

Primary Healthcare Delivery in Rural Areas of Nasarawa State, Nigeria: Accessibility Survey

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ABSTRACT : Majority of the over 200 million Nigerians live in the rural areas and are affected by a number of preventable diseases which impact on the socio-economic activities and the general standard of lives of the people (NPC, 2020; NBS, 2019; UNDP, 2019). However, the bias in the distribution of health facilities against the rural areas which started during colonial days still persists. The aim of this study is to examine the level of health services available and its cost to Primary Healthcare (PHC) users in the rural areas. In view of the above, the study focuses on accessibility survey (availability and affordability) of healthcare delivery to the rural users in Nasarawa State, Nigeria. The study uses Donabedian Model of healthcare system as a framework of analysis to demonstrate the weak and fragile nature of Nigeria health system and institutions where providers of healthcare emphasize the need for cost-benefit driven planning as successive healthcare delivery for some years in Nigeria depends mostly on market driven strategies. The study relies on Primary and secondary data as well as quantitative analysis to explain the implications of market driven policy approach and implementation of primary health care delivery to the rural users. It shows that healthcare system aimed at the provision and promotion of health services, especially of the vulnerable groups has largely been ineffective. The most vulnerable groups find it difficult to access health services because of its cost and unavailability. The majority of (vulnerable) citizens, mostly in rural and difficult communities suffers and dies of common, preventable and treatable diseases as a result of the inability to access basic healthcare. The study therefore recommends the implementation of a healthcare system based on continuous social programs that ensures improvement in access to healthcare through an insurance scheme that covers all segments of citizens in order to improve maternal and child mortality rates which will also enhance the socio-economic wellbeing of the rural people.

Keywords: Accessibility, Healthcare, Primary Healthcare, Rural Areas.

I. INTRODUCTION

Efforts towards an equitable and efficient healthcare system in Nigeria began in the 1940s with the 10-year development plan (1946-1956), also referred to as the 'Decade of Development' (Alubo, 2010; Ransome-Kute, 1998). This was followed in turn by the Second pre-independent National Development Plan (1956-1962). The post-independent National Development Plans, including the First National Development Plan (1962-1968); the Second (1970-1975); the Third (1975-1980) and the Fourth (1981-1985), National Rolling Plan (1990-1992) and the five years Strategic Plan (2004-2008) all made elaborate provision for healthcare delivery. Before 1981, primary healthcare (PHC) was embraced as a key strategy for attaining health-for-all by the year 2000 (Abdulraheem, Olapipo, & Amodu, 2012). Despite these efforts, almost all the post-independent national development plans were structured in the same manner like the colonial ones. For example, more medical facilities were located in the urban areas than in rural areas, even though the Ministry of Health seemed fully aware that some 75% of the population in Nigeria were rural based (NPHCDA, 2014), as a result, the urban bias prevalent in colonial times has remained.

This skewed distribution of healthcare facilities excludes the rural population in several ways such as the physical distance, lack of manpower resource, equipment, infrastructures and other social amenities (paved roads, water, and electricity) militates against access and even where facilities exist, these are undermanned and ill-equipped. Like their colonial precursors, post-independent efforts concentrated in the urban areas, hence major medical facilities are located there, close to the target population (Alubo, 2010).

Health indicators in Nigeria appear to be some of the worst in Africa. Nigeria has a high crude birth rate of 40.20 births per 1,000 people as against the global average of 20.18 births per 1,000 people. One out of

ten under five children die of pneumonia and diarrheal daily (FMOH, 2018a). Life expectancy in Nigeria is 60.87 years. This figure equaled to 59.0 years for males and 63.0 for females based on the United Nations Population Division (UNPD) 2021 estimates and this is rated as abysmally poor since when ranked with other countries of the world, Nigeria is placed at the 190th position.

Earlier in 2019, the United Nations International Children's Emergency Fund (UNICEF, 2019) stated that 2,300 under-five year old and 145 women of childbearing age die every day in Nigeria. This therefore makes Nigeria, the second largest contributor to the under-five maternal mortality rate in the world. UNICEF attributed most of these deaths to preventable and treatable infectious diseases (malaria, hepatitis, typhoid, cholera, pneumonia, diarrhea, measles, HIV/AIDS and malnutrition which account for 50% of morbidity and mortality of children under 5). These challenges are connected to the fact that the first level of healthcare, the primary, which is charged with the provision and prevention of diseases are non-functional and in some cases non-existent (Opaluwah, 2016). Against the backdrop of these challenges, the Federal Government of Nigeria intervened in order to correct this abnormality through the establishment and financing of the Primary Healthcare Development Agency (NPHCDA) which is expected to be replicated by states and the FCT-Abuja to handle immunization and other primary healthcare needs by the local governments.

The State Healthcare policy seems to have drawn its inspirations, to a large extent, from the national health policy introduced in 2004 with emphasis on primary healthcare as the bedrock of the health system, aims at providing financial risk protection to all indigene of Nasarawa state, particularly the poor and vulnerable. Other goals include the reduction of maternal and child mortality, wider immunization coverage and better control and prevention of public health emergencies by the State Primary Healthcare Development Agency (SPHDA) through PHC centres that are mostly located in the rural areas. In spite of these efforts by government at different levels, issues of availability and affordability of health services at the rural areas demands special attention.

The study therefore, focuses on analysis of access (available and affordable) to quality healthcare services to rural areas in Nasarawa State, Nigeria from 2007-2017. The study uses primary data through survey technique to generate relevant information from PHC policy makers and PHC rural users to determine the level of accessibility of healthcare and by way of conclusion, recommends some measures that could mitigate the problems of access to PHC services among the rural poor.

II. THEORETICAL FRAMEWORK

The study is anchored on the System Theory (Donabedian Model of Health System) to analyze and explain the theoretical as well as the practical underpinning of the healthcare system and how the instrumentality of PHC delivery affects health outcome of rural users in Nasarawa state, Nigeria. The health system theory is derived from the General System Theory (GST) by Bertalanffy in 1956, an interdisciplinary approach which states that a system is an entity with interrelated and interdependent parts, a subsystem that can only function properly when the whole parts act together toward certain direction for specific goals to be achieved. In this case, what happens to one part of the system affects the whole system itself with predictable trends of behavior (Mele, & Polese, 2010). The system and its holistic properties, according to Basu (2015), had to be analyzed to find the root of the problem (feedback) confronting the whole system (society) otherwise such a system will inevitably fail and fall apart. The General System Theory seeks to argue that every system, including healthcare system has subsystems which make up the entire system, all human organizations are open sub-systems that engage in transaction within the larger social system (society) where the sub-system receives inputs in the form of human and material resources from the larger system while produces outputs in form of products or services to its members and the larger society.

Avadis Donabedian model sees the healthcare system as a set of interrelated and reciprocally regulated patterns of actions and orientation; patterns that cluster together in equilibrium and that have certain needs of maintenance survival. It is an organized whole with identifiable, interrelated structures delineating it from the environment (supra system) in which it is located and interacts by processing the inputs into outputs. Inputs, process and outputs analysis of a healthcare system is very important because the healthcare system is said to obtain its inputs (demands, structures, supports, resources and information) from the environment. Donabedian (1966; 2003) observes that a healthcare system is made up of 3 components: firstly is the structural element which refers to those elements related to resources, human and physical (patients, doctors, medical records, hospital buildings, equipment and drugs); the second is the process component that concerns those activities like the procedure and responsibilities to be carried out in the system (admission of patients, physical examination, prescription and surgical operation); and the third component of the system which is the 'outcome' comprise the output or results of processes (patient satisfaction rate, morbidity rate and injection rate, disease burden and the general life expectancy rates).

Macinko(2003); Al-Assaf(2004); Mountford&Shojania(2012), arguing in line with the model explained that the health care system is a complete system fully developed with a set of objects and components- structure, process and outcome. Gezaing, (2015) also affirmed that the system components of inputs, process and outcome have certain 'quality characteristics that are measureable and quantifiable. The System Theory (Donabedian Model) has the capacity to evaluate between the three stages of a healthcare system for the purpose of causation which is useful for understanding the issues of accessibility to quality healthcare and therefore, relevant to the study of large public organizations like the health sector which is operating in a larger social (political and economic) environment like Nigeria where there is inequity in healthcare and socio-economic imbalances among the citizens where only few individual have access to healthcare. The healthcare system in Nigeria, the PHC in particular rest on weak structural institutions which also has effect on the components: structure, process of care and results of actionable effort on the rural population.

Therefore, the application of key health indicators for the purpose of measuring current performance of the components of healthcare system in Nigeria, specifically accessibility in terms of available and affordable care by PHC rural users and compare them to the desired standards to be achieved is possible as it can be subjected to quantifiable measurements and critical analysis. Moreover, primary health care is in the midst of a new era where ensuring access to quality health care should be the goal of PHC providers and attention must therefore, be placed on the nature of a health system mechanism that influences the structure and process for a better outcomes with less burdens.

III. LITERATURE REVIEW

1. Conceptual Issues:

Health System

The organized provision of health services constitutes the Healthcare System. According to the World Health Organization Report (2015), a health system comprises all organizations, institutions and resources that are devoted to producing health actions. The health system provides an organized framework for providing health services or health actions. A health action includes any effort, whether in personal health care, public health services or through inter-sectorial initiatives which focuses primarily at promoting, restoring or maintaining health.

Healthcare system can therefore be described as production entities consisting of components or subdivisions oriented towards improvement of the health status of the populace, health facilities and services such as hospitals and primary care are considered as parts of the input domain in the healthcare system. Within the purview of production theory, resources that lie within the boundaries are healthcare resources and regulations, and policies guiding the acquisition, deployment and usage of these resources. That is, the systems inputs are used to provide healthcare services in order to improve the health status of the population. Health actions of the care system produces outputs which are expected to result in change in the population's health status. The initial and actual health status of the populace and the healthcare system are influenced by factors outside the boundaries; that is, the non-health determinants. These non-health determinants, which might be more important for the health status of the whole population, include education, level of income, the environment, nutrition, cultural characteristics and water supply (Iroju, O.A, 2016). However, the healthcare system is also greatly determined by other components such as financing, insurance and payments for services provided.

Primary Healthcare Delivery in Nigeria

A primary healthcare service is concerns with materials and human skills to providing basic primary care, spanning into promotive, preventive, curative and rehabilitative services (FMH, 2017a). The three tier levels of healthcare system-Federal (Tertiary); 36 States and FCT (secondary) and 774 local government areas (primary Care) were to take responsibilities of providing health services respectively. The local government councils (LGCs) own and fund PHC facilities and have overall responsibility for this level of care as the foundation of the National Health System. Consequently, the Ward Health System, which takes on the political ward as the functional unit for PHC service delivery is adopted as a suitable strategy for addressing the numerous challenges and accelerating progress of rural PHC users and in the attainment of the Sustainable Development Goals (FMH, 2017b).

The 774 LGAs were further divided into 9,555 wards, which constitute the lowest political units and upon which primary care is based with the state governments exercising considerable authority over the allocation and utilization of their resources (Olaniyan, Lawanson&Olubanjo, 2012). The ward which is the smallest political unit, consisting of a geographical area with a population range of 10,000 to 30,000 people has been selected as an operational area for delivering a minimum healthcare package in the country (Uzochukwu, Ajuba, Onwujekwe, & Ezuma 2010). The three types of facilities under the Ward Health System are health posts, primary health clinics and primary healthcare centres which serve as entry point for primary care (NPHCDA, 2014). They are either owned by the government, or by private for-profit and private not-for-

profit organizations. The array of services they provide are covered under such activities as control of communicable diseases; child survival; maternal and newborn care; nutrition; prevention of non-communicable diseases; and health education. Nonetheless, the federal responsibilities include setting standards, formulation of policies and implementation guidelines, coordination, regulating practices for the healthcare system and delivering specialized services at the tertiary hospitals.

Accessibility in Healthcare

This is healthcare that is made available, acceptable and affordable by the people. It involves physical, financial and intellectual accessibility of care that suit peoples' socio-cultural environment over time. Accessible healthcare has to do with communication skills and personal interaction to ensure quality healthcare delivery in a community. Another aspect of accessibility is the issue of effective and efficient care that requires prudent management of resources by health professionals who are well trained to face contemporary challenges of meeting the needs and expectations of users because of the complex nature of health (WHO, 2008). It also involves teamwork and interpersonal relationship as an important role in providing healthcare to people (Ferrinho, 2014).

Therefore, accessibility relates to the responsibility of health providers in securing a safe environment for their patients because the consequences of unsecured or unsafe environment could lead to emotional injury and legal liability as well as loss of good will and reputation.

2. Empirical Review

Accessibility has become a serious issue of healthcare delivery to especially rural and difficult communities, the commercialization of health care according to Baba-Ari, Eboime & Hossain (2018) has reached previously unheard proportions in Nigeria due to a lack of capacity to regulate the health sector that was originally limited to an urban phenomenon. Small-scale unregulated fee-for-service offered by a multitude of different independent providers according to WHO (2017) dominates the healthcare landscape. Healthcare delivery in many governmental and even in traditionally not-for-profit NGOs facilities (FMoH, 2017c) have been commercialized as informal payment systems and cost-recovery systems have also shifted the cost of services to users in an attempt to compensate for the chronic under-funding of the public health sector and the fiscal stringency of structural adjustment (Périn & Attaran, 2013). In Nigeria, moonlighting civil servants make up a considerable part of the unregulated commercial sector (Macq, 2011), while others (PHC Staff) resort to under-the-counter payments according to Ammar (2013) and Ferrinho (2014) which leads to exacerbation of inequality as well as poor quality due to inefficiency and lack of access to healthcare especially by rural users.

IV. METHODOLOGY

Data for this research is collected through questionnaire and documentary sources. It utilizes sample survey of PHC policy makers obtained from the State Ministry of Health, Nasarawa State Primary Healthcare Development Agency (SMoH & NSPHDA) and a cluster sampling of PHC Users based on an EPI delineated areas that were systematically and randomly chosen from 3 Local Government Areas (Kokona, Nass. Eggon & Obi LGAs) out of the 13 LGAs across 3 senatorial zones of Nasarawa State. Accordingly, 20 PHC policy makers and 304 PHC rural users were randomly selected from SMoH & NSPHDA and from the 3 LGAs respectively. A Taro Yamane Formula was used to determine the sample size and the presentation is made under thematic issues like socio-demographic data of respondents; areas of coverage or priorities of Nasarawa State healthcare policy; and access (availability and affordability) to healthcare delivery in rural areas.

V. DATA PRESENTATION, ANALYSIS AND DISCUSSION:

This section contains the presentation, analysis and interpretation of data that were generated.

1. Demographic Distribution of Respondents

324 respondents were administered with questionnaires however, only 321 representing 99.7%, were correctly filled and returned, while 3 of the questionnaires (0.3%) were not returned. Respondents were asked questions regarding their socio-demographic attributes. The demographic data indicates that majority of the respondents were male (52.3%, n=169) as compared to female (47.7%, n=150), information on their age also indicates majority of the respondents were within their economically productive ages.

2. Areas of Coverage or Priorities of Healthcare Policy in Nasarawa State

This section seeks to identify Nasarawa State priority of PHC Policy Makers in the following areas: immunization, control of endemic diseases, maternal and child healthcare, environmental sanitation and adequate supply of water, health education, and adequate nutrition. Data received indicates majority (60%, n=12), (85%, n=17) & (100%, n=20) respondents agreed that immunization, prevention and control of endemic

and epidemic diseases, provision of maternal and child healthcare including family planning were identified as priority areas of policy, while (80%, n=16), (70%, n=14) and 40% (n=8) disagreed that environmental sanitation, health education and adequate nutrition have been areas of policy focus by the state government respectively.

3. Access to Quality Healthcare Delivery

This section analyses data generated from PHC users as regards to their access to PHC services in the rural areas and its effectiveness in the following areas: location of PHCs; affordability (cost) and availability of efficient service delivery in terms of provision of immunization/ maternal care, ability to pay for services provided at the PHC centres, availability of drugs, qualified personnel including doctors and nurses and satisfaction of the rural users. Data received are analyzed as shown below:

About 86.3% (n=258) of rural users from the PHCs visited agreed that the minimum requirements for PHCs set by the National Primary Healthcare Development Agency, location-wise is met, (location of 2-4km from their communities) and most of the health centres covered provided services in areas of vaccination against hepatitis, child immunization/maternity, treatment of malaria, cholera, diarrhoea and other services to the rural communities, option 1-3 (48.2%, n=145). Majority of respondents (92.8%, n=189) indicates that PHC centres in their communities' charged fee for services provided and most of the centers charge amount ranging from the minimum ₦5,500 to a maximum of ₦15,000. Significantly, majority (79.4%, n=239) of PHC users disagreed that they were able to pay for services provided, (75.3%, n=226) disagreed that most of the drugs and supplies were available, (63.2%, n=190) also disagreed that there are qualified and competent health manpower available at the PHC centres and about (72%, n=224) disagreed that healthcare staff are always available to attend to patients promptly and regularly. Majority (74.2%, n=222) agreed that immunisation services were provided and as when due, 77.1%, (n=231) of respondents also disagreed that their PHC centres were visited regularly by medical doctors and majority (70.3%, n=213) of respondents were not satisfied with the services received at the PHC centres in their communities.

Table 1: Responses of PHC Rural Users on Ability to (Pay or Not) for Services Provided

AGE	PHC RURAL USERS ABILITY TO PAY OR NOT								Total of male & female users
	MALE			FEMALE			TOTAL YES / NO		
	Yes can pay	No cannot pay	Sub Total	Yes	No	Sub Total	Yes	No	
18-30	22	74	96	19	59	78	41	133	174 (58%)
31-45	8	27	35	06	33	39	14	60	74 (25%)
46-60	2	8	10	3	22	25	5	30	35 (12%)
61 and Above	0	6	6	0	12	12	0	18	18 (5%)
TOTAL	32 23.9%	105 70.1%	147 (48.8%)	28 23.6	136 76.4%	154 (51.2%)	60 21.0%	241 79.0%	301 (100%)

Source: Field survey, 2020

Table 1 above demonstrates the age categories and gender or sex of PHC rural users who responded to the question on ability to pay for services provided to them at the PHC centres. Out of the 301 PHC rural users who returned with questionnaires correctly filed, 80.1%, (n=241) indicates that they cannot pay for services provided and 19.9%, (n=60) agreed- they can pay.

A horizontal (sex or gender) analysis indicates 70.1%, (n=105) male respondents out of a total (n=147) and 76.4%, (n=136) female out of (n=154) who cannot pay for services provided, while vertical (age) analysis shows for the various categories thus: 18-30 years- indicates n=74 (male) and n=59 (female) making a total of 133 persons out of n=174; 31-45 years- indicates 27 (male) and 33 (female) totalling 60 persons out of (n=74); and in the case of 46-60 years- 22 (female) and 8 (male), that is 30 persons out of (n=74) were unable to pay for PHC services provided respectively, while for the category of 61 years and above shows 6 (male) and 12 (female) representing 100% of the total 18 persons within that age that are unable to pay for services provided at the PHC Centres in their various communities.

VI. FINDINGS

The study was composed of more males than female respondents. It was also discovered that those aged 31-45 years were in the majority. Majority of respondents have attained secondary education and were practicing farming at the time of the study. The study reveals that the provision of immunization, prevention and control of locally endemic diseases and epidemic, provision of maternal and child health including family planning were the priority areas of Nasarawa State healthcare policy. However, the study also indicates that less attention is paid to health education, environmental sanitation and adequate nutrition.

The cost associated with charges by the healthcare providers affects the ability of rural PHC users to pay for services provided as majority of them were unable (cannot afford) to pay for service delivery, especially among the vulnerable groups as a result, poor residents who have been denied or refused treatment because of their inability to pay for services considered the current healthcare system to be ineffective. Furthermore, the study reveals that as service utilization increases, the issues of skill manpower and resources including drugs dispensing (high tendency for stock-outs) become a problem and these was reported in all the communities in the study area.

VII. CONCLUSION AND RECOMMENDATIONS

This study has provided a picture of PHCs in Nasarawa State and shows how the current lack of human resource for health, basic drugs, medical supplies, equipment and support staff is causing many to suffer from different diseases and in many instances die prematurely from preventable causes. In other to robustly rejig the system, the study recommends that:

1. There is the need for a holistic and better patient-centred health care initiatives policy build on social-continuous programmes that will ensure a health insurance scheme to serve as a financing mechanism for healthcare delivery coverage and utilization. This scheme should be all encompassing and should prioritize rural dwellers in its development and implementation.
2. There is need for government and NGOs supporting PHCs to create a hub and spoke model for service delivery base on infrastructure and staff availability. Certain PHCCs should be designated for basic out-patient services (well equip/support staff) with a number of doctors and nurses/midwifery to provide 24 hours maternal and child health (MCH) services. This will ensure compliance to NPHCDA and other clinical standards governing service delivery.
3. Community volunteers can be trained and engaged or integrated to support service delivery at the facilities as appropriate. These trainings can be in areas such as basic life-saving skills, counseling services, medical records, etc. Also, appropriate task-shifting should be encouraged for health workers in line with the new task-shifting policy guidelines to expand the scope of services and to enable the lower level of staff to safely and appropriately deliver.
4. Commodity logistics need to be strengthened. Appropriate government structures need to be engaged in this regard. Innovative approaches can also be explored in the different LGAs such as community-driven drug revolving funds and structured partnerships with local pharmacies to ensure affordable and regular availability of commodities at the PHC point.
5. Special healthcare programmes such as free and subsidized services could be organized by government or NGOs for certain vulnerable groups over a period of years. This will help in ensuring the aged, infant children, young, pregnant women and the less privileged to access basic healthcare delivery at the rural communities.

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