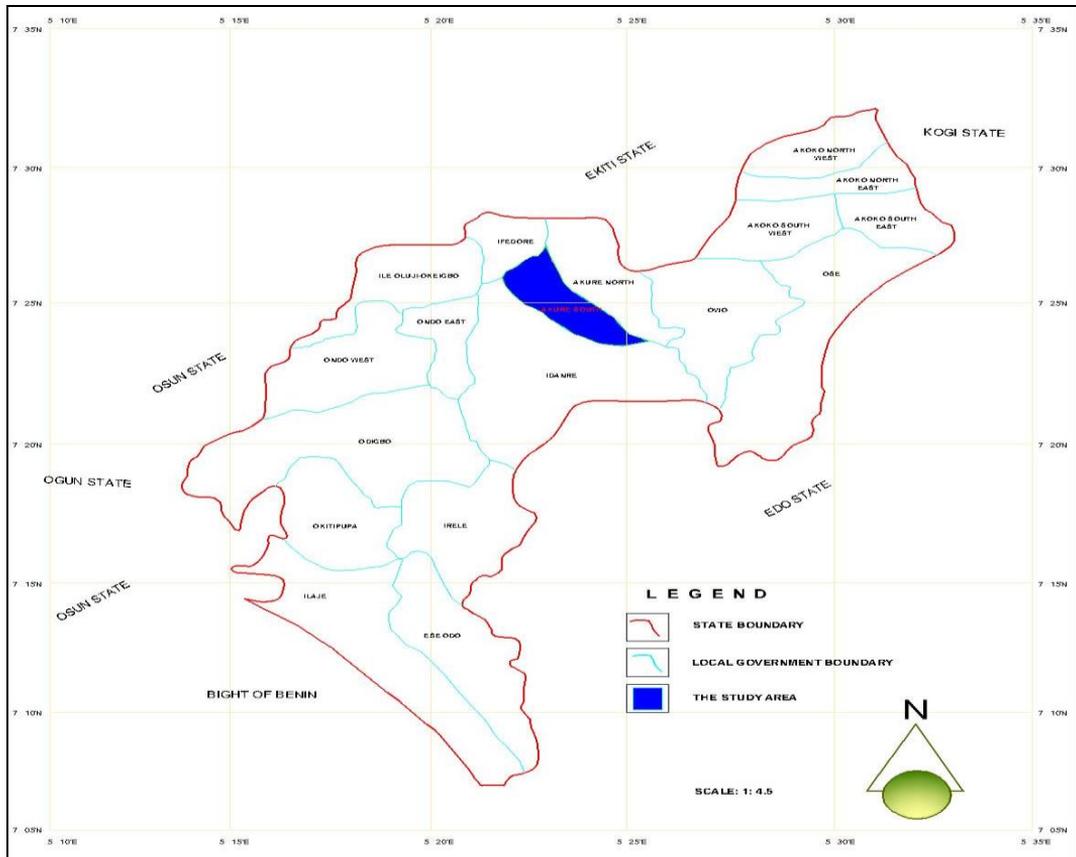


Figure 1. Map of Ondo State showing Akure South Local Government Area
Source: Ondo State Ministry of Housing and Urban Development, Akure (2015)

The study was interested in the distribution and accessibility of healthcare facilities in Akure south LGA. The study assessed the distribution of both the public and private healthcare facilities in the study area. The Global Positioning System (GIS) was used to pinpoint the location of existing healthcare facilities in the eleven (11) wards of the study area. The Nearest Neighbour Analysis (NNA) was used in analyzing the data, this was to establish the distribution pattern of public and private healthcare facilities in the study area. Nearest Neighbour Analysis is the method of exploring pattern in the locational data by comparing mean distance (Do) of the phenomena in question to the same expected mean distance (De) usually under a random distribution. The study also looked at accessibility pattern of residents to healthcare facilities in the study area. To achieve this data were collected using structured questionnaire administered on the residents on the basis of the existing 11 political wards, a total of 551 questionnaire were randomly administered on the residents of the study area across the 11 political wards of the study area.

RESULTS AND DISCUSSION

Distribution Pattern of Healthcare Facilities

Healthcare facilities in Akure south LGA are organized in a hierarchical system with three main components - primary, secondary and tertiary. Basically, the primary and secondary healthcare facilities dot the landscape in the LGA. The composition of the healthcare facilities in the local government area include 4 public secondary healthcare facilities and these include Mother and Child Hospital (figure 2), State Specialist hospital and 2 comprehensive health centres (figure 3), 32 public primary healthcare facilities and these include 1 leprosy hospital, 1 psychiatric hospital, 30 basic health centres. Others are 98 privately owned hospitals categorized into secondary and primary (including dental, optical and laboratories) (figure 4).



Figure 2. Mother and Child Hospital, Akure



Figure 3. Comprehensive Health Centre, Akure

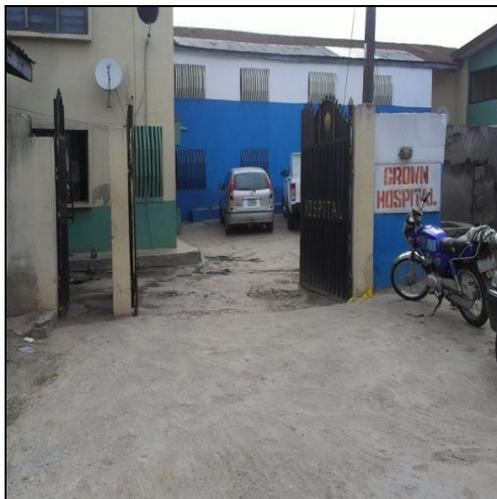


Figure 4. Crown Hospital (Private), Akur

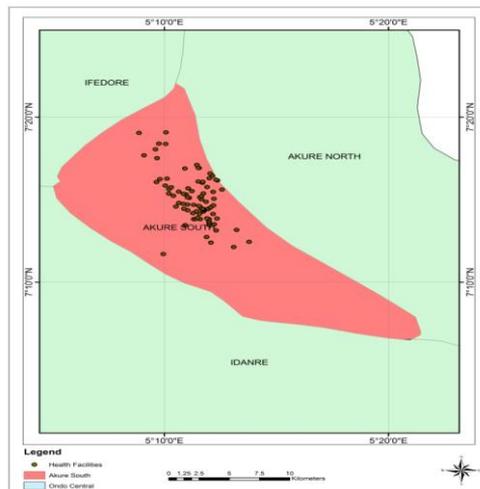


Figure 5. Spatial Distribution of Healthcare Facilities in Akure South LGA

The local government area has the highest number of healthcare facilities in the State, it has a total of 134 registered healthcare facilities that constitute 61.2 percent of the entire healthcare

facilities in Ondo State. The concentration and distribution of healthcare facilities in Akure is as a result of the fact that the settlement doubles as the local government capital as well as the State capital. Figure 5 shows the spatial distribution of healthcare facilities in the study area.

Ownership of Healthcare Facilities

The ownership and frequency of location of healthcare facilities in the study area was examined in order to reveal the spatial pattern of distribution. Ownership of healthcare facilities across the LGA can be categorized into public and private healthcare facilities. The public providers include the governments at the three-tier levels (Federal, State and Local Governments). The private healthcare facilities are operated and owned by private individuals/organization. As shown in figure 6, out of the 134 healthcare facilities, the public ownership was found to be 36, accounting for 27% while the private healthcare facilities accounted for 73%. The above analysis validates the findings of FMOH (2004), Abolade et al., (2011) and Kibon and Ahmed (2013) that private health facilities outnumbered the public health facilities.

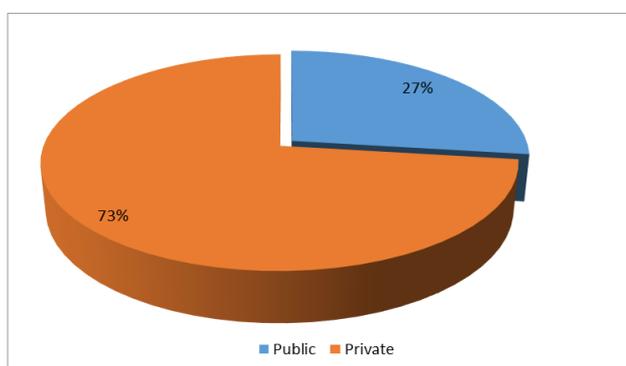


Figure 6. Ownership of Healthcare Facilities
Source: Authors Field survey, 2015

The low level of availability of government owned hospitals (teaching hospitals, general hospitals and PHC centres) versus the preponderance of privately owned hospitals/clinics has immense implication on the choice and use of these facilities. Although government owned healthcare facilities offer cheaper user cost compared to privately owned hospitals, they are however few and far apart. This shows that the private sector participates more in the establishment of healthcare facilities in the study area.

Nearest Neighbour Analysis (NNR) of Healthcare Facilities Distribution in Akure South LGA

To determine the pattern of distribution of healthcare facilities in the study area, the nearest neighbor analysis was used to statistically determine the existing pattern of distribution as to whether the distribution is regular, random or cluster in the study area. The model indicates the degree to which any observed distribution deviates from what may be expected, if the distributions of points are random. The location of healthcare facilities in the study area were captured through handheld Global Positioning system (GPS) to determine the coordinates as presented in table 1 and the spatial analysis were carried out in the GIS platform. The NNR has indices that range from zero (when there is no distribution at all) to 2.15 (when healthcare facilities have a maximum spacing and are regularly distributed). A purely random distribution has an index of 1.0 value; above 1.0 indicate a tendency towards spacing and those below 1.0 indicate clustering i.e.

$R_n = 0$: the distribution is clustered.

$R_n = 1$: the distribution is random.

$R_n = 2.15$: the distribution is regular.

Table 1. Distribution of Healthcare Facilities in Akure South Local Government Area
(Data Source: Authors Field survey, 2015)

S/N	Names of Healthcare Facilities	Notation	Location	Latitude	Longitude
1	Mother and Child Hospital	C1	Oke Aro, Akure	0741161	0800776
2	State Specialist Hospital	C2	Akure	0742417	0800925
3	Neuro-Psychiatric Hospital	C3	Oda Road, Akure	0745195	0798601
4	Leprosy Control Clinic	C4	Ago Ireti, Akure	0745636	0803089
5	Comprehensive Health Centre	C5	Arakale, Akure	0742287	0801998
6	Comprehensive Primary H/Centre	C6	Akure	0743243	0802841
7	Basic Health Centre	C7	Isolo, Akure	0742746	0803379
8	Basic Health Centre	C8	Oke Aro, Akure	0741146	0801421
9	Basic Health Centre	C9	Adegbola, Akure	0741186	0803232
10	Basic Health Centre	C10	Shagari Village, Akure	0742069	0805504
11	Basic Health Centre	C11	Oba Ile, Akure	0749762	0803154
12	Basic Health Centre	C12	Itaoniyan, Akure	0731238	0803786
13	Basic Health Centre	C13	Adofure, Akure	0739184	0795876
14	Basic Health Centre	C14	Ilere, Akure	0739331	0809478
15	Basic Health Centre	C15	Iloro Market, Akure	0741887	0800666
16	Basic Health Centre	C16	Ipinsa, Akure	0737117	0809403
17	Basic Health Centre	C17	Oda, Akure	0747291	0792925
18	Basic Health Centre	C18	Orita Obele, Akure	0738616	0806584
19	Basic Health Centre	C19	Danjuma	0740432	0801592
20	Basic Health Centre	C20	Esure	0743513	0798531
21	Jide Mac. Hospital	C21	Ijoka Rd. Akure	0742906	0799581
22	Crown Hospital	C22	Oja Osodi St. Akure	0742444	0802660
23	St. John/ Mary Hospital	C23	Oke-Aro Titun Akure	0740790	0801498
24	Sijuade Hospital	C24	Sijuade Akure	0743575	0799864
25	Adedewe Hospital	C25	Agunloye Street, Akure	0745180	0802394
26	Ade- Tade Hospital	C26	Tuyi St Ayedun, Akure	0739440	0804302
27	St. David Hospital	C27	Akure	0739613	0803132
28	Fujah Hospital	C28	Akure	0741281	0802166
29	St Micheal Hospital	C29	Off Danjuma Rd..	0740191	0801189
30	Oludare Hospital	C30	Fanibi Layout Akure	0739606	0802633
31	J&E. Fatunbi Hospital	C31	Oke-Aro Akure	0740857	0800938
32	Abitoye Specialist Hospital	C32	Ijapo Akure	0745067	0803261
33	Liberty Hospital	C33	Adinlewa Str. Akure	0742749	0799892
34	Joe-Jane Specialist Hospital	C34	Oke Ijebu Akure	0743587	0804120
35	Kolade Medical Centre	C35	Oshinle Akure	0741830	0799814
36	Ajiboye Hospital	C36	Irowo, Akure	0742183	0801143
37	Caring Heart Hospital	C37	Aule Road	0738863	0804248
38	First Mercy Specialist Hospital	C38	Akure	0741144	0802212
39	Crystal River Specialist Hospital	C39	Akure	0743967	0803103
40	Akintan Specialist Hospital	C40	Osokoti, Akure	0743161	0804646
41	Banky Medical Centre	C41	Ijo mimo, Akure	0743355	0799222
42	Abitoye Hospital	C42	Ijoka	0742931	0799398
43	Goshen Land Specialist Hospital	C43	Akure	0746226	0797274
44	St. Mercy Hospital	C44	Oda	0746768	0793713
45	Miracle Hospital Annex	C45	Orita Obele	0738761	0808213
46	Divine Specialist Hospital	C46	Orita Obele	0739309	0808182
47	Akure Muslim Hospital	C47	High School, Akure	0740911	0805444
48	Shifauk Hospital	C48	High School, Akure	0742017	0803991
49	Ayodele Medical Centre	C49	Lafe	0739307	0803529
50	Hopeland Specialist Med. Centre	C50	Akure	0739802	0803342

51	St. John and Mary Hospital	C51	Odo Ikoyi, Akure	0742545	0800889
52	Babalola Nine Well Hospital	C52	Oke ijobu, Akure	0742987	0804898
53	Rohi Specialist Hospital	C53	Oyemekun Road	0742198	0799786
54	Oluseun Spec. Hospital	C54	Ajegunle Akure	0741590	0800459
55	Sckye Hospital Clinic	C55	Oba Adesida Akure	0742316	0802362
56	Jobarteh Hospital	C56	Oba Adesida Akure	0743307	0802076
57	City Specialist Hospital	C57	Okearata Street Akure	0742666	0801736
58	Ebenezer Medical Centre	C58	Oluwatuyi Quts Akure	0742915	0799785
59	Charis Medical Centre	C59	Ondo-Bye pass Akure	0740830	0802596
60	MAO Clinic	C60	Gbangbalogun	0742086	0801269
61	Bisi Medical Clinic	C61	Idiagbatuntun Akure	0741655	0801384
62	Bethesida Faith Clinc	C62	Ajayi Closed Kajola	0742389	0803967
63	Grand Clinic	C63	Oshinle	0741664	0799787
64	County Dentist Centre	C64	Hospital Road	0742865	0800956
65	Brital View Eye Clinic	C65	Hospital Road	0742810	0800911
66	Beejay Medical Lab.	C66	Hospital Road	0742464	0800637
67	Pope Medical Lab.	C67	Oshinle	0742128	0800385
68	My Shepherd Medical Clinic	C68	Akure	0747711	0803116
69	Foundation Specialist Clinic	C69	Oba Ile	0748680	0802325
70	Toluwa Mat. Centre	C70	Araromi Akure	0742924	0804361
71	Standard Medical Clinic	C71	Oba Ile	0749680	0802949
72	Idera Clinic	C72	Oshinle	0741982	0799934
73	RCCG Maternity Home	C73	Akure	0744120	0805016
74	Oluremi Maternity Home	C74	Oke-Ijobu	0743473	0804197
75	Dejays Medical Clinic	C75	Gbogi	0742141	0802230
76	Blue Cross Clinic and Maternity	C76	Akure	0742933	0799130
77	Goshen Clinic	C77	Akure	0744963	0796689
78	Green-Land Clinic	C78	Oda	0746355	0794549
79	New Day Clinic	C79	Orita Obele	0738405	0807545
80	Abimbola Medical/Maternity	C80	Shagari Village	0741892	0805852
81	St James Medical Clinic	C81	Shagari Village	0742015	0805529
82	Visach Clinic and maternity	C82	Akure	0738578	0803919
83	His Apple Eye clinic	C83	Oyemekun	0741021	0802541
84	Rhema Dental Clinic	C84	Akure	0743271	0801330
85	Eye Watch Eye Clinic	C85	Oyemekun	0740417	0802860
86	Solid Healthcare Clinic	C86	Akure	0743039	0801107
87	Sarah Medical Lab.	C87	Akure	0743061	0801132
88	Immaculate Medical Lab.	C88	Hospital Road	0742367	0800889
89	Standard Diagnostic Centre	C89	Hospital Road	0742312	0800931
90	Mile-End Laboratory	C90	Fadeyi, Akure	0742350	0800955
91	Fanibi Maternity Home	C91	Fanibi, Akure	0739982	0802389
92	Yob Laboratory	C92	Hospital Road, Akure	0742472	0800790
93	Mapet Optical	C93	Hospital Road, Akure	0742439	0800822
94	Allied Optical Services	C94	Hospital Road, Akure	0742400	0800857
95	Phelab Medical Lab	C95	Ondo Bye-pass, Akure	0740805	0802617
96	Ejire Medical Clinic	C96	Amudipe, Akure	0742731	0797794
97	Ayodele Medical Clinic	C97	Ogunleye layout Akure	0741494	0802920
98	John Bosco Health Clinic	C98	Araromi St Akure	0742353	0803853
99	Bayode Medical Clinic	C99	Omoniyi St Akure	0740970	0799120
100	Olanike Medical Clinic	C100	Davog, Akure	0743087	0797174
101	Rotsam Medical Clinic	C101	Akure	0737543	0806899

Using the coordinates as presented in table 1, a Satellite imagery of the study area was used to show the distribution of healthcare facilities across the Local Government Area which is presented in figure 7.

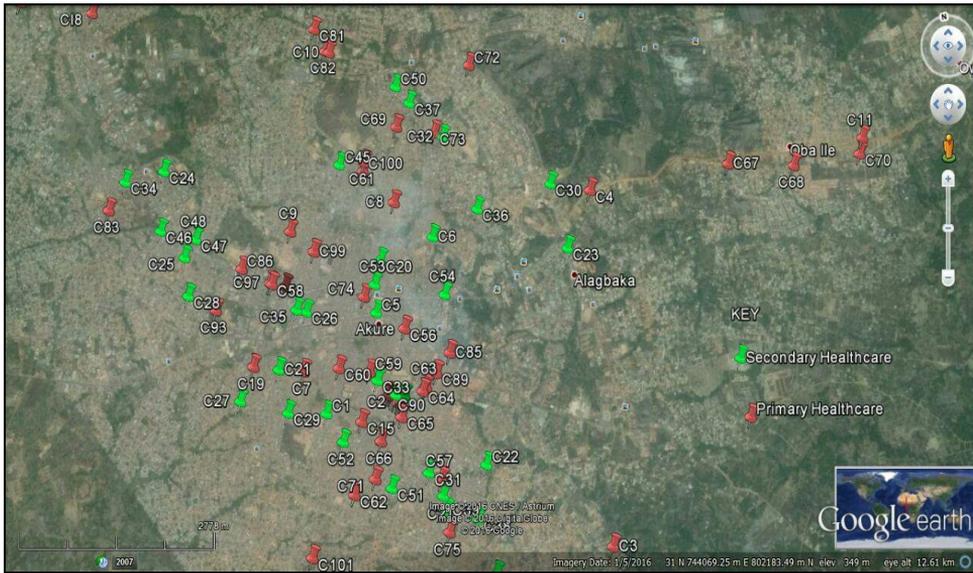


Figure 7. Satellite Imagery of Distribution of Healthcare Facilities in Akure South Local Government Area
Source: Google Earth 2016 and Author’s Field Survey, 2015

Table 2. The Result of NNA in the Distribution of Healthcare Facilities
(Data Source: Authors Field Survey, 2015)

LGA	Observed Mean Distance	Expected Mean Distance	Nearest Neighbour Index (Rn)	Z-score	P-value
Akure South	564.096378	523.459516	1.077631	1.408929	0.158856

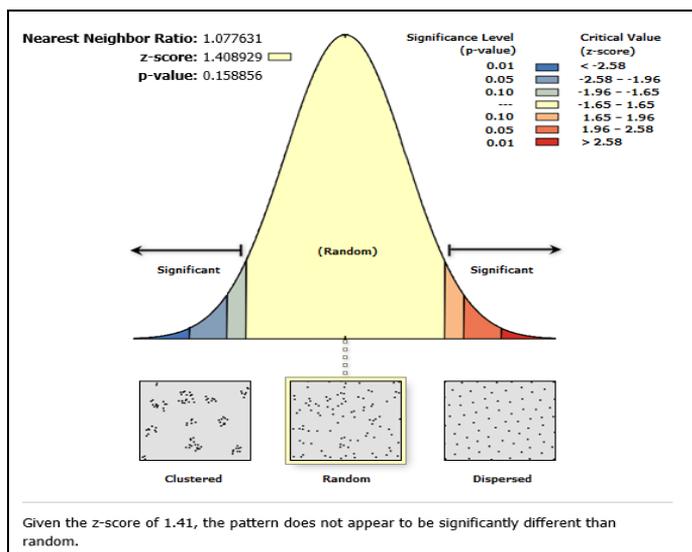


Figure 8. NNA of Healthcare Facilities in Akure South Local Government Area
Source: Authors Field survey, 2015

Proximity to Healthcare Facility Centres

Proximity to healthcare facilities to a large extent determines the degree of patronage by residents of a particular locality. The average distance covered by respondents to the nearest healthcare facility in the study area was grouped into three. 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 (Halden et al., 2000). Therefore any facility that is centrally located shall draw consumers from the immediate surrounding unless political and ethnic frictions compelled otherwise (Morill and Erickson, 1969 cited in Olujimi, 2003). From the analysis in table 3, a larger percentage of respondents covered below 400 metres to the nearest healthcare facilities accounting for 81.3%. Also, residents that covered a distances of between 401 to 800 metres accounted for 3.5% while the remaining 15.2% of the population covered distances of between 801 and 1200 meters to the nearest healthcare facilities. This shows that the commuting distances to healthcare facilities is within the World Health organization recommended distance of a maximum radius of 60 kilometers for an intermediate hospital (WHO 1991).

The results of the analysis presented above are in perfect agreement with the distance decay function which states that interaction between two locales declines as the distance increases. The implication is that healthcare facilities located near the people will enjoy higher volume/level of patronage.

Table 3. Distance of Healthcare Facilities from Home
(Data Source: Authors Field Survey, 2015)

Distance	Frequency	Percentage (%)
Below 400m	448	81.3
401 – 800m	19	3.5
801 – 1200m	84	15.2
Total	551	100

Effects of Distance on Residents

Distance is a paramount factor in the choice and utilization of any social service centre (Adeyinka, 2006) and with regard to healthcare facilities, Bryant (1978) cited in Olugbamila (2016) stated that “distance is a critical factor in the interplay of health resources and needs”. With regards to Akure South LGA, the result of the investigation carried out on the effect of distance covered by residents to healthcare facilities is presented in table 4. The result showed that out of the total residents surveyed, 146 of them which constitute 13.2% complained of death of family member as a result of the distance covered to the nearest healthcare facilities while residents which constitute 12.8% of the respondents were of the opinion that they loose interest as a result of the distance. The table further shows that residents with prolong sickness accounted for 11.5%, those that seek for alternative facility (14.9%), adequate and effective care (5.2%), waste of time (10.1%). Others are those that spend more money as a result of the distance (18.5%) and repeated visit (13.8%). It could be deduced from the table that those that spent more money on trips to healthcare facilities as a result of the distance take larger percentage of the respondents, this could be due to referral cases as well as the fact that patrons of higher economic status travel further for healthcare services than patrons of lower economic status.

Moreover, patrons show a willingness to travel further distance for various goods and services as the number of such items available at various location sources increases (intervening opportunity) (Abler et al., 1977; Adeyinka, 2006). The above result is in agreement with the concept of range of goods of the Central Place Theory which is the average minimum distance that prospective consumers are willing to cover in order to consume a good or service irrespective of time wasted and cost.

Table 4. Effects of Distance Covered on Residents
(Data Source: Authors Field Survey, 2015)

Effects	Frequency	Percentage (%)
Death of family member	146	13.2
Lost of interest in Visit	141	12.8
Prolong Sickness	127	11.5
Seek for Alternative facility	165	14.9
Adequate and Effective Care	57	5.2
Waste of time	111	10.1
Spend More Money	204	18.5
Repeated Visit	152	13.8
Total	1103	100

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

Means of Transportation to Healthcare Facilities

Presented in figure 8 is the information on residents' means of transport to healthcare facility location. It was revealed that most of the respondents used motorcycles which accounted for 36,2% while 31.5% commuted in public transport to the healthcare facilities. Those that travelled in private cars accounted for 24.2% and the least important means of transport by residents was bicycle which accounted for 0.9% while the remaining 7.2% depend on foot. It is deduced from the findings that about 93% of the residents rely on one mode of transport or the other to satisfy their transportation needs to healthcare facilities. Also the fact that about 7% of the population depend on foot to the healthcare facilities implied that distance between residences and healthcare facilities is relatively short.

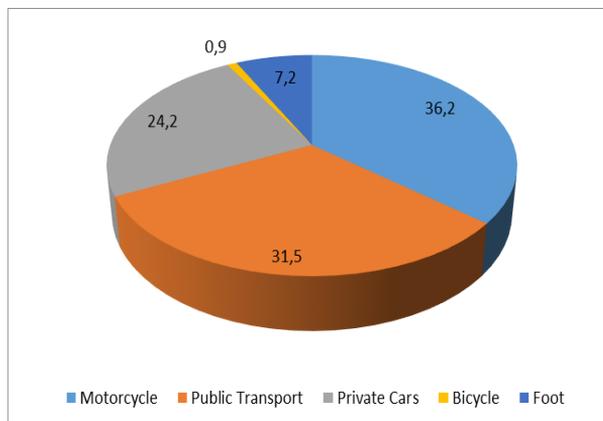


Figure 9. Means of Transport to the Health Facility
Source. Authors Field Survey, 2015

Cost of Treatment

The study also investigated residents view on the cost of treatment in the healthcare facility centres. According to Chandra and Eric (2000) cited in Adeyinka (2013), the physical location of health services relative to some other factors such as location of residence, transport cost, condition of roads and many other logistic difficulties are linked with utilization of medical services. It was revealed in table 5 that 31.5% of the respondents rated the cost of treatment in the study area to be very high. Residents that rated the cost of treatment to be high accounted for 24.2%, while majority of the residents (36.2%) rated the cost of treatment to be moderate. The table further revealed that 0.9% and 7.2% of the residents were of the opinion that the cost of treatment is low and very low respectively.

Table 5. Cost of Treatment
(Data Source: Authors Field Survey, 2015)

Cost of Treatment	Frequency	Percentage (%)
Very High	173	31.5
High	133	24.2
Moderate	199	36.2
Low	5	0.9
Very Low	40	7.2
Total	551	100

CONCLUSION AND RECOMMENDATION

This paper examined the distribution and accessibility characteristics of residents to healthcare facilities in Akure South Local Government Area of Ondo State, Nigeria. On the distribution pattern, it was observed that the LGA has the highest number of healthcare facilities in the State and consists of only the secondary and primary tier of healthcare facilities. Ownership of healthcare facilities across the LGA can be categorized into public and private healthcare facilities with the private sector participating more in the establishment of healthcare facilities in the study area. The nearest neighbour analysis was further used to determine the pattern of distribution of healthcare facilities in the study area and it revealed that the distribution of healthcare facilities were random rather than been clustered or dispersed.

On accessibility, the study revealed that 81.3% of the residents covered a distance of below 400 metres to the nearest healthcare facilities which shows that the commuting distance to healthcare facilities is within the WHO recommended distance of a maximum radius of 60 kilometers for an intermediate hospital. A small proportion of the residents still travel far distances to healthcare facilities which could be due to referral cases as well as the fact that patrons of higher economic status travel farther for healthcare services than patrons of lower economic status.

Based on the above findings, It is therefore recommended that more healthcare facilities be provided and should be located closer to the people within shortest possible distance. Efforts should be made by the stakeholders in the health sector and Town Planners to ensure equity in the distribution of public healthcare facilities across the Local Government Area 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 study area is necessary since accessibility is regarded as a very fundamental issue in patronage of healthcare facilities. Also the number of facilities provided should be proportional to the population size of the area.

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