Original Article

CHALLENGES AND OPPORTUNITIES TO ACCESS HEALTH CARE IN URBAN SLUMS OF LAGOS-STATE IN NIGERIA

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Abstract

Background
Access to healthcare is a major public health challenge, especially in developing countries. Many Nigerians cannot avail the healthcare services they need with those in the urban slums being the worst hit. The aim of the study is to determine the issues regarding accessibility ofhealthcare services in three urban slums of Lagos State in Nigeria. All the aspects of accessibility including the geographical, financial and socio-cultural factors affecting the healthcare access were assessed.

Methods: A descriptive cross-sectional study was conducted among slum dwellers of three urban slums in Lagos-State.A sample size of 427 individuals was used. The subjects were recruited using multi-stage sampling technique. Data was collected using a structured self-administered and close-ended questionnaire that was adapted from World Health Organization. Variables on geographical accessibility, financial accessibility and social-cultural factors affecting accessibility were analysed. Data analysis was performed using SPSS version 15 software.

Results: A total of 80.3% of the respondents had an estimated travel distance ranging from 6 to 10 km to reach a healthcare facility. About 10-20% of the monthly household income was spent on healthcare by 46.8% of respondents. A total of 97.9% of respondents had no health insurance coverage. Self-medication was reported by 77.8% of the respondents who were unable to pay for healthcare services. Only 43.1% of respondents utilized government hospitals as the first point of contact.

Conclusion: Our study concludes that there is limited geographical and financial access to healthcare services for slum dwellers in Lagos-State especially due to their financial constraints that affect their accessibility to healthcare services. Access to healthcare services still remains a major issue in slums of Nigeria. Increasing the coverage of the National Health Insurance Scheme and strengthening the primary healthcare infrastructure would help in addressing the issues of accessibility to healthcare in urban slums.

Keywords: Access to health care services, health system, urban slums, Lagos State, Nigeria

Introduction

Accessibility still remains a major public health challenge to deal with in health systems research especially in low income countries (LICs). The meager resources in low income countrieslimitthe access to health services than high income countries (1). So is true for Sub-Saharan Africa where accessibility of health care services still plays a hurdle for optimum health systems performance (2). Many Nigerians cannot avail the health care services they need with those in the urban slum being the worst hit. Nigeria's health spending as a percentage of Gross Domestic Product (GDP) is 3.7 per cent while the out of pocket (OOP) health expenditure as a percentage of total health expenditure is 73 per cent (3).Alarmingly, out of pocket health expenditure as a percentage of private health expenditure is 95 per cent (3). High out of pocket payment is a barrier to health care accessibility for poor communities andremains an inequitable means of financing health care system. This inequitable distribution of resources leads to inequitable and unequal distribution of both public and private health care facilities that adds to the dilemma. According to any country'sstandard, there should, at least, be a primary health center (PHC) within a five kilometer radius (4) from where most patients are examined and appropriate referrals are made (5). Improved access to health care has and continues to be a "fundamental objective of health-policy making" for optimum health system performance (6).

Despite that substantial research has been conducted focusing on access to health care and sustained attention to accessibility issues in health policies, in

the context of health services research, community and policy makers continue to seek answers to this fundamental question (7). The large gap in access to health care services between different groups in both developed and developing countries is well established (8).Although many Nigerian have to walk more than five kilometres to access health care services which are often times inefficient, ineffective and not affordable but the situation especially adds to the vulnerability of people living in urban slums of Nigeria that pushes them in a vicious cycle of poverty and makes them to experience adverse health outcomes.

Today, nearly 1 billion people or 32% of the world's urban population is estimated to be living in slums. An estimated 72 percent of the urban population in Africa now lives in slums. In sub-Saharan Africa, the proportion of urban residents in slums is highest at 71.9 per cent (9). While their physical forms vary to place and over time, slums are uniformly characterized by the inadequate provision of basic infrastructure and public services necessary to sustain health such as water, sanitation and drainage (10).These poor or low-income urban human settlements, comprising between 25% and 75% of urban population occupies irregular settlements including squatter settlements, unauthorized land developments and rooms and flats in dilapidated buildings in city centre area (11). Although there are no accurate figures but Nigeria has a fair share of these low-income settlements (12). Many Nigerian cities are typified by substandard and inadequate housing slums with lack of infrastructure, transportation problems, low productivity, crime and juvenile delinquency (13).So is the city of Lagos that represents the epitome of urban decay (14). The metropolis is replete with environmental problems ranging from slums and squatter settlements to crime and delinquency (14).In 1984, 42 settlements have been identified as blighted and the number has risen to about 100 in 2004 whereby a 2002 survey revealed that over 70% of the built up area of Lagos metropolis is blighted (14,15).In 2006, the Lagos State government embarked on a US$200 million World Bank funded urban upgrading project, the Lagos Metropolitan Development and Governance project designed to increase sustainable access to basic urban services through investments in critical infrastructure in nine target communities namely Agege, Ajegunle, Amukoko, Bariga, Ijeshatedo/Itire, Ilaje, Iwaya and Makoko (16). Inadequacy of decent housing has resulted in the Lagos State Section of the Lagos Mega-city region (LMCR) recording 42 slums areas in 1985 and over 100 in 2006 (17).

Over two-third of the population of Lagos consequently lives in the informal settlements and slums that are scattered around the city (18,19).The areas still face challenges of accessibility that contribute to significant delays in accessing health care due to inadequate infrastructure including lack or poor condition of roads as well as poor transport systems (4).

There is limited evidence on issues related to access and equity in health care delivery system in urban settings of Nigeria. This study aims to determine the issues regarding accessibility ofhealth care services in three urban slums of Lagos State in Nigeria. Specifically, the study examined all the aspects of accessibility including the geographical, financial and socio-cultural factors affecting the health care access in three urban slums of Lagos State. The study contributes to knowledge on access to health care services in urban slums of Lagos State in Nigeria.

Methodology:

The study was conducted in three urban slums of Lagos State namely Mushin-Idi-Araba, Ajegunle and IjoraBadia. These slums were selected among the over 100 slum communities in Lagos State using the simple random sampling technique between June and December 2012. The decision to carry out the study in these three urban slums was to ensure effective coverage and better focus thereby assuring the accuracy and quality of data. Lagos State is the commercial nerve center of Nigeria with an estimated population of 21 million people (20).However, Mushin Idi-Araba is located in Mushin Local Government Area of Lagos State. It is a slum community that is predominantly occupied by the Hausa ethnic group. Ajegunleis also located in Ajeromi-Ifelodun Local Government Area of Lagos State. It is a major slum with multi-ethnic population. The dominant ethnic groups in Ajegunle are the Ijaw, Urhobo and Isekiri. IjoraBadiaiais an urban slum settlement located in Apapa Local Government area of Lagos State.The respondents were recruited using multi-stage sampling technique as the same technique was utilized in similar type of studies carried out in Nigeria (21,22). The first stage involved the simple random sampling of three urban slums among the over 100 slum communities in Lagos. The second stage involved generating a list of houses in each slum. The third stage was the selection of one in three houses through a systematic sampling technique.The fourth stage involved the selection of individuals (men and women aged 20 years and older living in the urban slum) in each house by simple random sampling (balloting) where more than one individual met the inclusion criteria. The exclusion criteria aremen and women under the age of 20 yearsand not living in the urban slum. Where no individual met the criteria in a house, the next house was used. This was done until 10 individuals were selected per street in each of the three urban slums and till the required 427 respondents were recruited into the study.The study participants were individuals (men and women of 20 years and above) living in the three urban slums of

Lagos State. The sample size of 427 individuals was calculated using Cochrane equation (23). Based on the assumption that 50% of individuals living in the three urban slums would have no access to health care and a non-response rate of 10%, the sample size for the study was calculated as 384.Adjusted sample size therefore, the sample size for the study was 427. Sample size was equally divided within the three slum communities.Data was collected with the aid of a structured self-administered and close-ended questionnaire that was adapted fromthe World Health Organization (WHO) (24). The questionnaire was used to gather information regarding population characteristics of respondents, geographical accessibility, financial accessibility and socio-cultural factors affecting healthcare accessibility.Section A of the questionnaire seeks to generate information about the respondents. Section B focuses on geographical accessibility. Section C seeks information on financial accessibility. Section D of the questionnaire concentrates on the socio-cultural factors affecting healthcare accessibility. There were twenty nine questions altogether. The questionnaire was pre-tested by the researchers in the three urban slums to test its reliability and validity. The questionnaire was thereafter revised. Prior to administering the questionnaire, the researchers informed the respondents about the objectives of the study and obtained their informed consent. Each respondent completed the questionnaire between 15-30 minutes. The response rate was 100 per cent.Data was processed using EPI info windows version and analysed with SPSS version 15 software. Descriptive statistical technique was used for the analysis of data in the form of frequency tables and simple percentages for the population characteristics as well as the different measures of access to health care services.Ethical clearance was obtained from Lagos University Teaching Hospital Health Research and Ethics Committee and permission was sought from local authorities prior to data collection. Respondents were briefed on the purpose and objective of the study and their informed consent was thereafter obtained while the confidentiality of the data was assured and guaranteed.

Results: The study population consisted of 156 (36.5%) and 271 (63.5%) males and females, respectively. The mean age of the respondents was found to be 42.44±13.76. The majority of the respondents were aged between 30 – 39 years (25.3%). Among the study population, 42.8% attained primary education while 28.6% had secondary education. Majority (85.5%) of respondents had trading and artisan as their occupation while 6.1% are unemployed. A total of 36.3% of respondents are Igbo while 32.8% are from the Yoruba ethnic group. The details of the population characteristics of respondents are shown in Table 1.

Table 1 – Population Characteristics of respondents

Variables	Frequency (n=427)	Percent (%)
Age at as last birthday		
20-29	96	22.5
30-39	108	25.3
40-49	83	19.4
50-59	78	18.3
>60	62	14.5
Sex		
Male	156	36.5
Female	271	63.5
Level of Education		
None	20	4.7
Primary	183	42.8
Some secondary	77	18.0
Secondary	122	28.6
Tertiary	25	5.9
Occupation		
Civil service	21	4.9
Trading and Artisan	365	85.5
Unemployed	26	6.1
Others	15	3.5
Ethnic group		
Igbo	155	36.3
Yoruba	140	32.8
Hausa	83	19.4
Others	48	11.5

Geographical accessibility: Table 2 shows that a total of 80.3% of the respondents have an estimated travel distance from >5 km to 10 km to reach a health care facility. Only 71.2% of respondents spend between >15 – 30 minutes traveling to reach a health care facility. A total of 68.2% of the study population describe the condition of roads to health facility as bad. Two third (67.7%) of the study sample had a motorcycle (Okada) as the mode of transport to a health facility.

Table 2 – Geographical accessibility

Variables	Frequency(n=427)	Percent (100%)
Estimated travel distance		
___ ___	72	16.9
>5 – 10 km	343	80.3
>10 – 20 km	12	2.8
Estimated travel time		
< 15 minutes	117	27.4
>15 – 30 minutes	304	71.2
>31 – 45 minutes	6	1.4
Mode of transport to health facility (public and private)		
Public bus	96	22.5
Walking	23	5.4
Motor Cycle (Okada)	289	67.7
Private car	19	4.5
Water	-	-

Condition of roads to health facility (public and private)		
Very bad	35	8.2
Bad	291	68.2
Normal	79	18.5
Good	18	4.2
Excellent	4	0.9
Total	**427**	**100**

Financial accessibility: More than half of the study population (58.1%) had a household monthly income of less US$64.1 while 38.6% had a monthly income between US$64.1 - US$128.2. A total of 23% of the study population spent less than 10% of household income per month on health care while 46.8% of respondents had spent between 10-20% of the household income. A higher proportion (70%) of respondents had between US$3.2 - US$6.4 as their monthly cost of transport to health care facility. Our study also found that 41.5% of the study population had between US$3.2 - US$6.4 as cost of consultation while 44% spent between US$6.4 - US$6.4 on consultation. A total of 61.1% of respondents had between US$12.8 - US$25.6 as the cost of treatment per month while only 23.9% spent less than US$12.8 as treatment cost on a monthly basis. It was found that 46.4% of the study population spent less than US$12.8 out of pocket for treatment per month while 43.1% spent between US$12.8 - US$25.6 as out of pocket expenditure for treatment per month. A total of 97.9% of respondents are not under any health insurance scheme. As high as 77.8% of the study population reported self-medication due to their inability to pay for health care services. Details are given in Table 3.

Table 3 – Financial accessibility

	Frequency (n=427)	Percentage (100%)
Household monthly income		
< N10,000 (US$64.1)	248	58.1
N10,000 – N19,999 (US$64.1 - US$128.2)	165	38.6
N20,000 – N20,999 (US$128.2 - US$134.6)	6	1.4
N30,000 – N30,999 (US$192.3 - US$198.7)	1	0.2
>N40,000 (US$256.4)	7	1.6
Percentage of household income spent on health care		
< 10%	98	23.0
10 – 20%	200	46.8
21 – 30%	125	29.3
31 – 40%	2	0.5
>40%	2	0.5

Monthly cost of transport to health facility (public and private)		
< N500 (US$3.2)	60	14.1
N500 – N999 (US$3.2 - 01US$6.4)	299	70.0
N1,000 – N1,999 (US$6.4 - US$12.8)	61	14.3
N2,000 – N2,999 (US$12.8 - US$19.2)	5	1.2
> N3,000 (US$12.8)	2	0.5
Cost of consultation per month		
< N500 (US$3.2)	42	9.8
N500 – N999 (US$3.2 - US$6.4)	177	41.5
N1,000 – N1,999 (US$6.4 - US$6.4)	188	44.0
N2,000 – N2,999 (US$12.8 - US$19.2)	10	2.3
> N3,000 (US$19.2)	10	2.3
N2,000 – N2,999 (US$12.8 - US$19.2)	10	2.3
> N3,000 (US$19.2)	10	2.3
Cost of treatment per month		
Free	12	2.8
< N2,000 (US$12.8)	102	23.9
N2,001 – N4,000 (US$12.8 - US$25.6)	261	61.1
N4,001 – N6,000 (US$25.6 - US$38.5)	34	8.0
>N6,000 (US$38.5)	18	4.2
Out-of-pocket expenditure for treatment per month		
< N2,000 (US$12.8)	198	46.4
N2,001 – N4,000 (US$12.8 - US$25.6)	184	43.1
N4,001 – N6,000 (US$25.6 - US$38.5)	29	6.8
N6,001 – N8,000 (US$38.5 - US$51.3)	8	1.9
>N8,000 (US$51.3)	8	1.9
Under any health insurance scheme		
Yes	9	2.1
No	418	97.9
Result of inability to pay for health care services		
Ignored the illness	34	8.0
Delayed seeking healthcare	47	11.0
Self-medication	332	77.8

Socio-cultural factors affecting health care accessibility: English language was used as a medium of communication with health care provider by 69.8% respondents. A total of 37.9% and 36.7% of

respondents reported wife/mother and husband/father, respectively as persons who determine when to seek health care. It was found that 57.4% of study population will not share health facility (public or private) with the Yoruba tribe while 25.3% of the respondents will not share health facility with the Igbo tribe. A total of 43.1% of the study population reported government hospital as their first point of contact when seeking health care while 32.6% reported chemist/pharmacy as their first point of contact. Only 24.1% of respondents reported private hospital as their first point of contact when seeking health care. There were misperceptions regarding health seeking behaviour among study respondents regarding various diseases. More than half of the respondents (59.5%) believed mental illness does not necessitate medical attention. Details are given in Table 4.

Table 4 – Socio-cultural factors affecting health care accessibility

	Frequency(n=427)	Percent (100%)
Language used to communicate		
English	298	69.8
Yoruba	61	14.3
Hausa	24	5.6
Igbo	-	-
Others	44	10.3
Who primarily determines when to seek health care		
Children	84	19.7
Extended family	15	3.5
Wife/Mother	162	37.9
Husband/Father	114	26.7
Others	52	12.2
Tribes slum dwe llers will not share public and private health facility with		
Yoruba	245	57.4
Igbo	108	25.3
Hausa	63	14.8
Kanuri	8	1.9
Others	3	0.7
First point of contact		
Chemist/Pharmacy	139	32.6
Private hospital	103	24.1
Government hospital	184	43.1
Others	1	0.2
Diseases that does not necessitate medical attention		
Mental illness	254	59.5
HIV/AIDS	83	19.4
Leprosy	43	10.1
Tuberculosis	28	6.6
Others	19	4.5
Total	**427**	**100**

Discussion: Our study shows that there is limited access to health care services among slum dwellers in urban slums of Lagos State. The study revealed that 80.3% of the respondents had an estimated travel distance ranging from >5 km to10 km to a health care facility. This was similar to the result of studies conducted in Osun State and Kwara State in Nigeria where people traveled a distance ranging from 6 to 7 km to access and utilize health care services (25,26). A study in Ghana also found that majority of respondents (76.4%) travel more than 4km to the nearest health care facility (27). Conversely, a study in Istanbul revealed that majority of the people has a travel distance within 3km to a health care facility (28). Only 71.2% of respondents in the study spent between >15 - 30 minutes traveling to a health care facility while two third of the study participants (67.7%) had a motorcycleas their mode of transport to reach a health facility.A similar study in Kwara State, Nigeria reported that 55% of respondents spend less than 40 minutes to seek medical services while 48.8% of respondents indicated that they in order to seek health care services travel by foot to reach to health centres (26). A study in South Africa found that 70.9% of respondents traveled for 30 minutes or less to the clinic while 47% of respondents used a taxi as a mode of transportation to the nearest health facility (29). Results from a study in Indonesia also revealed that a large proportion of respondents (70%) spend about 10 minutes traveling to a health facility while 50.5% of respondents used motorbikes to visit the health centre(30).However, another study in South Africaindicated that 65% of respondents travel more than 1 hour or more to the nearest health facility while 60.8% of people walked to clinics in order to access health services (31). Findings from other studies in Lagos State (32) and Edo State in Nigeria (33) revealed that 40% and 75% of respondents used public buses respectively while only 38% of respondents in Lagos State (32) spend between 15-30 minutes traveling to government health facilities. More than half of the respondents (58.1%) had a household income less than US$64.1 per month. This agrees with a study carried out in Ajegunle, Nigeria where 48.3% of the residents earned less than US$64.1 a month (21). Our study also shows that 46.8% of respondents had 10 – 20% household income spent on health. This is in contrast with a study conducted in Nigeria (22) where 93.7% of the respondents spent over 5% of their income on health care, further it was found in a study from Mexico (34) where each year two to four million households spent 30% or more of their income on health. The findings are also in line with a study in Vietnam (35) where households spent on average 13.2% of their income on health care services. The majority of the respondents (70.0%) spent between US$3.2 - US$6.4 per month on transportation to a health

facility. This is in contrast to a household survey by the Lagos State Government which revealed that only 5% of households spent more than US$1.9 on transportation to and from government health centre (32).More than half of the respondents (61.1%) spent an amount between US$12.8 - US$25.6 on treatment per month. A similar study in Lagos State revealed that 48% of households reportedly spent less than US$32.1 on health care (32).In this study, it was revealed that 94.6% respondents did out-of-pocket expenditure on purchasing health care services. A similar study in Enugu State, Nigeria revealed that approximately 99%of payments for healthcare by consumers were out-of-pocket (36).In addition, the study also agrees with findings from Uganda (37) and Ebonyi State in Nigeria (38) where 77% and 69% of households respectively did out of pocket expenditure on health care. Majority of the respondents (97.9%) were not covered by any health insurance scheme. This is in contrast with a study in Oyo State in Nigeria where 83% of respondents were covered by the National Health Insurance Scheme (NHIS) (39).This could be due to high level of awareness about NHIS, high level of education as well as a high proportion of residents in Oyo State who are mostly government workers. However, the findings agree with a study among Hispanics in the United States (40) where 55% of the study sample respectively lacked health insurance. A higher proportion of respondents (77.8%) reported self-medication as a consequenceof their inability to pay for healthcare services. This is also in contrast with a study in Ghana where a higher proportion of the patients who did not seek health care (48.1%) either delay or postpone treatment (41).

The majority of respondents (69.8%) used English language when communicating with healthcare providers. This is in contrast to a study in the United States where over two-thirds (69%) of Limited-English-Proficient (LEP) respondents and 41% of the English-proficient respondents reported that their physicians spoke their native language when communicating with them (42).Lack of health policies that disproportionately benefits urban slum dwellers has resulted in their continued plight. Governments should learn from the experiences of countries that have been able to effectively address the plight of urban slum dwellers. The provision of functional PHCs and the establishment of a government-run community based health insurance scheme is required to address the problem of accessibility to health care services in urban slums of Lagos State. Investing in health of urban slum dwellers will boost economic growth of the State.

Conclusions: Our study concludes that there is limited geographical and financial access to health care services for slum dwellers in Lagos State especially due to their financial constraints that affect their accessibility to health care services. Access to health care services still remains a major issue in slums of Nigeria. Increasing the coverage of the National Health Insurance Scheme (NHIS) and strengthening the health care system especially the primary healthcare infrastructure within the standard travel distance would help in addressing the issues of accessibility of health care in urban slums. Policy makers need to bring about the much needed change in order to improve the health seeking behaviour of slum dwellers in Lagos State.

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