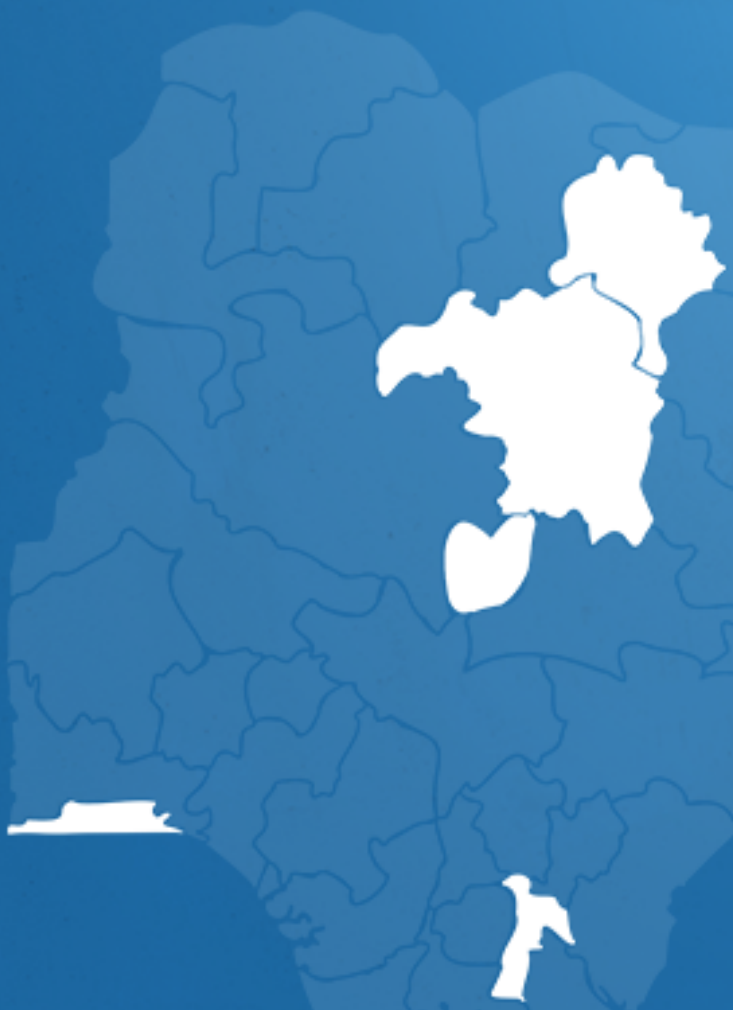
Dataphyte



Access to Health in Nigeria

Indicators, Investments and Insights Across 5 States.

AUGUST, 2020

Background

Nigeria's health system remains among the worst-performing globally. In 2019, the Legatum Institute ranked Nigeria 162 out of 167 countries in terms of health performance. Nigeria's recent move to lower-middle-income country status is causing development partners to exit the health sector. One plausible reason for this stagnation is underperformance in the country's primary health care (PHC).

The 2018 National Demographic Health Survey (NDHS) shows that common preventable diseases such as malaria, diarrhea, and malnutrition are major causes of morbidity and mortality in children. Under-five mortality rate is 132 per 1000 live births while the maternal mortality as of 2017 is 917 per 100,000 according to Index Mundi. Antenatal care attendance and delivery by skilled health providers are 61% and 38% respectively and only about a quarter of children are fully vaccinated. Nigerians have an average life expectancy of 52.62 years.

According to Trading Economics, the Gross Domestic Product (GDP) in Nigeria per capita was worth 410 billion US dollars in 2019. The GDP value of Nigeria represents 0.34 percent of the world economy. According to data from the World Bank, it shows that as of 2017, total health expenditure as a proportion of GDP was 3.76% and out-of-pocket payments represent over 95 percent of health expenditure.

This report looks into the country's health system, the challenges, budgetary implementation, corruption and mismanagement, weak institutions, especially in the rural areas. This report also makes some recommendations on how the Nigerian health sector could be revamped.

For service delivery, Nigeria ranks second lowest when it comes to drug availability, minimum infrastructure, and diagnosis accuracy, the second-highest absence rate and time spent with patients and also one of the countries with the lowest percentage of facilities with minimum equipment and the lowest caseload among five countries.

According to a Dataphyte report, health is rarely prioritised as a fundamental human right by policymakers in Nigeria; hence, the country's inability to implement the Abuja Declaration of 2001 in which African heads of state pledged to set a target of earmarking at least 15% of their annual budget to improve the health sector. Increasing investment in the health of the people has been a challenge for decision-makers in spite of evidence showing the link between health and economic development.

Overview of the Nigerian Health Sector: Health and WASH in Numbers.[1]

Nearly 90% of the diarrhoeal disease burden is estimated to be linked to poor water, sanitation, and hygiene. This is according to a 2018 Nigeria Demographic and Health Survey (2018 NDHS) by the National Population Commission (NPC). The survey was conducted in collaboration with the Federal Ministry of Health. The survey also states that the lifetime risk of maternal death is that one in 34 women in Nigeria will have a death related to maternal causes.

Water **66% of households** 66% (74%:urban areas and 58%: rura) have access to an improved source of drinking water	**Sanitation** **56% use improved sanitation facility** Only 56% of Nigerian households use an improved sanitation facility.	**Hygiene** **Almost 90%** Nearly 90% of the diarrhoeal disease burden is estimated to be linked to poor water, sanitation, and hygiene provision.	**Vaccinations** **31%** Just 31% of Children age 12-23 months had received all basic vaccinations
Electricity 59% **59% household have electricity (83% in urban and 39% in rural use electricity)**	**Out of pocket spending** Nigeria's out of pocket spending is 95.7% instead of the recommended benchmark of 20%. Nigeria is 75.5% away from the recommended benchmark.	**Maternal mortality** **1/34 women** **The lifetime risk of maternal death indicates that one in 34 women in Nigeria will have a death related to maternal causes.**	**Infant mortality** 132 deaths per 1,000 live births. Infant and under-5 mortality rates for the five-year period are 67 and 132 deaths per 1,000 live births.
Delivery 43% of births are assisted by skilled providers while 32% of the majority of births are delivered by a nurse/midwife.	**Antenatal care** Two-thirds of women between age 15-49 receive antenatal care from a skilled provider (doctor, nurse, midwife, or auxiliary	**Neonatal mortality** **39/1,000** Nigeria's 2018 neonatal mortality rate is 39 of 1,000 live births	**18** Reported cases of circulating vaccine-derived poliovirus type 2 (cVDPV2)

[1] https://apps.who.int/gho/data/node.cco.ki-NGA?lang=en

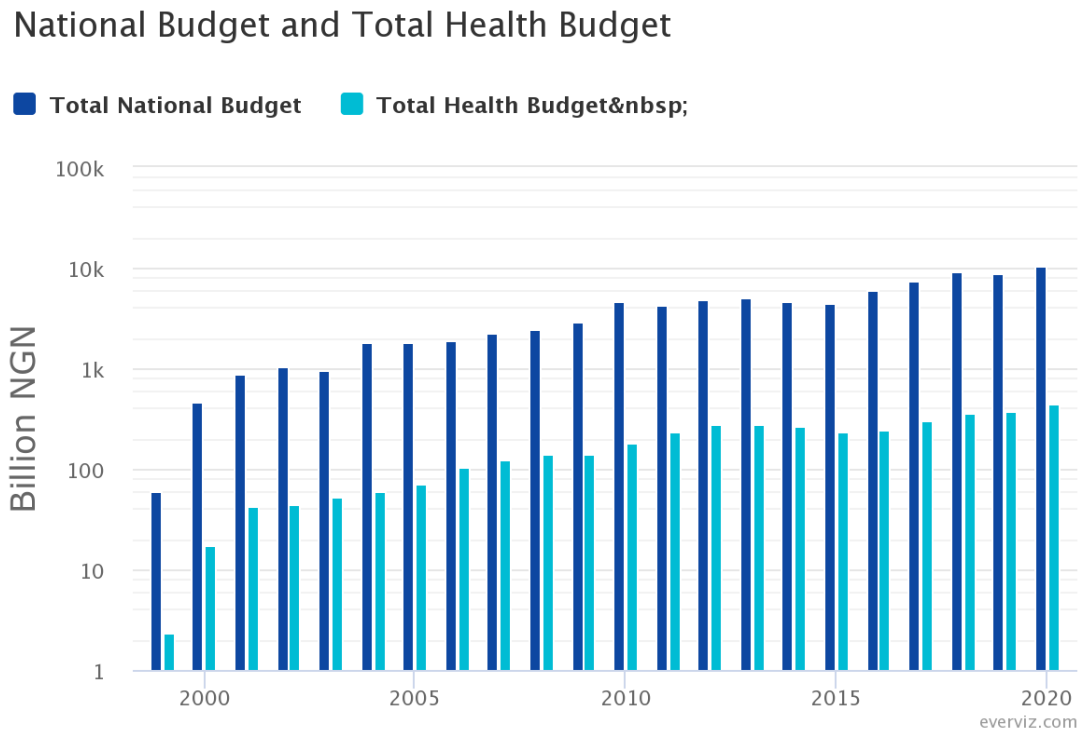
	nurse/midwife), most commonly from a nurse/midwife 48%		
Malaria In Nigeria, 23% of children between age 6-59 months were tested positive for malaria while 52% of children under five slept under an insecticide- treated net over the night	**Anaemia** 68% of children, 58% women Most children age 6-59 months and more than 50% of women age 15-49 are anaemic.	**ARI symptoms** 75% of children Children under the age 5 had had symptoms of ARI	**Diarrhea** **65% of children** In Nigeria, 65% of children under age 5 had diarrhea in 2018; 50% received ORT, while 17% received no treatment.

Nigeria's Healthcare Indices by World Health Organisation - Demographic Health Survey (DHS) Program. 2018

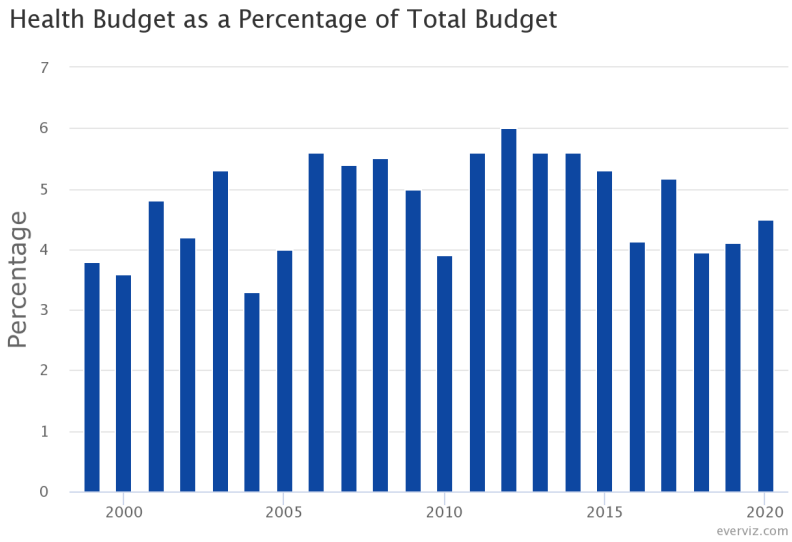
Budgetary Allocation to the National Health Sector since 1999[2]

Since 199, the overall health budget has been increasing but this is because the national budget has also been increasing. While the increase has been disproportionate, it is also more of the nominal health budget that has witnessed a steady increase from 2016. This is shown in the chart below. (See Appendix A for the table)

[2] https://www.data.dataphyte.com/wp-content/uploads/2020/05/HEALTH-BUDGET-ANALYSIS.pdf



However, a composition analysis of the health budget as a percentage of the national budget shows that, despite the fact that the nominal health budget increased steadily from 2016, the overall percentage to total health budget only experienced a steady increase from 2018. Moreover, Nigeria has never met the global recommendation in terms of the percentage of the national budget that should be committed to the health of its citizens. In April 2001, Nigeria as well as other African Union countries pledged to allocate at least 15 percent of their annual budget to improve the health sector. This commitment has never been met by Nigeria. The highest commitment to health in the national budget is 6 percent and this was in 2012. This is shown in the chart below. (See Appendix A for the table)

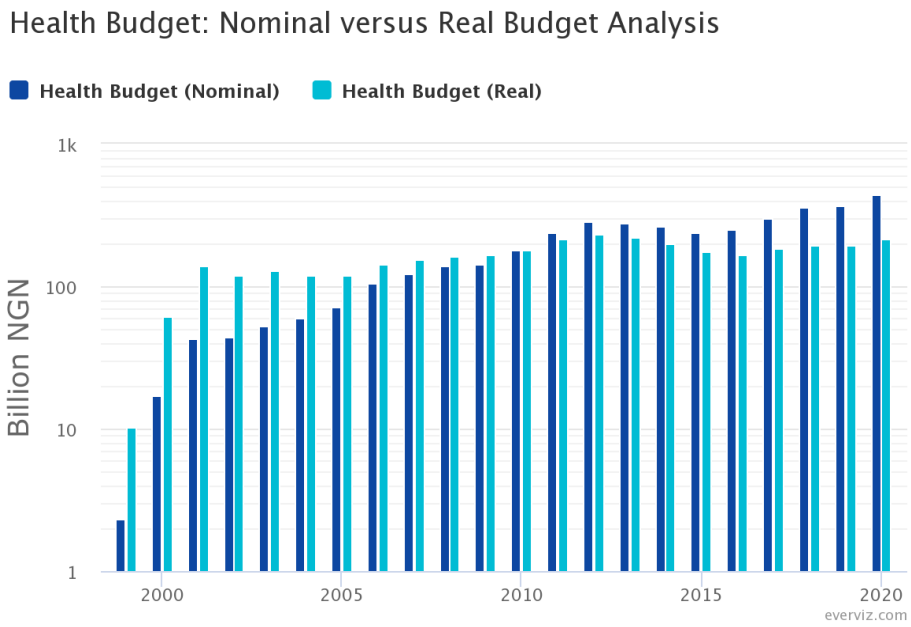


A further analysis shows that, while the Federal government continues to boast about increasing the health budget, this reality is twisted. To know the value of money, economists use real value analysis, which adjusts the cash worth of a currency (nominal) with the existing inflation or GDP deflator for that period. This is referred to as the real value of the money or what commodity or service the money can really buy at the market:

> *The nominal value of any economic statistic is measured in terms of actual prices that exist at the time. The real value refers to the same statistic after it has been adjusted for inflation. To convert nominal economic data from several different years into real, inflation-adjusted data, the starting point is to choose a base year arbitrarily and then use a price index to convert the measurements so that they are measured in the money prevailing in the base year. - Khan Academy*

Based on this adjustment, Nigeria's real health budget is highly inadequate to respond to the myriads of health challenges faced by the country. As shown in the chart below (See Appendix C for the table), while the real health budget was higher than the nominal health budget prior

to the base year, 2010; it has remained lower with about 200 billion naira difference as of 2020.



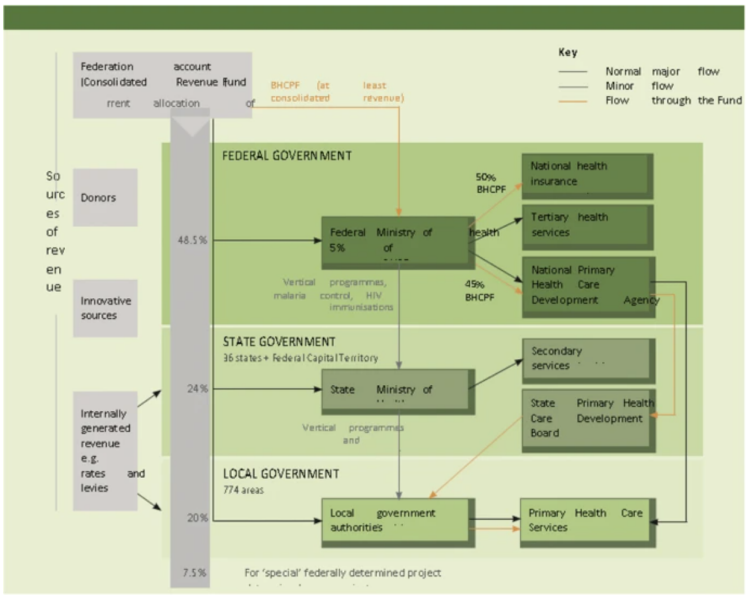
Budget Allocation to the Primary Healthcare Sector[3][4]

Primary health care (PHC) is the backbone of any health system, and quality PHC initiatives have been recognized as fundamental to improving health outcomes in any country. Health gains, oftentimes associated with income growth, have been stubbornly slow in Nigeria in the past 25 years. The outcomes in Nigeria are extremely poor despite decades of health funding by the government and several international assistance.

Nigeria has three levels of health care delivery system comprising tertiary, secondary, and primary which are provided by federal, state, and local governments respectively. While PHC policy thrusts mostly originate from the national level, implementation is largely the responsibility of the local government authorities (LGAs), although coordinated and supervised by the state governments. The goal of the National Health Policy is to bring about a comprehensive healthcare system based on a PHC that is promotive, protective, preventive, restorative, and rehabilitative to all citizens within the available resources such that individuals and communities are assured of productivity, social well-being and enjoyment of living.

[3] https://ptcij.org/wp-content/uploads/2015/12/Rethinking-Health-Care.pdf
[4] https://ptcij.org/wp-content/uploads/2015/12/Budgeting-for-Health-and-Nutrition-in-Nigeria.pdf

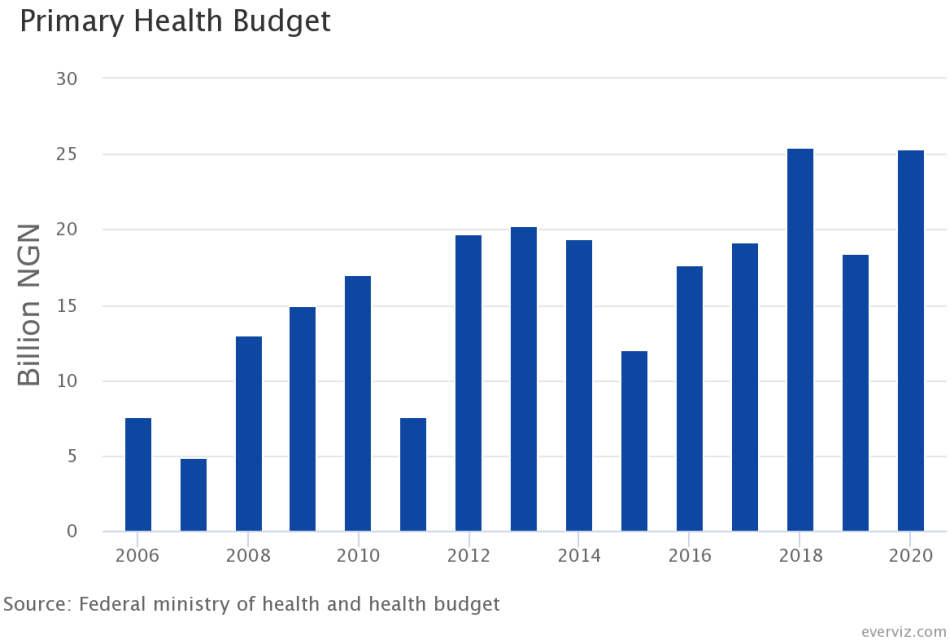
Fig. 1



Flows of funds from health services

Health Funding across Tiers of Government

In addition, commitment to Primary Health Care (PHC), has also been fluctuating even though there is a notable increase in the last three years. The budget on PHC has fluctuated tremendously. It has not experienced a steady growth beyond three years on the stretch. The budget fell from N25.4 billion in 2018 to N18.4 in 2019, a 27.6% decrease. And then increased by 37.5% in 2020 to N25.3 billion. This is shown in the chart below. Also, see Appendix B for the table.



Budget performance and Health Outcomes[5][6][7][8][9][10]

Aside from the low budget allocation to health in general as well as the primary healthcare provision in Nigeria, there is a bigger problem with the actual fund released to the health agencies to carry out their service delivery mandate.

Based on the data sourced from the Budget Office of the Federation, only 55.6 percent of the capital allocation to health was released in 2013. Likewise, only 53.9%, 97.1%, 87.84 and 61.3% were released for the budget cycle of 2015 to 2018 respectively. Knowing full well that capital allocation is the fiscal component dedicated to the infrastructural development of the health sector, the expectation is that given the low budgetary allocation, the release would be 100 percent. Overall, the average budget release also speaks to the commitment of the government to the health sector.

[5] Health Budget Performance 2013

[6] Health Budget Performance 2014

[7] Health Budget Performance 2015

[8] Health Budget Performance 2016

[9] Health Budget Performance 2017

[10] Health Budget Performance 2018

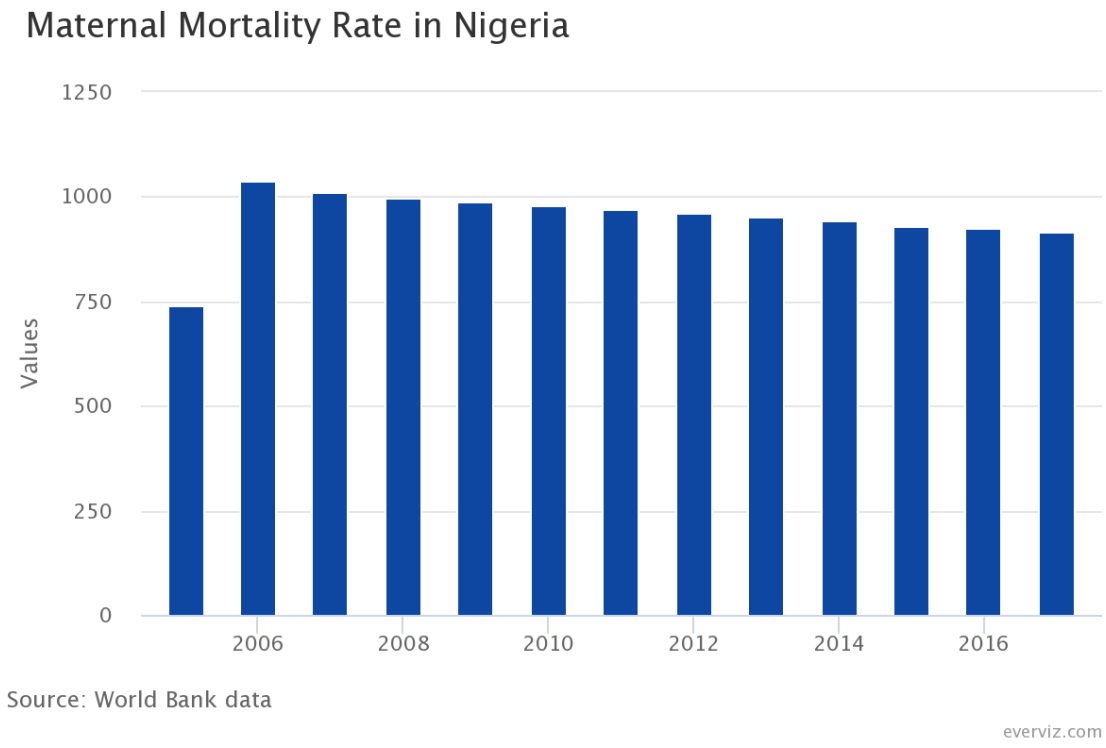
*2014 contains for first and second quarters only

This unfavourable investment in the overall healthcare delivery, especially the low investment in Primary Healthcare in the country, has continued to negatively impact the health indicators for the country. For instance, the maternal mortality rate in Nigeria is still very high. The MMR has improved over the years as shown in the chart below with a steady and continuous decrease in periods after 2006. The highest figure was in 2006 which was 1,040, thereafter, it dropped gradually over the years. The figure in the last period (2017) was 917.

However, though the new DHS reveals a high reduction rate as at 2017, there are very slim chances the country will meet the Sustainable Development Goal (SDG) 3.1, which seeks to significantly cut the number of deaths to 70 per 100,000 live births by 2030.

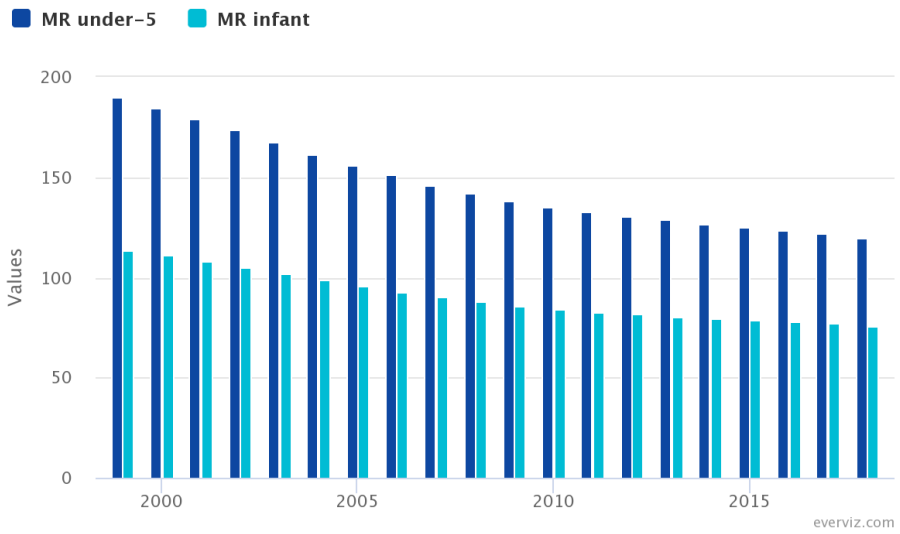
Health budget performance data revealed that not all the monies allocated for capital projects were released to the ministry. Out of the allocated money from the budget, only 55.56% was released in 2013, 8.88% in 2014* 55.58% in 2015 whereas 97.84%. 87.84% and 61.27% were released in 2016, 2017 and 2018 respectively.

From the cash released to the ministry, it utilized 95.91% of it to carry out capital projects in the year 2013. Implementation report shows that 83.61% was utilised in 2014, 74.27% in 2015 and 92.77%, 92.775 and 83.47% were utilised for the years 2016, 2017, and 2018 respectively.



Also, the rate of infant mortality and children below 5 years has improved. The chart below shows that from 1999, there has been a steady reduction in these rates over the years. At the final period under review, the figures are 75.7 and 119.9 respectively. However, the number of deaths is still very high and preventable.

Infant Mortality Rate in Nigeria



Case Study of Health Budget and Outcomes in 5 States

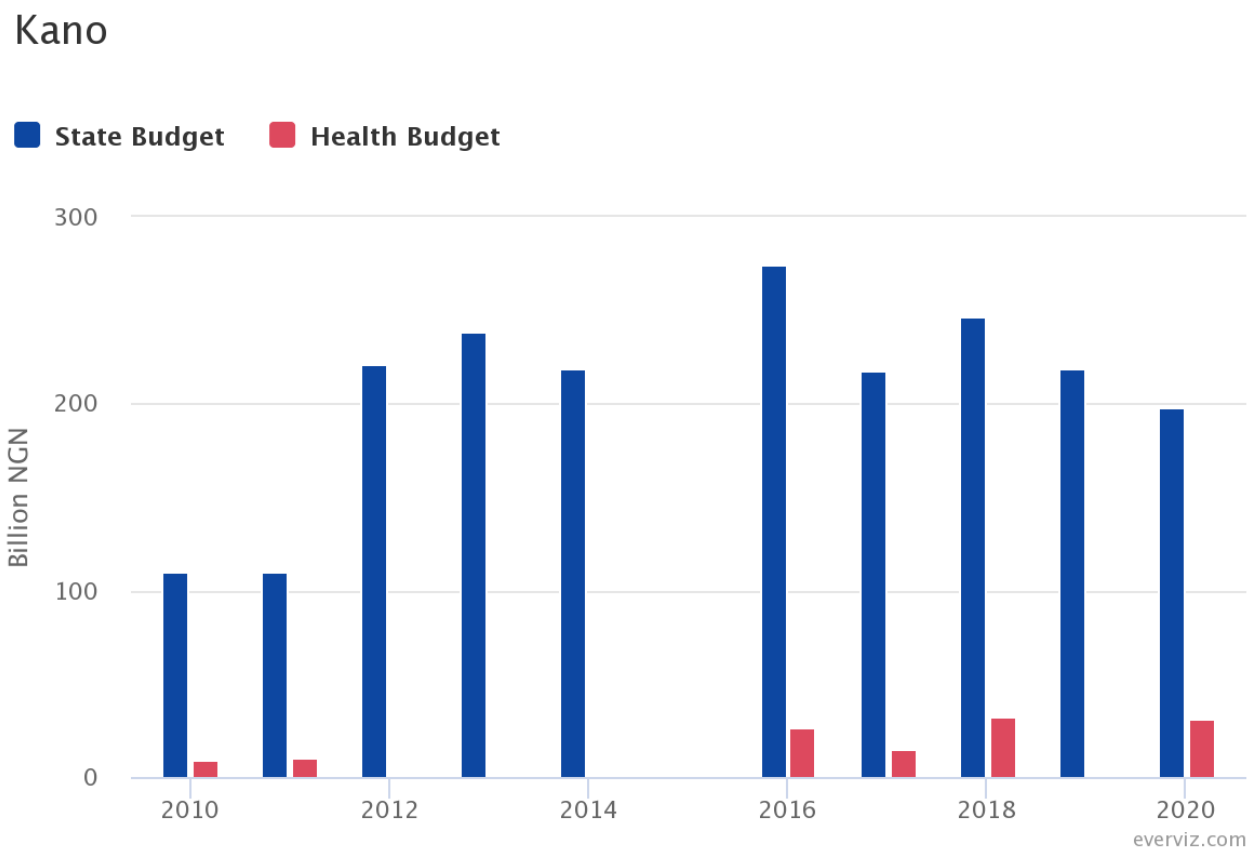
Year	FCT		Kaduna		Kano		Lagos		Abia	
	State Budget	Health Budget	State Budget	Health Budget	State Budget	Health Budget	State Budget	Health Budget	State Budget	Health Budget
2010			196.7	5.12	110	8.8	411.57		60.7	
2011	236.1		136.5	5.91	109.5	10.7	450.78		80.2	
2012	306.4		154.3	6.51	221.62		491.94		122.4	
2013	259.6		176.4	6.7	238.5		507.11		137	
2014	271.1		198.6	10.58	219.28		489.69	22.07	80.316	
2015	241		200.7	8.2			489.69	36.16	105.876	
2016	241.46		172.3	13.05	274.329	27.009	662.59	46.9	96.779	4.44
2017	222.3		214.9	26.54	217.93	15.21	813	51.45	111.728	
2018	371.5		216.5	17.58	246.6	32.24	1046.12	92.67	141	5.62
2019	243.4		239.13	11.435	219		873.53	21.06	140.207	2.224

2020	232.8	20.621	259.25	30.296	197.68	30.7	1168		136.6	4.17

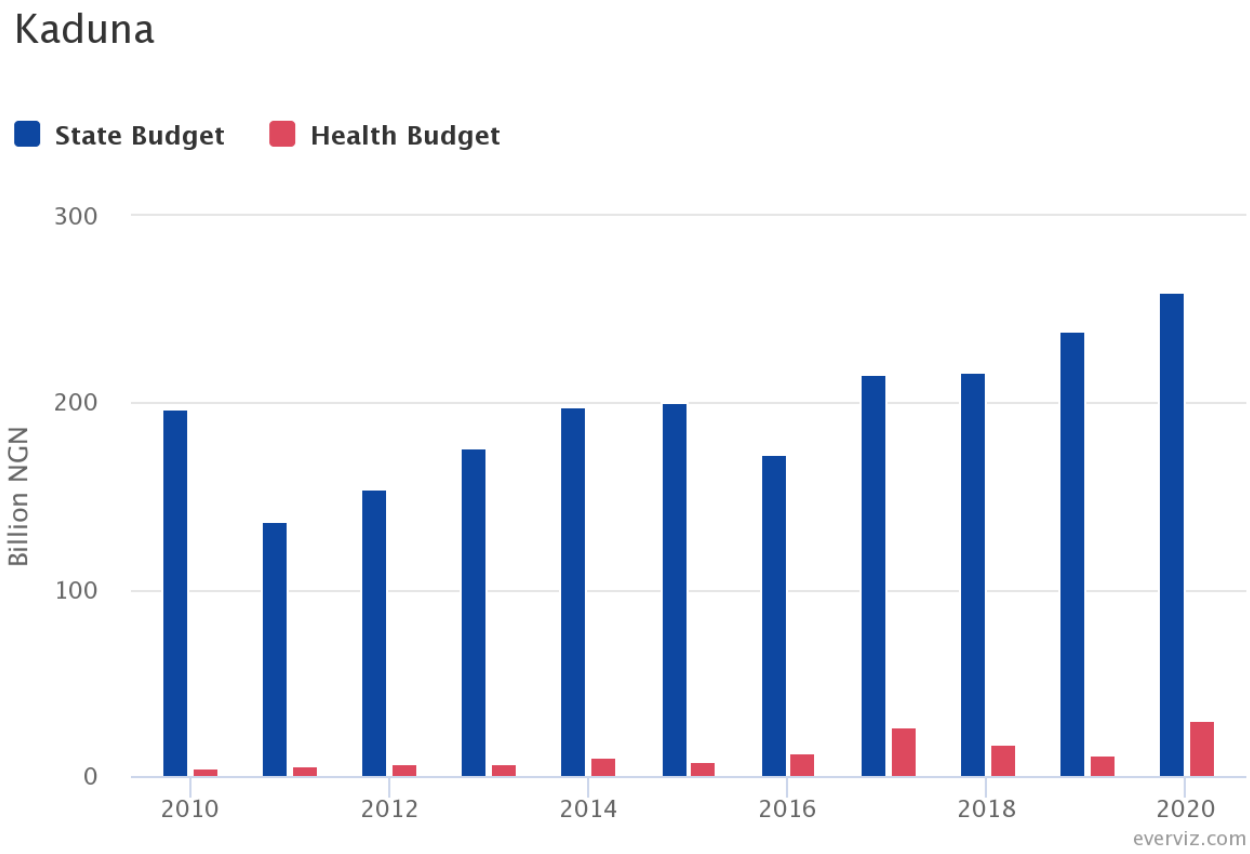
The budget for health as earlier mentioned is generally low when compared to the total budget. An analytical review of five states in the country shows a varying degree of health budget to total budget in these states.

However, there is a problem of data insufficiency as most of the states do not have a well detailed budget reporting system. The data sourced from the various state channels revealed that most state budgets for health did not make double figures in percentages for the years under consideration.

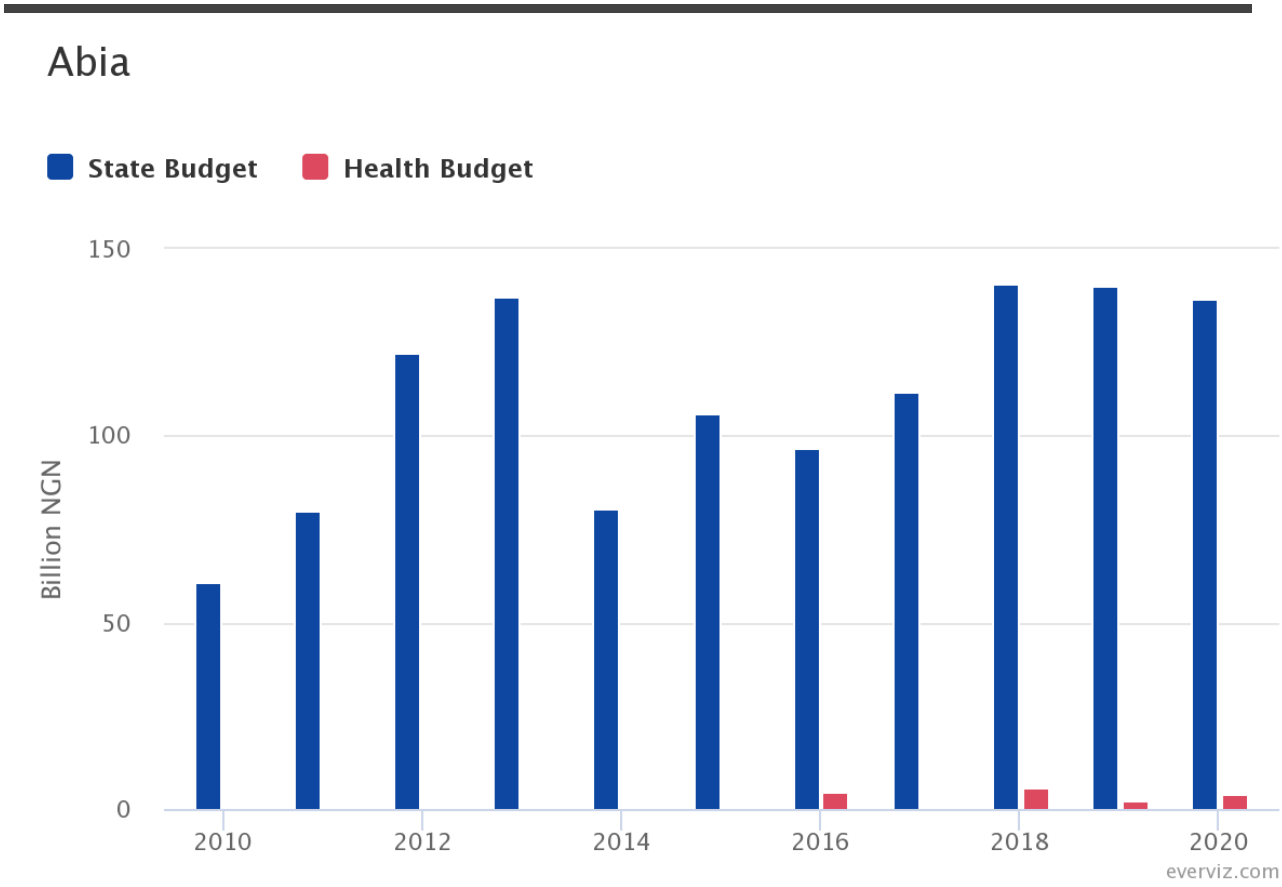
This study reveals that the five states reviewed spend very little on health. Individual state analysis shows that Kano's spending on health compared to its total budget has been inconsistent over the years. The highest of that spending was in 2020 when the health budget accounts for 15.5% of its total budget.



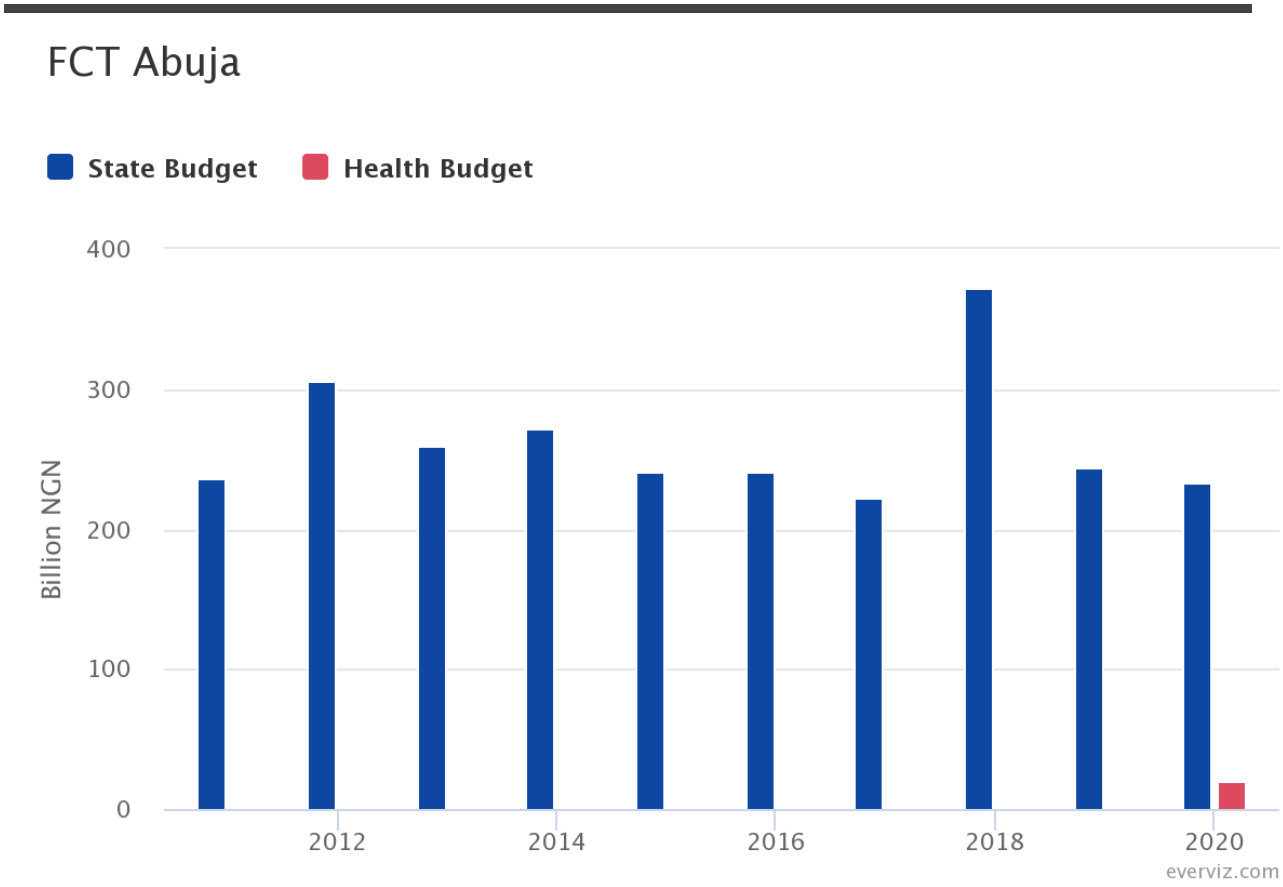
The health spending in Kaduna state shows a fluctuating variance to total budget. The 2010 health budget made up 2.6% and increased to the region of 4% in the next two years then dropped to 3.8% in 2013. It increased to 5.3% then dropped to 4.1% in the two preceding years. The budget for the last three years is 8.15%, 4.8% and 11.69% from 2018 to 2010 in that order.



Of the five states reviewed, Abia has the least proportion of its budget allocated to health. Figures for the last three years shows that in 2018, the health budget made 3.9% of the total budget. For the year 2019, it fell to 1.6% of the total budget then rose to 3.1% in 2020.

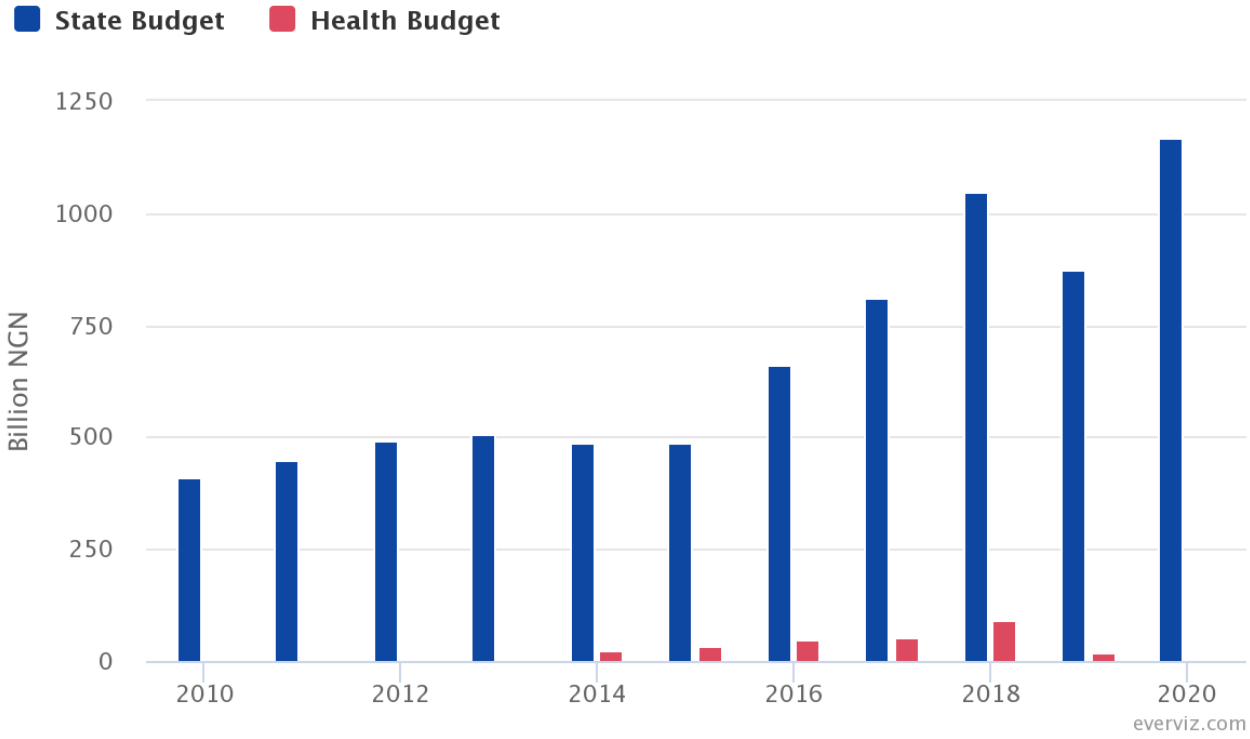


The budget review of the Federal Capital Territory shows that it intends to spend 8.9% of its budget on health.



Lagos state health budget has been unsteady over the years. 4.5% of its budget was dedicated to health in 2014. This figure rose to 7.4% in 2015 then dropped to 7.1% in the next year. It further dropped to 6.3% then increased to 8.7%, later falling with a great margin to 2.4% in 2019.

Lagos

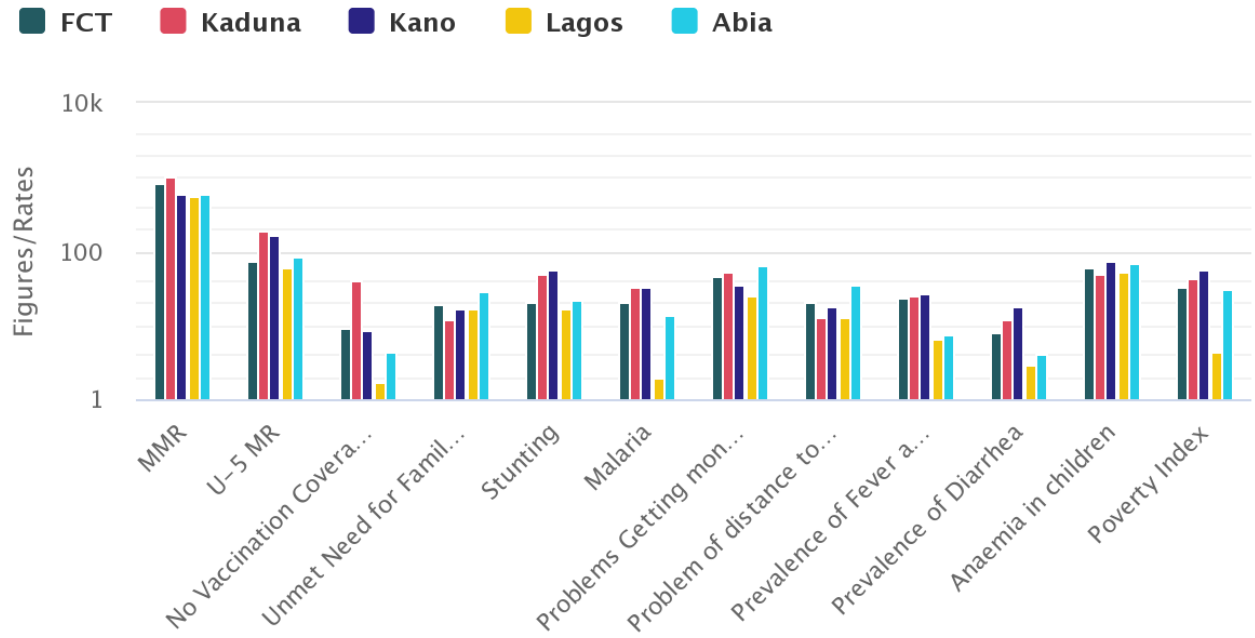


State	FCT	Kaduna	Kano	Lagos	Abia
MMR	814	1025	576	545	576
U-5 MR	75	187	164	59	86
No Vaccination coverage	9	40.2	8.8	1.7	4.3
Unmet Need for Family Planning by State	19	12	17	17	29

Stunting	21	48	57	17	22
Malaria	20	33	32	2	14
Water source					
Good toilet					
Problems Getting money for treatment	47.6	52.3	34.2	25	65.4
Problem of distance to facility	20.2	13	17.7	12.7	34.4
Prevalence of Fever among under 5	23.3	25.8	26.4	6.7	7.7
Prevalence of Diarrhea	8.2	11.8	17.7	3	4
Anaemia in children	58.8	48.4	74.9	51.8	67.1
Poverty Index	33.6	43.8	55.08	4.5	30.67

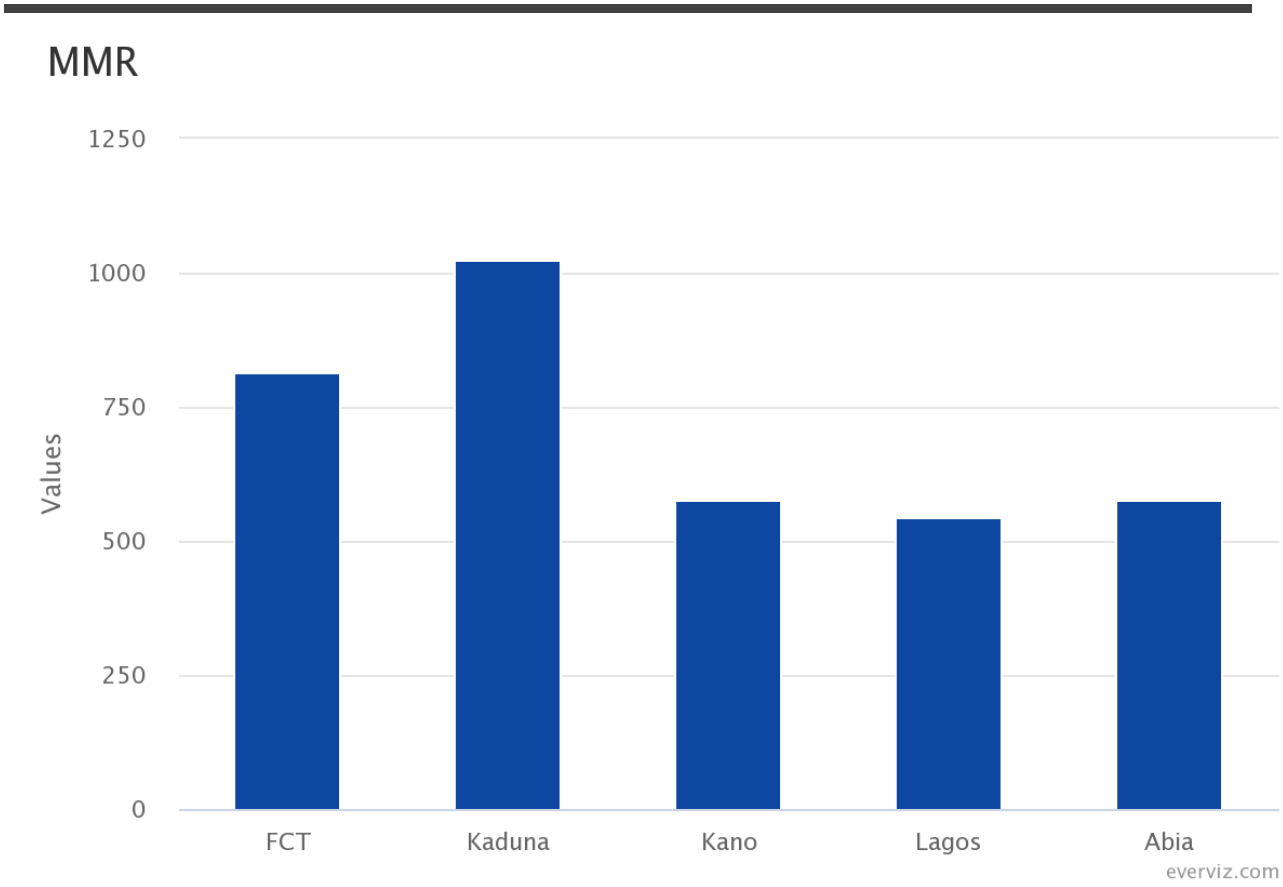
Source: 2018 Nigeria Demographic and Health Survey (2018 NDHS)

Case Study of Five State Health Performance Figure

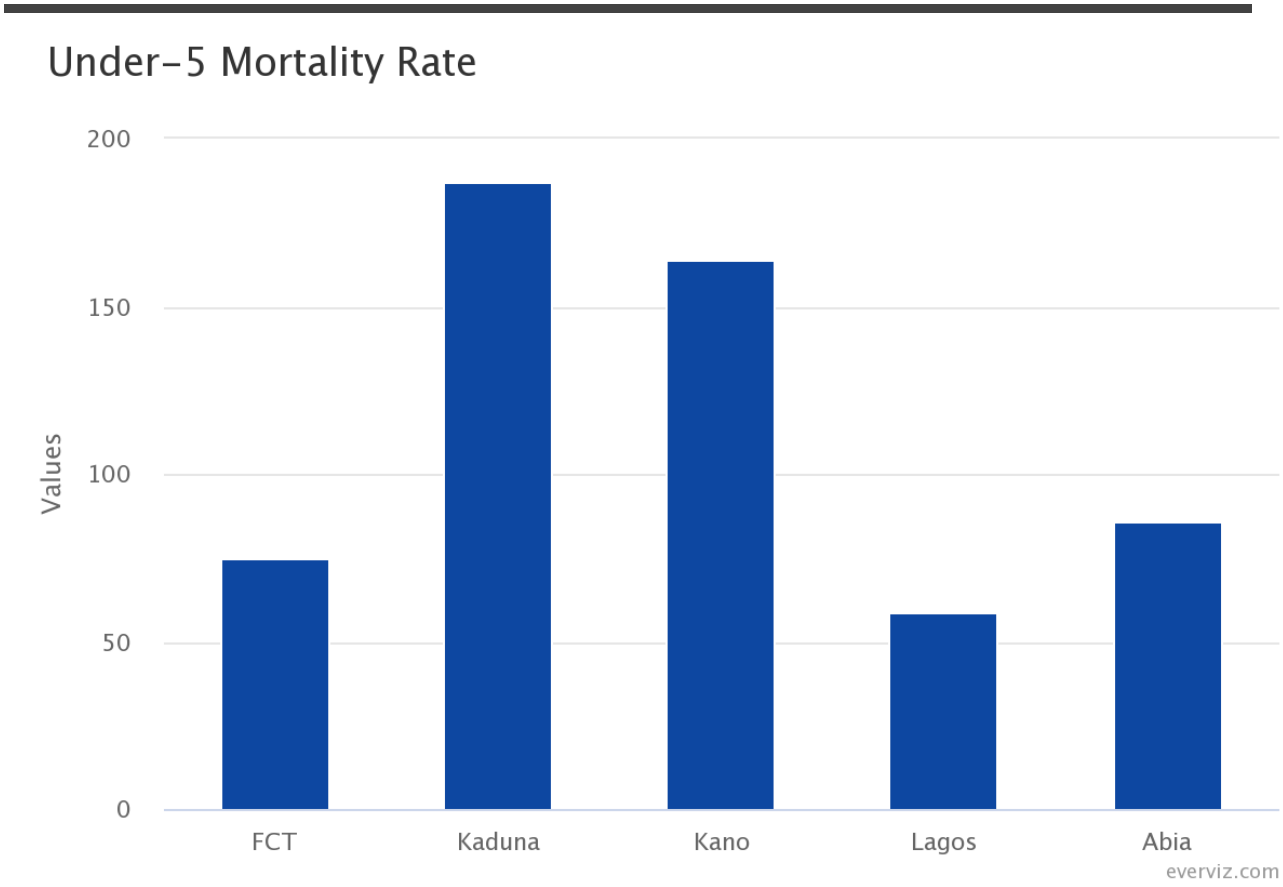


Source: 2018 Nigeria Demographic and Health Survey (2018 NDHS)

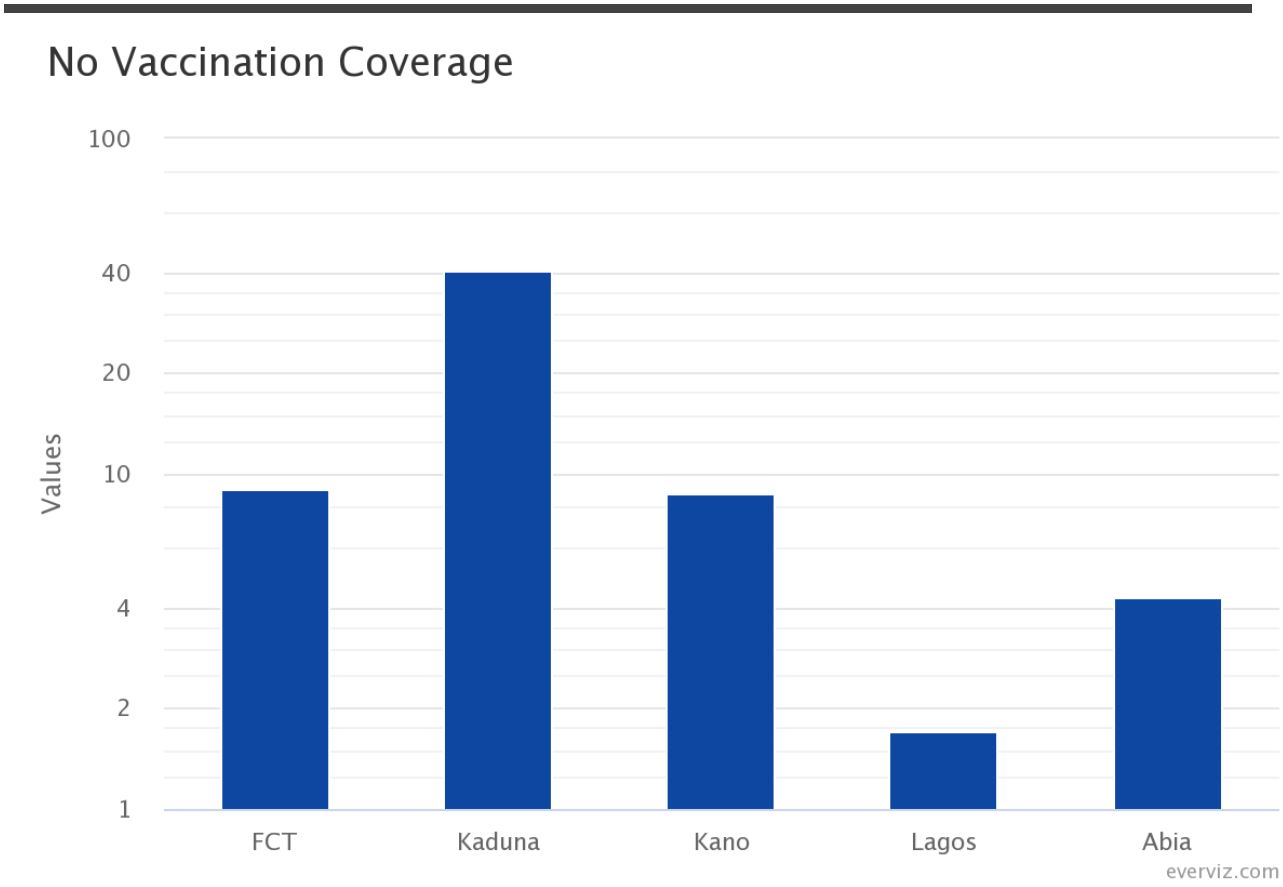
everviz.com



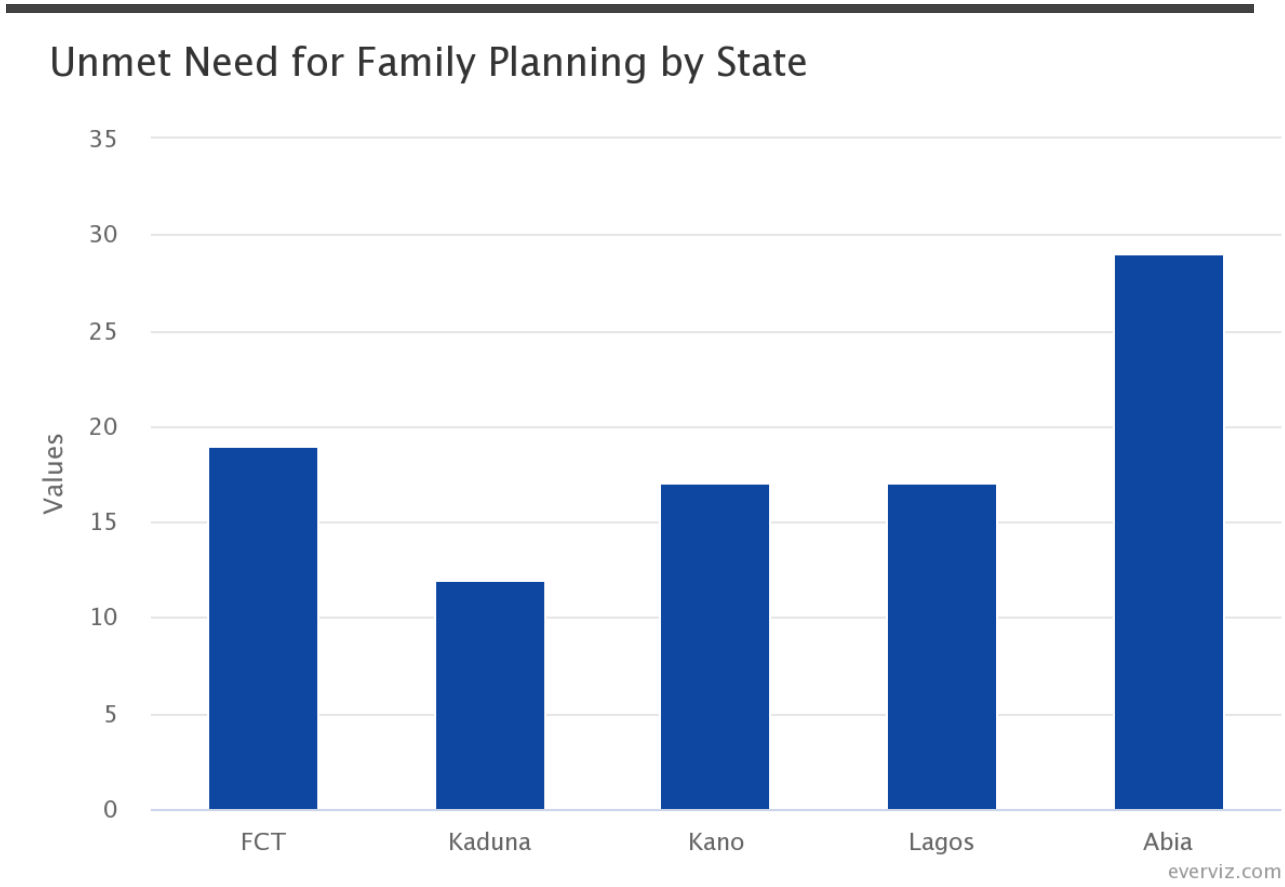
Data report shows that out of five states Kaduna has the highest rate of Maternal Mortality Rate (MMR) of 1,025 per 100,000. The rate in FCT surprisingly comes next with a figure of 814. Kano and Abia have the same rate of 576 while Lagos is the lowest with 545.



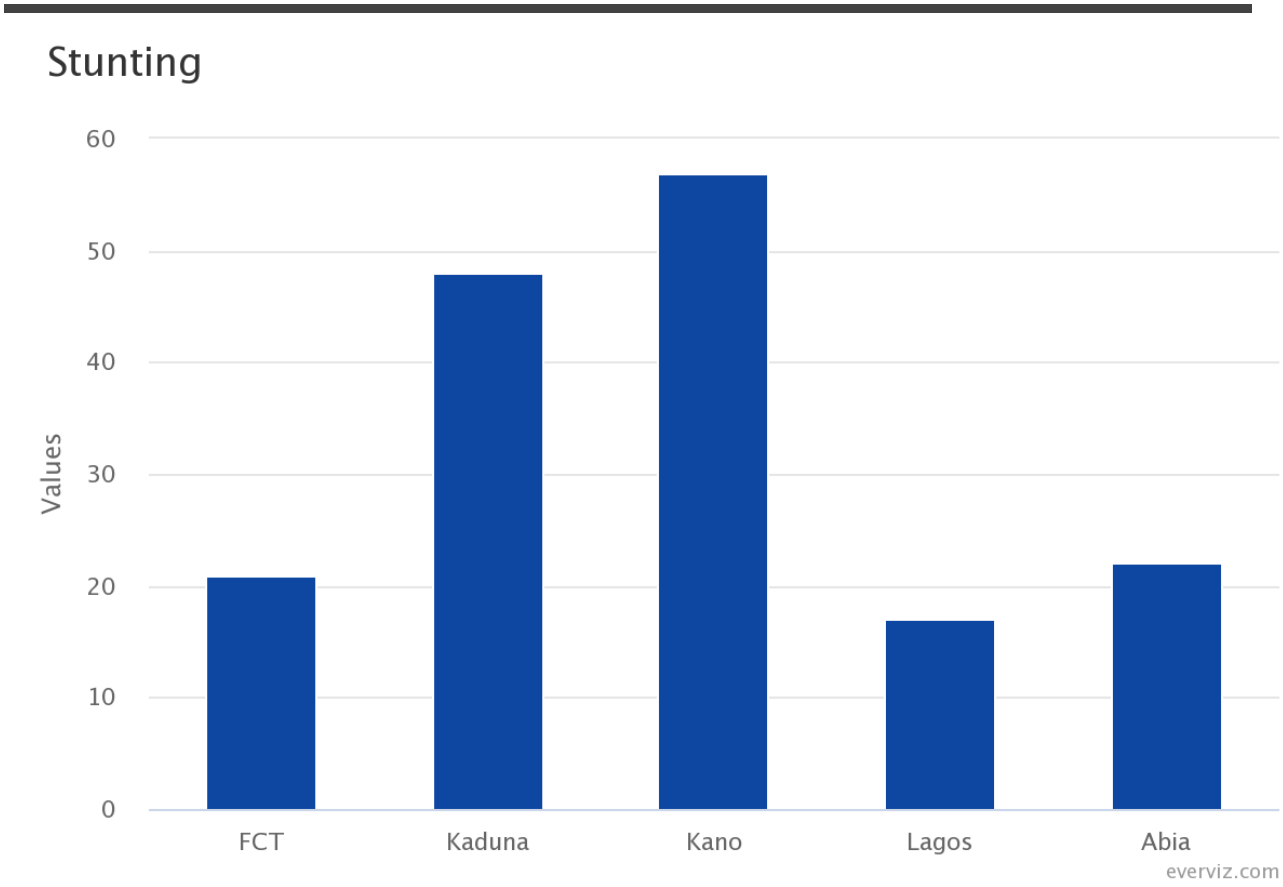
Kaduna still tops in the under-5 child mortality rate with 187, Kano is next with 164 whereas the other states has figures below 100 with Lagos recording the lowest of 59.



Obviously, Kaduna has the lowest vaccine availability among the 5 states reviewed, almost twice all other states. About 40.2% of its population who require it have no access to vaccines. Lagos has the lowest rate of 1.7%, while FCT and Kano have 9 and 8.8% respectively.

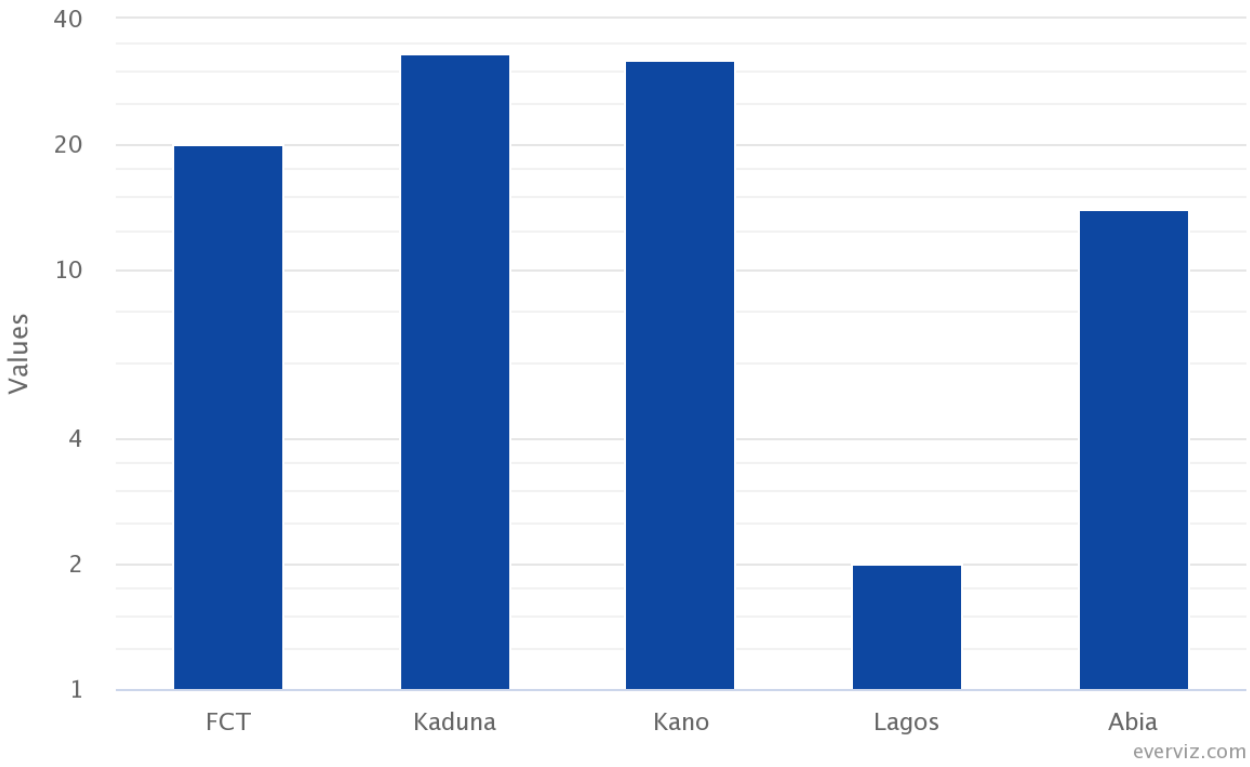


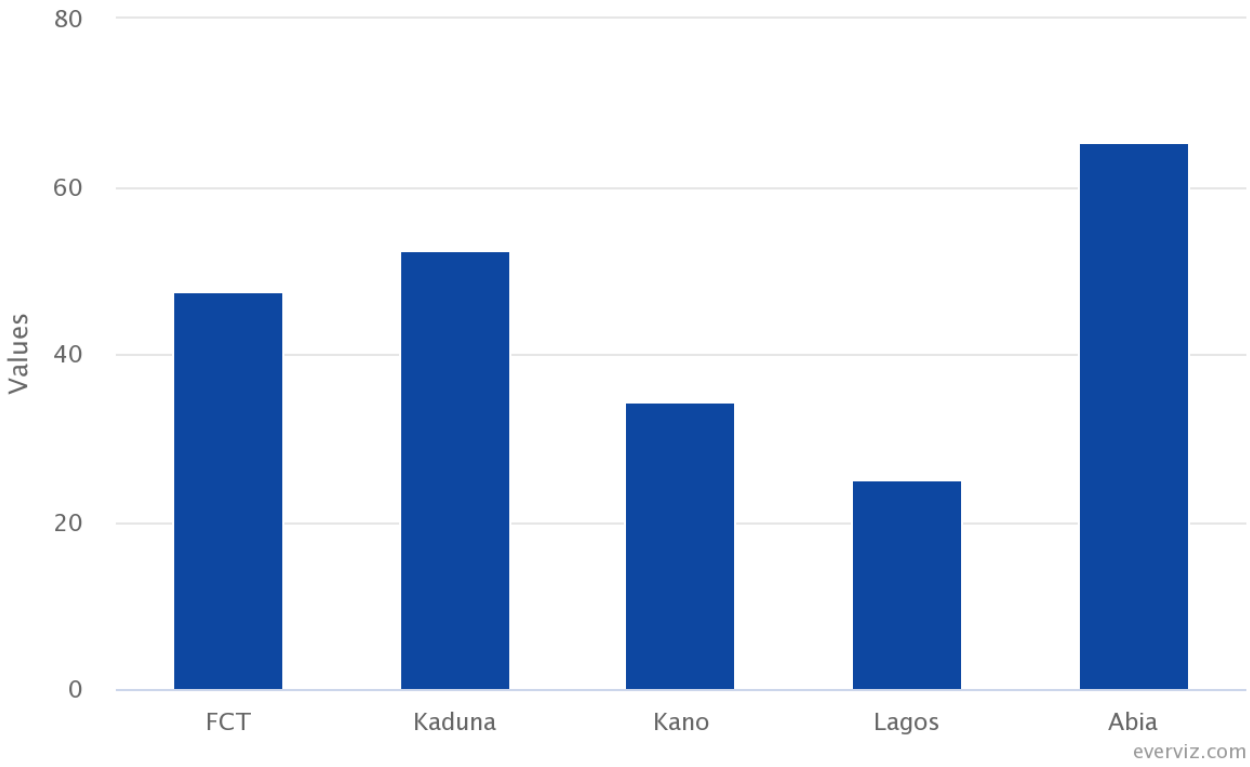
The rate of unmet need for family planning is highest in Abia state with a figure of 29, FCT followed closely with 19 whereas both Lagos and Kano have 17 each. On this count, Kaduna has the lowest figure.



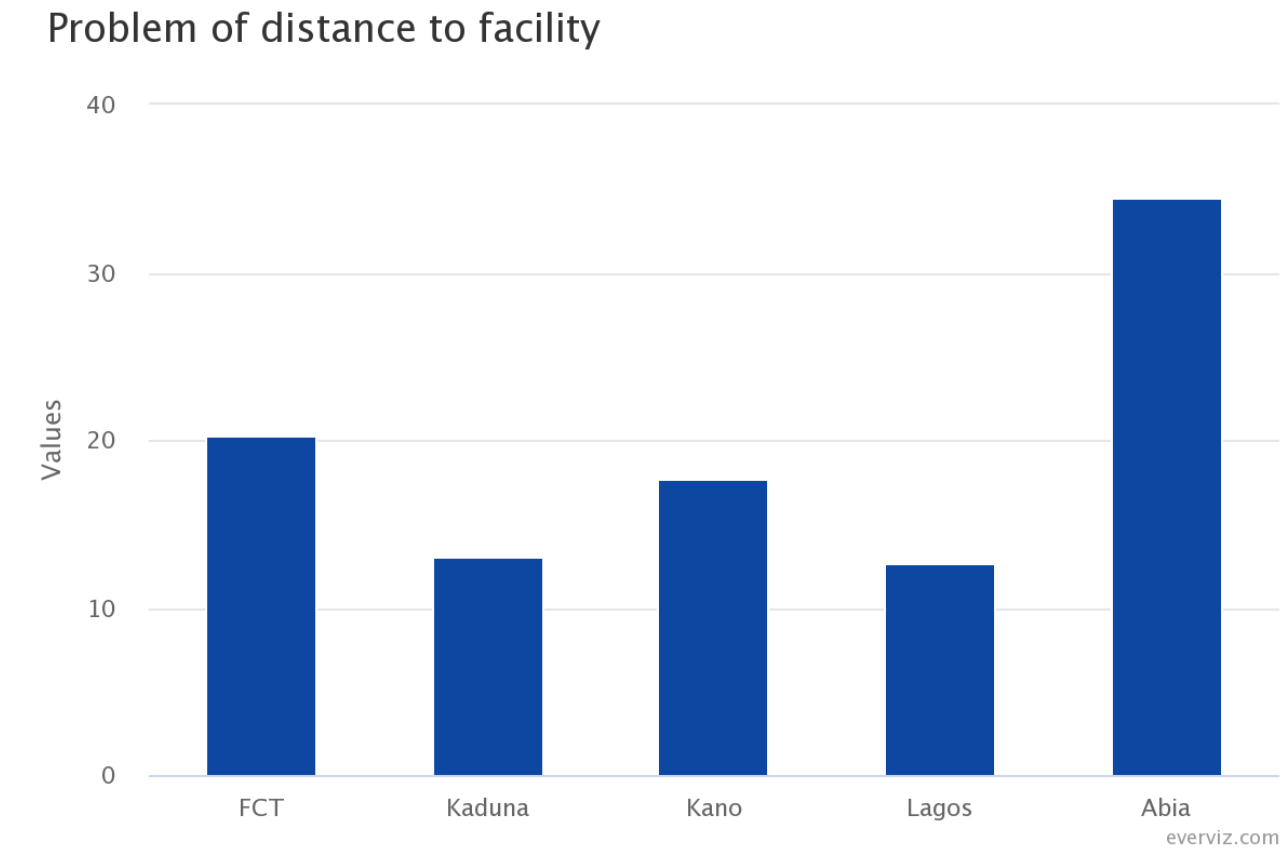
Information shows that the rates in Kaduna with respect to stunting, malaria prevalence and availability of money for treatment are the highest of the five states under review. Kaduna state figures are 48, 33 and 52.3 respectively. And Lagos state boosted the lowest figures in the three counts – 17, 2 and 25 percent in that order.

Malaria





Kano residents are more prone to fever out of the five states as the state has the highest rate of 26.4, while Lagos records the lowest of 6.7. Also, diarrhea is more prevalent in Kano as compared to the other states as she records the highest figure of 17.7 with Lagos having the least rating of 3 percent.


Problem of distance to facility
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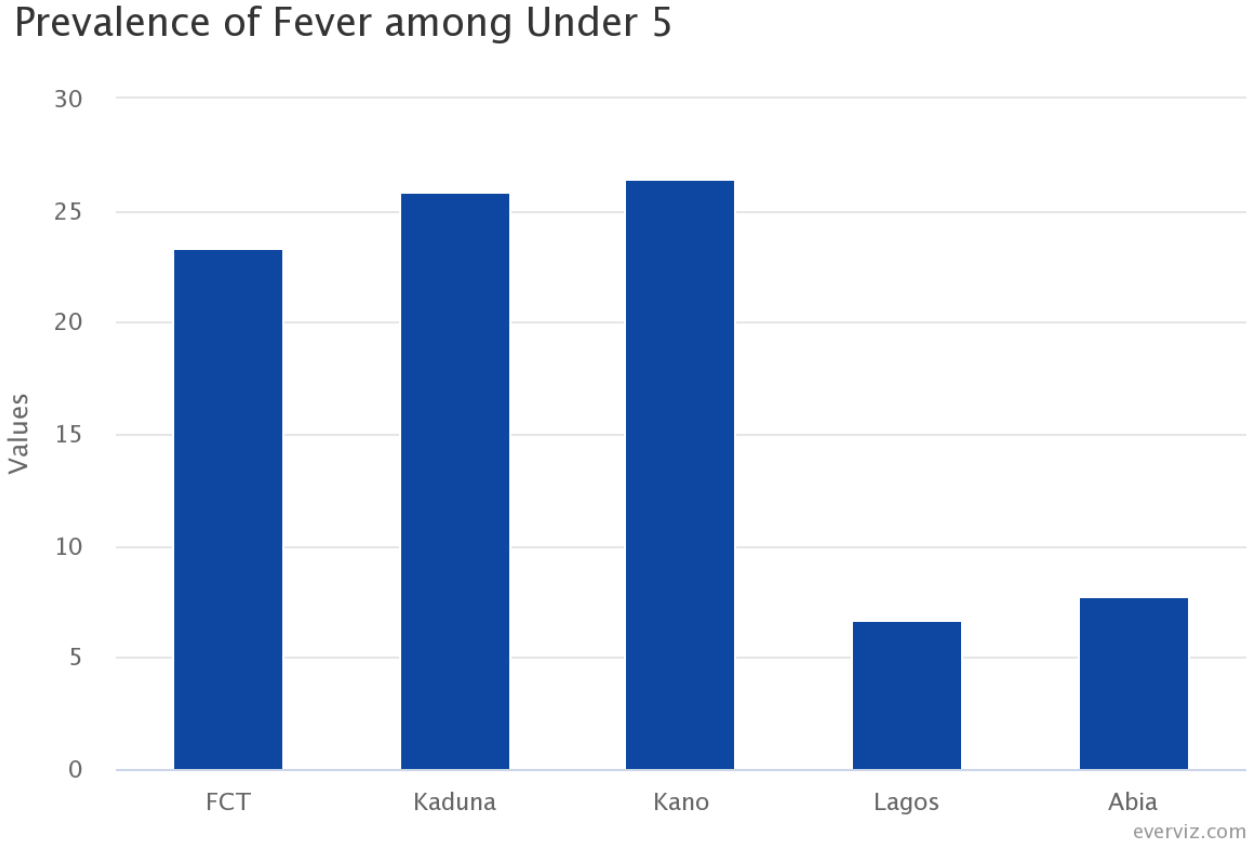
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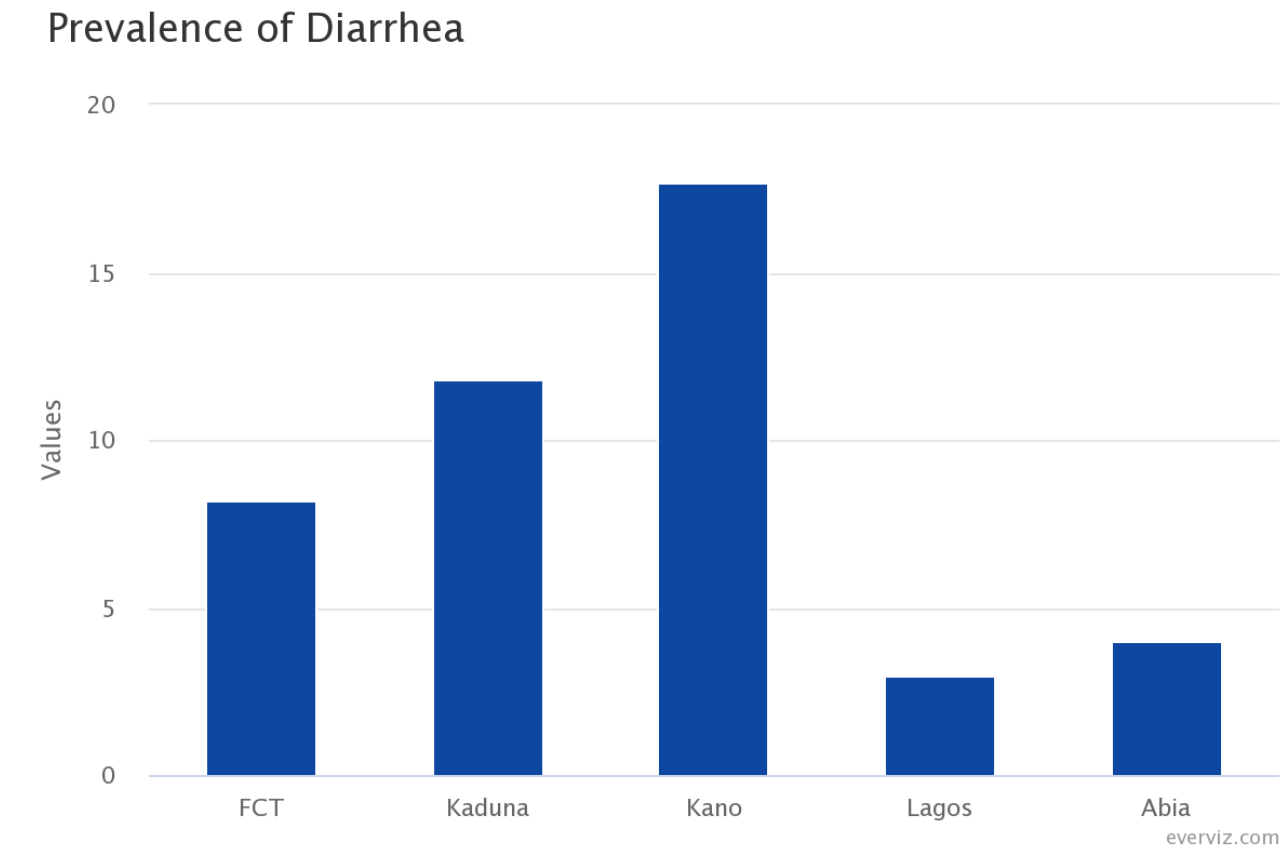
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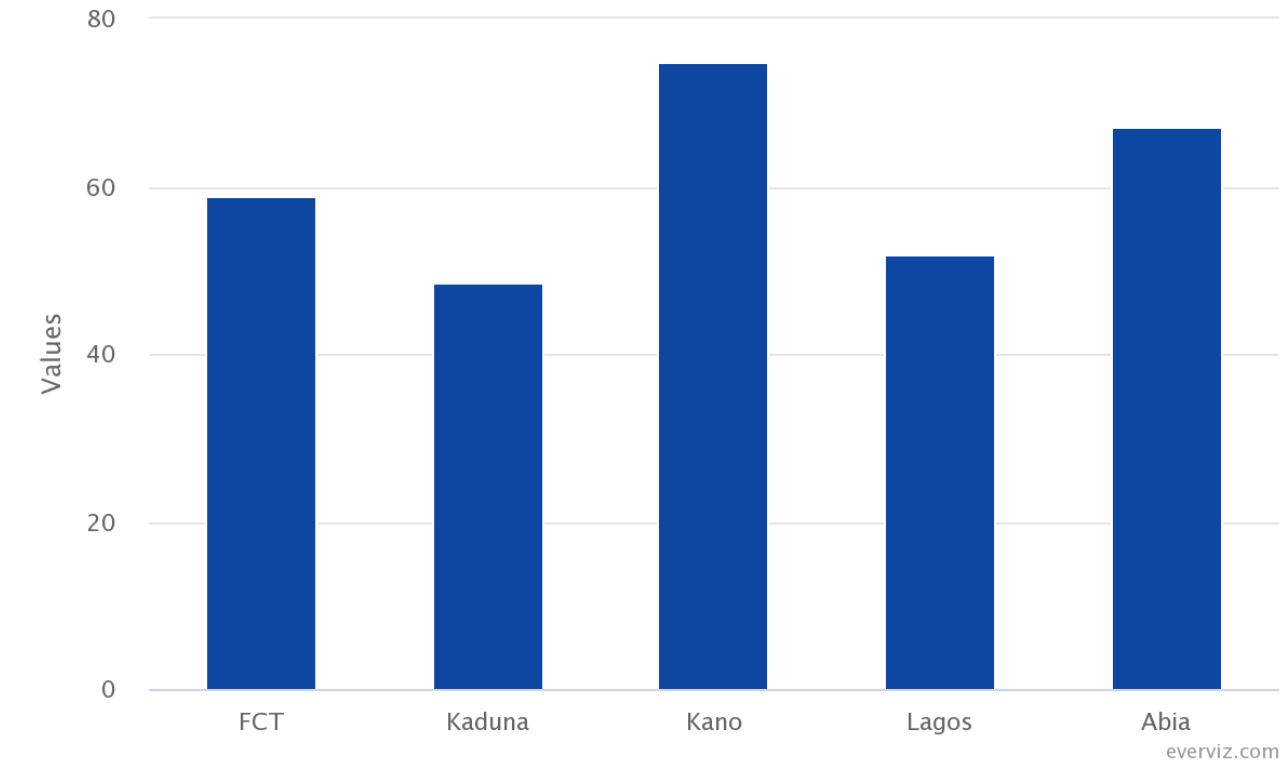
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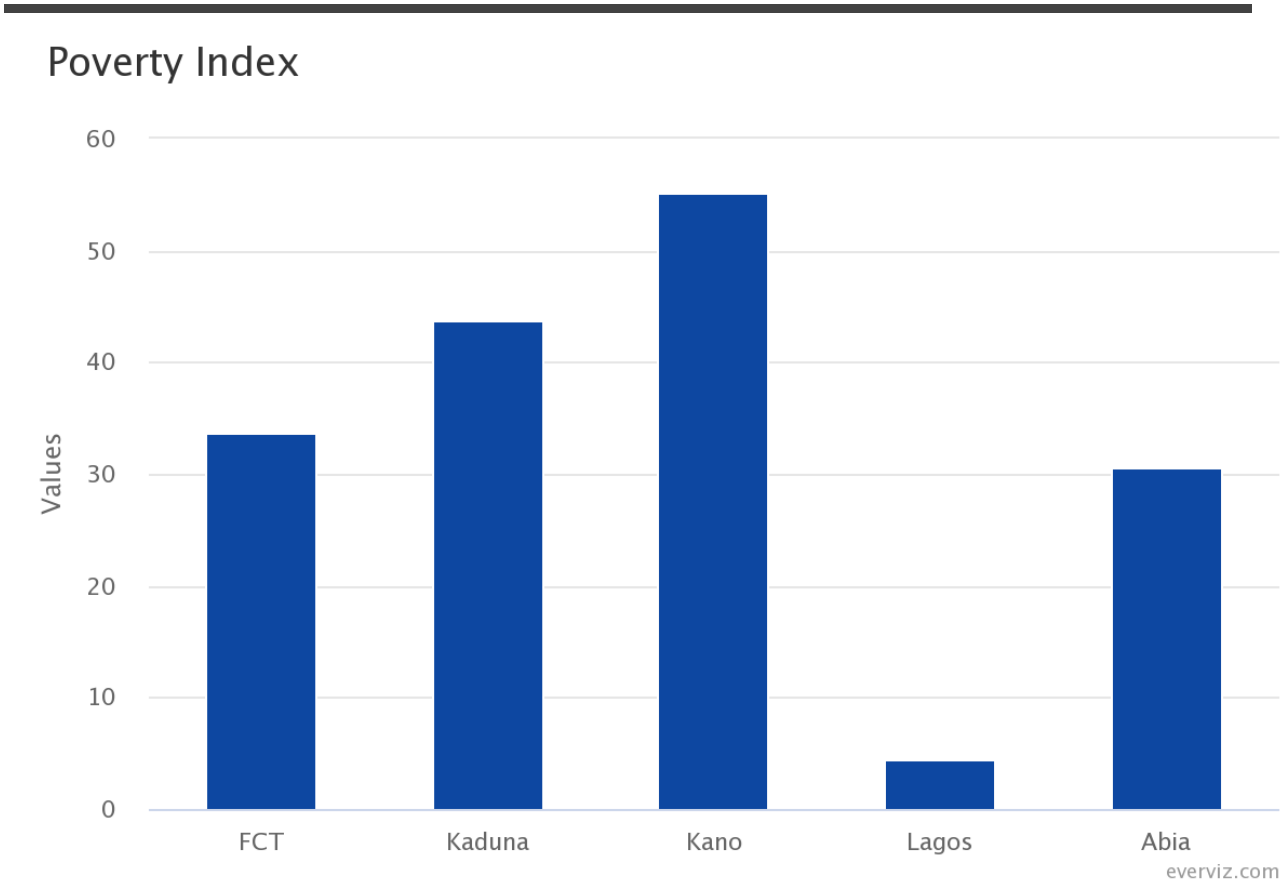

The level of poverty prevalence is highest in Kano as the state records a figure of 55.08%, closely followed by Kaduna with 43.8%, FCT and Abia with 33.6 and 30.76 respectively. Lagos records the least with 4.5%.

Repository journalistic works on the primary health sector

There have been issues with trust, transparency and corruption in government, especially where it concerns fund management. Corruption is one of the most distressing challenges threatening national development in all sectors. Though Nigeria is not alone in the siege of corruption, it is ranked among the top ten most corrupt countries in the world. According to Transparency International (2015), Nigeria ranks 136 out of 176 countries with a score of just 27 out of 100 on the 2014 Corruption Perception Index.

Health system corruption prevails in Nigeria among different actors including senior and junior administrative officers in health ministries, parastatals and agencies, even among health officials and political officeholders. This is because there is no adherence to the rule of law, coupled with a lack of transparency and trust.

In 2002, the World Health Organization reported that 70% of drugs in Nigeria were fake or substandard; the National Agency for Food and Drug Administration and Control (NAFDAC) estimated that 41% of drugs alone were counterfeit (Yankins, 2006; Akunyili, 2007; Vian, Savedoff and Mathisen, 2010).

Corruption does not only mean stealing money, it also takes other material forms such as diversion of drugs, vaccines, and injections for personal use and sales, diverting money meant for equipment, fuel and diesel among others. Such cases directly affect the patients, especially the poor and vulnerable. For instance, when the fund that ought to be used to procure drugs and other equipment has been diverted into something else not relating to health, hospitals and medical professionals would be inadequately equipped to handle an emergency.
There have been many cases of corruption in the health sector in Nigeria, especially in the primary healthcare centres. Those corruptions include: Employment-related corruption, such as employing unqualified people, was also considered difficult to manage as the government directly employs workers at public facilities. Several other reports by newspapers in Nigeria

have also explained the various schemes of corrupt practices in the administration of PHCs. Some of those reports are captured below:

i. Years after award of multi-million naira contracts, federal health centres never built — International Centre for Investigative Reporting (ICIR)

In 2016, a journalist from the International Centre for Investigative Reporting embarked on a fact-finding tour of some contracts awarded for primary healthcare centres across Nigeria. He presents his findings in this disheartening report. After asking at least 10 different people at Obollo Afor, the headquarters of Udenu Local Government, about the location of Obollo Ile, there is still no clue. Everyone claims there are only Obollo Eke and Obollo Etiti communities in the local government but records of uncompleted primary health care centres across Nigeria obtained from National Primary Health Care Development Agency (NPHCDA) mention a certain Obollo Ile.

So, all of them insist the place is Obollo Eke village. According to information made available by NPHCDA, the project is located at Obollo Ile, Udenu Local Government, Enugu State. It was awarded to Abduk Nigeria Limited at the sum of N19.1million. But 12 years after the contract award, there is no trace of the project.

ii. How corruption, cultural barrier worsen primary healthcare delivery in the north — International Centre for Investigative Reporting (ICIR)

This is another instance of corruption in the primary healthcare sector. According to an investigation done by the ICIR in 2013, under President Goodluck Jonathan, a contract was awarded for the construction of a PHC in Turaji at the sum of N21, 987 893,95. Incidentally, the construction firm, Greensols Energy Revolution Nigeria Limited, with Corporate Affairs Commission (CAC) registration number 805958, commenced work but never completed the project.

Residents thought the non-completion of the primary healthcare centre was due to the change in government but investigation revealed that the contractor's corporate address at House 13, Road 15, Efab Estate, Jabi, Abuja, revealed that the corporate address was merely a warehouse

for a different organization involved in entertainments and corporate services. Further investigations at the CAC, it was gathered that the firm was registered to execute jobs on renewable energy and had no relationship with construction of PHC projects.

iii. Multi-billion naira scandal at NHIS - The Cable Newspaper

The Cable also reported another case of corruption in the health sector in Nigeria as some top government officials are alleged to have been toiling with funds accrued to the NHIS which has cost the scheme at least over N58 billion.

And among the officials fingered include Ahmed Idris, accountant-general of the federation, and Kemi Adeosun, the then minister of finance. In a suit filed at the national industrial court, Abuja, and dated February 1, 2018, Abubakar Malami (Nigeria's attorney general) and Adeosun were accused of sharp practices in handling funds domiciled in the scheme's account.

Apart from the government officials allegedly withdrawing various huge sums of money without approval by the scheme's management, they were also handling the NHIS funds in ways that violate the NHIS act. For instance, in September 2015, Adeosun was said to have compelled the management of the scheme to transfer all its funds in various bank accounts and investment instruments to the federal government's treasury single account (TSA), an act which is said to be contrary to the NHIS act.

The documents The Cable was able to obtain showed that the total sum of money transferred from the scheme's accounts to its TSA domiciled with the Central Bank of Nigeria was N145.2 billion. Idris was said to have withdrawn a total of N10 billion on two occasions without any authorisation from relevant authorities and the withdrawals, allegedly done in December 2016, and January, 2018, in two tranches of N5 billion each.

iv. Moribund primary healthcare centres are fuelling infant, maternal mortality — ICIR

Another corruption investigation done by the ICIR reported that for 26 years, the primary healthcare centre in Ikorodu Local Government Area of Lagos State has been under lock and key. In case of any emergency, residents of the community and mothers had to back sick children and trek all the way to Bayeju of Gbogbo areas of the local government because they

don't have money for transportation due to the distance of the healthcare centre and if they are lucky, there would be no complications or death but in most severe cases in need of immediate attention by a health official, many died before they could get medical attention.

Although the initial amount released for the construction of the health facility in 1993 is unknown. In 2014, the National Primary Health Care Development Agency (NPHCDA), once again released the staggering sum of N18,420,948.00 to Strasbourg Investment Nigeria Limited, to construct a Primary Health Care (PHC) in Agunfoye, Imota Ijede. The second PHC was never built, and neither was the existing centre completed and put to use to reduce the impact of health issues ravaging the Community.

In 2014, the Federal Government approved the construction of PHC's in Rumo and Yaryarsa communities in Kano State at the sum of N22 million, each to Drumlyn Nigeria Limited and Milagari Global Services Ltd respectively. But the project was started and abandoned halfway leaving millions of Nigerians especially those in rural areas to suffer and there is no penalty for such people who committed this huge offence, they all go scot-free which should not be so.

Government efforts on Primary healthcare centres in Nigeria — Premium Times

In 2018, the Nigerian government initiated a N28 billion health fund that will target the revitalisation of at least one primary health Centre in each of the 774 local government areas. Part of the plans is to engage 200,000 voluntary health workers to improve the delivery of immunisation, antenatal care, and other health services in rural areas, following the flag-off of a scheme to revitalise about 10,000 healthcare centres across Nigeria.

But about 10 months later, all the eight primary health care centres Premium Times Newspapers visited in Niger, Benue and Nasarawa states in North Central Nigeria had no doctors, drugs or equipment.

Another effort of the government to upgrade the primary healthcare centre was between 2004 to 2014, the Federal Government awarded over 1250 contracts valued at N30.59bn to various contractors for the supply of equipment and construction of PHCs across the country. Between 2014 and 2015 alone, the NPHCDA awarded 91 contracts for the construction of PHCs at a uniform sum of N21, 986,893.00 to different contractors. Despite the release of billions of naira since 2004 till date towards the attainment of a functional health system in the

rural areas, a large number of the PHCs have either been abandoned or not fully functional. This is so because millions of Nigerians living in rural areas are denied access to basic healthcare capable of trimming down the rate of maternal and infant mortality in the country.

Conclusion and Recommendations

Universal basic health in Nigeria needs strong institutional reforms. This must come with a proper decentralisation of power in Nigeria's health sector. The Federal government should be able to allow the local residents to determine their health needs. This can be addressed through institutional restructuring, deepening decentralized governance, and the incorporation of an alternative health care financing strategy. While the Federal Government releases counterpart funding for the health sub-sector, local government authorities should be able to make a budget for their own needs through careful planning, coordination, and monitoring of all primary health care services.

Over the years, the government at the centre has been determining who and what goes to local authorities as well as the projects to the institute. This approach is long overdue as only local government authorities know where the shoe pinch. This will not only exit the Federal Government from grassroots planning, but it will also erase weak procurement processes and other inadequacies associated with federal-handled projects. When this is done, Nigeria will be aiming at achieving its commitment to Sustainable Development Goal (SGD) 3 and Universal Health Coverage (UHC).

Away from corruption and sharp practises at the Primary Health Care centers, the key challenges to accountability identified should be addressed and these included trust, transparency and corruption in the health system, political interference at higher levels of government, poor data management, lack of political commitment from the state in relation to release of funds for health activities, poor motivation, mentorship, monitoring and supervision, weak financial management and accountability systems and weak capacity to implement suggested accountability mechanisms due to political interference with accountability structures.

Culprits of corrupt practices are not properly dealt with to serve as deterrence to other potential corrupt administrators who may likely divert and 'pocket' public and government funds into their own personal use. The consequences of corruption in the public hospital and health sector in general in Nigeria are so severe that they can increase mortality and morbidity rate of ailments especially the poor masses because they are at the receiving end.

Having identified the challenges with achieving an effective and efficient implementation of primary health care services delivery at the local government, the following recommendations are suggested as a way forward:

- There should be a serious penalty to deal with corrupt health workers who are caught in one corrupt act or the other so that they can serve as deterrence to other potential perpetrators in the health sector.
- There is the need for all the tiers of government — especially local governments — to increase their allocation to the health sector.
- Strengthening PHC referral systems such as transportation, ambulance, communication and other logistics for referrals needs to be put in place to ensure effective referrals.
- There should be strengthening good leadership and political stability, accountability, transparency and responsiveness of the PHC system through community participation and supportive supervision so as to reduce abandoned health projects or corruption.
- Seminars, symposiums, and convention programs should be carried out to enlighten health workers/officials on the dangers and negative impacts of corruption on their image as a person and its effects on the poor and vulnerable, who are on the receiving end.

Appendices

Appendix A: Trend Analysis of National Health Budget

Year	Total National Budget	Total Budget on health (Nominal)	Health as % of National Budget
1999	60,549,835,647	2,319,250,000	3.8
2000	470,009,971,781	17,114,684,155	3.6
2001	894,214,805,186	42,629,588,516	4.8
2002	1,064,801,253,520	44,652,636,040	4.2
2003	976,254,543,375	52,149,106,213	5.3
2004	1,790,848,344,588	59,787,376,511	3.3
2005	1,799,938,243,138	71,685,426,092	4.0
2006	1,876,302,363,351	105,590,000,000	5.6
2007	2,266,394,423,477	122,399,999,999	5.4
2008	2,492,076,718,937	138,179,657,132	5.5
2009	2,870,510,042,679	143,107,216,257	5.0
2010	4,608,616,278,213	179,999,734,315	3.9
2011	4,226,191,559,259	235,866,483,244	5.6
2012	4,749,100,821,170	282,771,771,425	6.0
2013	4,987,220,425,601	279,819,553,930	5.6
2014	4,695,190,000,000	262,742,351,874	5.6
2015	4,493,363,957,158	237,075,742,847	5.3
2016	6, 060,677,358,227	250,062,891,075	4.13
2017	7,441,175,486,755	304,190,961,402	5.17
2018	9, 120, 334, 988, 225	356,450,966,085	3.95
2019	8,916,964,099,373	372,702,999,290	4.1
2020	10,594,362,364,830	441,005,142,552	4.5

Source: Dataphyte Research, Federal Ministry of Finance, Annual Budget Appropriation Acts

Appendix B: Trend analysis of primary healthcare budget

Year	Total PHC budget (bn)
2006	7.6
2007	4.9
2008	13
2009	14.9
2010	17.0
2011	7.6
2012	19.7
2013	20.2
2014	19.4
2015	12.0
2016	17.7
2017	19.2
2018	25.4
2019	18.4
2020	25.3

Source: Dataphyte Research, Federal ministry of health and health budget

Appendix C: Health Budget: Nominal versus Real Values

Year	Total Budget on health (Nominal)	GDP Deflator	Total Budget on health (Real)	Difference between Nominal & Real
1999	2,319,250,000	0.23	10,244,218,096	7,924,968,096
2000	17,114,684,155	0.28	61,623,817,208	44,509,133,053
2001	42,629,588,516	0.31	139,442,846,415	96,813,257,899
2002	44,652,636,040	0.37	120,602,322,504	75,949,686,464
2003	52,149,106,213	0.41	128,273,221,511	76,124,115,298

2004	59,787,376,511	0.50	120,179,278,830	60,391,902,319
2005	71,685,426,092	0.60	120,221,484,093	48,536,058,001
2006	105,590,000,000	0.74	142,964,298,867	37,374,298,867
2007	122,399,999,999	0.79	154,738,310,840	32,338,310,841
2008	138,179,657,132	0.85	161,865,026,551	23,685,369,419
2009	143,107,216,257	0.86	166,494,886,104	23,387,669,847
2010	179,999,734,315	1.00	179,999,734,315	0
2011	235,866,483,244	1.10	214,856,718,979	-21,009,764,265
2012	282,771,771,425	1.21	234,278,858,965	-48,492,912,460
2013	279,819,553,930	1.27	220,867,395,628	-58,952,158,302
2014	262,742,351,874	1.33	198,149,110,414	-64,593,241,460
2015	237,075,742,847	1.36	173,814,929,999	-63,260,812,848
2016	250,062,891,075	1.49	167,363,879,426	-82,699,011,649
2017	304,190,961,402	1.66	183,219,201,245	-120,971,760,157
2018	356,450,966,085	1.83	194,762,791,684	-161,688,174,401
2019	372,702,999,290	1.93	193,110,362,326	-179,592,636,964
2020	441,005,142,552	2.07	213,045,962,586	-227,959,179,966

Source: Dataphyte Research, Ministry of Finance

Appendix D:Maternal Mortality Rate in Nigeria (MMR)

Nigeria	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MMR*	1350	1100	1200	740	1,040	1,010	996	987	978	972	963	951	943	931	925	917

Source: World Bank

Appendix E: Table showing Under-5 and Infant Mortality rate in Nigeria(1999-2018)

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
MR, under-5	190.1	184.8	179.2	173.4	167.5	161.7	156.2	151.1	146.3	142.0	138.3	135.2	132.5	130.5	128.6	126.9	125.4	123.9	122.1	119.9

MR, infant	113.7	110.9	107.8	104.8	101.6	98.6	95.6	92.8	90.2	87.9	85.9	84.1	82.7	81.5	80.5	79.6	78.7	77.9	76.9	75.7

Sources: World Bank

Appendix F: Infant Mortality rate

Year	% Change in under-5 Mortality rate	% Change in Infant Mortality rate	% Change in Life Expectancy at birth
2000	2.7	1.7	2.17
2001	2.9	2.7	0
2002	3.1	3.6	0
2003	3.3	2.8	2.13
2004	3.5	2.9	0
2005	3.6	3.0	2.08
2006	3.7	3.1	0
2007	3.7	3.2	2.04
2008	3.8	3.3	0
2009	3.9	3.4	2.00
2010	3.7	3.5	0
2011	3.7	3.7	1.96
2012	3.6	2.5	0
2013	3.5	3.9	0
2014			
2015			
2016			
2017			
2018			

2019			
2020			

Source: World Bank

Appendix G: Health Budget Performance Data

Year	Capital Annual Appropriation	Total Amount Released	Total Amount Cash Backed	Utilization		
	N	N	N	% of Annual Capital Appropriation	% of Cash Backed Funds	% of Budgetary Releases
2013	60,047,469,275	34,782,507,784	33,359,500,815	55.56	95.91	95.91
2014*	495173807 25	5257051596	5257051596	4395281291	8.88	83.61
2015	22,676,000,000	16,445,053,729	12,214,243,167	53.86	74.27	74.27
2016	28,650,342,987	28,592,592,446	27,809,904,863	97.07	97.26	97.26
2017	55,609,880,120	52,656,143,773	48,849,143,773	87.84	92.77	92.77
2018	86,485,848,198	63,481,134,996	52,987,503,480	61.27	83.47	83.47

Source: Dataphyte Research, Budget Office of the Federation

*2014 contains budget implementation up to the second quarter i.e. June 2014