

Assessment of the Primary Health Care (PHC) System in Nigeria

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ABSTRACT: This study assesses the primary health care centers in two states each from the south-West (Osun and Oyo States) and South-South (Edo and Delta States). Five health care centers were selected from each of the two local government areas selected from each of the states. Questionnaire and oral interview was used and a total of three hundred and twenty (320) questionnaires were administered to respondents who are from the five wards selected in each of two local government areas of each of the four states. Stratified and simple random techniques were used to elicit information from concerned respondents such as health workers, local inhabitants, doctors and council officials. Three (3) hypotheses were formulated for this study which was all accepted. The results were analyzed using likert scale of Strongly Agreed (SD), Agreed (A), Strongly Disagreed (SD), and Disagreed (D) and also through non-parametric method of Chi-square. From the findings, it was discovered that the South-West zone demonstrated high patronage as reflected in the availability of health workers and modernization of some Primary Health Care centers, while the South-South zone had low patronage of Primary Health Care system for several reasons such as: lack of security for the health workers, non-availability of equipment, poor health service delivery, and poor infrastructure. This study concludes that the Nigerian health sector has been experiencing low qualitative facilities and services at all levels basically due to poor management of the health policies and poor budgetary allocation, especially for the primary health care programme.

Keywords: Assessment, Chi-square, Primary Health care, Respondents,

I. INTRODUCTION

For years, fragmented efforts characterized the approach to health care delivery system in Nigeria. The North, West and East each had its own health policy. Perhaps, it is this condition that prompted the Federal Military Government to launch the Basic Health Services Scheme in the early 70s to actualize the government's deep concern for the welfare and healthy development of the nation's rural communities which were not accorded due priorities in the National Health Development Plans. Hitherto, health services in Nigeria emphasized the curative health care at the expense of the preventive. In the 1970s, hospitals for curative services were mainly concentrated in the urban population centers to the disadvantage of the rural areas. It is this imbalance that the basic health services policy set out to correct. The policy was entirely a new developmental approach to health care delivery services in Nigeria, with emphasis and thrust on preventive and community health services rather than the curative. Its target was the rural area of the country.

Owing to serious logistic problems and serious deficiency of human resources, the Basic Health Service Scheme of 1977 suffered a setback in terms of policy implementation; hence a new National Health Policy emerged in 1988. The health development in Nigeria was approached through the Universal Health Care strategies, which included the Halve Report of 1959, the Basic Health Services Scheme of 1975, and the Primary Health Care (PHC) of 1986. However, due to the failure recorded in these policies, the Federal Government of Nigeria in 1999 signed the Health Insurance Act 35, with the aim of achieving universal health coverage by 2015. This is one of the targets of the Millennium Development Goal. The National Health Insurance Scheme (NHIS) came after the PHC in the 1990s and it was expected to achieve universal health coverage by 2015.

The Nigerian health care system has witnessed tremendous growth since independence [1]. However, there are still a number of challenges that have hindered its continuous progress in sustaining the health of the people. This situation has brought about a continuous decline in healthcare delivery [2]. Accordingly, this has made the health situation in Nigeria to be unstable and imbalanced giving rise to infectious diseases, poverty and high rate of mortality. Expectedly, the deteriorating healthcare system accounted for the reduction in life expectancy in the country that was put at 48 years for males and 50 years for females. Also, the Healthy Life Expectancy (HALE) for both sexes was put at 48 years [3]. As a result of the low life expectancy, the WHO in

2005 ranked Nigeria 197 out of 200 nations with frightening health crisis arising from low national health budgets.

All over Africa, there is a problem of low public funding of the health sector with an estimated \$10 per individual annually compared to the required standard of \$34 [4]. Over the years in Nigeria, the health sector is principally funded by government, a trend which is now faced with the consequences of underfunding, decreased efficiency, decreased quality/quantity of services, poor and inadequate state of health facilities and their maintenance [5]. Many scholars and several others had worked on the area of health provision but only very few of them focused on the Primary Health Care (PHC) especially adequate funding of the PHC and its service delivery, hence the reason for this study [6; 7; 8].

It has been alleged that Primary Health Care programme is highly ineffective due to poor budgeting. Its budget remains weak as it has never met WHO's benchmark of 15% of the Nigeria annual health budget. Over the past decade, however, Africa's health care crisis has received renewed attention because of the greater awareness of the militating factors and a greater understanding of the link between health and economic development [9]. The major factors that affect the overall contribution of the health system to economic growth and development in Nigeria include: lack of consumer awareness and participation, inadequate laboratory facilities, lack of basic infrastructure and equipment, poor human resource management, poor remuneration and motivation, lack of fair and sustainable health care financing, unequal and unjust economic and political relations between Nigeria and the advanced countries, the neo-liberal economic policies of the Nigerian state, pervasive corruption, very low government spending on health, high out-of-pocket expenditure on health, and absence of integrated system for disease prevention, surveillance and treatment [10].

The availability of the basic health services provided by the PHC especially to rural areas in a country might be used as a yardstick to measure the extent of its development health wise [6]. Since 1975, the provision of basic health services to the generality of the populace in Nigeria has been at the cornerstone of the health component of the country's various national development plans [11]; nevertheless, the healthcare system remains weak as evidenced by lack of coordination, fragmentation of services, dearth of resources (including drugs and supplies), inadequate and decaying infrastructure, inequity in resource distribution and poor access to care. In short, the Nigerian health care system is unresponsive to both the medical and non-medical needs of its patients [12]. In Nigeria, the vision of becoming one of the leading 20 economies of the world by the year 2020 (which is already running out) could be closely linked to the development of its human capital through the health sector. The deteriorating healthcare system in Nigeria has reduced the life expectancy of the citizens. The health sector in any country has been recognized as the primary engine of growth and development. But despite the laudable contributions of the health sector to economic development, the Nigerian health sector has witnessed various upheavals that have negatively reversed the progress recorded at various times. The incidence of poverty in Nigeria is widespread and increasing with some of the worst poverty linked health indicators in Africa. There has been a sharp increase in poverty from 1992 to 1996, with an estimated one-third of the population living below \$1 per day and nearly two-thirds below \$2 per day [13].

A household survey conducted by the government in 2003-2004 showed that 54.4 percent of the population is poor, with a higher poverty rate of 63.3 percent in the rural areas [14]. The level of government expenditures in the Nigeria's health sector over the years tells a story of neglect. In 1999, the annual government expenditure on health was \$533.6 million in 1980 and \$58.8 million in 1987. By 1999, significant increases in health expenditure were noticed with \$524.4 million in 2002 [14]. Based on the research carried out by Soyibo *et al.* (2012) [15], it shows that private and household expenditure on health in the year 2008 - 2012 was the highest with an average of 69.1% and 64.3% while government expenditure in the same period was a paltry 20.6%. Donor's average expenditure in the period was 10.3%, while firms' input was 4.9% [15]. Therefore, this study aimed at assessing primary health care system in two geopolitical zone of Nigeria with the Objectives are to examine the various health policy on ground especially primary health care, investigate the nature and services of the primary health care system in Nigeria, assess the effectiveness of Governments funding of the system, assess the effect of the policy especially on primary health care in the grass-root; and analyses the challenges and future prospects of the primary health care in Nigeria.

II. MATERIALS AND METHODS

2.1 Study Areas

The research is longitudinal in nature as it focuses on the Primary Health Care system in Nigeria using two (South - South and South – West) out of the six geo-political zones where health care centers were randomly selected across the zones. Edo and Delta States were selected from the South - South zone while Osun and Oyo States were selected from the South – West zone.

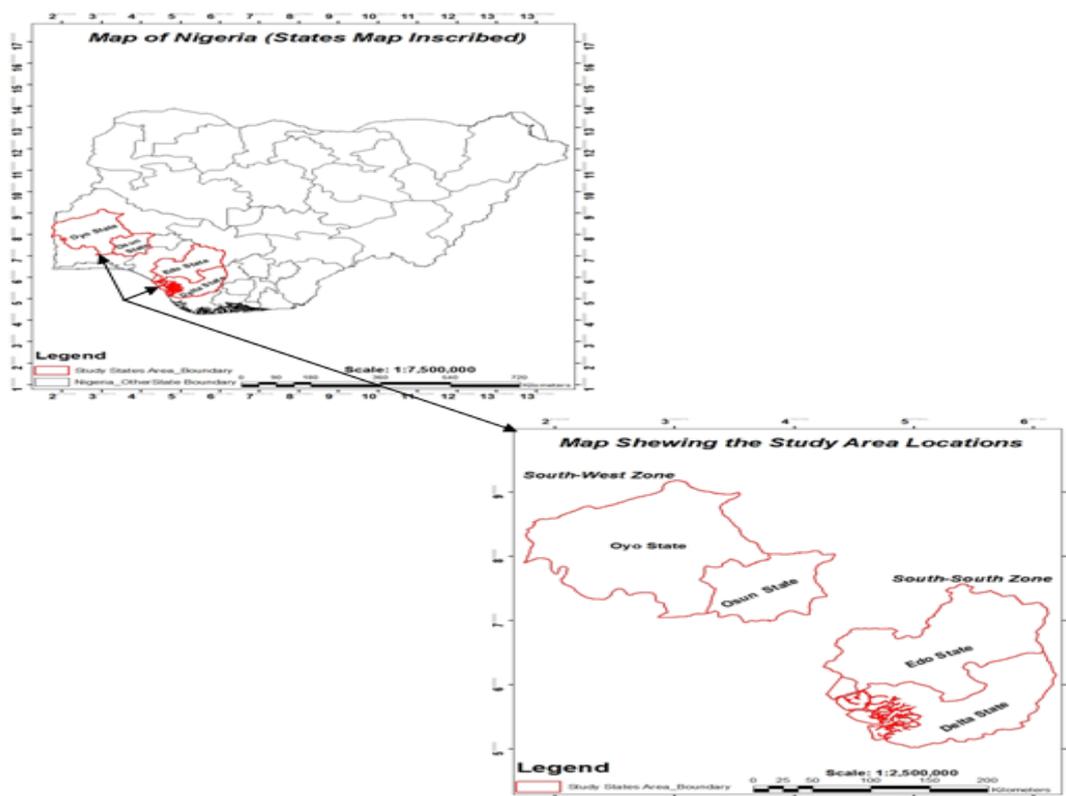


Figure 1: Study Area Map

2.2 Sampling Technique

The sampling technique adopted for this study was the combination of Stratified and simple random techniques. The samples were drawn from two geo-political zones; South-west (Osun and Oyo States) and South-south (Edo and Delta States), where five health care centers in five wards were considered from each of the two local government areas selected from the two states in each zone. The study population consisted of Directors of Health in the local government areas surveyed, Doctor representing each area of PHC centre, Nurses, Health workers, Assistants, Pharmacists and PHC users. The questionnaires were administered thus: Two local government areas were selected from each state where five wards with PHC centers were visited and considered for the survey. Eight copies of the questionnaires were given out in each PHC centre where a sample was drawn in order to obtain information from the respondents for the study. That is, a total of three hundred and twenty (320) questionnaires were administered to respondents who are from the five wards selected in each of two local government areas of each of the four states considered for this study. The selection of the health personnel at the PHC centers was done based on their good understanding of rendering health care services to the citizens, while the PHC users' selection was based on the fact that they are the end users of PHC facilities. Survey Method was used to elicit information from concerned respondents such as health workers, local inhabitants, doctors and council officials. Three hypothesis were formulated for the purpose of this study (see hypothesis testing in TABLE 6-8)

2.3 Data Analysis

The data collected through the questionnaires was and interviews were classified and presented in frequency distribution tables and simple percentage technique. Analyses were done using likert scale of Strongly Agreed (SD), Agreed (A), Strongly Disagreed (SD), and Disagreed (D). Also, chi-square (X^2) statistical tool was used to test for the hypotheses in order to achieve the study objectives (TABLE 6-8). Below is the Chi-square formula thus:

$$X^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Where X^2 = Chi-square

Σ = sum

f_o = frequency observed

f_e = frequency expected

III. RESULTS

The results presented here were based on the analysis of questionnaires returned (TABLE 1 and Fig. 1) and the socio-demographic characteristics of the respondents which addressed each of the four objectives of the study (TABLE 2). investigation and the implementation strategies of the primary health care system (TABLE 3), effect of the government funding of PHC system and the role of government in the management of the primary health care centers (TABLE 4), and the challenges confronting the implementation of primary health care system (TABLE 5) in the two geopolitical zone.

Table 1: Showing Distribution According to States and Local Governments

State	Local Government	Questionnaire Distributed	Questionnaire Returned	Statistic of Doctor
Edo	Oredo LG	40	31	1
Edo	Esan North East LG	40	29	-
Delta	Warri South LG	40	30	-
Delta	Oshimilli LG	40	28	-
Osun	Olorunda LG	40	35	1
Osu	Ife-East LG	40	36	1
Oyo	Saki West LG	40	35	1
Oyo	Ib South West LG	40	34	1
Total 4 States	8 LG	320	258	5

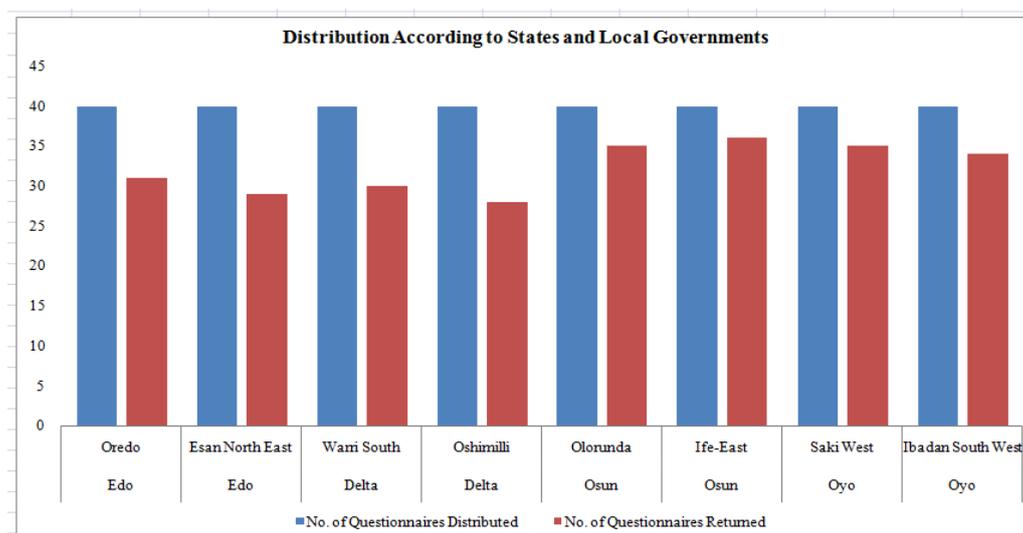


Figure 2: Showing Analysis of Questionnaire Distributed and Returned

Table 2: Demographic Character of the Respondents

Sex	No. of Respondents	Percentage %
Male	72	27.91
Female	186	72.09
Total	258	100
Age		
18 – 30	42	16.28
31 – 45	114	44.19
46 and above	102	39.53
Total	258	100
Marital Status		
Single	20	7.75
Married	218	84.50
Others	20	7.75
Total	258	100
Academic Qualification		

Secondary	89	34.50
Tertiary	61	23.64
Vocational	86	33.33
Others	22	8.53
Total	258	100
No. of Years of Service		
1 – 5	48	18.60
6 – 10	46	17.83
11 – 15	58	22.48
16 – 20	54	20.93
Above 20	52	20.16
Total	258	100

Source: Field Survey (2019)

Table 3: Showing the Strategies for Promoting Primary Health Care System

Questions	Strongly Agree	Agree	Strongly Disagree	Disagree
There is need to assess the Primary Health Care Policy in Nigeria	169 65.50%	74 28.68%	6 2.33%	9 3.49%
Provision of Health Care is the responsibility of the Federal, State and Local Government.	204 79.07%	40 15.50%	4 1.55%	10 3.88%
The proper implementation of Primary Health Care System program will enhance the health sector in the rural communities.	153 59.30%	73 28.30%	17 6.59%	15 5.81%
Primary Health care Centre is empowered to registers all birth and death in the rural communities	153 59.30	78 30.23%	9 3.49%	18 6.98%

Source: Field Survey (2019)

Table 4: Showing the Role of Government in Management of PHC Centers

Questions	Strongly Agree	Agree	Strongly Disagree	Disagree
Government has significant role to play in promoting health care system in Nigeria	226 87.59%	18 6.98%	5 1.94%	9 3.49%
The administration of primary health care centers is more effective at the local level.	202 78.30%	37 14.34%	12 4.65%	7 2.71%
Government has not been properly funding primary health care centers in Nigeria.	202 78.30%	24 9.30%	22 8.52%	10 3.88%
The citizens/community dwellers will benefit more on primary health care delivery because is the closest to them.	225 87.21%	22 8.53%	7 2.71%	4 1.55%
There is need for collaboration of WHO and NGO and all government Institutions, so as to meet the goal of PHC anywhere in Nigeria.	214 82.94%	29 11.24%	9 3.49%	6 2.33%

Source: Field Survey (2019)

Table 5: Showing the Challenges Confronting the Full Implementation of PHC System

Questions	Strongly Agree	Agree	Strongly Disagree	Disagree
Poor leadership and political instability have been the basis for unsuccessful implementation of primary health care service delivery in Nigeria	128 49.61%	101 39.15%	22 8.53%	7 2.71%
Low Patronage of the PHC by the citizens at the urban centers affects the efficiency of PHC	92 35.66%	115 44.57%	42 16.28%	9 3.49%
Lack of political will on the part of government hinder the success of PHC	117 45.35%	111 43.02%	20 7.75%	10 3.88%
Unsatisfactory monitoring service by the health workers officials	115 44.57%	25 9.70%	103 39.92%	15 5.81%
Security and lack of infrastructures are major impediments to effective primary health care system in Nigeria.	164 63.56%	73 28.30%	12 4.65%	9 3.49%

Source: Field Survey (2019)

3.1 Testing of Hypotheses

The following hypotheses in this study were tested as follows;

3.1.1. Hypothesis One

H₀: Government has no role to play in promoting primary health care system in Nigeria.

H_i: Government has significant role to play in promoting primary health care system in Nigeria.

Table 6: Government has significant role to play in promoting health care system in Nigeria

Variable	Frequency	Percentage %
SA	226	87.59
A	18	6.98
SD	5	1.94
D	9	3.49
Total	258	100%

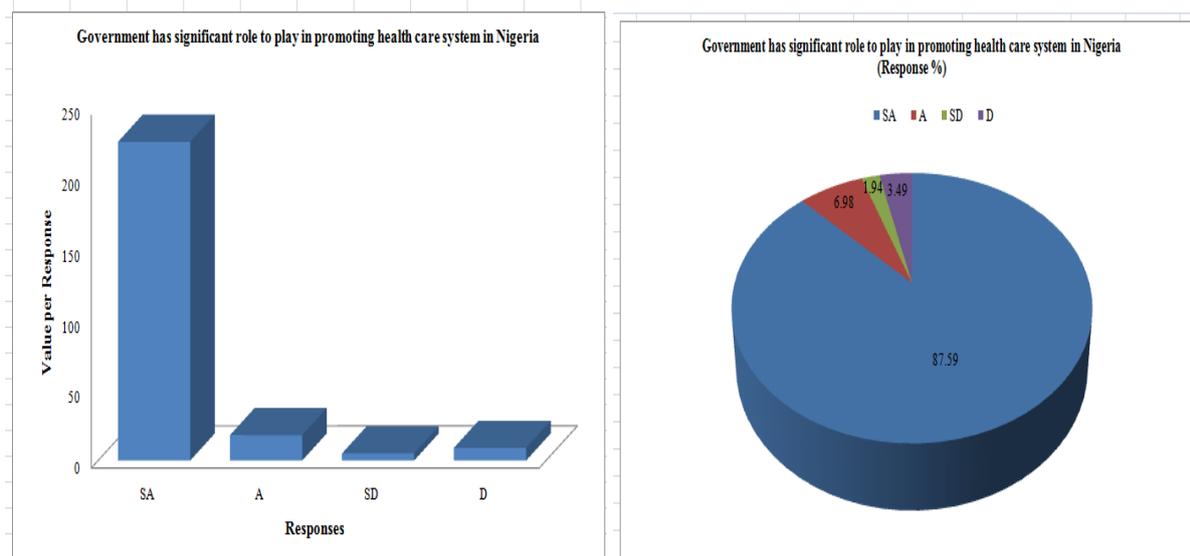


Figure 2: Responses on Government has significant role to play in promoting health care system in Nigeria

Variable	Fo	Fe	Fo-Fe	(Fo-Fe) ²	(Fo-Fe) ² /Fe
SA	226	64.5	161.5	26082.25	404.3
A	18	64.5	-46.5	2162.25	33.52
SD	5	64.5	-59.5	3540.25	54.88
D	9	64.5	-55.5	3080.25	47.75
Total	258				540.52

X² calculated = 540.52

To determine X² Tab

X² tabulated = degree of freedom (Df)

Df = (n-1) = (4-1) = 3 (where n is number of observations)

Level of significance = 0.05,

Therefore we check for 3 under 0.05 in the X² table

X² tabulated = 7.815

Then, since X² calculated (540.52) is greater than X² tabulated (7.815), the null hypothesis should be rejected i.e. (H₀) while the alternative hypothesis H_i will be accepted. Therefore, since X² calculated is greater than X² tabulated, H_i is accepted which implies that the Government has significant role to play in promoting primary health care system in Nigeria.

3.1.2 Hypothesis Two:

H₀: Primary Health Care System has negative impact on the well-being of local inhabitants.

H_i: Primary Health Care System has positive impact on the well-being of local inhabitants.

Table 7: The citizens/community dwellers will benefit more on primary health care delivery because it's the closest to them

Variable	Frequency	Percentage %
SA	225	87.21
A	22	8.53
SD	7	2.71
D	4	1.55
Total	258	100%

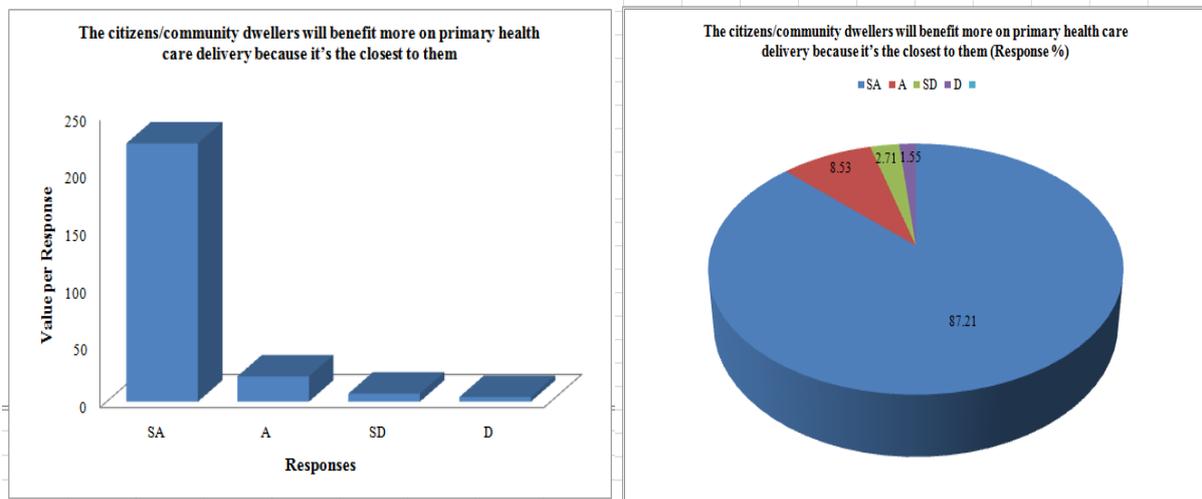


Figure 2: Responses on The citizens/community dwellers will benefit more on primary health care delivery because it's the closest to them

Variable	Fo	Fe	Fo-Fe	(Fo-Fe) ²	(Fo-Fe) ² /Fe
SA	225	64.5	160.5	25760.25	399.38
A	22	64.5	-42.5	1806.25	28.00
SD	7	64.5	57.5	3306.25	51.25
D	4	64.5	-60.5	3660.25	56.74
Total	258				535.37

X^2 calculated $E (Fo-Fe)^2 = 535.37$
 Fe

X^2 tabulated = degree of freedom (Df) = (n-1) = (4-1) = 3 (where n is number of observations)

X Tabulated = 7.815

Level of significance = 0.05, therefore we check for 3 under 0.05 in the X^2 table

X^2 tabulated = 7.815

Then, since X^2 calculated (535.37) is greater than X^2 tabulated (7.815), the null hypothesis should be rejected i.e. (Ho), while the alternative hypothesis (Hi) should be accepted. It means that community dwellers will benefit more on Primary Health Centre services being the closest to the people at the grass roots. Therefore, since X^2 calculated is greater than X^2 tabulated, Hi is accepted which states that Primary Health care centers have important role to play in the development of local community.

3.1.3 Hypothesis Three:

H₀: Poor logistics and inadequate personnel are the major hindrances to effective primary health care system in Nigeria.

H₁: Poor logistics and inadequate personnel are not the major hindrances to effective primary health care system in Nigeria.

Table 8: Poor logistics and inadequate personnel are not the major hindrances to effective primary health care system in Nigeria.

Variable	Frequency	Percentage %
SA	136	52.71
A	82	31.80
SD	27	10.45
D	13	5.04
Total	258	100%

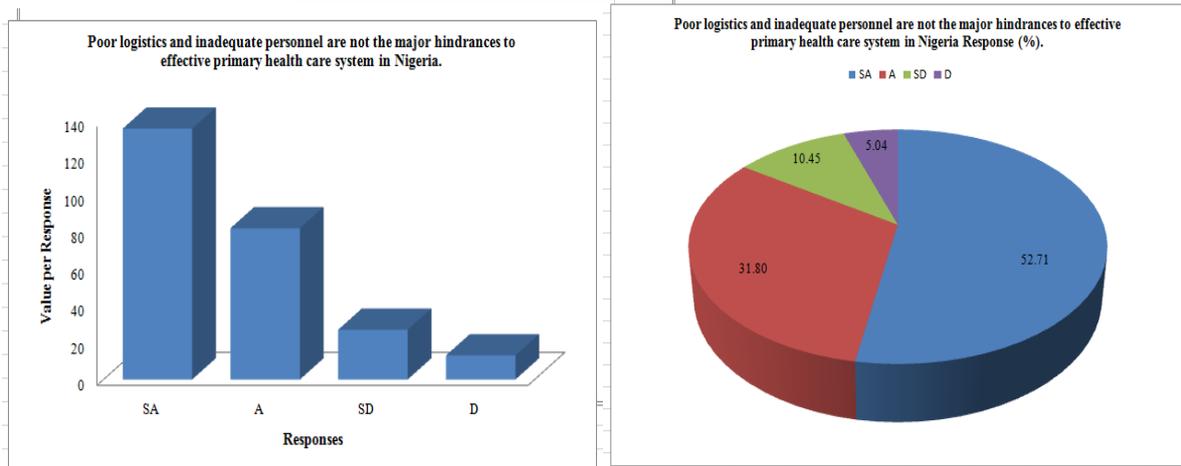


Figure 4: Responses on Poor logistics and inadequate personnel are not the major hindrances to effective primary health care system in Nigeria.

Variable	Fo	Fe	Fo-Fe	(Fo-Fe) ²	(Fo-Fe) ² /Fe
SA	136	64.5	71.5	5112.25	79.25
A	82	64.5	17.5	306.25	4.74
SD	27	64.5	37.5	1406.25	21.80
D	13	64.5	51.5	2652.25	41.12
Total	258				146.91

X^2 calculated = 146.91

X^2 tabulated = degree of freedom (Df) = (n-1) = (4-1) = 3 (where n is number of observations)

Level of significance = 0.05, therefore we check for 3 under 0.05 in the X^2 table

X^2 tabulated = 7.815

Then, since X^2 calculated (146.91) is greater than X^2 tabulated (7.815), the null hypothesis should be rejected i.e. (Ho) while the alternative hypothesis (Hi) should be accepted. Therefore, since X^2 calculated is greater than X^2 tabulated, Hi is accepted which states that Poor logistics and inadequate personnel are not the major hindrances to effective primary health care system in Nigeria.

3.2 Discussion of findings

TABLE 1 shows the distribution of respondents by each local government in the (4) selected States representing two geo-political zones out of the six geo-political zones in Nigeria. From the distribution, 40 copies questionnaire were distributed in each state to 5 PHC centre representing (5wards) in each local government, in which 8 copies questionnaire was distributed in each PHC centre, only 80.62% were returned from the four selected States. This is good for the study as the respondents turn up was high.

TABLE 2, clearly indicated the availability and willingness of more women than men for the survey just as married people turned out much more than the singles. The survey revealed the opinions of the participants on the strategies for promoting the Primary Health Care system in Nigeria. At least, about 60% of them consented to; the need to assess the Primary Health Care policy in Nigeria; the consciousness of the Federal, State and Local Governments in their responsibility for the provision of health care to the masses; and the enhancement of the health sector in the rural communities through proper implementation of the Primary Health Care programme (TABLE 3).

TABLE 4 enumerated the role of Government in the management of the PHC centers. A great percentage of the participants attested to the fact that Government has significant roles to play in promoting health care system. However, as revealed by virtually all the participants, Government has not been properly funding the primary health care centers in Nigeria. Their opinion is that since the masses will benefit more on primary health care delivery due to proximity, there is a strong need for the collaboration of the WHO, NGOs and all relevant government's institutions so as to meet the basic goal of the PHC system anywhere in Nigeria.

Finally, TABLE 5 identified the challenges confronting the full Implementation of the PHC System in Nigeria. Considering the proportion of the participants that agreed/strongly agreed on the points, it can be deduced from the table that; poor leadership and political instability have been the basis for the unsuccessful implementation of the primary health care service delivery in Nigeria; low patronage of the PHC facilities by the citizens at the urban centers affects the efficiency of the PHC programme; lack of political will on the part of the government hinders the success of the PHC system in Nigeria; the monitoring services by the health workers/officials are not satisfactory; and lastly, security and lack of basic health infrastructure are major impediments to effective primary health care system in Nigeria.

IV. CONCLUSIONS

The Nigerian health sector has been experiencing low qualitative facilities and services at all levels. The poor and deplorable state of the available health personnel and facilities translates into inefficient health care delivery, coupled with fake, sub-standard, adulterated and unregistered drugs in the Nigerian drug market. The obvious victims of this poor state of health care in Nigeria are its citizens, majority of whom have become disillusioned with the Nigerian health care system. Generally, the Nigerian primary health care programme is grossly underfunded. From the findings of this study, it was observed that Government had significant role to play in promoting primary health care system and primary health care has an important role to play in the development of local community in two geopolitical zones as well as Nigeria as a whole. Also, the results reveal that poor logistics and inadequate personnel are not the major hindrances to effective primary health care system but can be attributed to inadequate funding of the primary health care system. This statement of fact is being established in the low performance of the primary health care delivery facilities. Subsequently, local inhabitants that are supposed to be the consumers of the Primary Health Care facilities prefer to patronize quack doctors or take traditional medicines which can sometimes create more hazards to their health. Also, the neglect of the PHC facilities by the local inhabitants has however brought about high maternal rate and poor health care delivery in the rural areas. Therefore, the Nigerian government at all levels should redirect resources for health care in a manner that would improve the primary health care infrastructures, encourage the migration of health workers from urban to rural areas and provide acceptable level of health care services for all, thereby reducing the gross inequality in the health status of the people.

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REFERENCES

- [1]. A.S. Jegede, Spatial Distribution of Mortality from Leading Notifiable Diseases in Nigeria. *Social Science and Medicine*. 36(10), 2002. 1267- 1272.
- [2]. A.A. Lawal, Federal Republic of Nigeria. The Bamako Initiative in Nigeria (2nd ed.) *Federal Ministry of Health*, Lagos, 2011.
- [3]. T. Olanrewaju, National Health Insurance Scheme: Of what benefit to Nigerian masses?, 2011.
- [4]. A. Prever and G. Carrin, Improving Quality of Malaria Treatment Services: Assessing Inequities in Consumer's Perceptions and Providers' Behaviour in Nigeria, 2004.
- [5]. J.O. Adesina, Did the Bamako initiative improve the utilization of maternal and child health-care services in Nigeria? A Case Study of Oji River Local Government Area in Southeast Nigeria, 2009.
- [6]. I.S. Abdurraheem, A.R. Oladipo, and M.O. Amodu., Primary Health Care Services in Nigeria: Critical Issues and Strategies for Enhancing the Use by the Rural Communities. *Journal of Public Health Epidemics*, 4(1), 2012. Pp.5 - 13.
- [7]. Daniel Kress Bill, Assessment of Primary Health Care System Performance in Nigeria, 2016. Retrieved at www.tand/online.com/doi/full/10.1080
- [8]. David Olatunji, Unpaid Salaries: Doctors give 21 Days Ultimatum to 13 States, 2016. Retrieved at <http://jimidisu.com/unpaid.salaries>
- [9]. B. Lowell, C. Michael, K. Tineke, M. Sorcha, and R. Ben, Strengthening sub-Saharan Africa's Health Systems: A Practical Approach. *Healthcare Systems & Services*, 2010.
- [10]. S.A.J. Obansa, and Akinnagbe Orimisan, Health Care Financing in Nigeria: Prospects and Challenges, *Mediterranean Journal of Social Sciences*, 4(1), 2013.
- [11]. C.M. Chuwuana, A Olugboji, E.E. Akuto, A. Odebunmi, E. Ezeilo and E. Ugbenee, A Baseline Survey of the Primary Health System in South Eastern Nigeria. *Health Policy*, 77, 2006. 182 – 201.
- [12]. Shobiye Hezekiah, Rethinking Healthcare Delivery. *Nigerians Talk*, 2012.
- [13]. Federal Ministry of Health, Inventory of Health Facilities in Nigeria Abuja". *Federal Ministry of Health*, 2005.
- [14]. HERFON, Nigeria Health Review". Health Reform Foundation of Nigeria, in S.A.J. Obansa and Akinnagbe Orimisan. Health Care Financing in Nigeria: Prospects and Challenges. *Mediterranean Journal of Social Sciences*, 2006, pg 1.
- [15]. A. Soyibo, A.O. Lawanson, and O. Olaniyan, National Health Accounts Estimate: Lessons from the Nigerian Experience. *African Journal of Medicine and Medical Sciences*, 41 (4), 2012. 357 – 364.