Spatial Analysis of the Barriers to Access and Utilisation of Healthcare Services in Udu Local Government Area of Delta State.

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Abstract

A great proportion of persons in developing nations including Nigeria, lack access to healthcare due to numerous barriers. This study investigates the barriers to access and use of healthcare services in Udu Local Government Area (LGA) of Delta State, Nigeria. The research involved a cross sectional study, that used a survey design and stratified sampling to demarcate the study area into clans with systematic sampling technique used to select respondents. Results indicated that: cost of treatment (91.1%), lack of drugs in healthcare centers (90.4%), long waiting time (85.4%), overcrowding of facilities (80.7 %.) were the first, second, third and fourth barriers to access and utilisation of healthcare services in the study location. The effect of the observed barriers, according to evidence from the study is that community health seekers: reduce their visitations and utilisation of healthcare services (95.1%), experience higher burden of diseases due to low utilisation of services (93%), patronize traditional healers which are highly unreliable (85.4%), delay healthcare utilisation (79.7%), have general difficulties in accessing healthcare services (78.9%), use substandard medium for diseases cures (77.9%), diseases preventions become very difficult (59.4%), abandone healthcare facilities utilisation (52.1%) and recorded deaths (21.6%). The results also showed relationship between location and some barriers to access and utilisation of healthcare. The study concludes that healthcare barriers are still noticeable in Udu LGA and recommends that the governments in Udu LGA, Delta State and Nigeria to look at the identified barriers to work out mitigating strategies in their annual strategic documents or planning.

Keyword: Access, barriers, Delta, healthcare, Udu, utilisation.

Introduction

Healthcare is one of the traditions of Medical Geography as a specialized field of study in Geography. While medical geography studies the impact of climate and location on an individual's health as well as the distribution of health services, healthcare systems specifically deal with spatial perspectives on health planning, health-seeking behaviour, and health services provision (Mayer, 1982). Carnero *et al* (2021) believed that the issue of access and how it affects the utilisation of health services is a central consideration in: health planning, health-seeking behaviour, and health services provision especially in national or regional planning. The Wikipedia defines healthcare as the maintenance or improvement of health via the prevention, diagnosis, treatment, recovery, or cure of disease, illness, injury, and other physical and mental impairments in people. Access to health care on the other hand can be defined in a variety of ways. In its most narrow sense, it refers to geographic availability. A far broader definition identifies four dimensions of access: availability, accessibility, affordability, and acceptability of healthcare services (Penchansky & Thomas, 1981). Thus, accessible healthcare should be available, accessible, affordable and acceptable to the user.

Plethora of research documentations have posited that a huge percentage of people in developing world especially in Africa, lack access to healthcare and in most instances, go without healthcare provisions, that are useful to them, due to various barriers that restrict access to needed health services. This has promoted gross underutilisation of effective healthcare and brought about large unrealized health gains in developing countries, including Nigeria (Bankole *et al*., 2009; Carnero *et al*, 2021; George *et al*, 2018; Gyuse *et al*., 2018; Huot *et al*., 2019; Jacobs et al.; 2012; Ng'anjoPhiri et al., 2016; Obasi, 2013; O'Donnell, 2007). The barriers to access and utilisation of healthcare services are numerous (Huot et al., 2019), hence an understanding of what they are, will go a long way in advocating for ways of mitigating them. This is the focus of this study, to undertake a geographical analysis of the barriers to access and utilisation of healthcare services in Udu Local Government Area of Delta State.

Theoretical Framework

This study is anchored on the Central Place theory. The Central Place Theory was postulated by Walter Christaller in 1933. The central place theory argues that the sizes of settlements are related to their functions and significance and how people relate to the settlements in terms of seeking social services such as healthcare. One of the assumptions of the theory is that, towns act as central places for the countryside (Onokerhoraye & Omuta, 1994). In relation to healthcare services, hospitals in central places are believed to deliver higher order healthcare services. People are willing to travel long distance to utilize the services irrespective of where they are located or the amount of money available to them, since such services are considered better due to availability of more competent providers and facilities. However, we must bear in mind that the decision to use a higher order service may be a function of other socio-economic considerations such as: wealth status of the users, their educational level and knowledge of alternative center, their consideration of the severity of the sickness in question. Additionally, the individual consideration of the distance to travel, the discomfort, comparable price of service in the origins and destinations and the remoteness of alternative central places will determine whether to use a higher order reproductive health facility or not. Thus, the location of affordable and acceptable services, though desirable to the would-be-user may not be available due to the socio-economic status of the potential user – therefore locations of the service become an access barrier to service utilisation. The Central Place Theory helps us in the understanding of how things (healthcare services) are centralized in the real world situation and the barriers that come with these settings. The theory is significant to this study in that it aids the individual decision making process when it comes to making choice of healthcare and suitable locations, with regards to healthcare uptake and the nature and forms of barriers that might come from such decision. For instance, a particular higher services of healthcare might be available physically, but it may be economically inaccessible within a defined geographical space and time, in which case physical accessibility will give way to economic availability. However, we must realize that healthcare users are not always rational, since they have their personal biases which might render the whole premises of the theory of no effect.

Andersen's Health Behavioural Model and Barriers to Access and Utilisation to Healthcare Services

Andersen's Health Behavioral Model assumes that certain characteristics contribute to, or determine, an individual's use of healthcare services namely: (1) predisposing characteristics; (2) enabling characteristics; and (3) need based characteristics (Anderson & Newman, 2005).

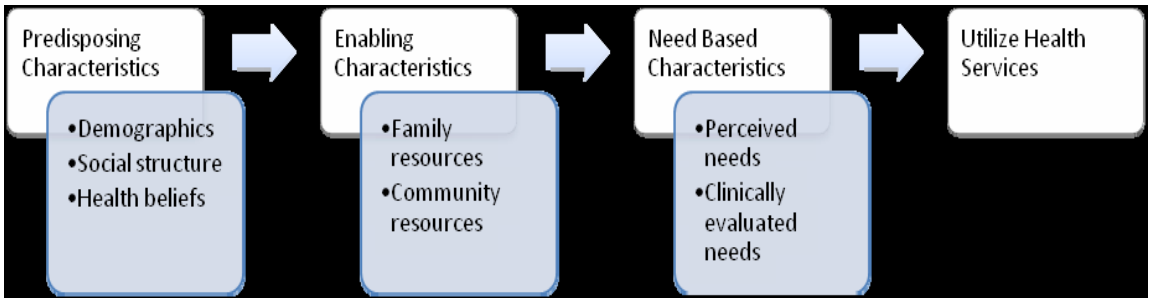

Figure 1: Andersen's Behavioral Model of Health Services Utilisation (adopted from Wolinsky, 1988)

Predisposing Characteristics are: demographic attributes such as: age, sex, education; social structure such as: occupation of the head of the family; and individual health-belief factors. Enabling characteristics include: family economic status, community resources such as: health insurance coverage and location of residence. Need-based characteristics comprise persons perceived needs i.e. the perception of illness and its severity and needs as evaluated by a health professional (Anderson & Newman, 2005; Burgard, 2004 ;). This model enables us understand the individual characteristics which determine use of healthcare services and limitations these characteristics might pose to access and utilisation of healthcare services.

Conceptual Clarification

Accessibility

Geography is a spatial discipline, concerned with not only the location of people and places but also more importantly, with the manner these entities interact. Accessibility is defined as the measure of the capacity of a location to be reached by, or to reach different locations. (Onokerhoraye, 1997). Accessibility relies on location where the relativity of space is estimated in relation to transport infrastructures and distance, which is derived from the connectivity between locations. Connectivity can only exist when there is a possibility to link two locations through transportation. The concept of accessibility explains the relative ease and likely barriers which prevent people from getting to their locations or getting a particular service. In this study, accessibility is very important, in that it helps in determining the decision making process of healthcare seekers with a view of knowing those things that act as barriers to the required services.

Barriers to Access and Utilisation of Healthcare Services

Research evidences indicate several barriers to access and utilisation of healthcare services in many parts of the world, Africa as well as Nigeria inclusive. Carrillo et al (2011) and George et al (2018) identified: lack of health insurance, unemployment, cost of services, bribery, and competing priorities of the health seeker and lack of employment as financial barriers. Additionally, the studies mentioned: accessibility, unavailability of services, transportation to location of services, street safety, operating hours of healthcare facilities, waiting times as structural barriers, while the cognitive and psychological barriers were: healthcare professionals attitude, language and communication, discrimination, cultural adherence and knowledge of healthcare services, perceived health status by health seekers, mistrust of health workers, hopelessness, fear and anxiety.

Other studies found that another barrier to access and utilisation of healthcare services include location of healthcare facilities; whether they were sited in urban centers or remote setting (Huot

et al., 2019; Redwood et al., 2012; Zacharias et al, 2011) the impact of systemic factors (Zacharias et al., 2011); Bad rural roads which limit transportation options (Nelson et al., 2012; O'Gorman, & Hogenbirk, 2016); staff shortages and high staff turnover (Huot et al., 2019), lack of expertise in treating specific medical conditions (Driscoll et al., 2010); uneven distribution of the available healthcare services since more specialized group were found in more advanced locations - leaving remote communities (Driscoll et al., 2010).

Barriers to access and healthcare provision which are found in Africa including Nigeria are: lack of qualified healthcare professionals especially in difficult remote locations with higher staff turnover (Ellsworth & O'Keeffe, 2013; Roots et al., 2014); lack of training among healthcare providers (Austin et al., 2015); unavailability of services (Ng'anjoPhiri et al., 2016); socio-cultural factors (Bankole et al., 2009; Geleto et al., 2018; Obasi, 2013); fragmentation of healthcare services and lack of drugs (Morrow et al., 2012); socio-demographic and economic factors such as: age (Mutua et al., 2015); education (Aborigo et al., 2014; Adedini et al., 2014; Bankole et al., 2009), employment status (Kalisa & Malande, 2016); Poverty/low income (Lakew et al., 2015); residence (Chi et al., 2015); marital status (Mutua et al., 2015); gender inequality (Obasi, 2013) language and lack of information on healthcare services (Nwameme et al., 2014); Poor staff motivation (Afari et al., 2014); staff absenteeism (Mkoka et al., 2014) and heavy workload (Mkoka et al., 2014); high staff turnover (Austin et al., 2015); patient overcrowding (Ueno et al., 2015; Wright et al., 2017); delayed referral Ueno et al., 2015) and high treatment cost (Sullivan et al., 2017). While studies on barriers to healthcare have been carried out and documented in other parts of the world and some parts of Nigeria, this is never the situation in Udu LGA, of Delta State. This study answered the following questions: (1) Are the people of the study area aware and use healthcare services in their community? (2) What types of healthcare facilities do the people of the study area use? (3) What are the barriers to access and utilisation of healthcare services in the study location? (4) What are the consequences of the barriers to access and utilisation of healthcare services? (5) Are the identified barriers and consequences of the barriers the same for rural and urban setting?

Description of the Study Area

Udu Local Government Area in Delta State, Nigeria, has her headquarters in Otor-Udu Community. The LGA lies approximately between longitude 5º 69' E and latitude 5º 43' N of the Equator, and covers an area of 17,001 km^2. According to the National Population Commission (2010), the LGA has a population of 142,480 comprising 71,813 male and 70,667 females. The LGA is interlocked by rivers flowing across. It has a tropical weather and rain forest with evergreen vegetation and plantation all year round. Its geographical feature consists of numerous streams that inter-connect into an intricate web of rivers, lagoons, swamps and wetlands (Wikipedia, 2021)

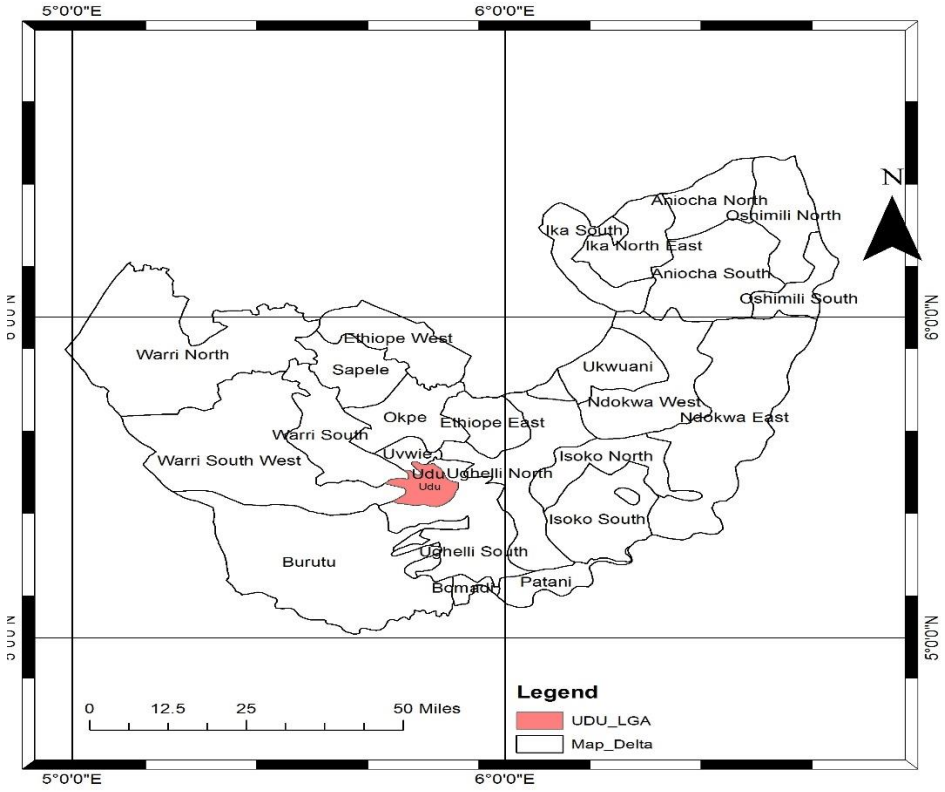

Fig. 2: Map of Delta State showing Udu Local Government Area.

Materials and Methods

This study was conducted from 6th-24th September, 2021. The study adopted a descriptive cross sectional approach. Data collections relied on the use of structured questionnaire to understand the economic and socio-demographic attributes of respondents on one hand while a quantitative approach was used to collect data on the awareness, use, barriers to access and utilisation of healthcare services and effects of barriers to access and utilisation in the study location. The study population were adults living within or working in Udu LGA of Delta State, especially those found within the delineated communities for the study. The inclusion criteria of the study were residents in the community for a period of not less than 2 years and being an adult member of a household of at least 18 years old and above. A combinations of different sampling techniques were used at different stages. In the first stage, purposive sampling was adopted since the focus of the study is Udu LGA. In the second stage, the stratified sampling technique was used in order to ensure equal opportunity of participation of communities in the LGA. Here, the LGA was sub-divided into three portions, such that, the three clans that are in the Udu such as: Evwrirhe, Oniere and Uheredjo Sub-clans were selected to partake in the research. In the target clans, at least two communities were further selected as the locations for the study. The two communities represent: urban and rural communities. This sampling was to make sure the data represented the strata of the LGA such as urban dwellers as well as rural inhabitants. A third phase of the sampling involved systematic random sampling, where questionnaire was administered at selected intervals at

different locations according to the streets or quarters in the communities. In each of the community in a clan, the sample size of 64 for the survey participants was proportionally distributed across all the six residential locations.

A sample size of 384 was used in the LGA based on the sample size table and on the assumptions that: (a) 5% confidence limits; (b) 95% confidence level; and (c) using Udu population of 142,480 (Research Advisor, 2006).

Data were analyzed using SPSS software IBM version 25 using percentages and cross tabulations for description of observed socio-demographic variables while Chi-square was used to test the association between types of communities (location-rural and urban) and barriers to access and utilisation of healthcare services and the consequences of the identified barriers to access and utilisation of healthcare services.

In terms of ethical considerations, the study was classified as a low risk one regarding the objects of investigation, at all levels, participant's consents were received verbally before administering any of the research protocols. In addition, all respondents were informed of their right to withdraw their participation in the study at any stage. They were assured of their anonymity during and after the study.

Results of the findings

Demographic characteristics of Respondent.

Table 1 indicates the demographic characteristics of the respondents that took part in the study. The dominant age ranges of participants were 38-47 and 48-57 years with a proportion of 33.1% and 30.7% respectively. The respondents were equally divided with 50% each to female and male. A preponderant of the respondents (76.8%) were married with 7.8%, 7.3%, 5.2% and 2.9% of them who were single, divorced, separated and widow/widower respectively. A good proportion of them (74.2%) were educated since 34.1% had secondary school training, 27.6% attended primary schools and 12.5% had one form of tertiary education or the other. However, 25.8% had no formal education. The table further reveals that a large segment of the studied population (69.8%) live on N30,000 or less per month income, while 22.9% of them live on N31,000 and above per month. However, 7.3% could not tell their monthly income. Table 1 also shows distance to the nearest healthcare location. The table indicate that 35.7% of the respondents go for less than one kilometer, 24% for 1km - 2km, 17.4% for 3km-4km, 13% for 5km – 6 km before getting to the nearest health center. Others were 7.6% and 2.3% of the respondents that take 7km-8km and 9km or more before getting to the nearest health center. It is apparent from the table that, while some respondents take a relatively short distance to get to their healthcare localities, others take longer distance in achieving the same purpose which is likely going to have higher cost implication on them, which might culminate in the issue of barrier to access depending on their socio-economic status as observed in the analysis of the Central Place Theory (Andersen & Newman, 2005) and concept of accessibility (Onokerhoraye, 1997). The respondents where 50% each from rural communities and urban areas.

Table 1: Demographic Characteristics of Respondents

	No	%
Age		
18-27 Years	53	13.8
28-37 Years	54	14.1
38-47 Years	127	33.1
48-57 Years	118	30.7
58 and above Years	32	8.3
Sex	**N (384)**	**% (100)**
Male	192	50.0
Female	192	50.0
Marital Status	**N (384)**	**% (100)**
Married	295	76.8
Single	30	7.8
Divorced	28	7.3
Separated	20	5.2
Widowed/Widower	11	2.9
Highest Education Level	**N (384)**	**% (100)**
No formal education	99	25.8
Primary Education	106	27.6
Secondary Education	131	34.1
Tertiary Education	48	12.5
Income Level (Monthly)	**N (384)**	**% (100)**
I don't know	28	7.3
10,000 or less	72	18.8
11,000 – 20,000	121	31.5
21,000-30,000	75	19.5
31,000-40,000	46	12.0
41,000 and above	42	10.9
Average distance to health center	**N (384)**	**% (100)**
Less than one Kilometer	137	35.7
1km-2km	92	24.0
3km-4km	67	17.4
5-6Km	50	13.0
7-8Km	29	7.6
9Km or more	9	2.3
Location of houses of the respondents	**N (384)**	**% (100)**
Rural Community	192	50.0
Urban Community	192	50.0

Source: Field Survey, 2021

Respondents' awareness and use of healthcare services in their communities.

The findings of the study in Table 2 reveal that all the respondents in the study area were absolutely aware of the availability of healthcare services in their communities. Thus, it is safe to conclude that the awareness level cut across all locations – whether in rural or urban communities. Furthermore, the data in Table 2 indicate the usage of healthcare services; since awareness of healthcare services and facilities in the community does not automatically translate to usage. The table shows that, 94.3% of the respondents use the healthcare services and facilities found in their localities. This indicates a very high patronage of the facilities in the study area.

Table 2: Respondents' awareness and use of healthcare facilities in their communities.

	No	%
Awareness of healthcare facilities in community		
Yes	384	100.0
NO	0	0.0
Ever use of healthcare facility in community.		
Yes	362	94.3
No	22	5.7

Source: Field Survey, 2021

Types of healthcare facilities that respondents use in their communities.

Table 3 reveals the healthcare facilities that respondents use in their communities. The table indicates that more than half of the respondents (51.8%) depend on Primary Healthcare Centers (PHC) for their healthcare needs compared to 26%, 14.8% and 7.3% of them that rely on Private Hospitals, Patent Medicine Stores and General or Specialist Hospitals respectively. The patronage of PHC may not be unconnected to their ready availability and cost factor, while the use of Private Hospitals might be related to speed of services and attentions from such facilities. It is should be noted that the least patronage was for General hospitals.

Table 3: Types of healthcare facilities that respondents use in their communities.

Types of healthcare facility	No	%
Primary Healthcare Center	199	51.8
Private Hospitals	100	26.0
General or Specialist Hospitals	28	7.3
Patent Medicine Stores	57	14.8
Total	**384**	**100.0**

Source: Field Survey, 2021.

Barrier to access and use of Healthcare services known in communities.

The focus of this study is to identify the major barriers to access and utilisation of healthcare services. The main barriers to healthcare services in Udu Local Government Area are presented in Tables 4 and 5.

Individual barriers rating to access and use of healthcare services in the study area.

The respondents were given the choice of choosing as many barriers that were relevant to them. Table 4 encompasses the rating for the individual barriers by the respondents, depending on how many of the respondents see that variable as a barrier. Table 5 provides a ranking of all the variables the respondents presented as barriers to access and use of healthcare services.

Table 4: Barriers to access and use of healthcare services in communities.

Barrier to access and use of healthcare services	No(384)	%
Distance to healthcare center is a barrier	172 (384)	44.8
Transportation cost is too high	180 (384)	46.9
Cost of treatment is too expensive	350(384)	91.1
Lack of medical personnel	221 (384)	57.6
Healthcare facility not conducive	261 (384)	68.0
No drugs for treatment in healthcare facility	347 (384)	90.4
Long waiting time	328 (384)	85.4
Overcrowding in healthcare center	310 (384)	80.7
Attitude of medical personnel to patients	283 (384)	73.7
Unemployment on the side of patients	308 (384)	80.2
Lack of knowledge of where healthcare services could be found	286 (384)	74.5

Source: Field Survey, 2021. Note: Respondents mentioned more than one healthcare facility.

The ranking of the barriers as found in Table 4 and ranked in Table 5 revealed that, the greatest barriers to the people of Udu Local Government Area, as related to access and utilisation of healthcare services is cost of treatment, as 91.1% of the respondents in the study area picked this as a major barrier. The second ranked barrier by the respondents in the study area was lack of drugs in healthcare centers with 90.4%. This was followed by long waiting time during visitations to healthcare facilities, as 85.4% of the respondents in the study selected this as a major barrier. The fourth barrier is overcrowding of healthcare facility with 80.7%. Other barriers in the order they affect the respondents in this study include: unemployment on the side of patients (80.2%), lack of knowledge of where healthcare services could be found (74.5%), attitude of medical personnel to patients (73.7%), unconducive healthcare facilities (68%), lack of medical personnel (57.6%), transportation cost being too high (46.9%) and distance to healthcare centers (44.8%) which occupied 5th, 6th, 7th, 8th, 9th, 10th and 11th place respectively in the ranking of barriers to access and utilisation of healthcare services in the study setting.

The results from this study are related to those of previous studies. For example, Carrillo et al. (2011) and George et al (2018) identified cost for healthcare as one of the barriers to access and use of healthcare service. According to Elo (1992), Sendorowitz (1999), Chakraborty *et al* (2003), and George *et al* (2018), cost can be a significant barrier to potential client since it relates to other barriers. It is well recognized that increased income positively affects utilisation of healthcare services. The costs of seeking healthcare may include costs for transportation, user fees (official or unofficial), medications and other supplies. This is what Anderson and Newman (2005) described as enabling characteristic in their health behavioral model. If better healthcare services are located in first order settlements as the Central Place Theory postulated, then, cost in all ramifications will become a crucial consideration in healthcare access and utilisation – especially for those who are poor and are in remote localities. Furthermore, Garcia-Subirats *et al* (2014) identified lack of drugs in healthcare facilities as a barrier to healthcare as this has study equally identified. Brown and Guthrie (2010) also found out in their study as this study equally does that long waiting time was a barrier to access and use of healthcare services, since according to them, long waiting time discourages patients from attending to their healthcare. Tegegn and Gelaw (2009) and Ralpha, and Brindisa, (2010) see overcrowding, lack of knowledge of location of healthcare, inadequate health personnel as major barriers to healthcare access and usage. Lastly, transport cost and distance which were identified as barriers in this study, have equally been identified as healthcare barriers in other studies (George *et al*, 2018). The factors of transportation

in difficult terrains, poor and remote rural communities lead to difficulty in travelling to the desired healthcare service locations; it also pushes up transport costs or lack of transport links and missing appointments due to transport delays, which results in deaths.

Table 5: Ranking of barriers to access and use of healthcare services known in communities.

Barrier to access and use of healthcare services	No	%	Ranking
Cost of treatment is too expensive	350(384)	91.1	1st
No drugs for treatment in healthcare facility	347 (384)	90.4	2nd
Long waiting time	328 (384)	85.4	3rd
Overcrowding in healthcare center	310 (384)	80.7	4th
Unemployment on the side of patients	308 (384)	80.2	5th
Lack of knowledge of where healthcare services could be found	286 (384)	74.5	6th
Attitude of medical personnel to patients	283 (384)	73.7	7th
Healthcare facility not conducive	261 (384)	68.0	8th
Lack of medical personnel	221 (384)	57.6	9th
Transportation cost is too high	180 (384)	46.9	10th
Distance to healthcare center is a barrier	172 (384)	44.8	11th

Source: Field Survey, 2021. Note: Respondents mentioned more than one barrier.

Association between location (rural/urban) and barriers to access and utilisation of healthcare

Table 6 indicates that there is a relationship between location (rural and urban areas) and barriers to access and utilisation of healthcare services such as: cost of treatment is too expensive, long waiting time, overcrowding in healthcare center, unemployment on the side of patients, lack of knowledge of where healthcare services could be found, attitude of medical personnel to patients, Lack of medical personnel, transportation cost is being too high and distance to healthcare center as a barrier, except barriers like: no drugs for treatment in healthcare facility and healthcare facility not being conducive. The finding in this study agrees with Kamau (2006) and Isiugo-Abanihe (2011) that in some developed countries as well as developing nations there is relationship in term of locations of healthcare services with a distribution pattern where rural areas are marginalized to the advantage of the urban areas which creates challenges for rural dwellers to access and utilize health services. However, in this study, there was no relationship between location and barriers like: no drugs for treatment in healthcare facility and healthcare facility not being conducive. This points to the fact that both in rural and urban settings, the problems of no drugs for treatment in healthcare facility and the unconducive nature of healthcare facilities are felt irrespective of the locations.

Table 6: Association between location (rural/urban) and barriers to access and utilisation of healthcare

S/N	Barriers to access and utilisation of healthcare	Rural Yes (%)	Urban Yes (%)	X^2	P-value
1	Cost of treatment is too expensive	95.8	86.5	10.455	.001
2	No drugs for treatment in healthcare facility	91.1	89.6	.269	.604
3	Long waiting time	94.8	76.0	27.094	.000
4	Overcrowding in healthcare center	89.1	72.4	17.141	.000
5	Unemployment on the side of patients	74.0	86.5	9.449	.002
6	Lack of knowledge of where healthcare services could be found	63.5	85.4	24.168	.000
7	Attitude of medical personnel to patients	83.9	63.5	20.434	.000
8	Healthcare facility not conducive	67.2	68.8	.108	.743
9	Lack of medical personnel	65.1	50.0	8.965	.003
10	Transportation cost is too high	56.3	37.5	13.553	.000
11	Distance to healthcare center is a barrier	59.9	29.7	35.426	.000

Effects of the healthcare barriers on access and utilisation of healthcare in the communities

Tables 7 and 8 reveal the effects of barriers to access and utilisation of healthcare services and the locational relationship between rural and urban areas respectively. Table 7 shows the consequences of the barriers to access and utilisation of healthcare such as: reduced healthcare facility visitation and utilisation (95.1%), increment of the burden of diseases due to low utilisation of services (93%), higher patronage to traditional healers which are highly unreliable (85.4%), delayed healthcare utilisation (79.7%), general difficulties in access healthcare services (78.9%), use of substandard medium for diseases cures (77.9%), diseases preventions became very difficult (59.4%), abandoned healthcare facility utilisation (52.1%) and deaths due to healthcare barriers (21.6%). Thus, Nelson and Wilson (2018) were of the view that these consequences lead to exclusion of health seekers from uptake of services with their attendant consequences such as refusal to continue with healthcare and even death as the respondents in this study indicate.

Table 7: Ranking of the effects of the healthcare barriers on access and utilisation in the community.

Barrier to access and use of healthcare services	No	%	Ranking
Reduced healthcare facility visitation and utilization	365 (384)	95.1	1st
Increment of the burden of diseases due to low utilisation of services	357 (384)	93.0	2nd
Higher patronage to traditional healers which are highly unreliable	328 (384)	85.4	3rd
Delayed healthcare utilization	306(384)	79.7	4th
General difficulties in access healthcare services	303 (384)	78.9	5th
Use of substandard medium for diseases cure	299 (384)	77.9	6th
Diseases preventions became very difficult	228 (384)	59.4	7th
Abandoned healthcare facility utilization	200 (384)	52.1	8th
Deaths due to healthcare barriers	83 (384)	21.6	9th

Source: Field Survey, 2021. Note: Respondents mentioned more than one barrier.

In Table 8, a mixed relationship was found between location and the effects of healthcare barriers on access and utilisation. While there was a relationship between location and effects like: abandoned healthcare facility utilisation, use of substandard medium for diseases cure, higher patronage to traditional healers which are highly unreliable and deaths due to healthcare barriers; there was no association between location and effects such as: reduced healthcare facility visitation and utilisation, delayed healthcare utilisation, increment of the burden of diseases due to low

utilisation of services, diseases preventions became very difficult and general difficulties in access healthcare services. It may not be unsafe to deduce that the implication of the mixed association in rural and urban areas is that, the effects of the barriers to access and utilisation of healthcare services are prevalent in both settings – thus the location may not be too crucial, since people both in rural and urban centers are affected by the challenges, once they cannot access and use needed healthcare services.

Table 8: Association between location (rural/urban) and barriers to access and utilisation of healthcare.

S/N	Barriers to access and utilisation of healthcare	Rural Yes (%)	Urban Yes (%)	X^2	P-value
1	Abandoned healthcare facility utilization	59.9	29.9	9.391	.002
2	Reduced healthcare facility visitation and utilisation	95.8	94.3	.498	.480
3	Delayed healthcare utilization	77.6	81.8	1.030	.310
4	Increment of the burden of diseases due to low services usage	93.2	92.7	.040	.842
5	Diseases preventions became very difficult	59.4	59.4	.000	1.000
6	General difficulties in access healthcare services	77.6	80.2	.391	.532
7	Use of substandard medium for diseases cure	85.9	69.8	14.520	.000
8	Higher patronage to traditional healers which are unreliable	93.2	77.6	18.815	.000
9	Deaths due to healthcare barriers	26.6	17.2	4.442	.035

Source: Field Survey, 2021. Note: Respondents mentioned more than one healthcare facility.

Conclusion

This study has investigated the barriers to access and utilisation of healthcare services in Udu Local Government Area of Delta State. The study adopted a descriptive cross sectional approach. Findings of the study revealed that the major barriers found in most health centers in communities in Nigeria are still prevalent in Udu Local Government Area such as high cost of treatment, lack of drugs in healthcare centers, long waiting time, overcrowding of available facilities, lack of knowledge of where healthcare services could be found, attitude of medical personnel to patients, lack of conducive environment of the health centers, lack of medical personnel, high cost of transportation and distance to health facilities. These barriers have the effects and tendency to make more persons to likely reduce their visitation and use of healthcare facilities, increase the burden of diseases due to low utilisation of healthcare services, higher patronage of traditional healers and suffer the penalties of such visits; delaying healthcare utilisation and suffer health challenges and experience general difficulties in access healthcare services. Other effects include the use of substandard medium for diseases cure, likelihood of the abandonment of healthcare facilities utilisation and deaths in extreme situations. Therefore, all observed barriers have overall consequences on access and utilisation of healthcare services in Udu in particular as well as Nigeria in general which must be addressed with a sense of urgency.

Recommendations

Based on the findings of the study, the following recommendations are made:

i. Udu Local Government Area in particular should look closely into these identified barriers to access and utilisation of healthcare services with a view to mitigating them. To do this, the identified barriers should form part of their annual healthcare planning with strategies and target put in place with budgetary allocation. In this way, the issues

could be addressed gradually through their Department of Health. By extension, these issues are the same in other LGAs in Delta State as well as other parts of Nigeria.

ii. The Delta State Ministry of Health and the Federal Ministry of Health should also look at these barriers and address them according in their annual healthcare strategies.

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