Effects of Public Expenditure on the Provision of Primary Health Care in Bauchi State

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Abstract
Health spending has more than doubled in real terms worldwide between 2000 and 2019, reaching US$8.5 trillion in 2019, or 9.8% of global GDP, but in developing countries like Nigeria, the reverse has been the case. Although the Bauchi State Government has spent a lot of money in the past, the state's basic healthcare system continues to be problematic. The objective of the study was to evaluate how capital expenditures affect the provision of primary healthcare infrastructure in Bauchi State. A mixed method of data collection was used for the study. A total of 60 questionnaires were given out to medical staff. The impact of public spending on basic healthcare in Bauchi State was examined using simple linear regression to test the study's hypotheses at a 95% confidence level and a 5% level of significance. The study revealed that capital expenditure had a significant effect on the provision of infrastructural facilities for primary healthcare in Bauchi State. This indicates that from 2008 to 2023, there was an increase in public expenditure on areas of renovation, upgrading of PHCs, construction, health equipment, beddings, drugs and consumables across the PHC facilities in the State. The observation revealed that much had been done in the provision of health infrastructure, though some structures needed renovation and expansion to meet the needs of the people at the grassroots level. The study concluded that there was a need for a consistent and collective effort by the Government to provide infrastructural facilities, to ensure the provision of qualitative primary health care services to the people. The study recommended the need to increase capital expenditure for the development and maintenance of infrastructural facilities in the primary healthcare sector. This includes constructing and upgrading healthcare facilities to ensure accessibility and quality service delivery to the community to meet the needs of the increasing population.

Keywords: Public expenditure, primary healthcare, facilities, infrastructure, investment, construction, renovation

Introduction

Health spending has more than doubled in real terms worldwide between 2000 and 2019, reaching US$8.5 trillion in 2019, or 9.8% of global GDP. It was not evenly distributed, either, with high-income nations making up about 80%. In high-income nations, government spending accounted for 70% of health spending, whereas in low-income countries, out-of-pocket spending (OOPS: 44%) and external aid (29%), respectively, were the main sources of funding. Between 2000 and 2011, the percentage of government spending on health fell in low-income countries, remained stagnant in lower-middle-income nations, and climbed in upper-middle and high-income countries over the previous 20 years before largely recovering and stabilizing in recent years (World Bank, 2021). The World Bank Report (2021) states that between 2000 and 2019, global spending was US$ 8.5 trillion in 2019, or 9.8% of global GDP. Higher spending levels are quickly becoming the norm in middle-income nations. Between 2000 and 2017, the economies of those nations grew by 5.9% per year, while health spending increased by 6.3% annually. Spending on health increased 7.8% annually in low-income nations. The average health spending in low-income nations was only $41 per person in 2017, whereas the average in high-income countries was $2,937 per person, a disparity of more than 70 times. While high-income nations spend over 80% of global expenditures, the contribution of middle-income nations rose from 13% to 19% between 2000 and 2017. Public spending increased at a rate of 4.3% annually between 2000 and 2017, accounting for over 60% of all health spending worldwide. From 2000 to 2010, its increase was 4.9% annually; from 2010 to 2017, it slowed to 3.4% annually. Out-of-pocket spending decreased as the health sector expanded. In low- and middle-income countries, total out-of-pocket spending more than doubled between 2000 and 2017; in high-income countries, it increased by 46%. However, its growth was slower than public spending across all income levels (World Bank,2021).

According to the World Bank (2021), global spending on health more than doubled in real terms over the past two decades, reaching US$ 8.5 trillion in 2019, or 9.8% of global GDP. But it was unequally distributed, with high-income countries accounting for approximately 80%. Health spending in low-income countries was financed primarily by out-of-pocket spending (OOPS; 44%) and external aid (29%), while government spending dominated in high-income countries (70%). The share of health in government spending increased over the past two decades in upper-middle and high-income countries, stagnated in lower-middle income countries and declined in low-income countries between 2000 and 2011, before partially rebounding and stabilizing in recent years.

West and Central Africa are home to three out of ten children who pass away before turning five (UNICEF, 2019). This suggests that a lot of work has to be done to deliver primary healthcare at the local level. West and Central Africa's child population is predicted to double over the next 25 years, from 254 million in 2017 to 508 million in 2045. This demographic shift offers both a significant challenge and a rare chance for growth and poverty alleviation, provided that policymakers give children top priority. Nonetheless, governmental spending in the region's major social sectors is still minimal and health spending at about nine per cent, which is still far less than the 15 per cent that has been committed to these sectors internationally (UNICEF, 2019).

Nigeria has some of the worst health statistics among its peers and the lowest public spending. Nigeria's health spending as a percentage of total government spending was 8.1%, according to World Bank (2018) data. This is much less than South Africa's (14.2%) and marginally less than the regional average (9.9%). It is far less than the 15% Nigeria pledged to in the Abuja Declaration,

which asks for higher health expenditures relative to overall public spending (UNICEF,2019). Despite decades of international support, Nigeria's health outcomes remain incredibly poor. Nigeria continues to have one of the poorest health systems in the world. Nigeria was ranked 142nd out of 149 countries by the Legatum Institute in 2017 for health performance. As a result of Nigeria's recent transition to lower-middle-income status, development partners are leaving the health sector. The mobilizer of domestic health resources is under pressure to attain universal health coverage as a result (Nigeria Health Financing Report, 2018). Secondary and primary care levels get smaller shares of public health funding in Nigeria, where over 50% of funding goes to the tertiary level. Despite the National Health Policy's emphasis on PHC, which is the primary location for the provision of preventive services, between 1998 and 2005, 70% of total health expenditures went to curative care, while only 15% went to preventive treatments (Federal Ministry of Health, FMOH, 2016).

Bauchi state is in the northeastern part of Nigeria, where the region has been devastated by a series of conflicts and insurgencies. These, to some large extent, have affected the level of health facilities in the selected local government of Shira, Katagum, Misau, Warji, Bogoro and Bauchi. The Bauchi state Government in the previous years have also recognized the importance and the need to invest in healthcare as one way of achieving sustainable reduction in poverty and inequality with the adoption of notable healthcare programmes from the federal government. The National Primary Healthcare Program, the Family Economic Advancement Program (FEAP), the AIDS/HIV Programs, the TB Treatment Program, the Roll Back Malaria (RBM) system, the Lassa Fever Program, the National Health Policy, the National Health Act 2014, and the Subsidy Re-investment Program are a few of these initiatives. N-Power initiatives include N-Health and the ongoing COVID-19 intervention. To a certain degree, the goal of all these programs and initiatives is to provide health services.

The Bauchi State Government invested more than 4 billion naira between 2007 and 2013 to build and renovate primary health care centers, clinics, health posts, and other medical facilities. Only Bauchi (out of the 22 states surveyed) exceeded the 15% objective, according to the 2018 budget predictions of states. Health received 25.57 billion naira of the 167.9-billion-naira budget, or 25.185% of the total budget. The state government, through the MDGs office, spent more than 4,564,868,554.00 naira on primary healthcare between 2009 and 2015 (MDGs Project Unit, 2015). More than 42% of the primary health facilities in Bauchi State are in appalling and dilapidated condition, with over 1,300 facilities in total, of which 549 have not yet been restored and upgraded across the 20 Local Governments (BSPHCDA, 2021). The provision of primary healthcare in the state may be jeopardized if there is a correlation with inadequate training of state health staff. Insufficient money or the healthcare institutions' incapacity to give priority to the necessity of restoring particular medical equipment in the state could be the cause of this (Abayamo, 2017).

Although the Bauchi State Government has spent a lot of money in the past, the state's basic healthcare system continues to be problematic. To improve the existing state of primary healthcare in Nigeria, it is crucial to undertake a study of public spending on these programs in Bauchi State to gain a better understanding of how public spending affects primary healthcare in Bauchi State. To conduct the study efficiently, the research poses the following query: What impact has capital spending had on Bauchi State's primary healthcare program's infrastructure provision? The purpose of the study is to evaluate how public spending affects basic healthcare in Bauchi State. In particular, the goal is to investigate how capital expenditures affect Bauchi State's primary healthcare infrastructure. This hypothesis serves as the study's compass: The availability of basic healthcare infrastructure in Bauchi State is not significantly impacted by capital expenditures.

Literature Review

Primary health care, according to WHO (2023), is a whole-of-society approach to health that focuses on people's needs as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation, palliative care, and the environment to ensure the highest possible level of health and well-being and their equitable distribution (www.whoint). Three interconnected and complementary elements make up PHC, according to WHO's (2023) multi-sectoral policies and action to address the upstream and wider determinants of health; engaging and empowering individuals, families, and communities for increased social participation; and comprehensive integrated health services that incorporate primary care and public health goods and functions as central pieces.

For people, families, and communities, PHC is the initial point of contact with the national health system. In Nigeria's three-tiered health system, the primary health care system is the most relevant, distinctive, and significant due to its accessibility to and proximity to the impoverished and difficult-to-reach population, as the World Health Organization has emphasized (WHO, 2023). Primary healthcare is a purposeful and methodical endeavour to create a healthcare system that meets the needs of the majority and impoverished citizens, at a cost that is sustainable and affordable, and with a guarantee of high-quality medical care provided by government primary healthcare centres and faith-based clinics in rural and suburban areas (Alonge, 2020).

The Ordinary Least Squares (OLS) econometric technique and secondary data were used by Oserei & Uddin (2019) to analyze government spending on primary health care in Nigeria and its relationships to real national output from 1980 to 2015. According to the model's conclusions, government spending on healthcare was effective for both economic expansion and the smooth operation of basic healthcare in Nigeria. However, it was also recognized that this effectiveness was restricted in three specific areas: the financial strategy, the quality and mobilization of staff, and the execution structure. In the short and long term, people, society, and the country as a whole benefit from prudent capital health expenditures, as the study confirms.

Christopher (2018) investigated how Nigerian maternal mortality was impacted by public health investment. It was based on the fact that maternal death rates in Nigeria were rising. From 2003 to 2015, a panel data regression analysis was used on a selection of 25 Nigerian states.

Alfred et al. (2018) examined the effects of public health spending on health outcomes in Nigeria. The analysis found that the Infant Mortality Rate (IMR) for the 24 years under evaluation was significantly impacted negatively by both the Nigerian government's HRE and HCE. In a similar vein, HRE significantly reduced the newborn mortality rate in this trial compared to HCE. Thus, they concluded that to increase the efficacy and efficiency of the health sector, the Nigerian government (at all levels) should allocate sufficient finances to each level of the healthcare system. This could result in a remarkable decrease in the nation's infant mortality rate.

Vande et al. (2019) examined primary healthcare (PHC) as a means of attaining sustainable development goals and Universal Health Coverage (UHC). A clear operational definition for PHC was lacking, which suggested that a global standard definition would not take the role of a country-specific definition. This was one of the main problems in developing standard monitoring of PHC expenditure, according to the study. Both the lack of quality data breakdown and the standard framework's inability to provide it result in insufficient data granularity.

Research on health spending and child health outcomes in Sub-Saharan Africa was done by Jacob & Akanni (2017). With elasticities of -0.11 for infant mortality, -0.15 for under-five mortality, and -0.08 for neonatal death, the findings demonstrated a positive and significant correlation between health spending and child health outcomes. It was discovered that public health spending was comparatively more important than private spending. Health spending and child health were also

found to have positive and significant lagged impacts. The results imply that although health spending is essential for enhancing the health of children, it is also critical that this spending be sustainable because its impacts take time to manifest.

A study on Nigeria's health budget allocation was carried out by Okafor (2016). He claimed that over time, Nigeria's healthcare system had deteriorated, with health indicators falling short of both international and national goals. The World Health Organization (WHO) and the African Union (AU) proposed that the health sector receive 11% and 15% of a nation's GDP, respectively. However, budgetary allocations to this sector stayed considerably below these guidelines. While wealthy people and high-ranking government officials turned to outbound medical tourism, the underdeveloped healthcare system caused a loss of trust, which led to disappointments and intolerable repercussions for the poor and low-income sections of society.

According to the accomplishment of the United Nations health-related Millennium Development Goals (MDGs) and targets, their study examined Nigeria's health system performance using a qualitative research methodology that emphasized descriptive analysis. According to the studies, the nation's healthcare system should adopt the Public-Private Partnership (PPP) model. The potential to leverage private sector investment in the sector was provided by public-private interaction, which also improved service delivery and expanded access to high-quality healthcare.

In their analysis of the factors influencing public and private healthcare spending in Greece between 1970 and 2004, Kyriakos et al. (2014) found that population ageing was a significant factor in both public and private healthcare spending. The amount spent on both private and public health care was positively and significantly correlated with per capita GDP. Greece has spent the last 20 years discussing and reviewing the creation of an Integrated Primary Health Care System. However, there have been notable and steady increases in both public and private spending due to the absence of gatekeeping procedures, patient monitoring, and general population preventative initiatives.

Botanov et al. (2024) divided the healthcare evaluation metrics into three categories: efficiency, output, and input. Public sector medication availability, health equipment availability, hospital admissions, public sector waiting times, vaccination coverage, and health service use as examples of input/process indicators. Infant mortality rate/maternal mortality rate, life expectancy at birth, preventable hospitalizations/mortality, surgical complication rates, cardiovascular disease mortality, and overall health satisfaction were among the health outcome indicators. Efficiency was determined by technical/allocative efficiency scores that were obtained using Data Envelopment Analysis or stochastic frontier analysis models of public health care delivery. The input indicators for health care were derived from public spending.

Providing healthcare services has become essential for various governments to improve health capital, so it remains a top priority on the development agenda of many governments worldwide. The Nigerian government spends less on health than any other government in the world, with public health spending in 2016 amounting to 0.6% of GDP as a percentage of GDP and spending on health being very low as a share of government expenditure, with little for primary and preventive health care. Despite this, Sub-Saharan Africa (SSA) and Nigeria in particular lack sufficient and consistent levels of health resources required to build health capital (Tandon & Cashin, 2010). The goal of the 2001 Abuja Declaration was to increase SSA's public health spending to enhance population health. Few nations in the region, therefore, come even close to meeting the 15% government budget goal (Tandon and Cashin, 2010). Just six nations had met this goal in 2011, precisely ten years after the proclamation. Rwanda (23%), Liberia (18.9%), Malawi (18.5%), Madagascar (15.5%), Togo (15.4%), and Zambia (16.0%) were among these

nations. (World Bank, 2012). Additionally, compared to all other regions of the world, the SSA region had the lowest per capita health expenditure, rising from US$ 79.4 in 2000 to US$ 154.6 in 2011, which was significantly less than the global average of US$ 1026.5 in 2011. Additionally, the majority of health financing in the SSA region comes from private sources and is primarily composed of catastrophic out-of-pocket (OOP) expenditure, which the WHO estimates puts up to 10% of the population in these countries in financial hardship each year, pushing up to 4% below the poverty line (WHO, 2012). In a similar vein, other health-related inputs in the SSA region have consistently performed poorly over the years in comparison to other regions of the world.

For example, in 2010, the estimated density of doctors, nurses/midwives, and dentists per 10,000 people was 2.2, 9.0, and 0.4, respectively, compared to the global average of 14.2, 28.1, and 2.2 (WHO, 2012). To achieve goals like the Sustainable Development Goals (SDGs), the population health status in SSA must also be significantly improved, particularly for children. The region's nations continue to struggle with high rates of sickness and subpar performance in terms of child health outcomes. According to reports, the majority of the countries in the Africa region are unlikely to meet the MDG targets relating to child health, and the region is lagging. Additionally, according to WHO (2012), just eight nations were on track to meet the MDGs linked to health. According to Jacob & Akanni (2017), most of the nations in the region were only meeting half of what was needed to meet the goal in 2015.

The related studies show that public expenditure on primary healthcare promotes sustainable development. They show that much has been done on infant mortality, in areas of healthcare delivery. The spending of many nongovernmental organizations on health care delivery. Related studies on healthcare infrastructure. The related studies show that there is a significant relationship between public expenditure and health delivery.

Research Methodology

Both qualitative and quantitative data were gathered and examined using a mixed methodology. Officials from the Bauchi State Primary Health-Care Board, the SDGs office, medical staff, and the heads of the health departments in the six local governments made up the study's population. A total of 60 questionnaires were given out to medical staff. The respondents were given the surveys using a random sample technique. The respondents for the interview were chosen through the purposive approach. The impact of public spending on basic healthcare in Bauchi State was examined using simple linear regression. The technique was used to test the study's hypotheses at a 95% confidence level and a 5% level of significance. Because it quantified the impact of one variable on another, the simple linear regression analysis was used. This was accomplished by presenting and analyzing data using the Statistical Package for Social Sciences (SPSS) software.

Data Analysis

To ascertain the responses on the effect of adequacy of infrastructural facilities on primary healthcare facilities in Bauchi State, the variables were measured on a set of multi-item instruments, all scaled on a five-point Likert scale and presented in the table below:

Table 1. Analysis of Infrastructural Facilities for Primary Health-Care Facilities in the selected local Government Areas of Bauchi State

		NA	AV	UD	IA	A	Mean	Std.
1.	A detached building of at least 13 rooms	18	15	3	10	8	2.54	1.488
		33.3%	27.8%	5.6%	18.5%	14.8%		
2.	functional doors and netted windows	14	24	2	7	7	2.43	1.354
		25.9%	44.4%	3.7%	13.0%	13.0%		
3.	Safe water, from a motorized borehole	10	23	4	7	10	2.70	1.409
		18.5%	42.6%	7.4%	13.0%	18.5%		
4.	Functional separate male and female toilet facilities with water supply within	10	21	4	10	9	2.76	1.400
		18.5%	38.9%	7.4%	18.9%	16.7%		
5.	Pharmacy & Dispensing Unit	9	22	3	8	12	2.85	1.459
		16.7%	40.7%	5.6%	14.8%	22.2%		
6.	delivery room and Maternity/lying-in section	10	22	4	8	10	2.74	1.417
		18.5%	40.7%	7.4%	14.8%	18.5%		
7.	Laboratory area	10	18	2	15	9	2.91	1.431
		18.5%	33.3%	3.7%	27.8%	16.7%		
8.	Furniture	9	13	2	20	10	3.17	1.424
		16.7%	24.1%	3.7%	37.0%	18.5%		

Source: SPSS Output,2024

From Table 1, item one sought to evaluate whether they have a detached building of at least 13 rooms. The table showed 18 (33.3%) adequate, 15 (27.8%) inadequate, 3 (5.6%) undecided, 10 (18.5%) available, and 8 (14.8%) not available. This showed a high tendency towards adequacy as accounted for by the mean score of 2.54 and a standard deviation of 1.488.

Similarly, the second item assessed whether they have functional doors and netted windows. The results revealed 14 (25.9%) adequate, 24 (44.4%) inadequate, 2 (3.7%) undecided, 7 (13.0%) available, and 7 (13.0%) not available. This showed a moderate tendency towards agreement as accounted for by the mean score of 2.43 and a standard deviation of 1.354.

The third item sought to assess whether safe water could be obtained from a motorized borehole. The results revealed 10 (18.5%) adequate, 23 (42.6%) inadequate, 4 (7.4%) undecided,

7 (13.0%) available and 10 (18.5%) not available. This showed a moderate tendency towards agreement as accounted for by the mean score of 2.70 and a standard deviation of 1.409.

The fourth item sought to assess the availability of functional separate male and female toilet facilities with water supply. The results were - 10 (18.5%) adequate, 21 (38.9%) inadequate, 4 (7.4%) undecided, 10 (18.9%) available and 9 (16.7%) not available. The result indicates a tendency towards agreement as accounted for by the mean score of 2.76 and a standard deviation of 1.400.

The fifth item sought to assess whether there is a Pharmacy & Dispensing unit. The results were - 9 (16.7%) adequate, 22 (40.7%) inadequate, 3 (5.6%) undecided, 8 (14.8%) available and 12 (22.2%) not available. The result indicates a tendency towards agreement as accounted for by the mean score of 2.85 and a standard deviation of 1.459.

The sixth item sought to assess whether they have a delivery room and a maternity/lying-in section. The results were - 10 (18.5%) adequate, 22 (40.7%) inadequate, 4 (7.4%) undecided, 8 (14.8%) available and 10 (18.5%) not available. The result indicates a tendency towards agreement as accounted for by the mean score of 2.74 and a standard deviation of 1.417.

The seventh item sought to assess whether they have a laboratory. The results were - 10 (18.5%) adequate, 18 (33.3%) inadequate, 2 (3.7%) undecided, 15 (27.8%) available, and 9 (16.7%) not available. The result indicates a moderate tendency towards agreement as accounted for by the mean score of 2.91 and a standard deviation of 1.431.

The last item sought to assess whether they have furniture. The results were - 9 (16.7%) adequate, 13 (24.1%) inadequate; 2 (3.7%) undecided; 20 (37.0%) available and 10 (18.5%) not available. The result indicates a tendency towards agreement as accounted for by the mean score of 3.17 and a standard deviation of 1.424

Table 2: Expenditure on PHCs Infrastructural Facilities in Bauchi State from 2008-2023

S/no	Description of project	Period	Amount
1	Renovation of fifteen primary health care across the State	2008-2015	491,242,231
2	Construction of New Primary Health Care facilities across the State,	2008-2015	163,245,620
3	Supply of equipment, Beddings, and Drugs	2008-2015	196,131,831
4	Renovation/Upgrading of PHCs facilities across the State	2008-2015	615,624,132
6	MDGs intervention in PHCs	2008=2013	4,564,868,554
7	Total expenditure from SDGs Office	2015-2019	500,000,000
8	Counter funding to PHCS in the state	2018-2022	4,400,000,000
9	Renovation of Gokaru PHC, Alakeri	2019-2023	24,897,719
10	Renovation of Bugun PHC in Bogoro LGA	2019-2023	24,897,719
11	Renovation of Dajin PHC in T/Balewa LGA	2019-2023	24,897,719

12	Renovation of Madufia PHC in Zaki LGA	2019-2023	24,897,719
13	Renovation of Gongo PHC in Jama'are	2019-2023	24,897,719
14	Renovation Andubun PHC in Shira LGA	2019-2023	24,897,719
15	Renovation of Bura PHC in Ningi LGA	2019-2023	24,897,719
16	Renovation of Buranama PHC in Warji LGA	2019-2023	24,591,470
17	Renovation of Fagarau PHC in Dambam LLGA	2019-2023	24, 591,470
18	Construction of new Modern PHC at Gida Dabu, Bauchi	2019-2023	85,752,073
19	Construction of new Modern PHC at Fadama Mada Bauchi	2019-2023	76,000,000
	Total		**6,751,462,866.99**

Source: PHCDA Bauchi, 2024

Table 2 indicates that the total expenditure on the provision of health infrastructure in the State from 2008 to 2023 is over 6.7 billion on areas of renovation, upgrading of PHCs, construction, health equipment, beddings, drugs and consumables, across the PHC facilities in the State. Though there was no explicit record on the details of total expenditure from the SDGs Office for 2015-2019 of five hundred million naira (500,000,000), a large sum of the money was spent on Primary Health Care facilities, according to information from the SDGs Office. The 4.4 billion naira the state Government paid from 2018-2022, 813 million naira was as a counterpart fund, while the large sum was from the United Nations Sustainable Development Partnership Framework (UNDSDPF) work plan.

Similarly, data from the PHCS shows that there is a total number of 646 Primary Health Care Centers, 212 Primary Health Clinics and 442 Health Posts, making a thousand three hundred only (1300) Primary Health Facilities across the twenty Local Governments in the state. Seven hundred and fifty-one were renovated by the Bauchi State Government, National Primary Health Care Development Agency, Sustainable Development Goals (SDG), Nigerian States Health Investment Project (NSHIP), Constituency Project, EU-UNICEF Project and Plan International Project. A total of five hundred and forty-nine (549) Primary Health Care facilities were not renovated across the twenty local governments in the State. Some of the facilities needed upgrading, while some needed renovations, and in some cases, construction of new ones, due to population increase.

H_{O4}: Capital expenditure has no significant effect on the provision of infrastructural facilities for primary healthcare in the selected local Government Areas of Bauchi State.

Table 3: Model Summary of the effect of the adequacy of infrastructural facilities for primary healthcare facilities in the selected local Government Areas of Bauchi State

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.932ᵃ	.869	.869	.44001

a. Predictors: (Constant), Adequacy of Infrastructural Facilities

R-squared 0.932 is approximated to $R^2 = 0.869$. When approximated, it becomes 0.87. This means the predictor has 87% variance with the dependent variable.

Table 4: ANOVA for the effect of adequacy of infrastructural facilities for primary healthcare facilities in the selected local Government Areas of Bauchi State

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	215.048	1	215.048	1110.744	.000ᵇ
	Residual	32.332	167	.194		
	Total	247.380	168			

a. Dependent Variable: Primary Healthcare Facilities
b. Predictors: (Constant), Adequacy of Infrastructural Facilities
F (1110.744), P value = 0.000 which is < 0.05 hence shows a significant relationship

Table 5: Coefficients for the effect of Adequacy of Infrastructural Facilities for Primary Healthcare Facilities in Tte Selected Local Government Areas of Bauchi State

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.401	.152		-9.239	.000
	Adequacy of Infrastructural Facilities	1.390	.042	.932	33.328	.000

a. Dependent Variable: Primary Healthcare Facilities

Model Summary Table shows R-value of 0.932; R square 0.869 which is approximated to $R^2 = 0.87$, Anova Table (Test using Alpha 0.5) shows F = 1110.744, P = 0.000, that is, < 0.05, mean square of 215.048 and Coefficient Table (Predictor Test at Alpha 0.05); t value of -9.239 and 33.328 with std. error of 0.152 and 0.042.

The result of the model showed an R value of 0.805, which is the coefficient of determination shown in Tables 5.3, 4 and 5. This depicts that about 64% of the current expenditure has a significant effect on the provision of infrastructural facilities for primary healthcare in the selected Local Government Areas of Bauchi State. Therefore, based on the observed findings, the

null hypothesis earlier stated is hereby rejected and the alternative upheld. Thus, expenditure has a significant effect on the provision of infrastructural facilities for primary healthcare in the selected Local Government Areas in Bauchi State.

Discussion of Findings

The findings revealed that capital expenditure has a significant effect on the provision of infrastructural facilities for primary healthcare in Bauchi State. Table 5.21 indicates that the total expenditure on the provision of health infrastructure in the State from 2008 to 2023 was over 6.7 billion naira on areas of renovation, upgrading of PHCs, construction, health equipment, beddings, drugs and consumables across the PHC facilities in the State. Though there was no explicit record on details of total expenditure from the SDGs Office for 2015-2019 of five hundred million naira (500,000,000), a large sum of the money was spent on Primary Health Care facilities, according to information available from the SDGs Office. Data from the interviews show that there is a total number of 646 Primary Health Care Centers, 212 Primary Health Clinics and 442 Health Posts, totalling one thousand three hundred (1300) Primary Health Facilities across the twenty Local Governments in the state. Seven hundred and fifty-one were renovated by the Bauchi State Government, National Primary Health Care Development Agency, Sustainable Development Goals (SDG), Nigerian States Health Investment Project (NSHIP), Constituency Project, EU-UNICEF Project and Plan International Project. A total of five hundred and forty-nine (549) Primary Health Care facilities were yet to be renovated across the twenty local governments in the State. Some of the facilities needed upgrading, while some needed renovations, and in some cases, construction of new ones due to population increase.

The responses revealed that only the old Federal Ward had their PHC facilities constructed with a detached building of at least 13 rooms. Not all Primary Health Care facilities had safe water from a motorized borehole because some boreholes were not functioning. Ward Primary Health Care Centers had separate male and female toilet facilities, but most of them were not functional and no water supply. Most of the new PHCs were constructed without Staff accommodation, and the old PHCs where staff accommodation was provided were in a deplorable condition and no longer useful. The interview revealed that ANC, Health Education, and ORT corner, Staff station, consulting rooms, Pharmacy & Dispensing unit and delivery room and Maternity/lying-in section were provided in the facilities, but some units were not functional due to the inadequacy of personnel. Most PHCs had laboratory areas, but the inadequacy of the health personnel and equipment rendered them useless. Medical Record section, minor procedure room, and store were available in most health facilities, but a food demonstration area and kitchen were not provided. The challenge faced in funding health infrastructural facilities is a lack of statutory allocation from the Federal Government, specifically provided for the construction of PHC facilities in the Country.

This study supports the findings of Oyekale (2017), who examined the service readiness of Primary Health Care (PHC) facilities in Nigeria using qualitative data, concentrating on the availability of certain necessary medications and medical supplies. Data from Nigeria's PHC Service Delivery Indicator (SDI) was used. Between 2013 and 2014, 2480 healthcare facilities across 12 states in Nigeria's six geopolitical zones provided the data. Descriptive statistics were employed to evaluate the data, including Ordinary Least Squares regression and Principal Component Analysis (PCA).

In contrast, Paul & Okolie (2022) found some issues, including the prevalence of epileptic health care services, a lack of maintenance for infrastructure, a shortage of middle-level skilled labor, a lack of political will to implement and evaluate policies, a lack of funding and

management, and apathy in the management of Primary Health Care in Nigerian rural areas. Also, Faisal (2022) found that over 70% of primary healthcare facilities in Nigeria lack the necessary supplies, medications, and utilities. In a similar vein, CODE found that 80 percent of 90 primary healthcare facilities in 36 states throughout Nigeria were inadequate and unfit to store and efficiently administer COVID-19 vaccines in a July 2021 study. However, the research is consistent with a study by Okeowo (2022), who found that four (4) PHCs in Bauchi state were in good condition, and the areas they targeted were medical personnel, including medical officers, non-medical officers, and health workers' welfare.

Conclusion and Recommendation

The findings revealed that capital expenditure has a significant effect on the provision of infrastructural facilities for primary healthcare in Bauchi State. This indicates that from 2008 to 2023, there is an increase in public expenditure on renovation, upgrading of PHCs, construction, health equipment, beddings, drugs and consumables across the PHC facilities in the state. It was also revealed that much has been done in the provision of health infrastructure, though some structures need renovation and expansion to meet the needs of the people at the grassroots level.

Primary health care is essential in national transformation and is a key concept in the Sustainable Development Goals of Vision 2030. The study concluded that there is a need for a consistent and collective effort by the Government to provide infrastructural facilities, to ensure the provision of qualitative primary health care services to the people. The government needs to invest more in providing health infrastructure to meet the needs of the growing population, especially during this economic hardship, where things are becoming harder and people cannot access private clinics due to insufficient funds.

The study recommends increasing capital expenditures for the development and maintenance of infrastructural facilities in the primary healthcare sector. This includes constructing and upgrading healthcare facilities to ensure accessibility and quality service delivery to the community to meet the needs of the increasing population.

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