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EALTHCARE FACILITIES AND PATRONAGE PATTERNS OF RURAL DWELLERS IN NSIT UBIUM LOCAL GOVT AREA, NIGERIA

AYADU KOFFI PhD; & JOSEPH OKON

Department of Urban and Regional Planning, Akwa Ibom State Polytechnic, Ikot Osuaru.

Corresponding Author: ayadukoffi@gmail.com

Abstract

his study was carried out to assess healthcare facilities and patronage patterns of people in Nsit Ubium Local Government Area, Akwa Ibom State. The research focus on the conditions of available healthcare facilities and the patronage patterns to healthcare facilities in the study area. Primary data were collected through the use of questionnaires. structured Random sampling technique was employed for the selection of 398 households for the study. The data were analyzed using descriptive statistics and tables. The results showed that the existing conditions of the available healthcare facilities characterized by poor physical structures

Introduction

Infrastructure has been defined as those facilities and services that provide the backbone for the development of other sectors of the economy Adeyinka and Olugbamila, (2015).It plays an role important 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

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and outdated and poor equipment, the level of patronage patterns of the rural dwellers to the available healthcare facilities is directly influenced by the availability and accessibility of healthcare facilities. Based on the findings of the study, the study recommends that governments at all tiers should ensure equitable distributions of healthcare facilities across rural areas by deploying more medical and para-medical staffs to the rural areas.

Keywords: Healthcare Facilities, Patronage Patterns, Rural Areas, Sustainability, Nigeria

necessary for an economy to function. Infrastructure is of various types which include health infrastructure that have been conceived by to include health system, financial management, institution and legal frame work, operation and monitoring Adebayo and Oladeji (2006).

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).

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 (2015) spatial distribution of healthcare



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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. 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).

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 which the study area is not left out of this. The major concern of the World Health Organization (WHO) is the provision of quality and affordable healthcare for everyone irrespective of varying levels of living (Ibor and Atomode, 2014). In other words, whether in the advanced or poor countries, rural or urban areas, for the poor or the rich; provision, accessibility and utilization of healthcare facilities remain the focus of all governments in the world.

Despite this noticeable huge financial commitment to health sector in the country, many citizens are still being denied easy access to good health care services mainly, as a result of the inability of the Government to

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respond as quickly as possible to increasing demands for health facilities to match the rate of urbanization. Many people in the study area travel over a long distance and spend a large proportion of their income in order to procure health services which are relatively provided elsewhere. If many of the problems bedeviling the delivery of adequate and qualitative health services in Nigeria at large must be solved, then there is need for this type of study which can assist the politicians, policy makers, community stakeholders and government. Patronage pattern is determined by the type of health services available to a population and this resulted to many urban residents in developing cities travelling over a long distance and spend a large proportion of their income in order to procure healthcare services which are relatively provided elsewhere (Adesanya et al, 2002; Adetunji, 2010). Consequently, a lot of death has been recorded against the people of low socio-economic status as a result of their inadequate utilization of healthcare facilities in their immediate communities (Owoseni et al, 2014). From the observation, the available healthcare facilities are not only face with problem of inadequate in both quality and quantity of staff required, but also are not within for quick and effective dispensation of service and as such only those that are categorized among the high-income earners travel long distance to seek for health service. In view of the foregoing, this study attempt to assess the available healthcare facilities and its patronage among the residents of Nsit Ubium Local Government Area of Akwa Ibom State with focus to examine the existing conditions of the available healthcare facilities in the study area and to assess the level of patronage pattern to healthcare facilities in the study area. Geographically, Nsit Ubium has two clan, Nsit and Ubium with 64 villages, but this study will focus on Ubium Clan with 33 villages.

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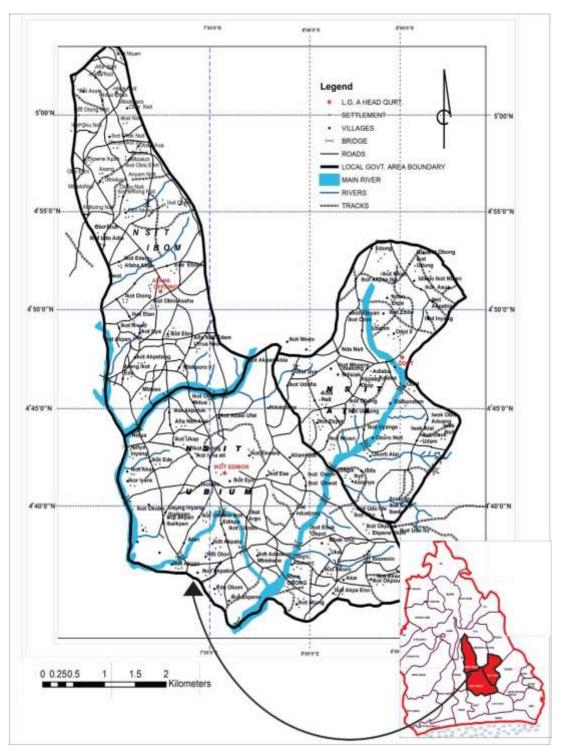


Fig. 1: Map of Nsit Ubium Local Govt Area, Akwa Ibom State Source: GIS Laboratory, Akwa Ibom State, Nigeria

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Review of Literature

Availability of Healthcare Facilities

The latest World Health Organization survey ranks Nigeria's healthcare system as the fourth worst in the world. This would not come as a surprise to Nigerians living in a country where there are no ambulance services or a simple toll-free number, like 999 to call in an emergency. In the unfortunate event of a heart attack, the chances of survival in Nigeria are dire. At a time when people are generally living longer, with a global average life expectancy of 73 years, the average Nigerian will be lucky to attain the age of 60. With a life expectancy of 55 years, Nigeria is one of four countries with the lowest life expectancies in the world, after the Central African Republic, Lesotho, and Chad, based on the latest data from the United Nations. At the root of early deaths in Nigeria is a healthcare system that has virtually collapsed due to the lack of investment.

For decades, Nigeria's health sector has suffered from acute underfunding, whilst the country's leadership has jetted off to the U.K. and the Dubai, to get the medical care they have callously denied their fellow citizens. Even Nigeria's number one citizen would have nothing to do with the healthcare system he superintends, preferring instead to patronize, unashamedly, the health services built by his peers in the U.K., at great cost to the Nigerian treasury.

In the last ten years alone, Nigeria has added almost 50 million people to its headcount, more than the entire population of Canada of 38 million, without any commensurate increase in investment in health. The Federal Government budget for health this year for the entire country is a miserly \$1.07 billion (N547 billion), less than half the \$2.4 billion (£1.7 billion) expenditure budget for Guys' and St Thomas' – a government hospital in the U.K. favoured by Nigeria's ruling elite.

Some have described Nigeria's hospitals harshly, as where people go to die. With a public health system characterized by a shortage of drugs,

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equipment and medical specialists, Nigerians seem to have resigned themselves to the possibility of an early death, if unfortunate to be struck by any serious illness. Apart from, perhaps, a few top private hospitals, the majority of hospitals in Nigeria are no more than mere consulting rooms. lacking in everything. Even empathy is in short supply, with the poor bearing the brunt of ill-treatment from health workers, overwhelmed themselves by the daily throng of patients needing care. With patients required to meet the full cost of treatment, Nigeria's healthcare system has literally priced out access for over 100 million citizens living in poverty. Hospitals, however, argue they would be forced to close, if not able to recover the full cost of treatment from patients, in the absence of adequate funding from the government. It is not uncommon in Nigeria for patients to be 'held hostage' in wards until a kind benefactor pays their medical bills. For very serious medical conditions, deposits of over half a million naira are required before treatment can even commence, an impossibility for over half the population, which lives in extreme poverty, according to the World Poverty Clock.

Sadly, inadequate funding is just one of the multi-faceted challenges plaguing healthcare deliveries in Nigeria. Much has been said about the problem of quacks in the system and the risk these individuals pose to the lives of patients. Here is a worrisome social media account from a health practitioner: "A patient with a slow pulse advised by a doctor to drink Coca-Cola to bring it up. A patient who was bleeding from the anus for 18 months was receiving blood transfusion with no tests until an endoscopy revealed much later that the patient had cancer, by then it was too late. A patient was told she had diabetes and was receiving treatment as a diabetic for 12 years only to find she was never diabetic. A doctor without any formal surgical training was alleged to have performed a complicated bowel surgery on a patient who died in the operation. A patient bled to death after a doctor carried out a renal biopsy without a simple medication history

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that would have revealed that the patient was on aspirin, a blood-thinning agent. A doctor administered a dextrose drip on an unconscious patient without first checking if the patient was diabetic – the patient never woke up. Another diagnosed bone tuberculosis by just touching a patient's jaw without doing a single investigation and had planned to remove the patient's jaw. The patient was saved when she sought a second opinion while abroad and was found to have a benign lymph node." These allegations, grave as they are, should not diminish the hard work of the vast majority of doctors and health workers, who continue to do their best for patients, with little resources and under very difficult circumstances; some owed many months of unpaid salaries and allowances.

Some have described Nigeria's hospitals, perhaps too harshly, as where people go to die. With a public health system characterized by a shortage of drugs, equipment and medical specialists, Nigerians seem to have resigned themselves to the possibility of an early death, if unfortunate to be struck by any serious illness. The shortage of specialist medical personnel is further compounded by the mass migration abroad of Nigerian trained health professionals, due to poor conditions of service and worsening insecurity in the country. A House of Commons report in 2020 revealed that 8,241 Nigerians are currently working in various capacities in the National Health Service (NHS) in just England alone, and more are coming.

The government must explore innovative ways of addressing healthcare delivery in the country, in a manner that focuses on partnership between states, the private sector, and the huge talent of Nigerian health professionals in the diaspora. The eradication of polio in Nigeria is just one example of how private money and charitable organizations can partner with the government to deliver the desired health outcomes.

Unfortunately, there seems to be no strategy by the government for addressing the challenges facing healthcare delivery in the country and the

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huge gap in funding. A recent study in the BMC Public Health showed that since the launch of the National Health Insurance Scheme (NHIS) in 2005, less than 5 per cent of Nigerians have taken up health insurance, whilst the rest of the population continue to finance their healthcare needs through out-of-pocket expenditure. With dwindling public finances, there is a need for the government to consider compulsory universal health insurance, as a means of funding the health sector, as well as improving access for the millions of citizens who are unable to afford healthcare. Contributions into the scheme should be on a sliding scale that takes into account individual earnings, with the poorest citizens entitled to free health insurance. Universal Health Insurance has been a great success in Rwanda, considered to have one of the best health insurance schemes in Africa, with over 90 per cent coverage. It is time for Nigeria's leadership to start building in Nigeria those hospitals in Dubai and London they so delight to patronize and spare the country the costs and the ignominy of depending on other countries for the healthcare services they should be providing Nigerians here at home.

Patronage level of Healthcare Facility

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).

Access to healthcare services is a multidimensional process involving the quality of care, geographical accessibility, availability of the right type of care for those in need, financial accessibility, and acceptability of service (Peters et al., 2008). The utilization of healthcare services is related to the

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availability, quality and cost of services, as well as social-economic structure, and personal characteristics of the users (Chakraborty et al., 2003; Manzoor et al., 2009; Onah et al., 2009). In developing countries, the under-utilization of the health services in public sector has been a universal phenomenon (Zwi, 2001). 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.

Public and private health care facilities are sparsely provided in many rural areas within the country. Such regions with difficult terrain and physical environment are often neglected (Onokerhorave, 1999). This makes the distance between the rural dwellers and the healthcare center far apart, given the transportation problems experienced in these areas, and its attendant cost. Many rural areas do not have clinics; the sick must be carried on the backs of young men or on bicycles to the nearest clinic. Moreover, clinics in rural areas often lack adequate equipment or trained health personnel, and require payment before providing services. In the absence of health insurance, rural people are often unable to afford healthcare of any kind. Healthcare access and utilization are of major interest to rural development, because they are vital elements of wellbeing and components of human capital (Aghion et al., 2010). In rural areas, where physical jobs tend to be more abundant, healthcare access and utilization stand to be more important than education in determining labour productivity. Furthermore, every individual sees good health as a

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need; this makes healthcare utilization an economic good. Good health is a need for all and the choice of a particular healthcare system respond to the laws of demand and supply, the demand for health care is a derived demand. Health care is not demanded for itself but for the advantages that can be derived from being healthy. Many low-income countries, Nigeria inclusive, have not been able to meet the basic healthcare needs of their people, especially those in the rural areas. In Nigeria, there has been a growing recognition of the challenge of rural people's health issues and the need for it to be addressed (Hamid *et al.*, 2005). There is a huge shortage of qualified practitioners in the rural areas. Accessing health care in rural areas is confounded by problems such as insufficient health infrastructure, the presence of chronic diseases and disabilities, socioeconomic and physical barriers (Ricketts, 2009).

Research Methodology

The study adopted survey approach in the research to identified villages that makes up the study area. Simple random technique was employed in the distribution of questionnaires to the target population. Both primary and secondary sources of data collection were employed in the study. Observations were made on the conditions of the existing healthcare facilities in the study area. Tara Yamane formula (1978) adopted in Ogboi (2014) was adopted to determine the sample size for the study. This method was applied since the distribution of the sample frame was normal. The sample size for the study is calculated below;

n= N/[1+N(e)²]
Where by n is the sample size,
N is the population size, and
e is the significance level of precision



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Therefore,
$$n = \frac{98169}{1+98169 (0.005)^2}$$

$$n = \frac{98169}{1+98169 (0.0025)}$$

$$n = \frac{98169}{246.4}$$

$$n = 398.4$$

Therefore, the sample size for the study was 398 respondents

Discussion of Findings

What is the existing condition of the available healthcare facilities in the study area?

Table 1: Existing Conditions of the Available Healthcare Facilities

N/S	Villages	No. of Duestionnaires	lhe physical structures of healthcare centers are in bad shape	%	The healthcare facilities are characterized by poor technologies	%	The outward appearance of the healthcare facilities in the study	%	The numbers of bed in the healthcare centers is far below the	96	All of the above	%
1	Atiam Kpat	13	1	0.3	-	-	-	-	2	0.5	10	2.5
2	Edem Idim Okpot	12	-	-	-	-	2	-	2	0.5	8	2.01
3	Ikot Akpna-abia	11	-	-	-	-	-	-	1	0.3	10	2.5
4	lkot Ekwere	12	2	0.5	-	-	2	0.5	-	-	8	2.01
5	lkot Esen	10	-	-	1	0.3	2	0.5	-	-	9	2.3
6	Ikat Eya	14	-	-	-	-	-	-	-	-	14	3.5
7	Ikot Oduatang	15	2	0.5	1	0.3	2	0.5	-	-	10	2.5
8	lkat Okwat	12	2	0.5	-	-	-	-	-	-	10	2.5
9	lkat Osam	13	-	-	-	-	2	-	-	-	11	2.8
10	Mbiekene	11	2	0.5	1	0.3	-	-	-	-	8	2.01
11	Ndukpo Ise	10	3	0.8	-	-	2	0.5	2	0.5	3	0.8



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12	Akai	19	-	-	-	-	-	-	-	-	19	4.8
13	Ekpene Ukim	13	2	0.5		-	-	-	-	-	10	2.5
14	lbiemin	15	2	0.5	3	0.8	-	-	-	-	10	2.5
15	Ikot Akpa Eno	14	-	-		-	1	0.3	2	0.5	11	2.8
16	Ikot Akpa Mba	11	3	0.8	2	0.5	-	-	1	0.3	5	1.3
17	Ikot Edok	14	1	0.3	-	-	-	-	2	0.5	11	2.8
18	Ikot Enwana	10	-	-	-	-	-	-	1	0.3	9	2.3
19	Ikat Nkar	13	-	-	-	-	2	-	-	-	11	2.8
20	Ikot Ntung	15	1	0.3	-	-	-	-	-	-	14	3.5
21	lkot Okoro	12	-	-	-	-	-	-	-	-	12	3.02
22	Ikot Okpodo	13	2	0.5	-	-	-	-	2	0.5	9	2.3
23	Ikot Okpyot	14	-	-	3	0.8	2	0.5	1	0.3	4	1
24	lkot Ubo	10	2	0.5	-	-	2	0.5	-	-	6	1.5
25	lkot Ude Ide	13	-	-	2	0.5	4	1	2	0.5	5	1.3
26	Ikot Udo Iton	10	1	0.3	2	0.5	2	0.5	1	0.3	4	1
27	lkat Usa	12	2	0.5	2	0.5	2	0.5	2	0.5	4	1
28	Mbat Uno	9	-	-	-	-	1	0.3	-	-	8	2.01
29	Nung Obong	8	-	-		-	2	0.5	-	-	6	1.5
30	Obio Ekit	12	1	0.3	2	0.5	3	0.8	1	0.3	5	1.3
31	Obio Ubium	10	-	-	-	-	-	-	1	0.3	9	2.3
32	Odoro Atasung	12	1	0.3	-	-	-	-	-	-	11	2.8
33	Ukat	6	-	-	-	-	-	-	1	0.3	5	1.3
	Total	398	32	8.04	19	4.8	28	7.04	24	6.03	295	74.1

Source: Field Survey, 2023

Based on the analysis in table one, it could be seen that about 32 respondents with a percentage contribution of 8.04% indicated that the physical structures of the available healthcare centers were in bad shape as 3 respondents from two-villages each went for the first option, 2 respondents from nine-villages also one respondent from six-villages ticked the option. It was also revealed that 19 people representing 4.8% indicated that the healthcare facilities in the study area were characterized by poor technologies and equipment, as 3 respondents from three-villages each agreed with the second option, 2 respondents from five villages also

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went for the option and one respondent from three-villages went for the option as well. Also, 28 respondents constituting 7.04% where of the opinion that the outward appearance of the healthcare facilities in the study area is deteriorating where 4 respondents from Ikot Ude Ide went for the option, 3 respondents from Obio Ekit identified the option as their answer, 2 respondents from twelve villages ticked the option and 1 respondent from two-villages choose the option. Again, it was discovered that 24 respondents or 6.03% identified that the numbers of bed in the healthcare centers is far below the standard of WHO, as 2 respondents from eight villages went for the option and 1 respondent from eight villages agreed with the option. But a greater number of the respondents 295 with a percentage of 74.1% identified option all of the above as the correct answer meaning that all options provided are correct. Therefore, the study concludes that the existing conditions of the available healthcare facilities were bad, characterized by poor technologies and equipment, outward appearance are deteriorating and the numbers of bed is far below the standard of WHO.

To what level is the patronage pattern of rural dwellers on the healthcare facilities?

Table 2.0: Level of patronage patterns to healthcare facilities in the study area

S/N	Options	Frequency	% Contribution
1	Low	233	80.4
2	Medium	100	10.1
3	High	34	8.5
	Total	398	100

Source: Field Survey, 2023

Based on the table above, it was revealed that about 233 respondents representing 80.4% of the total distribution indicated that their level of patronage patterns to the available healthcare facilities is low, and 100

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respondents or 10.1% identified medium as their answer while 34 or 8.5% indicated high as their answer.

Patronage patterns of rural dwellers is directly influenced by the availability and accessibility of healthcare facilities

Options	Variables	Frequency	% Contribution
Α	Strongly agreed	281	70.6
В	Agreed	105	26.1
С	Strongly disagreed	5	1.5
D	Disagreed	8	1.8
Total		398	100

Source: Field Survey, 2023

The table above revealed that 281 respondents with a percentage contribution of 70.6% identified strongly agreed to the statement that the patronage patterns of rural dwellers is directly influenced by the availability and accessibility of healthcare facilities, 105 respondents or 26.1% also agreed to the statement but 5 people representing 1.5% where strongly against and 8 respondents also disagreed to the statement.

Cost of treatment affects patronage patterns of rural dwellers to healthcare facilities

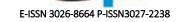
S/N	Options	Frequency	% Contribution
1	Strongly agreed	256	64.3
2	Agreed	112	26.9
3	Strongly disagreed	15	3.8
4	Disagreed	20	5
	Total	398	100

Source: Field Survey, 2023

Based on the analysis above, it was discovered that 256 representing 64.3% strongly agreed to the statement that the cost of treatment affects

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patronage patterns of rural dwellers to the healthcare facilities. 112 or 26.9% choose agreed as the best answer to the question while 15 respondents with a pe3rcentage of 3.8% strongly agreed to the statement followed by 20 respondents constituting 5% who also disagreed to the statement.

The distance level of healthcare facilities determines patronage patterns of healthcare facilities

S/N	Options	Frequency	% Contribution
1	Strongly agreed	340	80.9
2	Agreed	43	7.8
3	Strongly Disagreed	4	5.5
4	Disagreed	10	5.8
	Total	398	100

Source: Field Survey, 2023

The analysis in table above shows that 340 respondents or 80.9% strongly agreed to the statement that the distance level of the available healthcare facilities determines the patronage patterns of healthcare facilities, again 43 respondents also agreed to the statement whereas 4 respondents or 5.5% strongly disagreed to the statement and 10 respondents or 5.8% also disagreed to it.

Conclusion and Recommendations

Health is a basic element of every citizen in a country. The health of a man has been regarded as the most important, because all economic activities are mainly carried out by man. Health has a great impact on people's income and efficiency, in short, it is a great determinant of the economic growth and development of a nation, therefore when the health of people in a nation falls below the standard of a healthy nation as stipulated by WHO then the nation's economic growth and development is out-stake. Therefore, this study concludes that the conditions of the available

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healthcare facilities in the study area was poor and the patronage pattern to healthcare facilities were influence by distance, cost and access to the facilities. However, the study recommends among others that governments at all tiers should ensure equitable accessibility to health care delivery across the rural areas by deploying more medical and paramedical staffs to the rural areas while household heads should be encouraged to utilize modern healthcare facilities by organizing a sensitization programme about the importance of using modern healthcare facilities.

REFERENCES

- Adebayo, A. A. and Oladeji S. I. (2006). Health Human Capital Condition: Analysis of the Determinants in Nigeria in Falola, T. and Heaton, M. M. (eds) Traditional and Modern Health Systems in Nigeria, Africa World Press; Trenton and Asmara: 381-398.
- Abrams, M. (1976): "Subjective Social Indicators" Social Trends, 4:35-40.
- Abukhder, J and Munns, A K (2013) Attributing management problems on Construction projects to project information. In: Greenwood, D J (Ed.), Proceedings 19th Annual ARCOM Conference, 3-5 September 2003, Brighton, UK. Association of Researchers in Construction Management, 2,543-552.
- Adeyeye, K, Pasquire, C, Bouchlaghem, D and Chandler, J (2010) Exploring the efficacy of digital tools for the design and construction of hybrid buildings. In: Boyd, D (Ed.) Proceedings 22nd Annual ARCOM Conference, 4-6 September 2006, Birmingham, UK. Association of Researchers in Construction Management, 2, 663-673.
- Adeyinka S.A (2006), Locational Analysis of Health Care Facilities in Ife Region. Ph.D Thesis, Department of Urban and Regional Planning, Obafemi Awolowo University, Ile-Ife, Nigeria.
- Adeyinka S.A., Olugbamila O.B. (2016), Correlates of Residents Soci-Economic Characteristics and Frequency of Visits to Healthcare Facilities in Ondo State, Nigeria, Research on Humanities and Social Science. 6 (18): 7-16
- Adeyinka, S. A and Olugbamila, O. B. (2015). Public Private Participation for Infrastructure in Developing Countries. Academic Journal of Interdisciplinary Studies. 4(2), 11-17
- Agaja S.A. (2012), Spatial Distribution of Primary Health Care Centres in Ughelli South and Warri South Local Government Areas of Delta State, Nigeria, International Journal of Scientific & Technology Research, 1 (9): 38-41.
- Aghion, E Henry T., and Yemi. R. (2014). Health Care Decision at the Household L: Results of a Rural Health Survey in Kenya: Social and Medicine. 4(2). 315 - 319





Journal of Health, Metabolism and Nutrition Studies

- Ahmadi-Javid, A.; Seyedi, P.; Syam, S. (2017). "A Survey of Healthcare Facility Location". *Computers & Operations Research*. 79: 223–263. doi:10.1016/j.cor.2016.05.018.
- Ahmed, A and Gidado, K (2010) Evaluating the potential of renewable energy technologies for buildings in Nigeria. In: Dainty, A (Ed.) Proceedings 24th Annual ARCOM Conference, 1-3 September 2008, Cardiff, UK. Association of Researchers in Construction Management, 2, 1175–1182.
- Akhlaghi, F (1997) How to approach process benchmarking in facilities management: catering services in the UK National Health Service. Facilities, 15(3/4), 57-61.
- Akpomuvie, O.B. (2010): Poverty, Access to Health Care Services and Human Capital Development in Nigeria *International Multi-Disciplinary Journal*, Ethiopia Vol. 4
- Amaratunga, D and Baldry, D (2002) Moving from Performance Measurement to Performance Management. Facilities, 20(5/6), 217-223.
- Anderson, K and McAdam, R (2004) A critique of benchmarking and performance measurement: Lead or lag?. Benchmarking: An International Journal, 11(5), 465-483.
- <u>AUSTRALIAN MEDICAL WORKFORCE BENCHMARKS</u> (PDF). Australian Medical Workforce Advisory Committee (Report). Australian Institute of Health and Welfare. January 1996. p. 25. Archived from the original on August 6, 2010.
- Becker, F D (1990). The total workplace: Facilities management and the elastic organization. New Work: Van Nostrand Reinhold.
- Bircher, J. (2005): Towards a dynamic definition of health and disease. *Medical Healthcare Philos* 8: 338-341. http://www.ncbi.nlm.nih.gov/pubmed/16283496. Accessed on 14th March, 2014
- Bootle, R and Kalyan, S (2002) Property in Business a waste of space?: A study for RICS. London: Royal Institute of Chartered Surveyors.
- British Institute of Facilities Management (2013) Investors in FM Excellence. BIFM Bulletin, No. 183, November.
- Chakraborty, U. Davis Y and Pascal M. (2003). Location of Health care Facilities. An Analytical Approach. *Socio Economic Planning Services*. 7(4). 407 422
- Eme, O.I, Uche, O. A. and Uche. B. (2014): Building a Solid Health Care System in Nigeria: Challenges and Prospects *Academic Journal of Interdisciplinary Studies.* 3 (6): 501-510
- Federal Ministry of Health (FMOH) (2004). Health Care in Nigeria. Annual Bulletin of the Federal Ministry of Health, Abuja, Nigeria.
- Ilozor, B D (2013) Open-planning concepts and effective facilities management of commercial buildings. Journal of Engineering, Construction and Architectural Management, 13(4), 396–412.
- Ibor, U. and Atomode, S. (2014). The Concept of Accessibility: A search for an Operational form. Regioal Studies. 5(2). 101 107





Journal of Health, Metabolism and Nutrition Studies

- Kirkham, R J, Boussabaine, A H and Awwad, B H (2002) Probability distributions of facilities management costs for whole life cycle costing in acute care NHS hospital buildings. Journal of Construction Management and Economics, 20(3), 251–261
- Knox, P.L. (1979): Level of Living: A Comparative Framework for Monitoring Regional Variations in Well Being. *Regional Studies*, 8: 11-19.
- Mole, T and Taylor, F (1992) Facility Management: Evolution or Revolution, In Barrett, P (Ed) Facilities Management: Research Directions, the second international
- Neely, A (2008) Performance Measurement System Design Third Phase Draft of the Fourth section of the Performance Measurement System Design Workbook. Cambridge: Centre for Business Performance, Judge Institute of Management Studies.
- Nutt, B (2010): Four competing futures for facility management. Facilities, 18(3), 124-132.
- Manzoor, S. Rhanald, U. and Ford, H. (2009). People in Economic Development. Scientific American. 2(3). 114 120
- Okoroh, M I (2002): Risk management in healthcare facilities. The 2002 Global Symposium, CIB W70 Symposium, 18-20 September 2002, Glasgow, Scotland.
- Onah, S. Gonne, G and Mark, B. (2009). Accessibility to General Hospital in Rural Bendal State, Nigeria Social Science and Medicine. 18(8). 661 666
- Orubuloye, O (2008) Hospital Management in Nigeria. Nigerian Institute of Social and Economic Research Journal, The 2008 National Conference, 12-17 March 2008, Ibadan, Nigeria.
- Owoseni, s. Aaron F. and Frank H. (2014). Organisational of Health Services in Nigeria. In Osemwota, O. (ed). Some Issues in Nigerian Health Planning and Management. Omega Publishers, Benin pp 60 78
- Pitt, M and Goyal, S (2004) Business Continuity Planning as a Facilities Management Tool. Facilities, 22(3/4), 87-99.
- Reeves, R (2000) Repositioning Facility Management, In Nutt, B and McLennan, P (Eds.) Facility Management: risks and opportunities. Oxford: Blackwell Science.
- Robinson, H S and Scott, J (2009) Service delivery and performance monitoring in PFI/PPP projects. Construction Management and Economics, 27(2), 181–197
- Sanni, L. (2010): Distribution Pattern of Healthcare Facilities in Osun State, Nigeria *Ethiopian Journal of Environmental Studies and Management.* 3 (2): 65-76
- Saracci, R. (1997): The World Health Organization needs to reconsider its definition of Health. *British Medical Journal.* 314: 1409-1410
- Shanon, G.W. and Deven, G.E.A. (1974): Healthcare Delivery A Spatial Perspective. New York: Mc-Graw Hill Book Co. p.92



Journal of Health, Metabolism and Nutrition Studies

Strauss J. and Thomas. D. (1998): Health, nutrition, and economic development *Journal of Social Economic Literature*, 36 (2): 766-817.

United Nation (1995): State of the World Population Reproductive Health: A Measure of Equity

WHO (2005): World Health Report 2005: Health Systems - Improving Performance. Geneva: World Health Organization

World Health Organization (1948): The Constitution of World Health Organization, Geneva

Zwi, U. (2001). Disease, Live and Man; Selected Essay. Standford University Press. Stanford