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THE SPATIAL PATTERN OF HEALTH FACILITIES IN NASARAWA STATE, NORTH CENTRAL NIGERIA

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ABSTRACT

The main aim of the paper is to examine and explain the pattern of distribution of health facilities in Nasarawa State of Nigeria. Data were sourced from the State Ministry of Health, National Population Commission and field work. Ratios and percentages were used to analyze the data. The study showed a progressive trend of development of healthcare facilities from 2000 to 2009 in the state. In 2009, there were 1,290 health centers in the state, comprising of 1245 primary health care, 43 secondary health care and 2 tertiary health care facilities. Ownership of these health-care facilities for 2009 revealed that there were 698 and public 547 private primary health care; 19 public and 24 private secondary health care; and only 2 public tertiary health care facilities-representing a government ownership of 55.7% and a private proprietorship of 44.3%. The study findings also show a more private participation in secondary health care delivery in the state. The distribution of health manpower revealed that there are 386 doctors, 17 dentists, 8 radiographers,313 pharmacist,1713 nurses and midwives and 112 laboratory scientists. The public and private distribution of these health workers in 2009, revealed that 60.1% of the doctors were in public and 39.9% in the private; 100% of the dentists and radiographers were in the public;34.5% pharmacists in the public and 65.5% in private; 91.2% nurses and midwives in the public and 20.5% in the private and 91.2% Laboratory Scientist in the public and 8.9% in the private sector. The study concludes that the most striking feature of the distribution of health care facilities in the state is the marked concentration of state sector hospitals and key healthcare personnel in the urban areas. More incentives must be created to enable health-care personnel to work in the rural areas and to enable more private healthcare facilities locate in these areas for more efficient health services to the rural population.

Keywords: Distribution of health facilities, state ministry of health, health center, private secondary health care, laboratory scientist, health manpower

INTRODUCTION

Access to medical services is one of the basic necessities of any modern human community. It is a major complement to a strong, dynamic and progressive society. Thus, the provision of health services should therefore be a shared responsibility between the private and public sectors.

In Nigeria, health services are provided by the government (federal, state, and local government), private individuals and organizations that establish and run private medical centers. Health planning did not start in Nigeria until 1946 with the launching of the 1946 – 56 ten year development plan (with emphasis on curative aspect). At the end of the plan period, not much had been achieved because common indicators of health revealed a deplorable situation. In addition, the problems of

inadequate and lopsided distribution of these institutions favoured the urban areas to the neglect of rural areas where about 75 percent of the population live. Private hospitals and medical clinics were left to practice without any serious supervision. During the Third National Development plan (1975 – 80), the government in an effort to remove the constraints posed by inadequate health facilities, decided to re-organized and re-orientate the health care delivery system. The primary health care system which came into being in 1975 was reorganized and broadened to cater for the need of the population at the grassroots level. To achieve the articulated tasks of implementing the programmes, three levels of responsibilities were identified; Federal, State and Local government. The federal government would be responsible for policy and implementation guidelines, resource assistance in the area of manpower guidelines and the coordination of all the agencies involved in the implementation of the activities. The states through their respective ministries of health would execute the delivery of services in the states. The local government had the responsibility of also providing services because of their close proximity to the people. In spite of the numerous setbacks encountered in the implementation of the primary healthcare scheme, the scheme has led to a significant increase in the nation's health infrastructure and health personnel. To ascertain the level of progress in the implementation of the scheme in Nasarawa state, the spatial pattern of health development is assessed in this paper. This is with respect to the distribution of health care facilities, personnel, hospital beds and the population they serve, budgetary allocation to the health sector and their demographic implications for health planning. This is necessary because data on health facilities and the resources available to the health system are essential to enable government to determine how best to meet the health-related needs of the population.

STUDY AREA

The geographical entity known as Nasarawa State is one of the 36 States in the Federal Republic of Nigeria and it came in to existence on 1st october,1996.The state lies between latitude 7º 45'and 9º 25' N of the equator and between longitude 7º and 9º 37 E of the Greenwich meridian. It is situated in the North-Central Geo-political Zone of Nigeria, otherwise known as the Middle Belt region. It has a land area of 27,116.8 square kilometers with a population of 1,863,275 according to 2006 provisional census. It has 13 Local Government Areas. The State shares boundary with Kaduna in the North, Plateau state in the East, Taraba and Benue states in the South, while Kogi and the Federal Capital Territory flank it in the West. The state has many ethnic groups. While it is difficult to draw out a neat ethnic map of the state, several villages are predominantly one ethnic group. The major ethnic groups include Eggon, Mada, Alago, Rindre, Gwandara, Koro, Gbagi, Ebira, Agatu, Bassa, Aho, Mama, Ake, Arim, Kanuri, Tiv, Hausa, Fulani and Nyankpa (Yeskwa). Majority of the inhabitants of the state are engage in agriculture.

The state is blessed with abundant mineral resources and for this reason it is tagged "*Home of solid minerals"* in Nigeria.

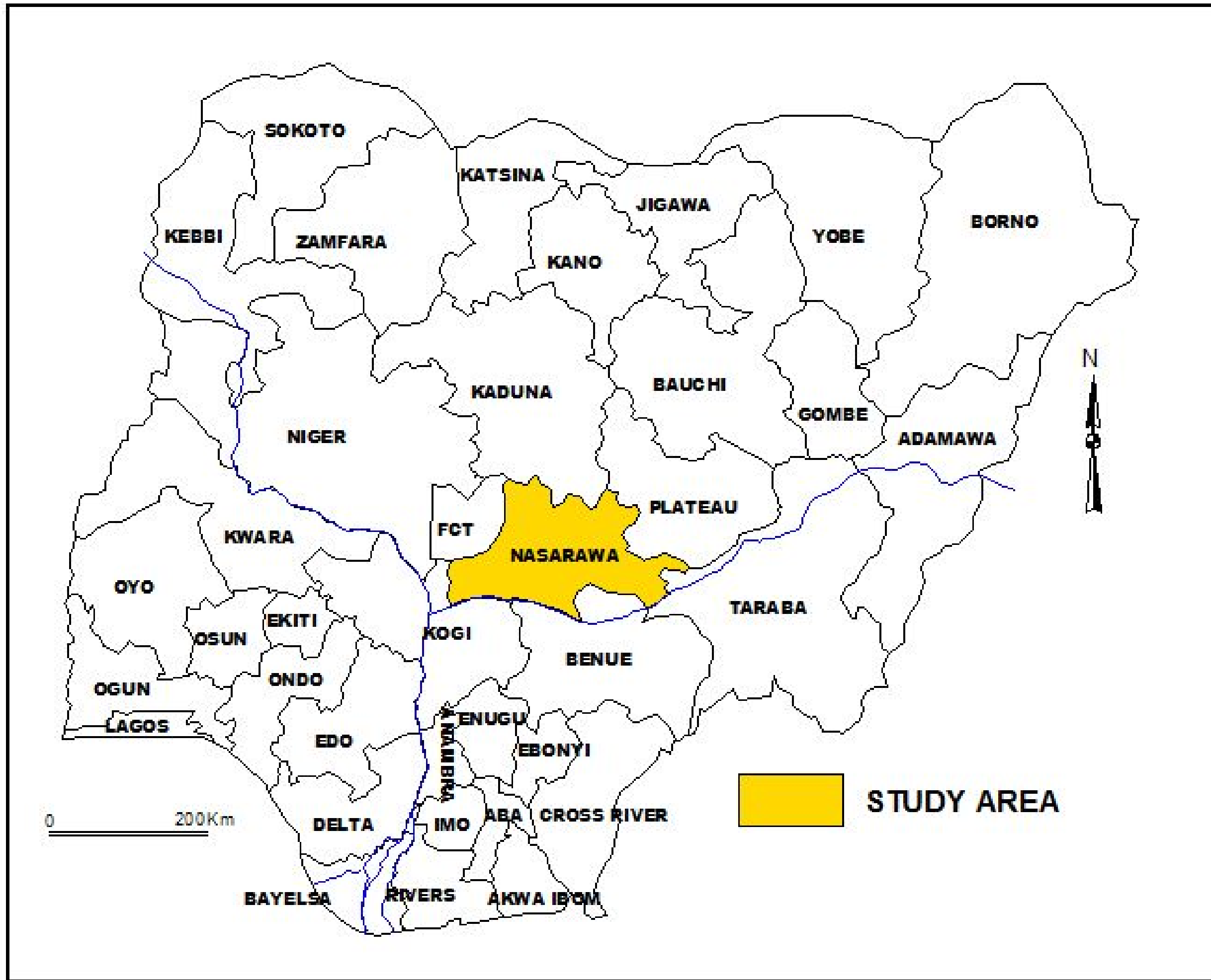

Fig.1.Map of Nigeria showing the study area (Nasarawa State)

MATERIALS AND METHODS

The major data source for this study was secondary**.** Data was sourced from Nasarawa State Ministry of Health, National Population Commission and field work. Ratios and percentages were used to analyze the data. Information on the number of health facilities, were obtained from the records of Ministry of health while population figures were obtained from the National Population Commission (NPC). The data were arranged in tables and used to describe trends. Ratios were also used to describe the proportion of a variable to another at a given point in time. The ratio of health personnel to population was calculated using population by number of health personnel. Population estimates was Computed adopting medium variant of the population projections (NPC, 2002) and the 3 percent growth rate for the state (NPC, 2006).

DISTRIBUTION OF HEALTH CARE FACILITIES IN NASARAWA STATE

Health policies and programmes in Nasarawa state are directed towards the creation of a basic infrastructure and adequate manpower for the effective delivery of health services for the rapidly growing population. Table 1 contains information on the number of health facilities in the state from 2000-2009. In 2000, there were 650 government and private health care

facilities distributed throughout the state. These include 623 primary and 27 secondary health care facilities. The number increased steadily to 1,290 in 2009, representing an additional 640- almost twice what it was a decade earlier.

On hierarchical distribution of health care facilities in the state from 2000-2009, there were 623 primary health care facilities in 2000 and the figure rose to 1,245 an additional 622 in 2009.The number of secondary health care facilities similarly rose from 27 in 2000 to 43 in 2009 representing an additional16 secondary health facilities. Two tertiary health care centers were established 2001 namely; Federal Medical Centre Keffi and Dalhatu Araf Specialist Hospital Lafia, which account for only 0.2 percent to complement health care service delivery in the state. The tertiary health services are exclusively in the urban areas serving as referral centers. In 2009, general and private hospitals which provide secondary health services in the state account for about 3.3 percent while 96.5 percent of health care establishments in the state are concerned with primary health care delivery. Primary health care mainly provides first aid health care services, preventive health care and limited medical care such as maternity services. Generally they are the first point of call whenever people fall ill especially in the rural communities where there are no hospitals. The facilities in the primary health centers are largely managed by nurses, midwives and community health workers. The distribution and accessibility of these health services is therefore important in the rural communities.

Table 1: Health facilities in Nasarawa State (2000-2009)

Year	Primary Health Care			Secondary Health Care			Tertiary Health Care		Total
	Public	Private	Total	Public	Private	Total	Public	Private	
2000	417	206	623	13	14	27	-	-	650
2001	438	254	692	13	14	27	2	-	721
2002	456	298	754	13	15	28	2	-	784
2003	464	319	783	13	15	28	2	-	813
2004	489	378	867	14	16	30	2	-	899
2005	523	382	905	14	16	30	2	-	937
2006	622	409	1031	17	22	39	2	-	1,072
2007	642	434	1076	17	22	39	2	-	1,117
2008	678	459	1137	19	24	43	2	-	1,181
2009	698	547	1245	19	24	43	2	-	1,290

Source. Ministry of Health quarters, Lafia, and Author’s Field survey 2010

OWNERSHIP OF HEALTH FACILITIES IN NASARAWA STATE (2000-2009).

The health systems in Nasarawa State like else where in the country operates under the three tiers of governments (Federal, States and Local Governments) as well as the private sectors (see Table 1). The table shows government and private ownership of 430 and 220 health establishments respectively in 2000 representing 66.2% and 33.8% in that order. This pattern of ownership changed significantly in 2009 with government ownership declined to 719 (55.73%) and private ownership rose to 571 representing 44.27%.The overall pattern shows government ownership declining since 2000 (see fig. 1).

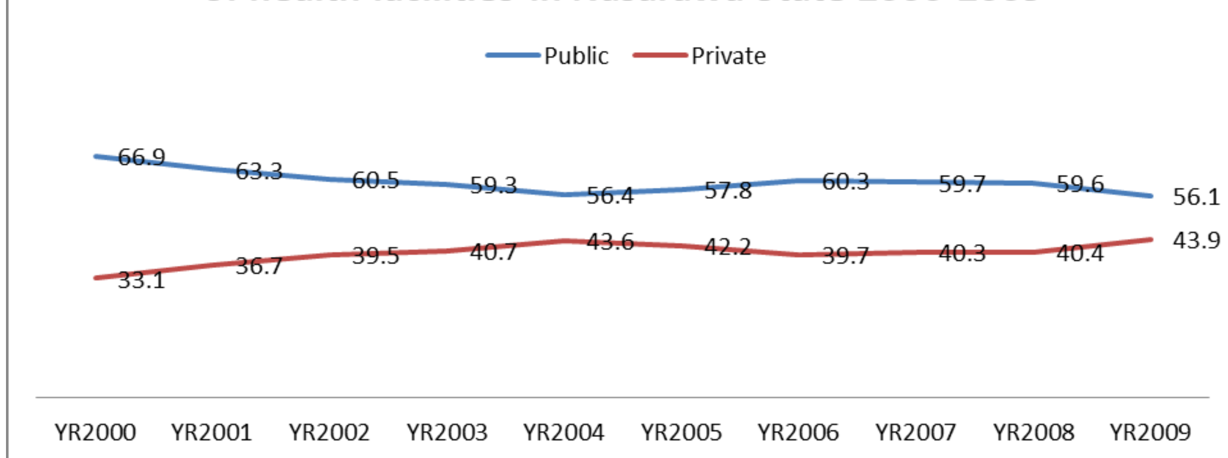

Table 1 further revealed that all through the years (2000-2009), the government has participated more in the establishment of primary health care facilities than in secondary health care, while the private sector participated more in the establishment of secondary health facilities than the public sector. Of the 719 public health facilities in 2009, the federal and state government owned 2.9 percent of the health services in the state, while the remaining 97.1 percent belong to the LGAs. This has serious implications for the funding, manpower development and quality of health service delivery in the state.

HEALTH PERSONNEL IN NASARAWA STATE (2000-2009)

Table 2 shows key human resources by their profession in the state public and private health sector from 2000 to 2009. While in 2000 there were only 68 doctors, 6 pharmacists, 647 nurses/midwives, 8 laboratory scientists and no dentist and radiographer in the state. In 2009, there were 386 doctors, 17 dentists, 8 radiographers, 313 pharmacists, 1713 nurses/midwives and 112 laboratory scientist indicating an improvement in the staffing of the health centers in the state to respond to diverse health needs of the population. It is glaring from the table that except for nurses and midwives, there was none of these personnel in the private sector in 2000. The table shows that all through the years, except for pharmacists, there has been more health personnel in the government owned health centers than in the private. The table also reveals that since 2000 to 2009, the private health centers had no dentist and radiographer.

The public and private distribution of these health workers in 2009, revealed that there were 232 (60.1%) doctors in the public and 154(39.9%) in the private,17(100%) dentists in the public and none in the private, 8(100%) Radiographers in the public and none in the private,108(34.5) pharmacists in the public and 205(65.5%) in the private, 1,362(79.5%) Nurses and Midwives in the public and 351(20.5%) in the private, and 102(91.1%) laboratory Scientists in the public and 10(8.9%) in the private sector. This findings call to question the quality and coverage of services rendered at the private health facilities which are largely secondary and sometimes serves as referral centers.

Table 2: Distribution of Health personnel in Nasarawa State (2000-2009)

	Doctor		Dentist		Radiographers		Pharmacist		Nurses/Midwives		Lab. Scientist	
Year	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
2000	68	-	-	-	-	-	6	-	488	159	8	-
2001	71	15	2	-	-	-	15	42	492	163	10	2
2002	77	16	2	-		-	14	42	594	174	14	2
2003	181	54	6	-	1	-	29	46	616	176	32	1
2004	183	60	10	-	2	-	29	60	688	187	45	4
2005	208	60	13	-	3	-	37	60	914	282	59	-
2006	206	131	13	-	5	-	62	75	968	296	62	-
2007	224	131	14	-	5	-	66	135	1,177	342	88	6
2008	224	154	14	-	8	-	106	205	1,356	342	102	10
2009	232	154	17	-	8	-	108	205	1,362	351	102	10

Source: Ministry of Health Headquarters, Lafia and Author's field survey 2010.

TYPES OF SERVICES PROVIDED BY HEALTH FACILITIES IN NASARAWA STATE

Table 3 shows the number of health centers in each LGA in the state that offer specific services in 2009. The table reveals that all the health facilities in the LGAs provide the services in varying proportions in the state except for baby friendly services that are provided by only two hospitals. With respect to the services provided, 306 health facilities each provide antenatal care services, labour and delivery care services, postnatal care services and family planning services in the different LGAs of the state. Only 20 health centers provide Prevention of Mother to Child Transmission (PMTCT) of HIV services. This is obviously a reflection of the relatively few number of specialists in the various health centers especially the private ones. It can also be explained by the fact that some of the privately owned health centers are quite small and do not provide the range of services expected. There are 646 health centers providing routine immunization in the different LGAs of the state. In all, Lafia and Karu LGAs provide more of these services.

Table3:Number of Health facilities in the state by LGAs and type of services provided(2007-2009)

LGA	No of Health facilities	Providing Antenatal care	Providing Labour &Delivery services	Providing postnatal services	Providing PMTCT	Providing family planning services	Providing routine immunization	Baby friendly Hospitals
Akwanga	77	10	20	10	2	10	40	
Awe	83	14	10	14	1	14	20	
Doma	94	18	9	18	1	18	35	
Karu	140	42	43	42	3	42	98	
Keana	49	14	8	14	1	14	33	
Keffi	87	15	20	15	2	15	20	1
Kokona	101	22	18	22	1	22	44	
Lafia	161	56	63	56	4	56	106	1
Nasarawa	114	26	36	26	1	26	67	
N/Eggon	121	23	23	23	1	23	56	
Obi	86	21	18	21	1	21	37	
Toto	98	23	22	23	1	23	59	
Wamba	79	22	16	22	1	22	31	
Total	1290	306	306	306	20	306	646	2

Source: Ministry of Health Headquarters Lafia.

HOSPITAL BEDS IN NASARAWA STATE

Hospital beds are an important component of health care delivery services as they indicate the level of inpatient service available in any health establishment. Table 4 reveals that there were 849 hospital beds in 2005, 851 in 2006, 866 in 2007,1101 each in 2008 and in 2009 in the state. The hospital bed/population ratio for the state in 2005 was 1:2138,1:2197 in 2006,1:2224 in 2007,1:1801 in 2008 and in 2009 was 1:1855; These ratios are higher than the recommended standard for the developing countries by the World Health Organization.

Table 4:.Bed Complements in Nasarawa State (2005-2009)

Year	Population	Number of beds	Ratio to population
2005	1,815,581	849	1:2138
2006	1,870,248	851	1:2197
2007	1,926,153	866	1:2224
2008	1,983,274	1101	1: 1801
2009	2,041,588	1101	1:1854

Source: Computed from records of Ministry of Health Headquarters, Lafia,2010.

Note: The number of hospital beds does not include those in the private and non-governmental organizations.

RATIO OF HEALTH CARE FACILITIES AND HEALTH PERSONNEL TO POPULATION IN NASARAWA STATE

Table 5 shows the ratio of health care facilities and health Personnel to Population in Nasarawa state from 2000-2009. The table also shows that all through the years (2000-2009), the ratio of nurse/midwife to population was better than for any category of health worker in the state. For example, in 2000 the ratio of nurse/midwife to population for the state was 1:2,417 as compared to 1:22,999; 1:260,652 and 195,489 for doctors, pharmacists, and laboratory scientists' respectively. However, there were no dentists and radiographers in the state for the same period. The table further revealed that the ratios of health personnel to population are generally higher for radiographers, dentists, laboratory scientists and pharmacists in that order. A critical look at table 5 reveals that in 2009, the health workers to population ratio for doctors, dentists, pharmacists, radiographers, laboratory scientist and nurse/midwives was 1:5,289; 1:12,009; 1:6,522; 1:255,198; 18,228 and 1:1,191 respectively. The ratios are higher for radiographers than any other category of health worker. These ratios (except for nurses/midwives) are higher than the World Health Organization recommended ratio of health worker patient ratio of 1; 2,000. It can be generally observed from the table that shortfalls were experienced in the supply of other cadres of medical and health workers in the state.

Table 5: **Ratio of Health care facilities and health Personnel to Population in Nasarawa state**

Year	Population	Health facility to pop	Health personnel to population.					
			Doctors	Dentist	Pharmacist	Radiographer	Lab.Sc.	Nurse/Midwives
2000	1,563,912	1:2406	1:22998	-	1:260652	-	1;195489	1:2417
2001	1,612,453	1:2236	1:18749	1:806226	1:28288	-	1:134371	1:2461
2002	1,661,900	1:2044	1:17869	1:830950	1:29676	-	1:103868	1:2163
2003	1,712,241	1:2106	1:7286	1:285373	1:22829	1:1712241	1:51886	1:2161
2004	1,763,471	1:1961	1:7257	1:176347	1:19814	1:881735	1:35989	1:2015
2005	1,815,581	1:1937	1:6774	1:139660	1:18717	1:605193	1:30772	1:1518
2006	1,870,248	1:1744	1:5549	1:143865	1:13651	1:374049	1:30165	1:1479
2007	1,926,153	1:1724	1:5425	1:137582	1:9582	1:385230	1:20490	1:1268
2008	1,983,274	1:1679	1:5246	1:141662	1:6377	1:247909	1:17707	1:1168
2009	2,041,588	1:1,582	1:5,289	1:12,009	1:6,522	1:255,198	1:18,228	1:1,191

Source: 1. Computed from records of Ministry of Health headquarters, Lafia

2. Population estimates was computed using the state's 3.0% growth rate

POPULATION AND HEALTH CARE DELIVERY SERVICES IN NASARAWA STATE

The estimates and projections in table 6 are meant to provide insight into the probable future trend of population growth and health services required in Nasarawa state. The table contains information on the projected population of the state from 2009-2020. The table revealed that the state had a population of 2,043,718 in 2009 and it is estimated to be 2,439,112 and 2,827,600 in 2015 and 2020 respectively. Adopting the medium variant of the population projections (NPC, 2002), the projection for the state revealed that, out of the total population, people under the age of 15 years accounted for 44.6% in 2009. The old people accounted for only about 4.6% of the total population compared to the working population who constituted 44.8%. The table also shows the different estimates of the population for infants, women 15-49 years and old people from 2009-2020. Infants will increase from 348,779 in 2009 to 380,126 in 2010 to 440,670 in 2015 and to 510,857 in 2020. Women in reproductive ages will rise from 466,420 in 2009 to 479,332 in 2010 to 555,677 in 2015 and 644,181 in 2020. It is estimated that old people were 68,964 in 2009, 70,909 in 2010 and will be 82,202 in 2015 and 95,294 in 2020. The table also revealed that the size of the population and particularly those at high risk (infants and women in reproductive years) is growing rapidly while the size of the population of old people in the state is relatively small, but also gradually increasing.

Table 6: Projected Population and Health care delivery services, infants, women 15-49 years and old people in Nasarawa State from 2009-2020

	2009	2010	2015	2020
Estimated Population	2,042,718		2,439,112	2,827,600
Infants(0-4 years)	348779	380126	440670	510857
Women 15-49 years	466420	479332	555677	644181
Old people	68964	70909	82202	95294

Source: Computed adopting medium variant of the population projections (NPC, 2002)

BUDGET AND BUDGETARY ALLOCATION TO NASARAWA STATE MINISTRY OF HEALTH

The idea that the society needs healthy citizenry to undertake rapid economic development can be justified by allocation given and used for the sector to improve the quality and quantity of accessibility. Thus, in the light of the growing population in the state, the government will have to commit a larger proportion of its capital and recurrent expenditure to the health sector. Table 7 contains information on Nasarawa state budget and budgetary allocation to Ministry of Health (in Naira) from 2000 to 2009.The table showed that in 2000 government expenditure on health in the state was ₦144,936,000 for both capital and recurrent expenditures; it was ₦998,709,036 in 2001,₦1,206,405,994 in 2002;₦1,409,408,536 in 2003; ₦ 1,561,415,188 in 2004; ₦ 2,219,019,353 in 2005; ₦ 3,567,024,400 in 2006; ₦ 3,960,289,762 in 2007; ₦ 2,485,125,515 in 2008.In 2009, ₦ 4,484,547,970 was allocated to the health ministry, thus indicating an expenditure of ₦ 2,195 per person. The table also shows that the percentage of state budgetary allocation to ministry of health was 11% in 2000.The percentage dropped to 10.2%, 10.9% and 10% in 2001, 2002 and 2003 respectively. The percentage further dropped to 7.6% in 2004, rose to 8.7% in 2005 and increased to 12.3% in 2006.The percentage for 2007, 2008 and 2009 were 11.3%, 4.6% and 7.7% respectively. The highest percentage budgetary allocation to the ministry was in 2006(12.3%) while the lowest (4.6%) was in 2008. To keep pace with population growth in the state, there is the need for the government to increase its future allocation to the health sector to maintain the current level of capital expenditure per person.

Apart from the budgetary allocation to ministry of health, the state health sector generates her revenue from the following sources:

- Entrance examination fee in to health training institutions
- Registration and Licensing of patent medicine vendor and pharmacy shops
- Registration of traditional medical practitioners
- Registration of private medical institutions
- Sales of drugs

Table 7: Nasarawa state Budget and Budgetary allocation to Ministry of Health in Naira (2000-2009)

Year	State Budget	Health Allocation	Capital	Recurrent	As percentage of State Total
2000	4,423,281,000	144,936,000	338,493,000	338,493,000	11
2001	9,824,280,430	998,709,036	250,000,000	748,709,036	10.2
2002	11,088,292,100	1,206,405,994	200,000,000	1,006,405,994	10.9
2003	14,067,231,000	1,409,408,535	375,000,000	1,034,408,535	10
2004	20,509,000,000	1,561,415,188	377,000,000	1,184,415,188	7.6
2005	25,417,486,499	2,219,019,353	640,654,000	1,578,365,353	8.7
2006	29,052,312,129	3,567,024,400	1,880,866,670	1,686,157,300	12.3
2007	34,965,477,046	3,960,289,762	2,102,654,000	1,857,635,762	11.3
2008	53,658,191,355	2,485,125,515	1,304,900,000	1,357,125,515	4.6
2009	58,476,204,516	4,484,547,970	703,000,000	3,781,547,970	7.7

Source: Ministry of Finance and Economic planning Lafia, 2009

DISCUSSION

Historically, modern health care provision in Nasarawa state was pioneered by the missionaries particularly the Evangelical Reformed Church of Christ (ERCC) and the Catholic Mission. The ERCC medical centre was established in 1942. The services are being provided through a cost recovery scheme and through support from Netherlands Tuberculosis and Leprosy programme. It has 28 peripheral clinics in Nasarawa state, 5 in Kaduna State and one in Bauchi state. The Catholic Mission established Our Lady of Apostle Hospital (OLA) in 1956. The activities of these Christian Missions started in Akwanga and were restricted to those areas where they were warmly received on arrival. Since the state was created in 1996, government have been very active in the provision of health facilities and as a matter of deliberate policy, the newly built health centers were located in various LGAs so as to ensure that the impact of government health programmes is felt in different parts of the state. Consequently there are 1290 health centers in the state. At least every LGA in the state has a general hospital, while some have two. Political considerations have contributed to the inequality in the distribution of hospital services. This is due to the fact that the decision on the location of public institutions is generally influenced not by rational considerations of need but by other factors such as the LGAs of origin of most of the decision makers than localities that could be in greater need.

The study findings revealed that since 2000 to 2009, there has been an increase in the establishment of health facilities in the state particularly PHCs to meet the health needs of the rural population. The participation of the private sector in the state is commended and should be encouraged so that it can complement the services provided by government modern health care system. In addition to locating in the rural areas they should expand their service to meet the provision of secondary health needs of the rural populace. This is more so that there are more private secondary health care facilities than the public owned.

At the heart of every health system is the workforce, which is central to advancing health. There is an increasing inadequacy of supply of doctors, nurses/midwives, laboratory scientist, dentist, pharmacists, radiographers and beds for patients that need hospitalization, among other problems. This situation is being worsened by the fact that majority of the health personnel prefer to work in the urban areas because of the presence of superior social and health facilities. Most private hospitals would rather prefer to establish in urban centers because of the concentration of people with the earning capacity to pay for private medical services. The health manpower situation is also being worsened in the state by the fact that institutions for education and training of some of these categories of staff are not available in the state.

The various estimates and projections revealed the future trend of population growth and implications for health services required in Nasarawa state. It is apparent from the projections that Nasarawa state will need to commit a sizeable proportion of its budget to provide more health centers and train more health personnel to meet the health services demand of the growing population. The magnitude of the problem should be of serious concern to health planners in the state and it is necessary for the state government to pay attention towards measures that can be undertaken to reduce the magnitude of the problem in the future. Planners in the state should be aware of the size of the population and the age and sex composition of this group and the financial implication of the provision of the facilities that are necessary for the reduction of morbidity and mortality among the group. Women in their reproductive years (15 – 49) would also constitute a very significant proportion of the total health service demand. In order to reduce the rate of maternal mortality, more resources will have to be committed to both pre-natal and post-natal care. Family planning programmes will also need to be expanded to cover more women in their reproductive years. Old people (60 years and above) means more resources would be needed for the provision of facilities for the care of geriatric diseases. Of equal importance is the working population since this group shoulders the responsibility of producing the goods and services for the entire population, adequate health services is an insurance against the risk of morbidity that may affect their level of productivity. The different estimates of the population showed that demand for health services by the various groups particularly, infants, women in the reproductive age and the working population in the state will be enormous in the future. Since this group normally constitutes large proportions of the population, adequate provision has to be made for their future health demand.

In spite of Nasarawa state government laudable health policy objectives, the health services have been unsatisfactory. Funding has consistently fallen below WHO recommended minimum of 15% of annual budget. This has resulted to dearth of adequate and accessible health services, decaying infrastructure, chronic drug shortage, poor quality services, poor staff attitude, and official bureaucracy. Furthermore, government spending on health, recurrent and capital expenditure is a subject of worry. This is because more total government expenditure went to recurrent items which were mainly for personnel costs, with little left for tools and materials. If this trend continues, the Nasarawa state government may not meet the target of reducing maternal mortality by 2015**.** However, developments in health care since 2000 present a generally favourable picture in the state and in general people are living longer. Improvements are also visible in health infrastructural development and reduction of deaths due to chronic diseases. On the other hand, not all parts of the state have benefitted from the improvements and there are still important inequalities in access to healthcare. There is the need for equality in the distribution of healthcare facilities in the state. This is because accessibility to health care facilities is a major indicator of

development and that adequate provision for the facilities is fundamental to sustainable development particularly in the rural areas. Increased accessibility to essential health care facilities is very critical for achieving overall development goals. Thus, visionary thinking, connecting sustainability to health, and environmental sanitation are important for the future of the healthcare industry in the state.

CONCLUSION

Enormous efforts have been made to expand various categories of health care delivery facilities in the state by the public and private sectors. Health manpower has also increased over the years in the state. However, government needs to commit a sizeable proportion of its budget to train more health personnel and provide more health establishments, equipment and drugs to meet the health demand for the growing population in the state. The prospects for the future basic health services in relation to the population can only improve if there is effective population education and population-related planning policies. The provision and distribution of health facilities and services should be decenralized and made more equitable throughout the state. Because infrastructures and trained personnel for health care delivery are expensive, the Nasarawa state government must educate people on how to make maximum use of health facilities and services and how to maintain living standards and health habits that will ensure enhanced health status for the entire population. The participation of the private sector in the state is commended and should be encouraged so that it can complement the services provided by government modern health care system. Efforts to improve health care delivery facilities in the state most continuously acknowledge the influence of population growth.

RECOMMENDATION

From the foregoing discussion it is recommended that:

1. There is need for more and continued training of health personnel considering the size of population and the need to establish more health centers especially in the rural areas.
2. Some clinics should be upgraded to hospital status and more medical personnel should be provided to the existing hospitals, clinics and dispensaries and individuals should be encouraged to established standard hospitals.
3. There is also the need for a well organized programme on health education; to encourage individual members to take self – help measures in the house or in work environment to protect their health, family, neighbours as well as the health of co-workers.
4. There is need for the development of health information systems to collect and produce the appropriate health facility statistics which is vital if health planning is to be more rational and effective in the state.

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