

# Healthcare Facility Delivery in Residential Areas of Ile-Ife, Nigeria

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**Abstract-** *The study examined healthcare facility delivery in Ile-Ife, Nigeria. Multistage sampling procedure was employed for the study. Ile-Ife were stratified into three residential zones; core, transition, and the sub-urban. Using purposive sampling technique, five (5) residential areas were selected and the selection was based on the residential areas with highest number of residential buildings. Through this method, 34, 119 and 134 residential buildings in the core, transition and suburban zones respectively were selected for administration of questionnaire making a total of 287 respondents. Findings revealed that variation exists in the socio-economic characteristics of the respondents whereas the variation was more pronounced in the transition when compared with other zones. There is inadequate infrastructural facilities in the available healthcare facility even though respondents in the suburban zone were satisfied with utilization of available healthcare facility. Also, healthcare facility delivery increases as distance increases from the core to the transition zones. The study recommended that there is a need for equitable distribution and provision of adequate healthcare facility especially in the core and transition residential zones. Also, there is also a need to formulate sustainable policies by government for sustainable healthcare facility planning.*

**Indexed Terms-** *Delivery, Facilities, Healthcare, Residential Areas*

## I. INTRODUCTION

Across the globe, people's health is not just considered to contribute to better quality of life but

an essential need for social and economic development [1, 2]. By conventional declaration, health is a basic right of every human and a fundamental human right, that must be guaranteed by government at all levels, through the provision of healthcare facility [3]. Availability and accessibilities of healthcare facility in urban environment promote healthy living of residents and sustainable development. However, healthy urban environment cannot be achieved without healthcare facility delivery.

Healthcare facility delivery is the provision of ideal environment for the promotion and development of health and well-being of urban dwellers [4, 5, 6]. Urban dwellers are residents in urban environment that has access to healthcare facility for a period of time. Contextually, healthcare delivery is the distribution, provision, accessibility and utilization of healthcare facility in a sustainable manner for a given urban dwellers. The goal of healthcare delivery is to ensure that urban dwellers have access to adequate healthcare facility thereby creating healthy environment.

The indispensability of healthcare facility delivery in the achievement of sustainable environment has made it a subject of discussion by many scholars [7, 8, 9, 10, 6, 11, 12]. The past studies have showcased and described the balance that exists between healthcare facility and their effectiveness on human's health and well-being across the world. Nevertheless, studies that have inquired the delivery of healthcare facility in residential areas of traditional cities especially in developing countries are scanty in literature.

In developing countries, particularly Nigeria, healthcare facility delivery appears to be low ebb as many Nigerians are dangerously exposed to the danger of chronic diseases and death as a result of inadequate healthcare facility [13, 14]. Over the years, Nigeria's healthcare system has been in less than ideal shape, and it continues to be so. Apart from the despair state of healthcare facility, the equitable distribution of healthcare facility as a factor for sustaining urban dwellers remain a mirage [2, 15]. The provision and distribution of adequate healthcare facility in a qualitative and quantitative manner to the citizen has not been met and also increase unhealthy situations especially in traditional cities of the country.

Ile-Ife, one of the major cities in Osun State and an oldest traditional city in Nigeria have been linked to inadequate and uneven distribution of healthcare facility [16, 17]. The disparities between urban expansion, population distribution, and healthcare facility distribution in urban areas of the city has propelled the increasing avoidable and preventable deaths [15]. Apart from disparity in the distribution of healthcare facility in the city, the available facility has been faced with a lot of problems, some of which are dilapidated buildings and inadequate ancillary facilities [11]. Even the surge in urban growth from the core to the peripheral residential zones of the city has been attributed to uneven distribution of healthcare facility. This situation however is a concern especially in the residential zones of the city. This study therefore examined healthcare facility delivery in Ile-Ife, Nigeria.

## II. LITERATURE REVIEW

Healthcare facility delivery is essential for the promotion of healthy population through a good healthcare sector. Several studies have examined socio-economic attributes of residents in accessing adequate healthcare facility [18, 8, 6]. The work of [19] assessed the status of socio-economic and healthcare services quality in Madhya Pradesh, India. The study made use of socio-economic characteristics of residents such as household income and size to determine the quality of healthcare received by people. The study concluded that residents with low socio-economic status received

low-quality care. Also, the study of [8] examined the socio-economic characteristics and healthcare facilities utilization in Ondo State, Nigeria. The study revealed that age, marital status, gender and income have a major influence on how frequently households visit healthcare facilities in the study area. These studies have examined socio-economic characteristics such as age, gender, income, length of stay to assessed households' healthcare facilities provision. As thus, socio-economic characteristics of residents in the three residential zones of Ile-Ife is a determinant of healthcare facility delivery.

Efforts have also been made to look into residents' accessibility and utilization of healthcare facility. [10] evaluate residents' accessibility and utilization of healthcare facility in Lagos, Nigeria. The study revealed that the distance covered by residence to access healthcare facility and its provision by government remain the significant factors that aid utilization of healthcare facility in Lagos. Likewise, the study of [20] concluded that despite the awareness of the availability of healthcare facility in Ogun State, residents' level of accessibility is at a low ebb. This is a result of the worsened poverty, poor road networks and transportation facilities. Also, [21] on the overview of healthcare system in India concluded that irrespective of the level of awareness of residents to healthcare facility, the low-income households were the most vulnerable victims of the lack of the utilization's accessibility of affordable and quality healthcare in India. Nevertheless, these studies did not consider equitable distribution pattern that aids accessibilities and utilization of healthcare facility delivery.

Furthermore, literature abounds on the availability of healthcare facility in developed and developing countries. For instance, [21] concluded that the number of healthcare facility available in developing countries is not sufficient in quantity and quality, either they are sparsely distributed or not in good condition to cater for the growing population. [14 and 22] assessed healthcare facility and services in Nigeria and Ghana, respectively. In their study, healthcare facility must be available for the upliftment of any country. Also, [23] examined availability and readiness of healthcare facility in Bangladesh. The study found that proximity of

healthcare facility and its readiness play a significant role in reducing mortality in Bangladesh. These studies however assessed the availability of healthcare facilities without considering their providers. Thus, enquiry on the availability of healthcare facility and their providers promotes sustainable healthcare facility delivery.

In the same vein, residents' satisfaction of healthcare facility is a key determinant of good quality of life. Scholars have examined residents' level of satisfaction of the available healthcare facility in cities of the world [24, 23, 12]. For instance, [24] on health care in South Africa concluded that about one-quarter did not have access to vaccines when they required it. Hence, residents in South Africa were not satisfied with healthcare delivery. Also, [12] examined patients' satisfaction with healthcare delivery in Ghana. The study rated Ghana health sector based on the service reliability, responsiveness and tangibles. The study identified important maternal traits and aspects of the health system that are positively correlated with patient satisfaction with the provision of healthcare services in Ghana. Residents' satisfaction with healthcare delivery therefore is a determinant of satisfaction to the type of healthcare facility available in urban environment. Based on the above, this study examined healthcare facility delivery in the three residential areas of Ile-Ife, Nigeria. It raised the pertinent questions on the residents' socioeconomic characteristics and housing attributes, availability and providers of healthcare facility and satisfaction of healthcare facility delivery in the core, transition and suburban zones.

### III. MATERIALS AND METHODS

The study area is Ile-Ife, Osun State, Nigeria (Figure 1). Ile-Ife is located between Latitude 7°26'N and 7°32'N of the Equator and Longitude 4°29'E and 4°35'E of the Greenwich Meridian, covering an area of about 1,894Km in the present-day Osun State (Figure 2). Ile-Ife has been increasing in population since 1950 with population of 107,334 and it increased to 235,401 in the year 1970, with the high rate of urbanization in the city, the population increased to 374,106 in the year 1990. Today, it is one of the prominent towns in Osun State. As at 2006 the population of Ile-Ife was 501,952 [25]. There is

availability of infrastructure such as university, colleges, radio stations, hotels, among others which continued to support and improve the physical, social, and economic systems of the town. However, the presence of these infrastructure has increased the population of the city which resulted into the need for healthcare facility delivery in a qualitative and quantitative manner.

Healthcare facility in Ile-Ife is with their unifying hierarchy based on the service rendered, their size, capacity, strength and pattern. There are primary, secondary and tertiary levels of healthcare facility in the town. With different medical services, the available facility provides services based on capacity and needs. In spite of the provision of healthcare facility by government and private investors, the uneven distribution and disparity still appalling taking into account the town's recent rate of urbanization and population growth. Most of these healthcare facilities were concentrated in the town center, with insufficient service in other areas. [15]. Even the available healthcare facilities were ill-equipped making health and well-being of urban dwellers especially in residential zones in jeopardy. The residential zones comprise of core, transition and suburban with residential areas that has unifying attributes and layout pattern.



Figure 1: Osun State in the National Context

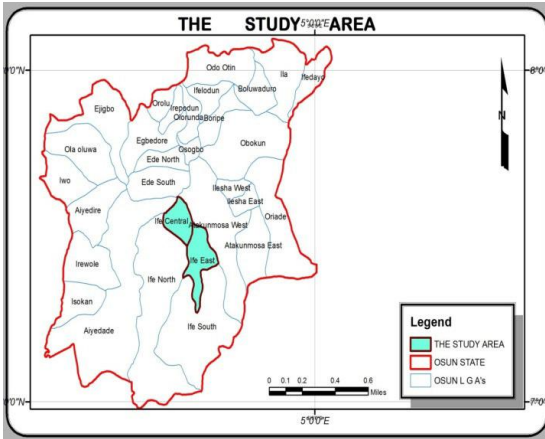


Figure 2: Map of Osun State showing Ife Central & Ife East LGAs

For the study, multi-stage sampling procedure was employed. Ile-Ife were stratified into three residential zones; core, transition, and the sub-urban. Likewise, the 34 residential areas in the three residential zones were identified and selected for questionnaire administration. For uniformity, using purposive sampling technique, five (5) residential areas were selected and the selection was based on the residential areas with highest number of residential buildings. As thus, 20% of the residential areas were selected in each residential zone to arrive at; one (1) in the core, two (2) in the transition and two (2) in the suburban zones respectively. The selection of residential buildings in the study area was achieved using systematic random sampling technique where by every 20th building in the selected areas were selected, to arrive at 287 respondents for questionnaire administration. This comprises of 34, 119 and 134 buildings in the core, transition and suburban zone respectively. Questionnaire were administered on household above 18 years of age. In the same vein, descriptive and inferential statistics were used to analyzed the collected data. Except otherwise stated, data for this study were from author’s 2024 field survey.

#### IV. RESULTS AND FINDINGS

##### A. Socio-Economic and Housing Characteristics of Respondents

The socioeconomic characteristics and housing attributes of respondents were considered in the study. Variables of socioeconomic characteristics

comprises of the respondents’ length of stay, age, marital status, gender, household income and size. Based on the work of [26, 18] socioeconomic characteristics of people were important determinant in examining their perception on infrastructure distribution all over the world. Particularly, [8, 5, 6] indicated that socioeconomic characteristics and housing attributes of people is an important attribute in examining their perception to healthcare facility delivery especially in cities of developing countries. Thus, presented in Table 1 is the findings on the socioeconomic characteristics and housing attributes of respondents in the three residential zones of Ile-Ife. Except otherwise stated, tables in this section are outcomes of the author’s 2024 field survey.

Findings on the age of respondents revealed that 63.4% were males while 36.6% were females across the three residential zones of Ile-Ife. In the core zone, two third 64.8% were females whereas 35.2% were male. Unlike in the transition and suburban zones where 68.1% and 66.4% were males respectively. The findings indicated adequate representation of the two genders and the proportion of males is more pronounced in the transition and suburban zones. This is evident in the results of Chi-Square test ( $\chi^2 = 2.491$ ,  $p = 0.417$ ,  $\alpha = 0.03$ ) which indicated that there was significant variation between gender distribution and residential zones. Findings also established that majority (60.2%) were between 31 – 59 years (young adult) this shows a significant variation in the age of respondents based on the ANOVA result ( $F = 20.128$ ;  $p = 0.000$ ) in the three residential zones of the study area. As a result, respondents were adult and mature enough to provide adequate information that could enhance healthcare facility delivery. The educational attainment of respondents was categorized into primary, secondary and tertiary. Findings established that majority (50.7%) of the respondents attained secondary education while just fewer (28.1%) attained tertiary education level. In the core and transition zones, majority (52.9% and 63.8%) of the respondents attained secondary education level respectively, whereas 48.8% attained tertiary education level in the suburban zone. Findings however revealed that respondents in the three residential zones attained secondary and tertiary education level and they were

knowledgeable on healthcare facility delivery. The result of Chi-Square ( $\chi^2 = 2.411, \rho = 0.531, \alpha = 0.05$ ) indicated that residential regions and educational attainment did not significantly correlate. Across the three residential zones, majority (63.1%) were married and this is more pronounced in the transition zone. The findings indicated that majority were married and not at dependable age. The result validated the earlier claim of [27] that different factors are responsible for resident’s utilization of healthcare facility and in this context, married residents are major factor in that regard. Furthermore, findings indicated that income level of the respondents increase from the core to the suburban zones. This justified the claim that income has greater influence on respondents’ level of utilization of healthcare facility [6]. Also, the cross-board income distribution among the respondents influences healthcare delivery in the three residential zones.

The household size was grouped into low, medium and high. The classification is respectively regarded as low (1 – 5), medium (6 – 10) and high (above 10) household size. Across the three residential zones, 29.8% had lower household size while 57.1% had medium household size, and 13.1% had high household size. Considering each residential areas, it was revealed that in the core and transition residential zones, half (50.1% and 57.9%) of the respondents had medium household size respectively. Although, in the core residential zone, one third (41.1%) had high household size but it was low (8.3%) in the suburban zone. As a result, across the study area, majority (57.1%) had medium household size and variation were not perceived in the three residential zones. This is further confirmed by the results of

ANOVA ( $F = 2.112; \rho = 0.118$ ) that there was no significant variation in the household size of respondents in the residential zones. Findings revealed that one third each (38.6% and 37.6%) of the respondents reside in bungalow block of flats and bungalow roomy apartment respectively across the three residential zones in the study area. Likewise, majority (73.5% and 66.3%) of the respondents in the core and transition zones reside in bungalow roomy apartment unlike in the suburban zone where one third (57.4%) stayed in bungalow blocks of flats. Therefore, findings revealed that respondents reside in good building and they know the importance of adequate healthcare facility delivery.

In the same vein, majority (61.6%) of the respondents have stayed between 4 – 7 years in their area of residence while 27.6% have stayed above 8 years. Further findings revealed that majority (54.6% and 75.3%) of the respondents in the transition and suburban zones respectively have stayed between 4 – 7 years while 56.1% of the respondents have stayed above 8 years in the core zone. The findings indicated that two third (61.6%) of the total respondents have stayed between 4 – 7 years in their respective areas and they were capable of taken cognizance of healthcare facility delivery. The findings justified the work of [28, 29] that peoples’ length of stay in an environment influences their concern about any environmental issues. This is because people are more likely to comprehend the environmental issues that are currently plaguing a community the longer they have lived there. In all, findings revealed that socioeconomic characteristics and housing attributes of the respondents varied across the three residential areas.

Table 1: Socioeconomic Characteristics and Housing Attributes of the Respondents

Attributes		Core Frequency (%)	Transition Frequency (%)	Suburban Frequency (%)	Total Frequency (%)
Gender	Male	12 (35.2)	81 (68.1)	89 (66.4)	182 (63.4)
	Female	22 (64.8)	38 (31.9)	45 (33.6)	105 (36.6)
	Total	34 (100)	119 (100)	134 (100)	287 (100)
Educational Attainment	Primary	11 (32.3)	33 (27.7)	17 (12.6)	61 (21.2)
	Secondary	18 (52.9)	76 (63.8)	52 (38.8)	146 (50.7)
	Tertiary	5 (14.8)	10 (8.5)	65 (48.6)	80 (28.1)
	Total	34 (100)	119 (100)	134 (100)	287 (100)
Marital Status	Single	5 (14.7)	13 (10.9)	11 (8.2)	29 (10.1)

	Married	19 (55.8)	77 (64.7)	85 (63.4)	181 (63.1)
	Divorced/Separated	4 (11.7)	11 (9.2)	14 (10.3)	29 (10.1)
	Widowed	6 (17.8)	18 (15.2)	24 (18.1)	48 (16.7)
	Total	34 (100)	119 (100)	134 (100)	287 (100)
Age	18 – 34	7 (20.5)	13 (10.9)	15 (11.1)	35 (12.1)
	35 – 59	16 (47.1)	69 (57.9)	88 (65.6)	173 (60.2)
	60 and above	11 (32.4)	37 (31.2)	31 (23.3)	79 (27.7)
	Total	34 (100)	119 (100)	134 (100)	287 (100)
Average Monthly Income	< ₦30,000	19 (55.8)	42 (35.2)	9 (6.7)	70 (24.3)
	₦30,000 - ₦99,000	12 (35.3)	65 (54.6)	11 (8.2)	88 (30.6)
	₦100,000 - ₦149,000	3 (8.9)	9 (7.5)	29 (21.6)	41 (14.2)
	₦150,000 - ₦199,000	-	1 (1.1)	38 (28.3)	39 (13.5)
	Above ₦200,000	-	2 (1.6)	47 (35.2)	49 (17.4)
	Total	34 (100)	119 (100)	134 (100)	287 (100)
Length of Stay	1 - 3 years	4 (11.6)	13 (10.9)	14 (10.4)	31 (10.8)
	4 – 7 years	11 (32.3)	65 (54.6)	101 (75.3)	177 (61.6)
	Above 8years	19 (56.1)	41 (34.5)	19 (14.3)	79 (27.6)
	Total	34 (100)	119 (100)	134 (100)	287 (100)
Household Size	1 – 5	3 (8.8)	38 (31.9)	45 (33.5)	86 (29.8)
	6 – 10	17 (50.1)	69 (57.9)	78 (58.2)	164 (57.1)
	Above 10	14 (41.1)	12 (10.2)	11 (8.3)	37 (13.1)
	Total	34 (100)	119 (100)	134 (100)	287 (100)

*B. Available Healthcare Facility and their Providers*

Adequate healthcare facility in any environment is a panacea to sustainable development. Studies revealed that accessibility and utilization of healthcare facilities is a determinant of healthy living [20, 10, 19]. This is because the availability and types of healthcare facility coupled with the providers of healthcare facility were important element in determining people’s view of healthcare facilities delivery. Findings on the availability of healthcare facilities across the study area revealed that majority (53.6%) had healthcare facility within their immediate environment while 46.4% declared not availability of health care facility. Findings further revealed that 64.6% and 62.1% of respondents in the core and transition zones respectively had healthcare facility located in the

zones. Also, 56.8% of the respondents in the suburban zone declared non availability of healthcare facility, unlike in the core and transition zones where 35.3% and 37.9% of the respondents declared non availability of healthcare facility in their zones respectively.

Across the three residential zones, findings revealed variation in spatial distribution of healthcare facility. As a result, respondents in suburban zone declared non-availability of healthcare facility unlike in the core and transition zones where they were available. The finding has implication on healthy and sustainable living in the study area. This justified the stand point of [30, 31, 21] that without adequate and availability of healthcare facility in any urban centres, residents were at the verge of extinction and also prone to diseases.

Table 2: Availability of Healthcare Facility

Availability of Healthcare facility	Residential Zones			Total (%)
	Core (%)	Transition (%)	Suburban (%)	
Available	22 (64.7)	74 (62.1)	58 (43.2)	154 (53.6)
Not Available	12 (35.3)	43 (37.9)	76 (56.8)	133 (46.4)
Total	34 (100)	119 (100)	134 (100)	287 (100)

*C. Types of Healthcare Facility available in the Study Area*

According to Table 3, findings were made on the types of healthcare facility available in the three residential area of the study area. Findings indicated that maternity, general hospital, comprehensive health center, clinic and teaching hospital are available across the study area. Based on the result, majority (32.4%) declared availability of maternity in their residential zones unlike in the suburban zone

where majority (40.2%) had availability of general hospital. Likewise, one third (32.3% and 40.2%) of the respondents is in the core and suburban zones respectively had general hospital whereas fewer (15.9%) of the respondents declared non - availability of general hospital in the transition zone. In all, findings revealed that one third (32.4%) of the respondents across the study area had maternity, although the proportion is low in the suburban zone. The findings revealed unequal distribution of healthcare facility in the three residential zones of the study area.

Table 3: Types of Healthcare Facility

Types of Healthcare Facility	Residential Zones			Total (%)
	Core (%)	Transition (%)	Suburban (%)	
Maternity	18 (52.9)	65 (54.6)	10 (7.4)	93 (32.4)
General Hospital	11 (32.3)	19 (15.9)	54 (40.2)	84 (29.2)
Community Health Centre	5 (14.8)	14 (11.7)	44 (32.8)	63 (21.9)
Private Health Centre	-	16 (13.4)	15 (11.1)	31 (10.8)
Teaching Hospital	-	5 (4.4)	11 (8.5)	16 (5.7)
Total	34 (100)	119 (100)	134 (100)	287 (100)

*D. Providers of Healthcare Facility*

As presented in Table 4, findings were made on the providers of healthcare facility in the three residential zones delineated for the study. It was revealed that majority (66.8%) of the available healthcare facility across the different residential zones in the study area were provided by State Government. In the core zone, majority (52.9%) of the available healthcare facility were provided by State Government while fewer (41.3%) were provided through Private Individuals. Findings further indicated that fewer (2.9%) of the respondents indicated Federal Government as provider of the available healthcare facility while the proportion (2.9%) was provided by Local Government. Also, in the transition zone,

Private Individuals and Federal Government respectively. Unlike in the suburban zone where majority (71.6%) attributed healthcare provision to State Government whereas just 19.5% were from the Private Individuals.

The findings indicated that two third (66.8%) of the respondents declared State Government as the providers of healthcare facility. As a result, State Governments were able to provide healthcare facility as their constitutional responsibilities towards the betterment of residents in the three differential residential zones of the study area. The findings however were justified by [3] that government is saddled with the provision of adequate infrastructure for healthy living.

65.5% of the providers of healthcare facility were through State Government except 22.8% and 3.3% by

Table 4: Provider of healthcare facilities

Providers	Residential Zones			Total (%)
	Core (%)	Transition (%)	Suburban (%)	
Federal Government	1 (2.9)	4 (3.3)	3 (2.2)	8 (2.7)
State Government	18 (52.9)	783 (65.5)	96 (71.6)	192 (66.8)
Local Government	1 (2.9)	10 (8.4)	9 (6.7)	20 (6.9)
Private Individual	14 (41.3)	27 (22.8)	25 (19.5)	67 (23.5)



Total	34 (100)	119 (100)	134 (100)	287 (100)
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*E. Satisfaction with Attributes of Healthcare Facility*

Findings were made on the satisfaction attribute of healthcare facility in the core, transition and suburban areas of Ile-Ife, Nigeria. As presented in Table 5, the mean Respondents' Satisfaction Index [RSI] was 2.31 in the core zone. This indicated that respondents were not satisfied with the attributes of healthcare facility. Looking at the deviation about mean (DM) index which is the RSI, it was found that respondents were only satisfied with waste collection and disposal (DM = 0.19) ranked first, toilet (DM = 0.17) ranked second, ambulance (DM = 0.10) ranked third, quality of drugs (DM = 0.07) ranked fourth and electricity (DM = 0.01) ranked fifth. Unlike in the transition zone, the mean Respondents' Satisfaction Index [RSI] was 2.29. This indicated that respondents were not satisfied with the attributes of healthcare facility in the transition zone. Looking at the deviation about mean (DM) index which is the RSI, it was found that respondents were only satisfied with toilet (DM = 0.12) ranked first, waste collection and disposal (DM = 0.10) ranked second, location (DM = 0.07) ranked third, electricity (DM = 0.03) ranked fourth and quality of drugs (DM = 0.02) ranked fifth. In the same vein, the mean Respondents' Satisfaction Index [RSI] was 3.05. This indicated that respondents were satisfied with the attributes of healthcare facility in the suburban zone. Looking at the deviation about mean (DM) index which is the RSI, it was found that respondents were satisfied mostly with toilet (DM = 0.40) ranked first, waste collection and disposal (DM = 0.32) ranked second, ambulance (DM = 0.29) ranked third, quality of drugs (DM = 0.26) ranked fourth and location (DM = 0.24) ranked fifth.

Further findings in the core zone revealed that respondents declared low level of satisfaction to water supply (DM = -0.02) sixth, location (DM = -0.07) ranked seventh, quality of service (DM = -0.08) ranked eighth, drug prescription (DM = -0.10) ranked ninth and attitude of personnel (DM = -0.12) ranked tenth. The implication of these findings is that the respondents were only satisfied with waste collection and toilet in their healthcare facility. As a result, inadequate facilities that support healthcare facility reduces respondent's utilization. Whereas, respondents declared low level of satisfaction to

ambulance (DM = 0.01) sixth, attitude of personnel (DM = -0.01) ranked seventh, quality of service (DM = -0.02) ranked eighth, water supply (DM = -0.04) ranked ninth and drug prescription (-0.05) ranked tenth. As a result, respondents were not satisfied with attributes of healthcare facility in the transition zone especially on the ambulance car, personnel and quality of services. As a result, utilization of healthcare facilities is at the low ebb in the transition zone. In the suburban zone, respondents were not satisfied with attitude of personnel (DM = 0.13) ranked sixth, quality of service (DM = 0.01) seventh, electricity (DM = -0.08) ranked eighth, water supply (DM = -0.08) ranked ninth and drug prescription (DM = -0.57). The findings indicated that respondent's satisfaction with attributes of healthcare facility in suburban zone were mostly on toilet, waste collection and disposal and ambulance. Although, with low satisfaction to attitude of personnel, quality of service and electricity. The findings however have implication on healthcare delivery.

In the three zones, it was discovered that the mean Respondents' Satisfaction Index [RSI] was 2.44. This indicated that respondents were not satisfied with the attributes of healthcare facility in the three residential zones. Looking at the deviation about mean (DM) index which is the RSI, it was found that respondents were only satisfied with location (DM = 0.57) ranked first, water supply (DM = 0.18) ranked second, toilet (DM = 0.16) ranked third, quality of drugs (DM = -0.01) ranked fourth and waste collection and disposal (DM = -0.03) ranked fifth. Likewise, respondents declared low level of satisfaction to electricity (DM = -0.04) sixth, ambulance (DM = -0.05) ranked seventh, quality of service (DM = -0.11) ranked eighth, attitude of personnel (DM = -0.16) ranked ninth and drug prescription (DM = -0.22) ranked tenth. The implication of these findings is that respondents across the three differential residential areas were mostly satisfied with location, water supply and toilet. Although, in the core and transition areas, respondents were mostly satisfied with toilet except in the suburban area with low satisfaction to attitude of personnel and quality of service. Therefore, respondents were not satisfied with the attributes of healthcare facility as a result of



inadequate or unavailability of adequate facility.  
infrastructure facilities in or within healthcare

Table 5: Satisfaction with attributes of Healthcare Facility

Attributes	Residential Zones											
	Core			Transition			Suburban			Study Area		
	Mean	Mean	Rank	Mean	Mean	Rank	Mean	Mean	Rank	Mean	Mean	Rank
	Deviation	Deviation		Deviation	Deviation		Deviation	Deviation		Deviation	Deviation	
Attitude of personnel	2.24	-0.07	7	2.25	-0.04	9	3.25	0.20	5	2.28	-0.16	9
Drug Prescription	2.21	-0.10	9	2.24	-0.05	10	2.28	-0.77	10	2.22	-0.22	10
Quality of Service	2.23	-0.08	8	2.27	-0.02	8	3.07	0.02	7	2.33	-0.11	8
Location	2.19	-0.12	10	2.28	-0.01	7	3.16	0.11	6	3.01	0.57	1
Ambulance	2.41	0.10	3	2.30	0.01	6	3.51	0.46	3	2.39	-0.05	7
Quality of drugs	2.38	0.07	4	2.31	0.02	5	3.28	0.23	4	2.43	-0.01	4
Waste collection and disposal	2.48	0.17	2	2.41	0.12	1	3.69	0.64	1	2.41	-0.03	5
Water supply	2.29	-0.02	6	2.36	0.07	3	2.63	-0.42	9	2.62	0.18	2
Toilet	2.50	0.19	1	2.39	0.10	2	3.58	0.53	2	2.60	0.16	3
Electricity	2.32	0.01	5	2.32	0.03	4	2.93	-0.12	8	2.40	-0.04	6
RSI	2.31			2.29			3.05			2.44		

CONCLUSION

The study established that socioeconomic characteristic of residents varied in the three residential zones and the variation was more pronounced in the transition zone when compared with other zones. The commonest types of available healthcare facility in the core and transition zones were maternity and mostly provided by State Government. There are inadequate infrastructural facilities in the available healthcare facility especially in the core zone. Only residents in the suburban zone were satisfied with utilization of available healthcare facilities. Also, healthcare facility delivery increases as distance increases from the core to the transition zones. The study recommends that there is a need for equitable distribution and provision of adequate healthcare facility mostly in the core and transition residential zones. This will improve health and well-being of residents in the area. Also, in order to ensure

adequate provision of infrastructural facilities in the available healthcare facility in the study area, this is the role of government because the government is constitutionally saddled with the provision of some infrastructural facilities. These in particular include waste bin, toilet, water supply and electricity. There is also a need to formulate sustainable policies by government for sustainable healthcare facility planning in the study area and other similar cities.

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