

The Verity of Urbanization and Public Health System in Nigeria

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Abstract

The increasing quest for improved standard of living, access to greener pastures, white-collar jobs and improved socio-economic wellbeing have made interest on urbanization germane. However, its attendant consequences of population explosion, over-stressed of the existing infrastructures, environmental degradation and increase crime rate have posed serious challenges to the public health system in Nigeria. This paper, therefore, is written to explore the verity of urbanization and public health system in Nigeria. The researchers elicit data from both primary and secondary sources while the data were analyzed using the simple percentages, the mean score, standard deviation and coefficient of variation. A sample size of 399 respondents out of a total population of 28, 2254 was adopted using the Yaro Yameni statistical formula. The paper concludes that the public health system in Nigeria has been adversely affected due to urbanization. Thus recommends that: basic infrastructure and employment opportunities should be made accessible at the rural areas, more health personnel's be employed with health facilities upgraded to suit the current realities.

Keywords: Urbanization, public health, infrastructure, diseases.

Introduction

Contemporary globalization and urbanization is reproducing classic conditions historically associated with the emergence of infectious diseases and the periodically recurring pattern of epidemics and pandemics. The dynamics of contemporary globalization has contributed to various institutional gaps that make dealing with infectious disease increasingly difficult and threaten concentrated human populations with potential calamity (Gibson and Gumer 2012). Over the past few decades, there has been a rapid urbanization of the world's population. The United Nations (2013) defines urbanization as movement of people from rural to urban areas with population growth equating to urban migration. It can also be seen as, change in size, density, and heterogeneity of cities which could be as a result of rural to urban migration or a national population increase due to a decrease in death rates while birth rates remain high. Global population trends in the 21st century reveal increased migration from rural to urban areas of the world and rapid population growth in urban centers' (Vlahov *et al.*, 2007; Raskin & Kemp-Benedict, 2004).

The United Nations Department of Economic and Social Affairs indicated that, in 2007, 74% of the population in more developed regions lived in urban areas, compared with just 44% in less developed regions. The pace of urbanization continue to raise in both developed and under develop countries, as the estimate shows that, 70% of the world's population will be living in an urban area by 2015. In Nigeria, the Human Development Report (2004) shows that, 45.9% of the 120.9million (2002estimates) working population of Nigeria resides in urban centers. According to Mabogunje (2002), residents of urban centers in Nigeria in 1950 were less that 15% of the population. By 1975, this proportion had risen to 23.4% and by 2000 was 43.3%. According to



him, urban population growth rate is 4.8% annually; which is higher than the national annual growth rate of 2.2 % (HDR, 2004).

The implication is that by 2015, more than half of the nation’s population would be urban dwellers. This rapid rate of urbanization has over stretch the public health facilities in most urban center resulting from environmental noise, air pollution, reduction of soil moisture, intensification of carbon-dioxide emissions, strain in the cities’ infrastructure, unplanned and congested residential areas, and the shortage of safe drinking water, which lead to environmental changes that affect Public Health systems in Nigeria. Public health is the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals” (Winslow C.E.A 1920). It is concerned with threats to health based on population health analysis.

Lokoja is the capital city of Kogi State and has been experiencing an accelerated shift of population from rural to urban areas. Record has shown that, Lokoja as a state capital has a population of 106,423 people in 1991, 187,200 in 1995, 237,920 in the year 2000, 282,245 in 2006, and 314,264 in the year 2011. It was estimated that the population of the city as a state capital will increase to 391,498 by the year 2020 (KSRDA. 2012).

Table 1: Projected Population Growth of Lokoja Kogi State Capital

Year	Population of Lokoja as Local Govt. HQ (000)	Projection of Lokoja Population as State capital. (000)
1991	96,423	106,424
1995	117,202	187,300
2000	149,583	237,921
2006	195,261	282,254
2011	213,121	314,264
2020 (Projection)	237,920	391,497

Source: (KSRDA. 2012).

As the population continues to increase without corresponding increase in the existing health infrastructure/facilities, this has engendered several Health challenges and problems like shortage of health personnel, inadequate provision of health facilities, infectious diseases, poor sewage/solid waste disposal, poor sanitation and hygiene, air/noise pollution etc; which has a negative effect on the quality of life that urban people experience in Lokoja. Despite the quantity of studies carried out on this topic, no study of this nature has been conducted particularly in Lokoja, Kogi State, to determine the impact of urbanization on the health of the urban populace. It is to this end that this work will study urbanization and public health system in Lokoja, Kogi State, Nigeria. The study will be useful to urban planners and health policy makers in the areas of policy formulation and implementation in the State.

Statement of the problem

The rapid rate of uncontrolled and unplanned urbanization in the state has brought with it complex urban health related problems. This implies a situation where health facilities become overcrowded and inadequate for the growing population, the distribution of health personnel and institutions are also inadequate. One of the most serious environmental problems facing Lokoja town is the uncontrolled heaps of refuse in open spaces, stream/water channels, road



sides and market places, which resulted to poor sanitation and hygiene leading to the spread of various infectious diseases within the metropolis. It is against this backdrop that this research seeks to explore the consequences of urbanization on public health with Lokoja metropolis as a reference point.

Objective of the Study

This research will empirically explore the verity of urbanization to public health system in Nigeria. Meanwhile, the researcher shall also make sound recommendations which will create a balance between public health system and urbanization.

Research proposition

Urbanization has threatened the public health system in Nigeria due to its attendant consequences.

Scope of the Study

The study examines the verity of urbanization and public health system in Nigeria. Lokoja, the Kogi State capital in north central Nigeria was used as a case study, and the period of 2009-2013 was considered since this period is reasonable enough to ascertain the variables being considered by the researcher.

Hypothesis

Ho: Urbanization does not significantly affect public health system in Lokoja Kogi State Nigeria.

Hi: Urbanization significantly affects public health system in Lokoja, Kogi State Nigeria.

H2: The people residing in urban areas do not have access to basic infrastructures.

H3: The people residing in urban areas have access to basic infrastructure.

Review of related literature:

Literatures were reviewed on thematic basis for the of clarity.

Urbanization

Ojogbe (2004) sees urbanization as the process by which large numbers of people become permanently concentrated in relatively small areas, forming cities. In the same way, Salau (2012) states that, rural to urban migration means that people move from rural areas to urban areas. In this process, the number of people living in cities increases compared with the number of people living in rural areas. Kotz (2009) has noted that, natural increase of urbanization can occur if the natural population growth in the cities is higher than in the rural areas. This scenario, however, rarely occurs. A country is considered to be urbanized when over 50 percent of it's population live in the urban areas (Long 1998).

Migration is the main reason for rapid growth of mega-cities, and this has been going on over centuries as its normal phenomenon, when considering urbanization rural-urban and urban-rural migrations are very important. Urban-urban migration means that people move from one city to another, and this is quite common, for example, in Nigeria (Bilsborrow 2011; Sajor



2012). The urbanization process has significant effects on the natural and cultural environment, on housing arrangements and Health/social networks, as well as on housing and employment patterns, not only in the cities, but also in the rural areas. Access to health care and social services and cultural activities are in many cases better in the cities, but access may not be evenly distributed among the blown population (Martin, 2011). Urbanization is a movement with cultural shifts and is posing new major demands that we must face. The health-consequences of political measures must be evolved in multiple sectors, like culture, environment, and education (Kindig, 2012). Similarly, Oguntola (2011), observe that, increasing urbanization is responsible for many health challenges, especially those related to water, environment, crime, injury, non-communicable diseases and other risk factors like tobacco, alcohol and unhealthy diet. The rapid increase of people living in cities is among the most important global issues of the 21st century. The rapid rate of urbanization has brought about in recent times changes in physical and social determinants of health (Garrent, 2010).

Adeyomi (2009) stated that, movement of people whether from rural to urban areas or from one country to another often alter the characteristic of epidemiological disease profile and at the same time new diseases appear or old ones re-emerge. Such is the case of HIV/AIDS, tuberculosis, yellow fever, denudes and Lyme disease. Gbolahan (2013) affirmed that, the growing trend of urbanization, which encouraged poor nutrition, alcohol and smoking, were reasons city dwellers also have increased risk for violence, chronic disease and some communicable diseases. Harpham and Tanner (1995), Atkinson et al (1996) and Bradley et al (1999) in various studies discovered that urban dwellers in less developed countries are exposed to the traditional scourges associated with living in a poor country, such as malnutrition, measles, and malaria; afflictions resulting from newly modernizing societies, such as obesity, cancer, and road accidents; the deterioration of mental health, increased rates of psychiatric disorders and deviant behavior that are associated with degraded living conditions, overcrowding, and rapid social and cultural change in urban areas. All these health consequences of urbanization are evident on the Nigerian cities.

Public Health

The dimensions of health can encompass “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. As defined by the United Nations’ World Health Organization, Public health incorporates the interdisciplinary approaches of epidemiology, biostatistics and health services. Environmental health, community health, behavioral health, and occupational health are other important subfields (WHO. 2005). Just as Studies on the health impacts of urbanization reveal that urbanization can have both positive and negative effects on health. Urban life can be rich and fulfilling since it is more diverse, stimulating, and full of new opportunities. Individual and family mobility make it easier to escape from oppressive social relationships. Cities are sources of ideas, energy, creativity, and technology. They can, for example, foster enlightened, congenial, and multicultural living (McMicheal 2000).

Health Reform Foundation of Nigeria (2012) affirmed that, urbanization should be seen and addressed as a public health issue to be tackled. There is the need to have urban planning, decongest the urban areas by ensuring peripheries are provided essential amenities such as good roads network water, electricity, health facilities and good schools .Also, the issues of



environmental sanitation should be adequately tackled, while facilities for recreation and walkways should be provided on roads for health-walk “he stated. Iyun (2009), also affirmed that the “health status of urban people is expected to be worse in comparison with those in the rural areas considering their various health challenges such as poor sanitary conditions, lack of potable water and high pollution level.

Abiodu (2010) explain the need for Nigeria to explore and strengthen other mechanisms of health system and shift focus from out-of-pocket payments, address the issues that have undermined public health care financing in Nigeria, improve on evidence-based planning, and prompt implementation of the National Health Bill when signed into law. Onwujekwe et al (2010) explain that, In spite of the various reforms to increase the provision of health care services to the Nigerian people, health access is only 43.3%. The inadequacy of the health care delivery system in Nigeria could be attributed to the peculiar demographics of the Nigerian populace. About 55% of the population lives in the rural areas and only 45% live in the urban areas. Moe et al (2007) opined that, Provision of timely information aimed at combating possible health menace among many other things is an important function of public health. Hence, inadequate tracking techniques in the public health sector can lead to huge health insecurity, and hence endanger national security, etc.

Ekundayomi and Adekpoju (2008) in their study, “Public Health and Population Growth” revealed that; the available health facilities/infrastructure in the cities become over stretched as urban population continue to rise without improving the existing facilities or providing additional one, they further explained that, failure of the Nigerian government to respond adequately to the increasing demand for urban Health infrastructural services has had the following consequences like, deteriorated quality of life in the city, the inadequate provision of infrastructural services, shortage of drug, decline in the productivity of workers. In the same way, Harris (2003) advised that in other to avert the consequence of uncontrolled urbanization on public health, government across the world must, as a matter of priority, devise ways to plan their cities, improve urban living conditions, like water and sanitation, housing, transportation, promoting health behavior and safety condition.

Validity of Instrument

To validate the research instrument, the researchers employed the services of two environmental officers, two employees and two employers of labors from Lokoja the Kogi State capital in north-central, Nigeria for validity. The questionnaire was validated after thorough scrutiny and valuable contributions made duly incorporation.

Reliability of the Instrument

To estimate the reliability of the instrument employed for data collection, the instrument was administered twice to town planning officers, medical doctors, environmental officers, employees and employers of labours numbering twenty from Lokoja. The second administration of the instrument was two weeks after the first exercise and the resulting scores were correlated using Pearson Product Moment Correlation approach. This yielded the co-efficient $r = 0.82$. This score indicates that the instrument is very reliable.

Study Instrument

The study was conducted in Lokoja local Government area of Kogi State, Nigeria. Sample selection of respondents located in residential (households) and institutional (Health) facilities was drawn for the study using cluster sampling. Questionnaires and in-depth- interview were administered to retrieve information from the households in the cluster and respondents in selected Health institutions were interviewed. 399 questionnaires were administered out of which 367 were retrieved and analyzed giving a response rate of 92% For more in-depth understanding of the social reality of population growth and its impact on the health system in Lokoja metropolis, 15 in-depth interviews (IDIs) were conducted among the Management and staff of some selected health institutions, environmental officers, town planning officers, employers and employees of laborers using simple random sampling. The questionnaire was titled "Effect of Urbanization on public health system (EUPHS)." The questionnaire has two sections. Section "A" demands information on the effect of urbanization on the public system and section "B" contains the likely measures to addressing such negative effects. The instrument is in the form of Likert five point rating scale. The response options have the values of 5, 4, 3, 2, and 1, respectively.

Study Area and Population

The study focused on people living and working in Lokoja metropolis. The present Lokoja is situated at the confluence of the rivers Niger and Benue and nestles at the foot of Mount Patti. It was said to have been founded in 1860 by Dr. William Baikie who made up his mind to found a settlement at the site of the land between the confluence and the mountain when he took a clear view of the area during his Benue expedition of 1854 (Ocheja, 2010: 9). Lokoja was the first British settlement in the northern part of Nigeria, and it rapidly developed in the 1860s as a result of the European economic activities and later, political activities, especially at the turn of the century. The town started as a cosmopolitan settlement which attracted people from various parts of what is now Nigeria, Sierra Leone, and Europe (Mohammed, 1984:50). The significance of the town is not only due to its geographical location as the confluence of Rivers Niger and Benue, but also to the historical fact that it was the first colonial administration capital of Northern Nigeria with rich tourist attractions. Today, Lokoja is the Capital cities of Kogi State with a population of about 282254 according to the 2006 national census. It is one of the seven LGAs in Kogi West Senatorial District. The major occupations of people are farming, fishing and trading.

Methodology

The Survey research design was adopted in this study. This design was employed because of its exploratory nature. The researchers also employed both primary and secondary sources of data collection. Primary data were collected through the administration of questionnaire while secondary data were gathered from related literatures, textbooks, journals, bulletins and periodicals. The sample size is 399 out of the total population of 282254 based on judgmental sampling, and the Yaro Yamani statistical formula was used in the determination of sample size.



Table II Distribution of Respondents in Respect of the Effect of urbanization to public health system

S/No	Expected mean =3 Variables	Percentage of Responses					Mean scores of Responses		
		5	4	3	2	1	Mean	Standard deviation	Coefficient of Variation
		%	%	%	%	%			
1	They have knowledge of urbanization and public health system.	55	23	10	8	4	4.17	0.72	17.27
2	Urbanization affect disease pattern	63	22	11	3	1	4.43	0.84	18.96
3	There are enough medical personnel in the hospitals	6	8	10	14	62	1.82	1.12	61.54
4	The respondents are affected by air pollution and poor sewage system.	58	23	8	5	6	4.22	0.79	18.25
5	There are adequate access to basic facilities	5	4	21	10	60	1.88	1.14	60.64
6	There is improved standard living	7	11	6	17	59	1.90	1.02	53.68
7	There employment opportunities	59	20	9	5	7	4.19	0.81	19.33

Sources: Field Research (2014)

Decision criterion: Accept any value with calculated mean ≥ 3.0 and Calculated Value ≤ 30.0 , other wise rejected.

Table II above shows that 78% of the respondents agreed that they have knowledge of urbanization and public health system; 86% agreed that urbanization affects the disease pattern. 14% of the respondents were of the view that there are enough medical personnel in the hospital, 81% of the respondents were of the view that they are affected by air pollution and poor sewage system and 9% of the respondents said that there is adequate access to basic facilities. More so, 18% of the respondents agreed that there is improved the standard of living while 79% of the respondents agreed that they have access to employment opportunities in Lokoja metropolis.

Hence, item 1, 2, 4 and 7 are accepted considering the Mean and Coefficient of Variation values while item 3, 5, and 6 are rejected.

Table III: Distribution of Respondents in Respect of likely Measures to addressing the Effects of Urbanization to Public Health System in Lokoja Kogi State

S/No	Expected Mean =3 Variables	Percentage Responses of					Mean score of Responses		
		5	4	3	2	1	Mean	Standard Deviation	Coefficient Variation
		%	%	%	%	%			
1	The existing Law should be strengthened	61	21	8	6	4	4.29	0.83	19.35
2	There should be proper environmental surveillance	57	16	10	9	8	4.05	0.79	19.51
3	Upgrade of medical facilities and increased Medical personals	64	19	12	2	3	4.39	0.86	19.59
4	Adequate infrastructure and employment opportunities at the rural area	50	24	13	9	4	4.07	0.63	15.48
5	Organizing town planning and health Education.	58	20	11	8	3	4.22	0.77	18.25

Sources: Field Research (2014).

Decision criterion: Accept any value with calculated Mean ≥ 3.0 and calculated value ≤ 30.0 otherwise rejected.

Table III above shows that 82% of the respondents agreed that the existing Laws relating to urbanization and public health system need to be strengthened, 73% of the respondent agreed that there should be proper environmental surveillance, 83% of the respondents are of the view that there should be upgrade of Medical facilities and increased of the Medical personnel. 74% of the respondents agreed that adequate infrastructural facilities vis- a -vis employment opportunities at the rural area be provided. Finally, 78% of the respondents suggest that there was need to organize town planning health education to the respondents. Hence, item 1, 2, 3, 4, and 5 are accepted considering the Mean and Coefficient of Variation Values.

Suggestion for Further Studies

This study can be replicated in other geopolitical zones of Nigeria; this will create room for comparative analysis of urbanization and public health system in Nigeria.

Conclusion and Recommendations

From the result of the data analysis and subsequent findings made by the researcher, the paper concludes that the public health system in Nigeria has been adversely affected due to urbanization. Consequent upon the findings and conclusion, the researchers recommends that:

- I. The existing Laws relating to urbanization and public health system should be strengthened
- II. There should be proper environmental surveillance in Lokoja metropolis.
- III. The Medical facilities should be upgrades and the Medical personals be increased.



- IV. Adequate infrastructural facilities and employment opportunities should be provided at the rural area to reduce the burden at the urban centers.
- V. There should be proper town planning and the citizens be given adequately health education.

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