

*Full Length Research Paper*

## Health care problem and management in Nigeria

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The study examined rural health care problem and management in Nigeria with a focus on Delta State. The study adopts literature search and a survey design; questionnaires were administered to fifty two health establishments, 2 to each local government area. 26 general hospitals are located in urban areas and another 26 medical health centres located in the rural communities, but with the shortest distant from the general hospitals selected in each LGA of Delta State. The data were presented in tables and analysed with multiple regression analysis. The study revealed that the health care services in Nigeria are operating at a dismal level, which is predicated on inadequate skilled human resources/personnel, poor funding from local government, corruption, lack of commitment by the local authorities, far distance, climate, self interest, lack of information and health services. These factors correlated (0.89) significantly with health problems at  $p < 0.05$ . Also most of the hospitals visited lack basic modern health facilities. The implication of this, is that it has led to the abysmal poor quality of health care services in the various hospitals and health centers in the state and consequently in Nigeria. As such the study recommends that the Federal, State and Local Government in Nigeria should live up to their responsibility of meeting the basic health care needs of Nigerian by equipping the health establishments with the requisite personnel/facilities as recommended by WHO and the 2004 Health Review Policy of the Federal Ministry of Health.

**Key words:** Rural, health, care, problem, Nigeria.

### INTRODUCTION

The healthcare system in Nigeria and the health status of Nigerians are in a deplorable state (Olayiwola, 1990; Aluko-Arowolo, 2005). Nigeria's overall health system performance was ranked 187th position among the 191 Member States of the World Health Organization in 2000. Health status indicators are worse than the average for sub-Saharan Africa. For example, infant mortality rate of 115 deaths per 1,000 live births; under-5 mortality rate of 205 deaths per 1,000 live births; and maternal mortality ratio of 948 deaths per 100,000 live births (range 339 deaths per 100,000 live births to 1,716 deaths per 100,000 live births) is one of the highest in the world

(FMoH, 2004). In Nigeria over 70% of her inhabitants live in rural communities yet the area has not attracted sufficient health facilities/projects that would substantially improve the health need of the rural dwellers. Apart from this, most of the health infrastructural facilities are concentrated in urban areas to the neglect of rural areas, and the few health facility located in the rural areas are not functioning effectively (Ajilowo and Olujimi, 2007).

Similarly, these dismal healthcare infrastructural facilities have led to the dearth of the availability of accurate, timely, reliable and relevant health information in most health establishment in the rural areas, which is the most

fundamental step towards informed public health action. Thus there is paucity and lack of information and overriding interest in supporting and ensuring the availability of health data and information as a public good for utilization by the public and private sectors, as well as the NGOs. And these are needed for effective management of health and health resources. Also, the planning, monitoring and evaluation of health services are hampered by the dearth of reliable data on a national scale. Until recently, the basic demographic data about the size, structure and distribution of the population were unreliable. The system for the registration of births and deaths on a national scale is not satisfactory, most especially those of the rural areas. Also, the system of collecting basic health data on births, deaths, the occurrence of major diseases, and other health indicators on a country-wide basis is still underdeveloped and as such retrieval of health information and data for research and other health planning issues from health establishment in Nigeria become difficult. Because of this, the available estimates are obtained from only few centres where such data are collected, from national surveys, from institutional records and from special studies.. This problem according to health officials is partly caused by lack of enough skilled staff and infrastructural facilities in the health establishments, most especially in the rural areas.

In Delta State, the health centers/institutions are located in the rural and semi-urban environments or mixed population, while general hospitals are located in the state capitals, LGA headquarters and a few other big towns. Tertiary health institutions are controlled and funded by the federal government and by the state that have and run state universities and they are often located in urban areas where large population exists. Thus, the specialist and other health infrastructures are concentrated in urban area. Even when some doctors, laboratory technologist and nurses are posted to the health centres in the rural areas, they either influence/refuse posting or resume and put up nonchalant attitude to work because of poor health infrastructural development in these areas. Due to the low level of available healthcare facilities/infrastructures in the rural areas; most of the rural inhabitants travel long distant and spend a lot of time to patronise health facilities located in the surrounding urban area where better facilities could be sought. Also in most of the health establishments visited, there is the underdevelopment of the system of collating, collecting basic health data on births, deaths, the occurrence of major diseases, and other health indicators and as such retrieval of health information and data for research and other health planning issues from health establishment in Nigeria become difficult. However there are few health establishments that collect these basic health information/data, but there is inconsistency and lack of continuity in the data. Because of this, the few available data and estimates are often obtained from only few centres where such data are collected, from national

surveys, from institutional records and from special studies. Also there are also series of complaints by patients of far distant, inadequate doctors to meet their health demand on daily basis and drugs availability, and the health officials often complain of inadequate infrastructural facilities for them to carry out their duties effectively. It is on this premise that this study is aimed at examining the problems that hinder effective healthcare services in Nigeria and Delta State in particular. Delta State is used based on finance, proximity and ease of administrating the research tools for this study.

### **CONCEPTUAL ISSUES AND METHODS OF DATA COLLECTION**

The study is based on the concept of health infrastructure, health accessibility and Primary Health Care (PHC). Health infrastructure means the quality of physical, technological and human resources available at a given period (Erinosho, 2006; Ademiluyi and Aluko-Arowolo, 2009). The physical structure includes the buildings and other fixed structures like pipe borne water, good access roads, electricity etc within the healthcare environments, and technology equipment meant specifically for hospital use including surgeries, computer equipment and consumables (Erinosho, 2006). Human resource, on the other hand, comprises the health professionals such as doctors, pharmacists, nurses, midwives, laboratory technologists, administrators, accountants and other sundry workers. All these put together form the structure upon which the healthcare delivery is anchored in any society and the determinants of its infrastructure (Erinosho, 2005, 2006; Ademiluyi and Aluko-Arowolo, 2009). Health infrastructure is a part of a larger concept of the health system which contains the health policy, budgetary allocation, implementation and monitoring (Adebayo and Oladeji, 2006). This is larger in concept and more robust than a mix of facilities, medical consultation in terms of diagnosis, treatment and compliance (Ademiluyi and Aluko-Arowolo, 2009). It also involves the healthcare consumers and other factors associated with or adjunct to health-care delivery. Furthermore, health infrastructure, from these all inclusive criteria, has to do with people, institutions and legal framework, all interacting systematically to mobilize and allocate resources specifically for health management, prevention and care of diseases, illnesses and injuries. It can also be inferred that the structure of healthcare delivery intricately intertwines with the quality of health personnel, efficient management, effective financing and communication. An equally crucial factor is a willing government in active support of and participation in the health system for the overall benefit of the society (Ademiluyi and Aluko-Arowolo, 2009). However, there is paucity and dismal allocation of these infrastructures in the urban areas to the neglect of the rural areas of Nigeria, and Delta State health care situation is not an exception. The adequacy in the various health establishments is also at abysmal level, and instead of the present spatial level there is therefore the need for the equitable distribution of the few existing health infrastructures. This concept is relevant to this study since it forms the basis for evaluating the standard and efficiency of health institution.

Health accessibility is the ability of an individual or community to obtain healthcare services with ease (Okafor, 1984; Aregbeyen, 1992; Ajilomo and Oluyimin, 2007). Aregbeyen (1992) stressed that the physical accessibility of household to healthcare is of paramount importance, and is determined by distance to the health facility. Adejuyigba (1973) and Olayiwola (1990) have demonstrated that variation exists in the maximum distance in which people travel to utilize health facilities in different parts of Nigeria. Ajilomo and Oluyimin (2007) see health accessibility as the ease of the

individual/community ability to get or to be reached by the health activity or services. Generally, more people tend to patronize medical centres that are closer to them than those that are further apart provided they provide similar services and with the required facilities. Apart from distance, the nature of services rendered by health establishments and health facilities also influences the number of attendance. The concept is vital to this study because of the fact that rural inhabitants are poor and as such can not afford to access health facilities that are located at far distance from their place of abode.

On the other hand, World Health Organization (WHO, 2006) defines Primary Health Care (PHC) as essential health care based on practical, scientifically, sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost which the country can afford to maintain at every stage of their development in the spirit of self reliance and self determination. PHC forms an integral part of the Nigerian social and economic development (Adeyemo, 2005). It is the first level contact of the individual and community in the national health system, thus bringing health care as close as possible to where people live and work and contributing the first element of a continuing health care process (Akinsola, 1993). Similarly WHO (1987, 2006) outlined the objectives of primary health care as:

1. To make health services accessible and available to everyone wherever they live or work.
2. To tackle the health problems causing the highest mortality and morbidity at a cost that the community can afford.
3. To ensure that whatever technology used must be within the ability of the community to use effectively and maintain.
4. To ensure that in implementing health programme, the community must be fully involved in planning the delivery and evaluation of the services in the spirit of self-reliance.

Thus PHC is summarily designed to promote health, prevent disease, cure disease, and to help people live full normal lives after an illness or disability. This is also entrenched in the 1999 Constitution, Federal government Health Sector Reform 2004-2007 (FMOH, 2004; Federal Republic of Nigeria, 2004). This reform showed that the health system and sundry services in Nigeria placed healthcare services on three pedestals: the primary, secondary and tertiary institutions for rural, mixed population, and urban elite respectively. By this PHC services should be available and accessible in all rural communities in Nigeria. The 1999 constitution placed the coordination of PHC under the local government, Secondary Health under State government and Tertiary Health under Federal government. The PHC is vital for this study because availability of health infrastructures and management of various health care centers in Nigeria is under the auspices of the PHC and run by the LGAs in the various states.

The study adopts a literature and survey design. Health information and published data were extracted from archive of the National Bureau of Statistics Directory of Health Establishments Nigeria, 2007 and other published materials. The year for which data were collected is based on continuity, consistency, and availability of data. Questionnaires were also administered to health establishments in the rural areas of Delta State. 52 questionnaires were administered to the most senior health officer/Medical Director (where they exist) in the state. The questionnaires were administered based on stratified sampling technique in the state which has been divided into 26 Local Government Area (LGA). Based on this 26 questionnaires were administered to the 26 General hospitals, one in each LGA in the state. Another 26 questionnaires were administered to the most senior health officers in the health centres located in the rural areas closest to the General Hospital in each of these LGAs. The questionnaire was designed to elicit information on health infrastructures availability,

factors of ineffective health facilities/services etc in the state. Descriptive statistics were used to summarize the data and multiple regression analysis was used on the factors of ineffective health services in these communities. The multiple regression analysis was performed with the aid of the statistical package for the social sciences (SPSS) version 17.

## RESULTS AND DISCUSSION

### Health care system in Nigeria

Before the advent of the missionary most rural residents depended on traditional health services, but presently there exists a variety of health-care types and services in Nigeria. These are traditional, bio-medical or western orthodox, synthetic healers, bone settlers, etc (Erinosh, 2006). This variety of health types provides insight into the history of health delivery, maintenance and management. According to Owumi (2005), the existence of the various health types is a source of tension, conflict and mistrust among the practitioners in Nigeria.

The medical centres established by the missionaries were largely concentrated in the rural areas because of the goal of evangelism, which was to get the rural "pagans" to embrace the new religion. These medical centres, however, were merely mobile clinics and at most community dispensary out-posts to treat primary health problem, snake bites and minor injuries. It was in later years, when the British rule had been well established that the administrators promoted the creation of medical centres in the real sense of hospitals to take care of epidemics, such as sleeping sickness, small pox, malaria and other primary health concerns (Onibonjo, 1985; Aluko-Arowolo, 2006). However, hospitals were concentrated only in the urban areas where there was a high concentration of Europeans and government officials (Akin-Aina, 1990; Home, 1983). Official residential quarters such as Government Reserved Areas (GRAs) Ikoyi in Lagos, Jericho in Ibadan, etc. were reserved for government senior workers. Such reserved areas were also called European Quarters. Such quarters existed in Lagos (Ikoyi/Victoria Island), Ikeja, Ibadan, Kaduna, Jos, Enugu and other major towns (Ademiluyi and Aluko-Arowolo, 2009).

According to Mabogunje (2007) and Home (1983), two distinct spin-off effects could be deduced immediately from this particular arrangement: first a total neglect of rural areas in matters of healthcare and second, an established inequality in the urban centers between the colonialists including their black associates and general citizenry. Even in spite of independence, almost fifty years ago, these residential patterns are still very glaring in our towns and cities (Mabogunje, 2007; Home, 1983). Similarly, there was no emphasis on the traditional healthcare type(s) and a huge vacuum was created that further entrenched inequality between the haves and have-nots and between the rural and urban settlements (Ademiluyi and Aluko-Arowolo, 2009).

Aluko-Arowolo (2005) asserted that the dichotomy brought to the fore, the challenges in the healthcare system and other associated services, in that infrastructure and personnel that are very essential to efficient hospital system like food, roads, pipe-borne water and electricity for storage of drugs and surgical operation etc were not provided for. This has a strong influence on the health policy of subsequent governments in Nigeria (Mabogunje, 2007). This indicates that the health system and sundry services in Nigeria which placed health services were designed specifically on three pedestals: the primary, secondary and tertiary institutions for rural, mixed population, and urban elite respectively. By this PHC services should be available and accessible in all rural communities in Nigeria.

The National Primary Health Care was launched by the Military Administration of President Babangida in 1988; the scheme as emphasized above was to be a collaborative effort of the three tiers of government which should be more adapted to Nigeria's socio-economic and cultural context. It should be people-oriented in that it strives to develop local capabilities, initiatives and to promote self-reliance. This in a way was for the realization of sustainable improvement in the health of the people. Health services delivery in Nigeria had its historical antecedents. It had evolved through a series of developments including a succession of policies and plan, which had been introduced by previous administrations. Previous administration here refers to the unorganized administration of the colonial and post-colonial administration in Nigeria. Tracing the historical epoch of Nigerian health sector beyond the organized colonial period, it is asserted that maternal and child care of pre-colonial period, though primitive compared to the orthodox medical care, served the people with precise efficiency which was proportional to their level of development (Oyewo, 1991). He further associated the beginning of a meaningful health service policy in Nigeria with the first Ten year National plan (1946 - 1956), wherein health was put on the concurrent legislative list with both Federal and Regional government exercising defined powers within their areas of direct administrative control.

The first Ten-year National plan (1946 – 1956) whose proponents were mainly expatriate officials had a number of deficiencies, especially in the health services. The health policy at the Second National Development Plan (1970–1974) focused in part at correcting some of the deficiencies in the health delivery services. There was a deliberate attempt to draw up a comprehensive national health policy dealing with such issues as health, manpower development, provision of comprehensive health care based on basic health care service scheme, disease control, efficient utilization of health resources, medical research and health planning. The adequacies were later addressed in the Federal Government Health Sector Reform 2004-2007 and Federal Republic of Nigeria (2004). This reform and the 1999 constitution placed

health system and sundry services in Nigeria under the auspices of the local government (primary health), State (secondary health) and Federal government (tertiary health) institutions for rural, mixed population, and urban elite (Table 1).

Table 1 revealed a total of 19764 health establishments in Nigeria, out of which 151, 330, 1385, 2945, 7373 and 7580 were owned by the Federal government, Religious organizations, State governments, Communities, Private and Local government authorities respectively. This indicates that the federal and state government own only 1 and 7% respectively of the hospitals in Nigeria, and most of these hospitals are located in urban areas. The LGA and the privately owned accounted for 38 and 37% respectively (Table 1). The Implication of this is not adequately lived up their expectation of providing health for all in the year 2000, as such there is the need for the Federal and State government to establish more government owned hospitals that will meet the health care needs of the over 140million population of the nation. This corroborates those of Adayemo (2005) who observed dismal distribution and management of health facilities in Nigeria and Ademiluyi and Aluko-Arowolo (2009) and Scheffler et al. (2009) who stressed on the adequate health facilities and inequality in the distribution of healthcare facilities between the urban and rural areas of Nigeria.

For instance, the ratio of households within 10 km of a health hospital, centre, or clinic is 50% higher in urban areas, compared with rural areas (Uneke et al., 2008). And Scheffler et al. (2009) opined that numerical inadequacy of health workers has become the binding constraint in implementing many priority health programs in Africa. Similar inequalities in health trends that disadvantage rural residents have been documented for infant mortality (De Poel et al., 2007). Thus morbidity and preventable mortality trends worsen direct correlation with ease of access to health services. For instance, although Nigeria's overall maternal mortality is, at 1100 per 100 000 live births, among the highest in the world and within-country analyses indicate that maternal mortality is significantly higher in the largely rural regions of Nigeria (Wall, 1998; Umeora et al., 2005). Such findings, according to Ronsmans and Graham, 2006, are in accordance with global findings that demonstrate 'rural residence' is a strong risk factor for increased maternal mortality.

These establishments showed an increase from 12,734 in 1987 to 23, 616 in 1991 (Table 2). This according to Adebajo and Ojideji (2006) could be attributed to the population increase and regional development amongst others. However greater proportions of these health establishments are dispensaries and maternities (3349 and 8409, respectively) which are characteristics of the PHC. These are mostly found in rural areas, though they lack the basic health facilities. Presently according to Adebajo and Ojideji (2006), Ademiluyi and Aluko-Arowolo (2009) and Scheffler et al. (2009), there is 56%

**Table 1.** Distribution of hospitals in Nigeria by mode of ownership, 2007.

Zones	No. LGAs	Fed Govt.	State	LGA	Private	Religious	Communities	Total	Percentage distribution
North – East	112	24	124	1044	1215	25	5	2437	12
North – West	186	33	138	1928	587	10	2700	5396	27
North – Centre	121	20	161	2954	1138	141	177	4591	23
South – East	95	25	300	325	1957	94	57	2758	14
South- west	134	24	124	1044	1215	25	5	2437	13
South- South	126	25	538	285	1261	35	1	2145	11
Nigeria	774	151	1385	7580	7373	330	2945	19764	100.00
Distribution		1	7	38	37	2	15	100	

Source: National Bureau of Statistics Directory of Health Establishments in Nigeria, 2007.

**Table 2.** Health establishments in Nigeria (1987-1991).

Establishments	1987	1988	1989	1990	1991
General Hospitals	763	987	987	897	897
Paediatric Hospitals					1
Maternity	3090	3172	3172	3331	3349
Orthopaedic Specialist	3	3	3	3	3
Medical Health Centres					985
Dispensaries					8405
Teaching Hospital/Specialist	14	14	14	14	14
Others	8764	9471	9471	9716	9962
Total	12,734	13,647	13,647	13,961	23,616

Source: Adebajo and Ojadeji, 2006

reversal of the distribution in favour of urban areas in Nigeria; this is to the neglect of rural communities where over 70% of Nigeria dwell (Ajilowo and Olujimi, 2007).

Table 3 showed the number of doctors in the various medical centers in Nigeria from 1960 to 1992. It is important to note that the availability of expatriate medical personnel (consultants) boosts

the standard of such health establishment, and possibly attracts high patronage. In 1960 Nigeria had a total of 1079 doctors, out of which 730 were foreign nationals, and 349 Nigerian doctors. This situation has improved to 21,325 doctors in 1992, out of which 18,330 are Nigerian and 2995 are foreigners. This number is highly inadequate, given a ratio of one doctor to 6500 persons in

Nigeria. However, the number of doctors in Nigeria health establishments has increased (21325 to 34923) from 1992 to 2002 (Table 4), out of which only 2% of the doctors work in the rural communities (Ajilowo and Olujimi, 2007; Ademiluyi and Aluk o-Arowolo, 2009). This distribution is however still inadequate for over 140 million Nigerians.

**Table 3.** Number of Doctors in Nigeria 1960 - 1992.

Years	Non-Nigerian		Nigerian		Total	
	No	Percentage	No	Percentage	No	Percentage
1960	730	67.7	349	32.3	1079	100
1970	1301	48.5	1382	51	2683	100
1980	1845	23	6192	77	8037	100
1989	2879	16	15075	84	17954	100
1990	2965	14.7	17245	85.3	20210	100
1992	2995	14	18330	86	21325	100

Source: Federal Ministry of Health and Erinosh, 2006.

**Table 4.** Health Personnel in Nigeria 2002.

Health Personnel	Number	Percentage
Physicians	34,923	9.40
Nurses and Midwives	210,306	56.60
Dentists and Technicians	2,482	0.67
Pharmacists and Technicians	6,344	1.70
Environmental and Public Health Workers	n.a.	n.a.
Laboratory Technicians	690	0.16
Other Health Workers	1220	0.33
Community Health workers	115761	31.14
Health Management and Support	n.a.	n.a.
Total	371,726	100.00

Source: WHO, 2006; Ademiluyi and Aluko-Arowolo, 2009.

The total number of health personnel in Nigeria in 2002 is shown in Table 4. This further shed more light on the inadequate human resources distribution for healthcare consumption system in Nigeria. While doctors accounts for only 9%, nurse and midwives showed 56% of the total health personnel in Nigeria. This will certainly make patients to spend long time in the hospital unattended to, and possibly frequent referrals to their private clinics.

### Health care services in Delta State

This section discusses the problem of health care in Delta State. Table 5 revealed wide disparities in physical structures, technological facilities and human resources available in the urban and rural health infrastructures in Delta State. This inequality spans 63% in nurses' availabilities to 233% in good access road availabilities in urban-rural health infrastructural availabilities in the state. For instance, in the general hospitals located in the urban area of the state, over 50% of the respondents indicated the availability of these health infrastructures, with the exception of internet facilities, scanners and radiographers that have less than 20% of the respondents indicating their availabilities. On the other

hand, apart from pipe borne water, good access roads, network services providers (Airtel, MTN, Glo, Etisalat etc), and nurses which recorded less than 47% availabilities, there is 100% absent of other health facilities in the rural areas of the state. However, community health officers were 100% available in the health centers in the rural areas. Nevertheless, according to the medical personnel and some patients that most of the general hospitals in the rural setting and some in the urban areas have only one medical doctor, which makes patients wait for a long time unattended to. This certainly makes such doctors to work over time in order to attend to all the patients during clinics days, or reschedule them for the next visiting day. On drugs availabilities, there is 100% absence of drugs in the rural health centers, as such prescriptions are only given to patient to purchase the drugs at pharmaceutical stores and there is 69% availability of drugs (mostly paracetamol and for other drugs patients are referred to pharmaceutical stores for purchase) in the urban areas.

Similarly, from the survey of the rural health centres and the general hospitals located in the urban area of Delta State, it was discovered that PHC whose implementation is under the auspices of the local government authorities is in a prostrate situation due to

**Table 5.** Availability of health care infrastructures.

Health infrastructures	Urban			Rural			Urban-rural diff. (%)
	No. of respondents			No. of respondents			
	Yes	No	%	Yes	No	%	
<b>Physical structures</b>							
Building with 10 beds	26		100	26	00		100
Pipe borne water	14	12	54	8	18	31	75
Good road	20	6	77	6	20	02	233
Adequate Electricity	10	16	39	0	26	00	100
Ambulance	26		100		26	00	100
<b>Technology</b>							
Surgeries facilities,	26		100		26	00	100
computer equipments	18	8	69		26	00	100
Provision of Internet facilities	2	24	01		26	00	100
Access to Airtel, MTN, Glo etc service providers	26		100	12	14	46	86
X ray Machine	5	21	19		26	00	100
Scanner	4	22	15		26	00	100
Consumables/Toiletries	26		100	11	15	42	73
<b>Human resource</b>							
Availability of doctors	26		100		26	00	100
Pharmacists	26		100		26	00	100
Nurses	26		100	10	16	38	63
Midwives	26		100		26	00	100
Radiographer	5	21	19		26	00	100
Lab technologists	26		100		26	00	100
Administrators	26		100		26	00	100
Accountants	26		100		26	00	100
Communities health officers	26		100	26			0
Availability of drugs	18	8	69		26	00	

**Table 6.** Regression model summary.

Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin-Watson
1	.896(a)	.803	.772	.29043	1.987

<sup>a</sup>Predictors: (Constant), health personnel, climate, self interest, lack of vehicle, distance, lack fund, lack information, climate, Corruption.

<sup>b</sup>Dependent variable: Health.

inadequate skilled human resources/personnel, poor funding from local government, corruption, and lack of commitment by the local authorities, far distance, climate, self interest and lack of information. These were well outlined; and interaction with the medical personnel revealed that because PHC is the gateway to the health system in Nigeria, these factors have impinged on its poor performance in the state and inevitably negatively on the health of the Nigerian. Tables 6 and 7 show the results of the multiple regression analysis performed on

these factors (inadequate skilled human resources/personnel, poor funding from local government, corruption, and lack of commitment by the local authorities, far distance, climate, self interest, and lack of information) and health services. Table 6 showed 0.896 correlation coefficient (r) values being the joint correlation of the aforementioned factors of ineffective health care in Delta State and this indicates that 80% of health services in Delta State are accounted for by these factors. The remaining 20% may be accounted for by the

**Table 7.** Standardized correlation coefficient explaining the factors of Health problems.

	Unstandardized coefficients		Standardized coefficients	T	Sig.	Correlations		
	B	Std. Error	Beta	Zero-order	Partial	Part	B	Std. Error
(Constant)	-1.851	.454		4.076	.000			
Corruption	.016	.315	.013	.051	.959	.694	.008	.003
Self interest	.858	.118	-1.648	-7.295	.000	-.111	-.740	-.488
Lack inform	.999	.145	1.263	6.897	.000	-.060	.721	.462
Dist	..020	.109	-.020	-.185	.854	.555	-.028	-.012
Climate	1.007	.339	.822	2.953	.005	.734	.407	.198
Lack of vehicle	.571	.099	.970	5.775	.000	.099	.657	.387
Lack fund	..006	.140	-.006	-.042	.967	.595	-.006	-.003
Health personnel	1.009	.341	.823	2.955	.005	.735	.407	.198

<sup>a</sup>Dependent variable: Health

availability of drugs, not having immunization antigen, spending long times to be attended to etc in these health establishments. This is however significant with  $p < (0.05)$ . Also from Table 7, the standardized beta correlation coefficient showed that the calculated t-value 4.076 is greater than the critical t-value 1.671, indicating that inadequate healthcare facilities is significantly dependent on inadequate skilled human resources/personnel, poor funding from local government, corruption, far distance, climate, self interest, and lack of information and lack/poor state of vehicle. Therefore, there is need for the health sector to be re-invigorated with funds, qualified manpower (health officers, nurse, and doctors) legislation and political support is imperative for the sustainable recovery of the health care system. However, it should be noted the state ministry of health has now made it mandatory that each health establishment should submit their health records to the ministry before the payment of salary. But those in the rural areas still have inadequate infrastructural facilities problem to meet up with that demand.

Tables 8 and 9 show the individual contribution of these factors to healthcare problem revealed the following in order of influence. Lack of health personnel is one of the main factors that hinder the development of health care services in Nigeria. It was observed in Delta State that there were insufficient numbers of medical personnel as well as their uneven distribution in most of the health establishments visited. Where they exist, they are inadequate and highly concentrated at the urban to the neglect of rural areas (Table 8). This is ranked first and had an r-value of 0.74, which indicates 55% contribution to health care problem (Table 9). Table 9 outlined the average number of health personnel in Delta State, and it showed that the dispensaries, maternity and medical health centers that are located in the rural areas of the state have no doctors. Those hospitals in urban areas have a minimum of two doctors that attend to an average of 24 patients per day, but the General Hospital in Abraka

has only one medical doctor who attends to an average of 50 patients a day. However, some patients interviewed asserted that during weekends most of the doctors travel to attend to their personal needs; as such the hospitals are without doctors. Thus, most patients are turned back except on emergency. To correct this anomaly, there is the need for government to employ and post at least 3 doctors to hospital in the cities and a doctor to the medical health centers in the rural areas.

The second factor climate responsible for the inadequate provision of health care facilities had 0.73 r-value and accounted for 53%. Whenever it rains most of the rural areas are flooded making the area inaccessible for smooth health operation, and at times it will lead to lateness to work and absent from work that rainy day. Patients often get stranded because of this, and also the irregular accessibility of many parts of the communities owing to natural topographical condition such as excessive flooding during rainy season, hilly and mountainous terrain of the landscape. Another factor is corruption and it accounted for 48% (r-value 0.69) (Table 9). The personnel interviewed in the rural health centers asserted that corruption is in two forms: firstly is the embezzlement/diversion of fund meant for health care services either at the State level or at the local government by corrupt political office holders. Secondly, medical personnel posted to rural area often refuse to go, and bribe their way through to remain in the urban areas. Therefore government agent should be vigilant on the staff of this ministry; any corrupt staff caught should be made to face the law.

Another problem has to do with inadequate fund which accounted for 36% (r value 0.60) (Table 9). The internally generated revenue of most of the LGA is merger. This is made worse because of the excruciating effects of over dependence of the LGA on Federal, State and increase in wage bills. Although there are some instances where some local government chairmen are not committed to their health budgetary allocation and as such neglect this

**Table 8.** Number of Health Personnel per Health establishment in Delta State.

Health establishment	Doctors	Nurse	Community Health Assistant	Pharmacist	Public Health Officer
General Hospitals	2	14	13	2	1
Cottage Hospital	1	8	5	1	1
Maternity	-	1	1		3
Medical Health Centres	-	1	1	-	3
Dispensaries		1	1		3
University health Centre	4	18	-	-	2

Source: Fieldwork 2011

**Table 9.** Zero order correlations coefficient explaining the factors of healthcare problems in Delta State.

Factor	Health	Corruption	Self interest	Lack inform	Dist	Climate	Lack of vehicle	Lack fund	Health per
Health	1.000	.694	-.111	-.060	.555	.735	.099	.595	.735
Corruption	.694	1.000	.074	-.193	.773	.961	.284	.808	.961
Self interest	-.111	.074	1.000	.672	-.041	.114	.610	.054	.114
Lack inform	-.060	-.193	.672	1.000	-.209	-.153	-.095	-.239	-.153
Distance	.555	.773	-.041	-.209	1.000	.746	.156	.558	.746
Climate	.734	.961	.114	-.153	.746	1.000	.310	.846	1.000
Lack of vehicle	.099	.284	.610	-.095	.156	.310	1.000	.304	.310
Lack fund	.595	.808	.054	-.239	.558	.846	.304	1.000	.846
Health personnel	.735	.961	.114	-.153	.746	1.000	.310	.846	1.000

sector because the people did not vote for him/her and of lack of interest. Financing health care depends on the type of health system in place. Health system refers to a conglomeration of elements that work together simultaneously in a coordinated manner to bring about all activities whose primary purpose is to promote, restore or maintain health (WHO). Funding must be made available by all means in order to ensure that all individuals have access to effective public health and personal health care. Good health is determined by other issues is a fundamental human rights. The human rights covenants that underpin the rights of people originate principally from the UN Declaration of Human Rights formulated in 1948. This is outside healthcare like water, sanitation, good roads, culture, agriculture etc. Among nation's members of the UN, Nigeria's health system happens to stand at 187 among the 191. Health represents the basic international pronouncements of rights that carries considerable moral weight and is widely considered to form part of international law. The International Covenant of Economic, Social and Cultural Rights are one of the three UN texts; others include: The International Covenant of Civil and Political Rights and its Optional Protocol. Rights may be considered in terms of individual and community or group rights. Both sets of rights are recognized by the United Nations.

Distance of the rural inhabitants to health facilities had correlation value of 0.56, and it indicates 31%

contribution to health problems in the state (Table 9). Distance to some of the health establishments that have the basic health facilities is not encouraging. So the rural dwellers travel long distance before they have access to good health services, while those who can not afford it patronize quack in the rural area. This is corroborated by Adeyemo (2005), Uneke et al. (2008) and Scheffler et al. (2009). For instance, the ratio of households within 10km of a health hospital, centre, or clinic is 50% higher in urban areas, compared to rural areas (Uneke et al., 2008). And Scheffler et al. (2009) opined that numerical inadequacy of health workers has become 'the binding constraint in implementing many priority health programs in Africa. Similar inequalities in health trends that disadvantage rural residents have been documented for infant mortality (De Poel et al., 2007). Thus morbidity and preventable mortality trends worsen in direct correlation with ease of access to health services. For instance, although Nigeria's overall maternal mortality is at 1100 per 100 000 live births, among the highest in the world and within-country, analyses indicate that maternal mortality is significantly higher in the largely rural regions of Nigeria (Wall, 1998; Umeora et al., 2005). Such findings, according to Ronsmans and Graham, (2006), are in accordance with global findings that demonstrate 'rural residence' is a strong risk factor for increased maternal mortality. And Adeyemo (2005) observed during his study that there are no enough vehicles for workers to

**Table 10.** Average Required health facilities per health establishment.

Establishments	Beds	Ultrasound scan	Oxygen cylinder	First aid Kits	Ambulance
General Hospitals	*30 60	- 2	- 4	- 4	*1 2
Cottage Hospital	*16 31	- 1	- 2	- 2	- 2
Maternity	*5 15	- 1	- 1	*1 2	- 1
Medical Health Centres	*6 10	- 1	- 1	- 2	- 1
Dispensaries	*4 10	- -	- 1	*1 2	
University health Centre	*10 25	- 2	*6 10	*2 2	*2 2
Total	*71 151	- 7	*6 19	*4	*3 8

\*Number available.

perform their task especially to the rural areas. The maintenance culture of the existing vehicles was poor while PHC vehicles were used for other purposes other than health related activities. This, however, corroborated the concept of accessibility earlier discussed. Thus, government should establish medical centres in rural area with the modern state of the earth facilities.

Other factors are self interest (0.11), lack of ambulance to convey patient in time of emergency with r-value of 0.10 (Table 9), and inadequate information (0.06). In most of the local government areas there is poor level of health awareness; health care information has not been adequately taken to the doorstep of the rural/urban dwellers. The need of transferring PHC to the Local Government is for the effective management of PHC services and to bring it closer to the grassroots; therefore, there is the need for intense re-invigoration and dissemination of healthcare information to the rural areas of Nigeria.

It was also observed that the level of community involvement in PHC management is another issue that is of health concern. There are general indications of low community participation. It is true that the cornerstone of PHC is community involvement but to a large extent this has becoming crisis ridden problem throughout Nigerian Local Government.

Another problem is the general misuse and abuse of the scarce resources, human, material and financial by some political and administrative leadership. Similarly,

lack of continuity of LGA leadership poses another problem. There is high degree of leadership turn-over as well as lack of continuity in Local Government leadership from 1996 to 2001. There are five administrators either appointed or elected in the LGA. This accounted for inconsistencies in health policy decisions (Adeyemo, 2005).

Table 10 revealed that the facilities in most health establishments in Delta State are highly inadequate. For instance out of the 151(22 beds on the average) beds required, only 71(10beds on the average) beds are available. However, most of the health centres in the state lack basic modern health facilities; therefore government should as a matter of priority provide these basic facilities in these health centres.

## Conclusion

The study examines the problem of health care system in Nigeria with a focus on Delta State. The study revealed that the health care services in Nigeria are operating at a dismal level, which is predicated on inadequate skilled human resources/personnel, poor funding from local government, corruption, lack of commitment by the local authorities, far distance, climate, self interest, lack of information and health services. Also most of the health establishments visited lack basic modern health infrastructures, as such it is recommended that the Federal,

State and Local Government in Nigeria should live up to their responsibilities of meeting the basic health needs of Nigerian by equipping the health establishments with the requisite personnel/facilities as recommended by WHO and the 2004 Health Review Policy of the Federal Ministry of Health.

## REFERENCES

- Adebanjo AA, Oladeji SI (2006). Health Human Capital Condition: 'Analysis of the Determinants in Nigeria', in Falola T and Heaton MM (eds) *Traditional and Modern Health Systems in Nigeria*, Africa World Press; Trenton and Asmara: pp. 381-398.
- Ademiluyi IA, Aluko-Arowolo SO (2009) Infrastructural distribution of healthcare services in Nigeria: An overview *Journal of Geography and Regional Planning*, 2(5):104-110,
- Adeyemo DO (2005) Local Government and Health Care Delivery in Nigeria: A Case Study *J. Hum. Ecol.*, 18(2): 149-160
- Adejuyigba O (1973) Location of Social Service Centres in Western Nigeria: the case of Medical Facilities *Man and Society*: 115-142
- Ajilowo J, Olujimi B (2007) Accessibility of the Rural Dwellers to Healthcare Facilities in Nigeria: The Owo experience. *Pakistan J. Social Sci.* 4(1): 44-55
- Akinsola HA (1993): *Community Health and Social Medicine in Medical and Nursing Practice*, 3 AM. Communications, Ibadan.
- Aluko-Arowolo SO (2005). Equity in Health and Federal Character Policy: A Study in Rural-Urban Dichotomy", *Babcock J. Soc. Manage. Sci.* 4(1): 38-47.
- Aluko-Arowolo O (2006). "The Medico-Spiritual and Historical Origin of Malaria Disease" in Falola T and Heaton MM (eds.) *the Traditional and Modern Health System in Nigeria*, Africa World Press. Trenton and Asmara: 247-256.
- Aregbeyen JBO (1992) Health care services Utilization in Nigerian Rural Community, A focus on Otue Community and Environs in Edo State. NISER Monograph Series, Ibadan
- De Poel EV, Donnell OO, Doorslaer EV. *What explains the rural-urban gap in infant mortality -household or community characteristics?* Tinbergen institute discussion paper TI 2007/3. (Online) 2007. Available: [http://www.tinbergen.nl/discussion\\_papers/07067.pdf](http://www.tinbergen.nl/discussion_papers/07067.pdf) (Accessed 15 November 2009).
- Erinosho OA (2005). *Sociology for Medical, Nursing and allied Professions in Nigeria*, Bulwark Consult, Abuja and Ijebu-Ode.
- Erinosho OA (2006). *Health Sociology for Universities Colleges and Health Related Institutions*, Bulwark Consult, Abuja.
- Federal Ministry of Health (2004) *Health Sector Reform Programme Strategic thrusts with a logical framework and a plan of action*, 2004 – 2007, Abuja
- Federal republic of Nigeria (2004) *Revised National Health Policy* Federal ministry of health Abuja September
- Home RK (1983). "Town Planning, Segregation and indirect Rule in colonial Nigeria" in *Third World Planning Rev.* 5 (2): 165-176.
- Mabogunje AL (2007). Health Challenges of Nigeria Urbanization, *Nigerian Tribune*, Jan. 23rd: 17. Institute of Social Medicine, University of Copenhagen.
- Okafor Fc (1984) Accessibility to General Hospital in rural Bendel State, *Nigeria Soc. Sc. Med.* 8: 661-666
- Olayiwola LM (1990). A study of the adequacy of infrastructural facilities in rural area of Oranmiyan Local Govt Area of Oyo State. Unpublished Ph.D Thesis, University of Obafemi Awolowo University, Ile-Ife
- Onibonjo GO (1975). *Africa in the Modern World, The Last One Hundred years*, Onibonjo Press, Ibadan.
- Owumi B (2005). *African Values, beliefs and the polemics of Developing Traditional Medicine in contemporary Times*, Faculty of Social Sciences, University of Ibadan, Lecture Series No. 13.
- Oyewo AT ( 1991). *The Application of Presidential System into Nigeria Local Government*. Jator Publishing Co.Ibadan.
- Ronsmans C, Graham WJ (2006). Maternal mortality: who, when, where, and why, on behalf of the Lancet Survival Series Steering Group. *Lancet*; **368**: 1189-2000.
- Scheffler RM, Mahoney CB, Fulton B, Dal Poz MR, Preker AS (2009). Estimates of health care professional shortages in sub-Saharan Africa by 2015. *Health Affairs*, **28**: w849-w862.
- Umeora OIJ, Esike COU, Egwatu, V.C (2005). Maternal mortality in rural Nigeria. *International Journal of Gynecology and Obstetrics* , **88**: 321-322.
- Uneke C, Ogbonna A, Ezeoha A, Onwe F, Ngwu B (2008). The Innovative Health Research Group. The Nigeria health sector and human resource challenges. *The Internet Journal of Health* **8(1)**:[http://www.ispub.com/journal/the\\_internet\\_journal\\_of\\_health/volume\\_8\\_number\\_1\\_5/article/the\\_nigeria\\_health\\_sector\\_and\\_human\\_resource\\_challenges.html](http://www.ispub.com/journal/the_internet_journal_of_health/volume_8_number_1_5/article/the_nigeria_health_sector_and_human_resource_challenges.html) (Accessed 12 January 2008
- Wall LL (1998). Dead mothers and injured wives: the social context of maternal morbidity and mortality among the Hausa of northern Nigeria. *Studies in Family Planning* , **29**: 341-359
- World Health Organization. *Country health systems fact sheet –Nigeria*. Brazzaville: WHO, 2006. Available: [http://www.afro.who.int/home/countries/fact\\_sheets/nigeria.pdf](http://www.afro.who.int/home/countries/fact_sheets/nigeria.pdf) (Accessed 12 March 2011).
- World Health Organization (2006). *Country Health System Fact Sheet Nigeria*