ISSN No:-2456-2165

Urbanization and Health Care Challenges in Calabar Metropolis, Cross River State, Nigeria

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Abstract:-The purpose of this study is to examine the challenges of health care delivery in an urban environment of the study area. The objective is to assess the variable affecting urban health care delivery in the study area. This is achieved by examining how accessibility affects health care delivery in the study area. A survey design methodology was adopted in the study. A sample size of 1600 of a urban dweller was used for the study. Data for the study was collected through a designed questionnaire. A stratified random sampling technique was used in selecting urban dwellers in the study area. A one-way analysed of variance and multi-regression analysis (stepwise) was used in analyzing the collected data. The findings showed a strong relationship between urbanization and the challenges of health care delivery in the study area. The study suggests the formulation of urban health policy that would easy access to health care services by urban dwellers.

Keywords:- *Urbanization, Health Care Services, Urban Dwellers, Accessibility to Health Services, Patronage of Health Facilities.*

I. INTRODUCTION

Urbanization has in recent times posed great challenge to urban health care delivery in the developing countries of the world. The rapid expansion of many cities especially in the 21st Century tends to increase the physical and social accessibility to social and health care facilities in most urban areas. The rapid population increase and the accompanying continuous urban expansion of most cities have limited the accessibility of most urban dwellers to health care services provided in the urban centres. The rapid population growth in cities has been putting tremendous pressure on urban infrastructures leading to the breakdown of the infrastructure. This situation has stimulated poor urban environmental conditions. Most urban environments are today characterized by poor sanitary conditions, poor source of water supply, poor housing condition. Adejuwon, 1978 argued the poor environmental conditions of most urban areas is a threat to urban health care delivery, especially as majority of urban dwellers are living in slums and shanty towns without access to basic facilities including health care facilities. The urban centres today are being plagued with epidemic such as typhoid, tuberculosis, sexually transmitted diseases and have become epicenters for emerging diseases such as Ebola, Covid-19 among others. The overcrowding and the rapid expansion of cities, inadequate provision of social facilities and deterioting urban environmental conditions have posed great challenges to urban health care delivery in Nigeria especially in this 21st century. There seem to be a relationship between urbanization and health care delivery in urban centres. It is from this background that this study tends to identify the health care challenges posed by urbanization in Calabar metropolis.

➢ *Problem of the Study*

Urban centres, over the years are expanding at an alarming rate due to rapid population growth. The expansion of some cities is more than ten-fold the initial point of growth. The rapid population growth and the accompanying urban expansion of cities including Calabar has posed great challenges to the delivery of essential services such as health care in urban centres as the rapid population and the urban expansion becomes in-compartable with the health care facilities provided so many years ago. This situation create accessibility problem to the available health care facilities for urban dwellers. The situation is worsen by high poverty level, inadequate health care facilities and deteriorating environmental conditions of the urban centres. It is from this perspective that this study is investigating the challenges of urbanization to urban health care delivery in Calabar metropolis.

➢ *Purpose of the Study*

This study is to examine the challenges of urbanization in health care delivery in an urban environment of Calabar metropolis.

The specific objectives of the study are;

- Identify the relationship between urbanization and health care delivery in the study areas.
- Examine the factors influencing health care delivery in an urban environment.
- Identify the challenges of health care delivery in the study area.

The above objectives are achieved by answering the following research questions;

- Is there any relationship between urbanization and health care delivery in the study area?
- What are the factors affecting health care delivery in the study area?
- What are the challenges of health care delivery in the study area?

ISSN No:-2456-2165

To provide answers to these research questions, the following hypotheses were formulated, and stated in null forms;

- *Null Hypothesis 1:* There is no significant relationship between urbanization and health care delivery in the study area.
- *Null Hypothesis 2:* Health care delivery is not affected by any variable in the study area.

➢ *Rationale of the Study*

A study that examined the interface between urbanization and health care delivery in contemporary times is very significant especially as urbanization has often created health crisis. The study is significant when the fact that urban population growth is not keeping pace with the provision of health care services. The agglomeration of people to a few urban centres has resulted to poor environmental conditions expressed in terms of inadequate water supply, power supply, overcrowding poor sanitation, inadequate provision of health care services and other infrastructures. This type of environment provides breeding ground for transmission of diseases which exposes urban dwellers to health risk. A study that seeks to identify challenges to health care delivery in urban centres is imperative as it provides a platform for formulating urban health care policies that would improve health care accessibility of urban dwellers as well as their overall well-being.

Urbanization is multi-sectoral in nature. In studying urbanization and urban health delivery, the multi-sectoral approach adopted in the study will enhance a proper understanding of issues involved in promoting health care service delivery in urban areas. This is particularly necessary as many factors are involved in shaping health care behaviour of urban dwellers. This study therefore provides frameworks for examining health care behaviour of urban dwellers, using a multi-sectoral approach.

The interface between urbanization and health care delivery will provide an emerging background on urban health care delivery and as such improved health care. This would argument knowledge and provides a basis for promoting the health status of urban dwellers.

Finally, a study that draws the attention of stakeholders to challenges of urbanization to urban health delivery exposes the roles stakeholders can play to enhance health delivery as well as provides a basis for comparative studies on urbanization and health care delivery as such supplement existing literature in urban health care delivery.

➢ *Study Area*

Calabar metropolis lies between Longitude 8^0 19^1 to 8^0 24^1 East and Latitudes 4^0 54^1 to 5^0 04^1 North of the Equator. It is bounded in the North by Odukpani Local Government Area, West by Calabar River, East by the Great Kwa River and the Creeks of Cross River as it empties into the Atlantic Ocean in the South.

The metropolis covers an approximate landmass of 164,350 square kilometers. The population of Calabar in 1991 was 328,878. It grew to 375,196 in 2006. In 2015, the projected population was 529,362 showing a growth rate of 4% (Nigerian Bureau of Statistics, 2016).

Calabar was the first capital of Nigeria during the colonial Era. It is presently, the state capital of Cross River State. The status of Calabar as a state capital even before Akwa Ibom State was carved out endeared it to performing many functions, including the seat of government, industrial, commercial, educational and financial services to the hinterland. The city being epicenter of economic, political and social activities attracted movement of people from the hinterland to the city. The continuous migration of people to Calabar accounts for the rapid population growth and the subsequent rapid expansion of the city.

Calabar metropolis has an urban built-up area of 26.75 sq km in 2000. The built-up area increased to 44.80 sq km in 2018 (Awhen, Njoku, Ibiang, 2018). The built-up area has increased by 56.10% in 2022. The rapid urban expansion of the city has some implications when the spatial location of health care facilities as well as their accessibility tends to be challenge to urban health care services utilization in the study area.

Calabar metropolis in terms of health facilities presently has three tertiary health facilities (University of Calabar Teaching Hospital, Psychiatry Hospital and Navy Specialist Hospital) one General Hospital, one Infectious Disease Hospital (IDH) and many private clinics. There are also not less than 15 Primary Health Care centes spread across the study area. Most of the tertiary and secondary health facilities are concentrated near the city centre thus creating physical accessibility problems for residents residing in the new layout of the city.

II. LITERATURE REVIEW

The review of related literature is presented under the following sub-headings, concept of urbanization, urban health care, urban health care crises, urbanization and health care challenges in the 21st century.

➢ *The Concept of Urbanization*

Vlahov and Galera (2002) stated that urbanization is the change of size, density and heterogeneity of cities. It is a process that involves the emergence and growth of cities. Population mobility, segregation and industrialization are often associated with urbanization. Urbanization as a way of life is said to be a dynamic process that impact on the settlement, size, structure and functions. Urbanization often stimulates changes in the lifestyles and socio-economic behaviour of urban dwellers. The initiated changes in urban environment also affect the urban physical environment.

Urbanization is the process of agglomeration of people at certain locations. This implies that some settlement that attracts people would continue to expanse in size and grow in population. On this perspective, the United Nations

Organisation (UNO) highlighted that the world population living in urban areas increased from 3.9 billion in 2020 to 4.9 billion in 2030. In Tropical Africa, it is estimated that only 18% of the population lived in cities in 1960 whereas, in 1970 about 69 cities had a population of over 500,000 implying a rapid rate of urbanization.

The rate of urbanization has been very rapid over the years in Nigeria. The 1991 census showed that urban population was 36% of the total population whereas in 2000, the urban population was estimated at 39%. The rate of urbanization is estimated to be 3.7% per annum. The projected urban population in 2010 was 42% and it is expected to increase to 60% in 2030. This trend of urban population increase means the emergence of mega-cities.

The increase in urban population implies the increase in size (expansion) of most urban centres. This implies increase pressure on cities facilities which would likely result in the overstretching of the facilities which eventually leads to the breakdown of urban facilities as well as environmental deteriorating in the cities.

Today, most city dwellers are living in squalid and congested urban areas where poverty and underemployment/unemployment are very pronounced. Thus, limiting accessibility of some city dwellers to some social and economic opportunities and placing the city dwellers in precarious conditions which impact negatively on their health. Many who live in filthy environment are exposed to various health hazards (Rydin, Bleacdhu, Davies, Friel and De Grandis, 2012).

The challenges of health care provision in the face of urbanization constrained Mabogunji (1974) to argue that our cities have failed to meet the demands of the residents in the provision of basic facilities and social services; employment, crime prevention and delinquency. Ayeni (1978) in accepting this argument categorized urban problems to include serviceability, manageability and liveability. The problem of serviceability is expressed as the failure of the cities to provide adequate health care, education, recreation and other social services to residents. This argument is strengthened by the fact that environmental deterioration in cities arises from either the inadequacy of existing urban facilities or the over-utilization or the inability of the city to cope with the demands of cities dwellers due to the increasing rates of urbanization. Sephine and Stefan (2014) therefore asserted that urbanization is associated with poor housing conditions, over-crowding, poor drainage, presence of garbage, high level of pollution. Harpham and Stephens (2014), in aligning with this assertion, concluded that a positive correlation exist between the liveability of urban centres nad the health of the residents.

Sada and Oguntoyinbo (1978) in highlighting the poor state of urban centres in Nigeria using housing condition in Lagos expressed that only 17% of houses had flush toilets, 50% had bucket latrines and 26% pit latrines as at 1985. An urban environment of this nature has some health implication especially when the current influx of people into cities is considered. Mabogunje (1994) collaborated this and pointed out that more than 60% of the urban populations in Nigeria live in slums where health services and social facilities are inaccessible and the areas are unplanned. In describing the condition in the slum areas of Ibadan, Shoola (1990) stated that only 3% of the residents have access to pipe borne water which is never regular. This situation constrained the residents to resort to using other sources of water supply that may be hazardous to man.

- *Urban Health Care*

Sophine and Stafan (2014) argued that a positive correlation exist between urbanization and health status of urban residents and concluded that urbanization would worsen the health status of urban dwellers if urbanization is unplanned. In other words, uncontrolled influx of people to cities would negatively affect the health status of the city dwellers since such exodus is often accompanied with multi-faceted problems. The urban environment is characterized by poor sanitation, poor and shortage of housing, improper waste disposal, environmental pollution, poor drainage, high crime rates and inadequate infrastructure/social amenities. These types of urban environments have continuously threatened the health of city dwellers. Adejuwon (1978) in identifying common urban diseases argued that cities are plagued with various infectious diseases associated with overcrowding and pollution at the turn of the 21st century. Epidemic of influenza, typhoid, tuberculosis, meningitis, malaria, dysentery, cholera and diarrhea have killed millions of people in cities with poor sanitation and squalid living conditions. Valhov and Galea (2002) Adejuwon (1978) while decrying the poor environmental conditions in the cities stated that the particulates – matter emitted from vehicular movements, limited access to safe water, low rate of garbage removal, have a direct relationship with high incidence of infectious diseases and mortality rates.

Apart from communicable diseases, the cities are associated with non communicable sickness such as cardio vascular, cancer, hypertension, ischemic heart diseases, (Vlahov & Galea, 2002).

Urban social environment according to Mabogunje (1974) also affect the individual social behaviour and behavioural malfunctioning, breeding crime, violence and substance abuse. This often leads to mental illness and other anti social behaviours.

In recent time, sexually transmitted diseases are ravaging urban centres. The unemployment situation in urban centres has boasted commercial sex activities which tend to facilitate the transmission of Human Immune-deficiency Virus (HIV) and acquired Immune Deficiency Syndrome (Aids) epidemic. This has been identified as an urban problem which has gradually spread to the country-side.

Akinugbe (1973) and Adejuwon (1978) used causative factor to classify urban diseases as follows;

- Diseases caused by poor sanitation
- Diseases caused by poor personal hygiene
- Diseases caused by insect bites
- Diseases caused by respiration
- Diseases caused by life-style among others

This categorization or urban diseases shows that the causative factors of diseases are environmental base. Environment base diseases can be eliminated if there is improvement in environmental quality of cities.

➢ *Health Care Provision in Urban Centres*

Urban health care is organized around the unique characteristics of urban centres which include; rapid population growth, high population density, vulnerable population, socio-economic status/poverty, disaster threat, crime, drug abuse, access to health care service, the environment and patterns or health and social service networks (Vlahov and Galea, 2002). Accordingly, urban health is viewed from the perspective of physical environment, social environment and provision of health care and social services.

The physical environment theme refers to the built-up environment, land, air, water and noise pollution, safe water supply, waste disposal and sanitation. These are considered to be among the major components of urban environmental practices. Urban environmental health is therefore the control of all the factors in man's physical environment which may exercise a deleterious effect on physical, mental or social well-being of man (Shoola, 1990). It involves the control and management of;

- Methods of disposal of excreta, sewage and community waste to promote adequacy and safety.
- Water supply to ensure that they are pure and wholesome
- Housing provision to ensure that it is of a character likely to provide a few opportunities as possible for the direct transmission of diseases especially respiratory/infectious diseases.
- Personal and public habits of cleanliness especially in relation to diseases.
- Arthropod rodent, molluse or other alternative hosts associated with human diseases to ensure that they are eradicated.

The social environment theme refers to the properties of the urban communities such as culture, milieu, social norms and networks, stressors that affect individual behaviour (Vlahov and Galea, 2002). It includes socio-economic status, crime and violence, vulnerable groups like sex workers and the elderly.

Provision of health care and social services theme focused on the availability and accessibility of health facilities to the urban residents. It is concern with the barriers faced by the city dwellers in obtaining health care and the quality of health care services. This theme of urban health implies that urban health care is very encompassing as it is concerned with physical, social and health status of city dwellers. The components of urban health care as outlined by Oyegbite and Knippenberg (1992) are;

- Health education related to health problems faced by a population, management, control and prevention;
- Promotion of good nutrition;
- Supply of safe drinking water and basic sanitation measures;
- Material and child care including family planning;
- Immunization against major infectious diseases;
- Prevention and control of endemic diseases;
- Treatment of common/minor aliments and injuries;
- Provision of essential drugs.

This strategy of health care delivery is implemented through hospital base and primary health care approach. The primary health care approach, ensures that health is brought to the door steps of every city dwellers. The question is whether this goal of primary health care is being achieved in the face of rapid rate of urbanization in Nigeria. This is what is being investigated in this study.

Urban health care delivery is facing many challenges. Mwanzia (1994) identified some of the challenges to include;

- A relationship of large population with high growth rates
- Inadequate population coverage by health care facilities
- Existing facilities in health institutions not being optimally used
- Manpower shortage in health care facilities (high doctor-patients ratio)
- Poor operational links among various components of health delivery system
- Underdeveloped alternative health care system

These challenges couple with the prevailing poverty level of most urban dwellers affects access to health care services among the city residents in Nigeria.

Conclusively, the increasing rates of urbanization in the 21st century protend that more people would be at risk of contacting many diseases. The risk factor of diseases prevalence would be aggravated by the continuous deteriorating quality of urban environment, the inadequate provision of health care facilities and basic social services. The adoption of well articulated urban health care policy may address the challenges of urban health care delivery in Nigeria.

III. RESEARCH METHODOLOGY

The research design of this study was exploratory field survey. This survey design was adopted because the data involved is varied and wide. A stratified random sampling technique was used in selecting the respondents for the study. This statistical technique was used in locating and selecting the respondents. Household heads formed the population of the study. A sample size of 1,600 urban dwellers was used for the study. A structure questionnaire

on urban health care utilization was used in collecting data from the respondents. All health care users living in urban areas constituted the study population.

➢ *Method of Data Analysis*

Analysis of variance (ANOVA) was used in testing the variation in urban health care. Multiple Regression Analysis (stepwise) was applied to select the variables that have contributed significantly to the variation in urban health care patronage. This facilitated decision making in the interface between urbanization and health care delivery.

➢ *Instrumentation and Method of Data Collection*

Instrument for data collection included a designed questionnaire to capture information on characteristics of urban dwellers, urban conditions, accessibility to health care facilities and constraints in health care utilization.

The instrument for data collection was validated by experts to ensure validity. The designed questionnaire was administered by Research Assistants. The collected data was be processed and analyzed by experts.

➢ *Population of the Study*

Urban dwellers in the study area constituted the study population. A sample size of 1600 household heads was used for the study. The household heads were randomly selected from the study area.

IV. RESULTS AND DISCUSSION

The result of the study is presented based on the formulated hypothesis as follows:-

The null hypothesis (H_0) which stated that there was no significant difference in the level of urbanization and patronage of health care facilities in Calabar metropolis was tested using a one-way Analysis of Variance (ANOVA). The result is as presented in table 1.

Table 1 One-way ANOVA of Urbanization and Health Care Patronage

Source of Variation	Sum of square (SS)	Degree of Freedom (df)	Mean Square (MS)	F	Sign of F
Between Groups	148.884	2	136.080		
				7.010	.0002
Within Groups	7477.116	24	19.271		
Total	8963.000	26			

Result from table 1 shows the calculated F as 7.010 and the critical value as 3.40 at 2 and 24 degree of freedom at 0.05 level significant. Base on this result, the null hypotheses which stated that there is no significant difference in the level of urbanization and the patronage of urban health care facilities in the study area was rejected. Accordingly, the alternate hypothesis which stated that there is significant difference between level of urbanization and the patronage of urban health care facilities in the study area was accepted. This implies that variation exist between the level of urbanization and the patronage of urban health care facilities in the study area. It is from this perspective that urbanization and health care delivery challenges in the study area is being investigated.

The result of 1 is further substantiated by health care facility location/distance and the patronage level is analyzed. The result is as highlighted in table 2.

Table 2 Location/Distance of Health Care Facility and Number of Visits by Urban Residents

S/N	HEALTH FACILITY	DISTANCE TO HEALTH FACILITY AND NO OF VISITS				
		Less than 1km	1-2km	2-5km	Above 5km	Total
1	University of Calabar Teaching Hospital	56	34	19	10	118 (3.13%)
2	General Hospital	196	135	79	32	442 (11.72%)
3	Private Hospital/Private Clinics	232	180	91	49	552 (14.63%)
4	Primary Health Centres	515	208	147	52	915 (24.26%)
5	Pharmacies/Patent Medicine Stores	668	240	133	55	1096 (29.06%)
6	Traditional Healing homes	84	88	96	114	382 (10.13%)
7	Spiritual Healing homes	70	64	75	59	268 (7.10%)
	TOTAL	1818	942	640	371	3771
	Percentage	**48.21**	**24.98**	**16.97**	**9.83**	**100**

The result in table 2 showed that only 3.13% residents in the study area patronized Teaching Hospital health services while 11.72% utilized General Hospital health facility. Private Hospitals/Clinics, Primary Health Centres, Pharmacies/Patient medicine stores attracted 14.63%, 24.26% and 29.06% patronage respectively.

The table further shows the impact of distance on health care patronage in the study area. The result shows that about 48.21% of the residents utilized health facilities located within a distance of less than 1km. The percentage that patronized health facilities located within 1-2km, 2-5km and above 5km was 24.98%, 16.87% and 9.83% respectively.

The implication of this result is that the location/distance of health care facility to the residents is a constraint to health care utilization in the study area. The residents tend to patronize health facilities nearest to them while health facilities located for away attract less patronage. This findings collaborates Micah & Omorogle (2014).

To determine the major constraints of health care patronage in the study area, multiple, Regression analysis (stepwise) was applied to the collected data.

Table 3 Multiple – Regression Analysis showing some components of Health Care challenges in Calabar Metropolis

Multiple R	0.936				
R^2	0.876				
Standard error	0.259				
Sources of Variations	SS	df	Ms	f	S.g.
Regression	324.956	16	20.31	301.007	.00
Residual	5.803	1090	0.67		
Total	**370.759**	**1106**			
Variable	B	SEB	Beta	T	SIG
Constant	-0.128	-.103		-219	.029
Challenge (Nature)	.000	.001	.004	.252	.601
Household poverty	.022	.015	.148	8.56	.001
Income	.126	.023	.069	2.94	.002
Poor Environment	.014	.030	.015	.492	.003
Physical Distance/Location	.751	.017	.797	43.76	.000
Availability of Health service	.220	.021	.016	1.031	.203
Cost of Health service	-.013	.014	-.013	.885	.002
Health care quality	.043	.018	.048	3.33	.001
Health Staff availability	.126	.015	.148	8.55	.002
Nature of Health Care	.067	.030	.020	.656	.000
Alternative Health Care	6.50E	.000	.015	1.101	.016
Health staff attitude	.037	.011	.041	2.664	.003

Dependent variable: Visit to health care facility

P <.05

The result was as shown in table 3. In the first step of the equation only one variable (distance) met the requirement for inclusion into the equation. The equation was stated as

$$Y = .226 \text{ (constant)} + .751\ (x_4)+e.$$

With a coefficient of determination of 0.876. Base on this result, it was concluded that physical distance explained 87.6% of the challenges of health care delivery in the study area.

In the second step of the equation, distance to health care facility and individual income, satisfied the requirements for inclusion into the equation. These variables explained 87.5% variation in health care challenges in the study area. The equation was stated as

$$Y = .226 \text{ (constant)} + .751\ (x_4)+.126(x2)+e.$$

The variations that satisfied the requirement for inclusion in the equation in the third step were distance, income, and type of health care facility. The equation was stated as;

$$Y = .226 \text{ (constant)}+.751\ (x_4)+.126(x_2)+.067(x_9)+e.$$

In the fourth step, the variable that met the requirements for inclusion into the equation were distance, income, type of Health care facility and the quality of Health care service. The equation was expressed as;

$$Y = .226 \text{ (constant)}+.751\ (x_4)+.126(x_2)+.067(x_9)+ 0.43(x_3)+e.$$

In the fifth step, the identified variables that met the requirements of the equation were all the variables identified in step four and household poverty. The equation was therefore stated as;

$$Y = .226 \text{ (constant)}+.751\ (x_4)+.126(x_2)+.067(x_9)+.043(x_7)+.022(x_1)+e.$$

ISSN No:-2456-2165

The variables that met the requirement of the equation in the sixth step were distance, income, type of health care facility, quality of health facility, household poverty and environment. The equation was stated as;

$$Y = .226(\text{constant}) + .751(x_4) + .126(x_2) + .067(x_9) + .043(x_7) + .014(x_3) + e.$$

Generally, the variables that met the requirement for inclusion in the regression equation were; distance/location of health care facility, income of residents, urban poverty, type and quality of health care services, prevailing urban environment and quality of health care facilities. The identified variables tend to pose a challenge to health care delivery in the study area. They therefore tend to define the nature of health care challenges in the urban set up. It therefore follows that the observed challenges in urban health care delivery in the study area are traceable to high urban poverty, arising from low income of the residents. World Bank (2023) stated that 4 in every 10 Nigerians living in urban areas live below poverty line. The study area is not an exception.

It is estimated that about 45.7% of urban dwellers are poor (World Bank, 2003). The level of urban poverty tends to limit access to health care facilities. Many urban dwellers cannot afford to pay hospital bills due to poverty. To meet their health care needs, they resort to patronizing unorothox, health care services or self medication and quacks. This can be detrimental to their health status.

The issue of inaccessibility to health care facilities is aggravitated by dilapidated health facilities which are not optimally located within the city. Most of the urban health care facilities are remotely located subjecting some urban dwellers to traveling long distances to access health care services. Effiong, Okijie and Ridwan (2021) further argued that rapid urbanization pose a serious challenge to health care delivery as it leads to overcrowding and consequently shortage of health facilities. In such situation, the existing health facilities are overstretched and may eventually breakdown.

Calabar Metropolis has a population of over 657,000 with over 46 health care facilities ranging from tertiary to primary health facilities. The health facilities are grossly inadequate as highlighted in the Doctor/Patient ratio of 1:300 (Effiong, Okijie and Ridwan (2021). Inadequate staffing of the health facilities was further substantiated by the Nigerian Medical Association Report of 2020 that declared that only 30 Medical Doctors are in the State Government Employment. This is a major challenge to health care delivery in the study area. Inadequate health care personnel often lead to long waiting time by patients and tend to discourage people from patronizing some health facilities (Aliyu, 2017).

Urban environment was also identified as variable affecting health care delivery in the study area. The urban environment is characterized by slums, poor water supply, poor waste disposal system and pollution (Sephine and Stefan, 2014). Refuse dumps have recently re-surfaced in Calabar Metropolis taking over most of the streets. This tend to render the city as an epicenter of various forms of diseases thus making the city susceptible to epidemic like typhoid, tuberculosis, malaria among others (Jegede, 2006). The emergence of refuge dumps and the deteriorating sanitation level in the city expose the city as breeding grounds for vectors like rats, mosquitoes, flies and snakes which easily transits diseases to people. The rate of diseases transition is often high in crowded slum areas (Ibor, 2014). The deteriorating environmental condition of the study area is posing as challenge to health care delivery.

Urbanization expressed in terms of rapid population growth, due to mass movement of people from the country side and the accompanying rapid urban expansion has constituted a major challenge to health care delivery in major cities including Calabar Metropolis. There is therefore a relationship between urbanization and challenge of health care delivery in the study area. The challenges of urbanization to health care provision are expressed in terms location/ distance to health care facilities, urban poverty, poor urban environment and availability/quality of health care services.

The findings of the study identified the location/distance to health care facilities as one of the challenges of health care delivery in the study area. This is because the location and distance travel by residents to obtain health services tend to limit the patronage of health facilities. In other words, the location of a facility and the distance travelled often create accessibility issues. This implies that health facilities located far away from residents will attract less patronage. In the study area, most residents living in Satellite towns and suburbs may not easily access health facilities like the Teaching Hospital, the General Hospital and others located near the city centre as it involves long journey and high transportation cost. This has limited the access to some facilities in the study area.

Urban poverty is identified as another challenge to health care delivery in the study area. Urban poverty limits access to health care services provided by some health facilities. The low income earners sometime shun utilizing sophisticated health care facilities like the Teaching Hospital, the General Hospitals and even private clinic due to their inability to pay for the services. They rather patronize quacks or resort to self-medication that is affordable. The patronage of unorthox health service protem danger to their health and negatively affects their health status. The low income earners only visit the higher order health facilities when their health issues have reached an explosive stage, a situation that may not be easily managed by doctors.

Another dimension of health care delivery challenge in Calabar Metropolis is the poor or deteriorating environment. The urban environment of the study area is characterized with slums, characterized by inadequate infrastructural provision, poor means of waste disposal, overcrowding and environmental pollution. Such environments, provide breeding grounds for vectors like rats, snakes, mosquitoes, flies etc that facilitate the spread of diseases like cholera, malaria, yellow fever, typhoid, tuberculosis, sexually transmitted diseases etc, thus, increasing the incidence of diseases in the study area. In other words, the poor urban environment of the study area negatively affects the health status of the residents.

Availability and quality of health care facilities is also identified as a component of health care challenge in the study area. The area is faced with inadequate health facilities at tertiary, secondary and primary levels of heath care delivery. It has only one Teaching/Specialist hospital, one Government own General Hospital, a few private clinics and about 13 Primary Health Centres. These health facilities are not properly equipped in personnel and equipments. This tends to limit the efficiency of the health facilities. A few that are equipped are often overcrowding and expensive thus limiting the patronage. This has become a major challenge to health provision in the study. The situation has constraint some residents to seek for health care services elsewhere outside the state.

V. CONCLUSION

Urbanization which is explained in terms of increase in the proportion of people living in towns and cities and the accompanying rapid urban expansion has been a great challenge to health care delivery in Calabar Metropolis. The challenges of urbanization to health care delivery are multi-dimensional. This study identifies the challenges of urbanization to health care delivery to include poor access to health care facilities due to the location and distance of the health care facilities. This tends to limit the patronage of some health facilities in the study area. Apart from the distance factor, the high urban poverty level, explained in terms of low income level of most urban dwellers affect accessibility to health facilities in the area. The low income earners hardly patronize the sophisticated health facilities because of the high charges for the services.

The urban environment is another challenge to health care delivery in the study area. Poor and deteriorating urban environment impacts negatively on the health status of the residents. Another challenge faced by urban health care delivery is the inadequate provision of health facilities and poor maintenance and equipping of the facilities. This has result in over-crowding and long-waiting time of patients in the few available health facilities in the study area. The health status of the city dwellers can only be improved if the identified challenges are adequately tackled.

RECOMMENDATIONS

➢ *In view of the Findings of the Study, the Following Recommendations are Proferred;*

- Health care facilities in the study area should be optimally located to enable residents access the facilities with ease. As the city is expanding, the Town Planning Department should map out appropriate sites for locating health care facilities.
- A deliberate policy should be formulated towards empowering urban dwellers with a view to taking them out of poverty. This could be through skills acquisition, loans and public enlightenment that will enhance their income.
- Urban renewal programs should be embarked upon to address the infrastructural deficits in some parts of the metropolis like, Akim, Big Qua, Henshaw town, Ikot Ishie etc. Such programme may focus on improved sanitation especially the evacuation of refuge dumps in the city, demolition of old dilapidated structures and construction of roads and drainages.
- A policy on wastage disposal methods should be formulated to regulate waste disposal in the city. In addition sanction against indiscriminate waste disposal should be formulated and implemented to regulate waste disposal method.
- Government should make budgetary provision for the health care sector with a view to providing more health care facilities as well as equipping them properly in personnel and equipment. This could be achieved by identifying spatially, areas of need and equipping them with the state of arts equipment.
- Health facilities should mandatorily advertize the special health facilities and services they provide and quality of staff and equipment they have to attract patronage from residents.

FURTHER SUGGESTIONS

This study is limited to Calabar Metropolis and examined only four components of challenges of urbanization to health care delivery. More robust investigation in challenges of urbanization to health care delivery should be conducted either in the whole state or the country. This will create opportunity for a more embracing policy formulation in urban health delivery.

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