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Prioritizing Nigeria's Healthcare Needs through a Systematic Assessment: A Case Study of The Federal Capital Territory (Abuja), Nigeria

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Abstract
Solving health problems from a communal perspective remains the most effective way to attain better health systems and indices in society. Nigeria and most other African countries, amidst dwindling health funding, exploding population, rising cost of living, and declining living standards, should be more disposed to adopting this approach because it allows wider access while addressing the issues of inequality, inequity, and discrimination. A population's health needs are best addressed when there is a better understanding of the population and environmental demographics. This work aims to demonstrate the use of systematic health needs assessment in prioritizing health interventions in resource-limited settings like Nigeria using the Federal Capital Territory as a case study. The author applied profiling of population characteristics, health status, and local health determinant factors to identify priority health needs of the Federal Capital Territory of Nigeria. The result showed that the targeted population had poor health status and indices, such as health insurance coverage, available skilled personnel, neonatal and children under-five health mortality and morbidity rates, quality of life, and health-related injuries. Behavioural measures, health inequalities, local health determinant factors such as employment and work data and environmental hygiene, and national priorities were also considered. The study systematically assessed and discussed the priority health needs of the targeted population. Improving health access and promoting equity through mandatory health insurance, and a focus on reproductive, maternal, neonatal and child's health were identified as priority health needs to improve the health of the population.

Keywords: Public Health, Health Needs Assessment, Federal Capital Territory, Nigeria, Health Insurance

1. Introduction

The World Health Organisation describes 'health' as not only the absence of illness but a state of physical, mental, and psychological or social wellness (WHO, 1948, cited in Donaldson and Rutter, 2018, p. 1). A convergence of knowledge of the history of human existence and the spread of diseases among a large group of people in a population uncovered the relationship between diseases and the people's way of life in the 18th and early 19th centuries (Perdiguero et al., 2001). With increased systematic knowledge, it has become increasingly evident that solving the health problems of a population is more effective from a communal standpoint, which considers the complexity of the way of life of the individuals or groups in society (Perdiguero et al., 2001). This communal approach to solving health issues from which the concept of 'Public Health' derives, aims to protect, improve, and

promote the health and well-being of the population to effectively and efficiently promote the health of the individuals (Wilson et al., 2015). Public health actions seek to prevent diseases and minimize exposure to environmental and social hazards, rather than allow illness to occur, and then diagnose and/or treat. Hence, its main goal is to promote well-being by addressing the determinants of health and health outcomes (Bowling, 2005).

Health outcomes are transformations in health and wellbeing, such as prevention of death or improvement in the quality of life and wellbeing, as a consequence of deliberate actions taken (CIHI, 2022). Studies have shown that the health of individuals or groups is influenced by genetics, environment, and social conditions in which the individual or group is born, grows up, lives, works, and ages (Donaldson and Rutter, 2018). The length of exposure to different environmental and social conditions is the cause of social gradients, and health inequalities (Braveman and Gottlieb, 2014). The distinctive features of a good health system are 'a healthy population' with the best possible level of wellbeing; 'quality care' that is contextual and efficient; and non-discriminatory to all members of the community across age, race, and status (Finberg, 2012, p.1). Studies have shown that a good and sustainable health system is difficult to realize in a highly discriminatory community (Manderbacka et al., 2014, p. 1). Public health seeks to achieve a sustainable health system by minimizing health inequalities and inequities (Wilkinson, Marmot and WHO, 2003).

The health needs of any particular group or population could be determined if the health status and determinants of health are known (Swain, 2016). Evidence has shown a correlation between socioeconomic status (in education, employment/occupation, and income) and health outcomes, such as life expectancy, mortality, and morbidity (Wilkinson, Marmot and WHO, 2003). For instance, income levels will most often determine neighborhood of residence, and nutrition and these factors could determine exposure to illnesses, and disease incidence. Health needs assessment (HNA) is a public health framework used to describe the health status of people in a particular community or group and identify the health risks, causative factors, and health priorities (WHO, 2001). A good HNA helps influence policy decisions, in line with the principles of the Ottawa Charter Declaration on building a healthy public health policy (Kemm, Parry, and Palmer, 2004; WHO, 2022).

Contemporary HNA methods involve profiling the population, identifying health conditions and the determinants of health, identifying health priorities, preparing a plan of action and reviewing and evaluating the plan of action. This article attempts to conduct a health needs assessment for the Federal Capital Territory (FCT), Abuja, Nigeria (Figure 1), as a case study. Due to the dearth of reliable demographic data at the district level, the data used in the HNA were from the state and country levels. Unless otherwise stated, data presented in the HNA were mainly from the 2018 national demographic health survey report by the National Population Commission (NPC) and ICF (2019).

2. Methodology

The health needs assessment of FCT was based on the existing data on the population characteristics and health indices.

2.1 Population Characteristics

2.1.1 Geography

The Federal Capital Territory (FCT) located in North Central Nigeria, has a land area of about 7,315 km^2. Its geographic coordinate is 8°49'59.99" N 7°10'0.01" E. The Territory is administered by a Minister who is an appointee of the President (Grid^3 Nigeria, 2022; Latitude.to, 2025).

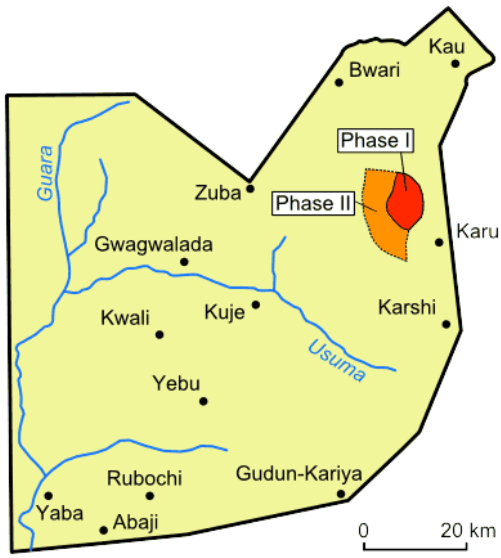

Figure 1: Map of Federal Capital Territory (FCT)

Source: Medugu (2012)

2.1.2 Population Numbers and trends

The World Population Review (2022) reports that the Abuja population is estimated to be 3,652,029, with an annual growth rate (AGR) of 5.42%. This represents 1.67% of the country's population. According to National Bureau of Statistics (NBS, 2019 and 2021) data, the Life Expectancy (LE) at birth was 52 years and 49 years for FCT and the country, respectively, in 2016 (Table 1). Recent World Bank data gives the LE of Nigerians as 55 years (The World Bank, 2020). The LE for FCT may have also increased commensurably. As the nation's capital and seat of political power, the FCT experiences an influx of people, refugees, and tourists. Hence, its growth rate is over twice the national figure of 2.41%. Though the growth rate was projected to be on the decline over the last ten years (World Population Review, 2022), the reality seems otherwise as the city continues to witness a daily influx of internally displaced persons (IDP) due to various forms of socioeconomic, sociopolitical and sociocultural, and environmental hazards, such as flood and insecurity (Bashir et al., 2021).

Table 1: Life Expectancy at birth (2016)

Population	**Life Expectancy at birth (years)**		
	Female	**Male**	**Both Gender**
FCT	55	50	52
Nigeria	51	47	49 (55 in 2020)

2.1.3 Age and Gender Distribution

The 2006 Census data showed that the FCT population was made up of 47.9% females and 52.1% males (City Population, 2022). The 2018 data for Nigeria were 54% female and 46% male (NPC and ICF, 2019). The age distribution is believed not to have changed significantly (Table 2).

Table 2: Percent Age distribution (based on 2006 census)

Age Group	**% Population**		
	FCT (2006)	**Nigeria (2006)**	**Nigeria (2018)**
0-14	38.1	41.83	46.0
15-64	60.4	54.95	50.1
65+	1.5	2.18	3.9
Total	100	100	100

2.1.4 Ethnicity and Religion

Abuja is home to people from diverse backgrounds and ethnic origins in Nigeria. The Gbagyi (or Gwari) are the major indigenous settlers. Other settlers include Gade, Gwandara, Koro, Egbura, Gangana, and Bassa (Medugu, 2012). The two major religions, Islam (50%) and Christianity (40%), dominate other religions (World Population Review, 2022).

2.1.5 Language and Literacy

The official language of Abuja city is English, while other languages like Gbagyi, Nupe, Gbari, Gede, and Hausa are widely spoken (Media Nigeria, 2018). The National Population Commission (NPC, 2015) report for FCT put the total literacy rate at 59%, and that of the country at 47%. The total literacy rates by gender and residence, and age groups are depicted in Tables 3, respectively, while Table 4, on education, gives the school attendance ratios, and gender parity ratios (NPC and ICF, 2019).

Table 3: Total Literacy Rate (%) by gender in urban/rural dwelling, and by age groups

	Urban	Rural	Urban	Rural
Gender	**Female**		**Male**	
Total Literacy Rate	73	38	80	62
Age groups:				
20-40	57		70	
41-60	57		67	
61>	42		38	

Table 4: Education

FCT Schools	**NAR**			**GPI**	**GAR**			**GPI**
	Male	**Female**	**Total**		**Male**	**Female**	**Total**	
Primary	75.0	74.5	74.8	0.99	104.9	103.8	104.4	0.99
Secondary	61.1	60.1	60.6	0.98	97.2	87.8	92.4	0.90

Key: NAR is Net Attendance Ratio; GPI is Gender Parity Index; GAR is Gross Attendance Ratio.

2.2 Health Status of the Population

2.2.1 Health Insurance and Personnel

Only about 2.6% of women and 3.4% of men, ages 15-59, in Nigeria have a form of health insurance. The figures for the North Central are 2.4% and 4.5% for women and men, respectively (NPC and ICF, 2019). Nigeria's skilled health personnel population of 1.83 per 1000, which is estimated to also apply to FCT, is grossly below the WHO recommendation of 4.45 per 1000 in 2018 (Olatunji et al., 2024).

2.2.2 Birth Rate

The total fertility rate (TFR) for FCT is 4.3 for women ages 15-49, while the national figure is 5.3 children per woman. On average, it is estimated that rural women have 1.4 more children than urban women (NPC and ICF, 2019).

2.2.3 Mortality Data

The 2018 NHDS reported a neonatal mortality rate (NMR) of 27, post-neonatal mortality rate (PNMR) of 20, infant mortality rate (IMR) of 46, child mortality rate (CMR) of 30, and under-5 mortality rate (U5MR) of 75, deaths per 1000 live births for FCT between 2013 and 2018 (NPC and ICF, 2019). The maternal mortality rate (MMR) in 2016 was 83.6 per 100,000, which was the lowest in the country (NBS, 2019).

2.2.4 Morbidity Data

Under-five children's fever and diarrhoea morbidities are 23.3% and 8.2%, respectively. Among children 6-59 months, anaemia is 58.8%, while malaria is 33.4% and 21.8% by rapid diagnostic test (RDT) and microscopy, respectively. The prevalence of sickle cell trait and disease among children ages 6-59 months is 19.4% and 0%, respectively, which is lower than the national figure of 20% and 1%, respectively (NPC and ICF, 2019). The prevalence of sickle cell disease in the north-central zone of Nigeria, which includes FCT, is about 5% (Adigwe et al., 2023).

2.2.5 Health-related Injury

About 5.1% of FCT women aged 15-49 are circumcised. This is far below the national average of 20%, which has decreased from 25% in 2013 (NPC and ICF, 2019). Female genital mutilation (FGM), though on the decline, is a cultural practice in many parts of the country, and it is not directly promoted by the major religions (Okeke, Anyaehie, and Ezenyeaku, 2012).

2.2.6 Behaviour Measures

2.2.6.1 Tobacco use – Although FCT-specific data are not available, the 2018 NHDS revealed that about 94.2% of men and 99.4% of women aged 15-49 in Nigeria do not smoke any form of tobacco (NPC and ICF, 2019).

2.2.6.2 Marital behaviour – About 70% of women and 57% of men aged 15-49 in Nigeria are currently in a union. Most of the Muslim population in FCT practice polygamy (NPC and ICF, 2019).

2.2.7 “Quality of Life” measures

Table 5 shows the FCT indices for “quality of life”, which is generally adjudged low (Numbeo, 2022).

Table 5: Quality of life index

Quality of life index	Score	Rating
Purchasing power	4.84	Very Low
Safety	42.87	Moderate
Health care	56.13	Moderate
Climate	79.42	High
Cost of living	36.05	Very Low
Property price to income	351.11	Very High
Traffic commuter time	23.67	Very Low
Pollution	57.70	Moderate

2.2.8 Use of Service Information

The data on use of services depicted in Table 6 shows that there are considerable gaps to be covered against the WHO-recommended principle of universal health coverage (UHC), which requires that everyone receives the needed health care whenever and wherever it is needed (WHO, 2025).

Table 6: Use of service information

Indices	Amount
% Children with all basic vaccinations	49.6
% All age appropriate vaccinations	40.1
% Women age 15-59 accessing ANC from professional caregivers	87.7
% Women who received a sufficient number of tetanus toxoid injections to protect their newborn against neonatal tetanus	70.8

2.2.9 Health Inequalities

General inequalities exist between urban and rural dwellers, especially in literacy (Table 3) and access to internet networks (NPC and ICF, 2019). Health digital literacy is fast becoming an indicator of socioeconomic status,

which is one of the major determinants of health (Estrela et al., 2023; Jing et al., 2024; Svendsen et al., 2020; Zhao et al., 2024).

2.2.10 Local Factors Affecting Health

2.2.10.1 Work and Employment: There is no FCT-specific data. The 2018 DHS data show that 47.9 % of women are employed, 5.4% are unemployed, while about 46.6 % of women have been unemployed in the last 12 months preceding the survey. The data for men were 74.8 %, 2.5% and 22.8%, respectively.

2.2.10.2 Environment and Sanitation: According to NPC and ICF (2019) report, 65.6% of FCT households have access to basic drinking water services, while about 2.7% have limited access. About 29.8% of FCT residents practice open defecation compared to other parts of North-Central (51%) and North-West (9%). Only 41% have access to basic sanitation services, while 27.8% have limited access (NPC and ICF, 2019).

2.3 Local and National Priorities

The country has developed several policy frameworks aimed at improving the service coverage index (SCI) and/or the Universal Health Coverage (UHC) index toward achieving SDG target 3.8 (Eozenou et al., 2023). The most important provision in the National Health Act (NHA) 2014 is the Basic Healthcare Provision Fund (BHCPF), and Basic Minimum Package of Care (BMPC) for citizens to be implemented through the National Health Insurance Scheme (NHIS). In a bid to improve health coverage through more affordable access, the National Health Insurance Authority (NHIA) Act, which repeals the NHIS Act, was signed into law in 2022. The FCT health policy framework relies on the National Health Act 2014, NHIA Act 2022 and the FCT Health Insurance Agency Establishment Act (passed by the Senate in 2020 but awaiting Presidential assent) to develop a framework for the utilization of the Basic Healthcare Provision Fund (BHCPF) for its vulnerable group and increase health access through the FCT Health Insurance Scheme in compliance with the provisions of the NHIA Act (Agbaoye, 2022; FCT Health and Human Services Secretariat, 2019). The target is to improve health outcomes by improving access and quality of health care.

3. Understanding the information collected

The information collected from the population profile revealed the following health-related needs.

i. **Health insurance**: About 97.6% of women and 95.5% of men aged 15-59, in FCT have no health insurance. Hence, the burden of out-of-pocket payments for health care will be a great hindrance to access to health care services.
ii. **Birth control**: The territory has a lower birth rate of 4.3% compared to the national average of 5.3%. About 73.8% did not use any form of contraceptive in the year 2016/17 (NBS, 2019).
iii. **Infant and Child's care**: The NMR, PNMR, IMR, CMR, and U5MR are in dire need. According to the Population Reference Bureau (PRB), the IMR for Nigeria is 58%, and it is among the worst in the world (PRB, 2022).
iv. **Maternal care**: The poor statistics on the adult mortality rate for women of reproductive age groups; age 30-34 (3.24) and age 35-39 (4.01), are an indication of the need for better maternal care (NPC and IFC, 2019).
v. **Environment sanitation and hygiene**: Access to basic drinking water in FCT is about 65.6%, while 29.8% of the people still practice open defecation. These services are poor, and the rate of improvement is slow and needs to be strengthened.
vi. **Education**: The NAR for school children in FCT is generally low for both genders. The territory being the nation's capital should aim at achieving NAR of over 90 for both genders in both primary and secondary schools.

3.1 Deciding on Priorities

Lack of access to health through health insurance affects a very large portion of the population. However, with improved enrolment into the FCT Health Insurance Scheme by the FCT Health Insurance Agency (FCTHIA), the situation is expected to improve. There is a need to deliberately target reproductive, maternal, newborn and child health, which also has very low indices.

3.2 Planning for Action

Access to health care is inevitably poor in the territory due to multidimensional poverty. Health actions with the most probable impacts in poor societies, such as FCT/Nigeria, should promote increased access, better reproductive, maternal, newborn and child health, and improved environmental hygiene and sanitation. A better education net attendance ratio could help improve health access through more effective health communication and promotions.

3.2.1 Increasing health access, and hygiene and sanitation

Citizens' enlightenment and sustainable health funding through insurance will enable better access to health. The NHIA Act provides for mandatory health insurance and a uniform basic minimum package of care, which, if effectively implemented by the FCTHIA, will provide the leverage for better health access and coverage. The NHIA and FCTHIA operational framework must incorporate health education and enlightenment to promote environmental hygiene and sanitation, as well as improved nutrition, to address stigmatization, discrimination, fears, and ignorance, and promote healthy environmental practices. The framework should incorporate a social welfare program to reduce the negative impact of unemployment and poverty. Special schemes should be created to improve access to reproductive, maternal, newborn, and child health.

4. Conclusion

Recent statistics from the International Bank for Reconstruction and Development (IBRD) and the World Bank (2022), estimate that about 40% of Nigerians live below the poverty level of $1.93 per day (p. 12-13), and only about 17% of workers earn wages capable of lifting people out of poverty. Hence, most people are not able to afford quality healthcare services. A mandatory health insurance scheme will promote access to health and improve health outcomes. The NHIA Act provides for mandatory coverage through the State Health Insurance Agencies (SHIA), and in this case, FCTHIA. However, more community-level advocacy and sensitization need to be undertaken for active citizens' participation and ownership. The HNA of FCT reveals an enormous gap in health access due to unemployment and poverty. The situation is compounded by huge out-of-pocket health expenses due to limited access to health insurance. Improving quality healthcare for reproductive, maternal, newborn and child health, and health access for the now over four million population, will depend on having access to health insurance.

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