

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Ragnar Nurkse Department of Innovation and Governance

Rianat Oyeleye

**CORRUPTION IN THE NIGERIAN PUBLIC HEALTHCARE SYSTEM; CASE STUDY
OF AGEGE LOCAL GOVERNMENT**

Master's Thesis

Technology Governance and Digital Transformation

Supervisor: Leno Saarniit

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I hereby declare that I have compiled the thesis independently and all works, important standpoints and data by other authors have been properly referenced and the same paper has not been previously presented for grading.

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Rianat Oyeleye.....

(signature, date)

Student code: 194531HAGM

Student e-mail address: rioyel@taltech.ee

Supervisor: Leno Saarnit, PhD:

The paper conforms to requirements in force

.....

(signature, date)

The paper conforms to requirements in force

.....

(signature, date)

Chairman of the Defence Committee:

Permitted to the defence

(signature, date)

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ABSTRACT

The case of corruption in Nigeria remains a wicked problem. Many forms of corrupt practices have been identified in the public health care sector. In the public health care industry, a variety of fraudulent behaviors have been uncovered. As a result, the focus of this study is on the effect of these corrupt practices on the delivery of health-care services to patients, in Agege Local Government area of Lagos State. A combination of different instruments was adopted to generate and analyze the results ranging from the administering of questionnaires to 3 health care facilities in this local government, the use of bar and pie charts and chi-square tests to analyze the responses obtained. The result showed that patients were often referred to private health facilities by health practitioners, also, there is a high rate of informal payments. Absenteeism is also very prominent among health workers thereby causing long waiting times as many health workers do not report to their duty post. The health practitioners also perceived the sector as being corrupt as they cite low and late payment of salaries in their answers.

The recommendation is to ensure a high level of transparency in this sector so that informal payments for free services are eradicated, the health ministry should roll out anti-corruption measures which aim to identify the causes of these corrupt practices. Also, the salaries of health practitioners should be increased and paid timely as this is one of the causes why the health practitioners engage in these corrupt practices.

Keywords: Corruption, health practitioners, Healthcare sector, Patients, anti-corruption

INTRODUCTION

Corruption has also been defined as “misuse of entrusted power for private gain” (Transparency International, n.d.). It is a global pandemic which is not limited to one country as it exists in virtually all countries of the world though more prevalent in some countries than the others; in other words, no country is resistant to this menace, it is a symptom of poor governance and weakness of institutions. It is perceived to be a WICKED PROBLEM. Even though corruption exists in all countries, it is more prevalent in low-income countries simply because conditions in poor countries are more enabling to the growth of corruption.

Corruption thrives because of its very enormous benefits with little or slim chances of being apprehended, very light punishment even when caught, these are some of the characteristics which makes it more attractive for more and more people to get involved in it (Mills, 2012).

In Nigeria, the presence of corrupt practices is very prominent in the health care sector. This is a negative report for a nation that is aspiring to be among the world's great economies. (Diara and Onah 2014) opinionated that the high prevalence of corrupt practices in Nigeria has defeated the key frameworks needed for nation-building and development (Tormusa & Idom, 2016). The Transparency International (T.I 2018) Corruption Perceptions Index ranks Nigeria 148 out of 180 countries, with her health sector majorly affected indirectly from corruption in other sectors as well as practices within the sector itself . This index got a bit better in 2019 when Nigeria ranked 146 out of 180 countries moving only two positions better, but still occupying the bottom of the list . This is a far cry from what is expected from a country that prides itself as ‘THE GIANT OF AFRICA’. The Nigerian health system is in bad shape, with few hospitals having low quality drugs or even no drugs at all, insufficient and sub-standard technology where all the latest equipment required for the diagnosis and treatment of ailment is absent, epileptic power supply, inadequate infrastructures, and non-upgraded diagnostic laboratories (Buowari, 2017). Corruption is endemic to Nigeria's health sector. Regardless of the systems put in place to combat it, corruption still goes forward to be native, particularly in the Nigerian Health Service with its attendant implications for effective service delivery and health of the populace.

This study intends to shed more light on the effect of corrupt practices on the healthcare sector of Agege local Government area of Lagos State, Nigeria. The study's goal is to identify the many types of corruption in Nigeria's healthcare sector, and its impact on the patients accessing it, with a core focus on the Agege Local Government area in Lagos State.

Research Question

To achieve the study aim, three research questions are used.

- (1)** Do patients in the Agege local government area of Lagos believe there is corruption in the health-care sector?
- (2)** What types of corruption exists in the health sector in Agege Local government area?
- (3)** What is the perception of health workers on how to combat corruption in Agege local government area?

Research Hypothesis

For this study, the research hypothesis I intend to test is based on two variables' Gender and the perception of corruption

H₀ - There is no significant difference in the perception of health care users on the presence of corruption in health care sector in Agege location government based on gender

This denotes that the two variables are independent of each other

H_a - There is a perception of corruption based on gender in the health sector in Agege location government.

This means that perception of corruption is based on gender .

The study is carried out in three selected health centers in this local government. Agege local Government was chosen for this study because its populations are a mix of the rich, the poor, the educated, and the illiterate. This study centers on the resultant effects of corrupt

practices on the healthcare sector, and the study will center on both the Health workers and the patients accessing this service. A Quantitative research method is used, electronic questionnaires are administered to respondents and the result is collated from their responses using simple tables, bar chart, pie chart and chi-square theory to compute these results. The hypothesis was tested using the Chi square test.

CHAPTER ONE

1. CORRUPTION IN THE GLOBAL HEALTH SECTOR

Corruption is ubiquitous and spares no society. But it is even more prevalent in those societies with absent checks and balances, weak institutions and disregard for due process and the rule of law. The health sector in such societies will no doubt breed a lot of corruption. The health sector is prone and very inviting for corrupt practices as there are many potentially exploitable sections and aspects in it. Corruption impacts the less-privileged and vulnerable and its untoward effects can result in the ultimate cost of death.

According to a World Health Organization's report, this sector is a hot spot for corruption because it is perceived as an attractive target where corrupt practices thrive (WHO, 2010). WHO (2012) reported a mismanagement of healthcare cost because of corrupt practices, and the WHO further explained that corrupt practices could hinder the access and quality of healthcare in these three ways: economic factors; abuse and lacking transparency which adversely decreases the credibility of public institutions; and deficiencies in government capacity in providing fair care access to excellent and universal health services and medical infrastructures (Elekwachi, 2019)

Corruption violates human and societal rights and it is estimated that, each year, corruption takes the lives of at least 140 000 children (Hanf. M et al 2011) It worsens antimicrobial resistance, and undermines all of our efforts to control communicable and non-communicable diseases (Collignon P. et al 2015).

According to the Anti-corruption resource centre (U4 2021), there are four different categories of drivers that influence a pattern of corruption. These are Principal agent/Institutional Problems; Collective action problems; Justification of values, norms and societal / peer pressure; and Short- term functionality of corruption. It is not feasible to put these drivers apart as they are intertwined in many cases of corruption. Extrapolating these to the healthcare sector, the four key principles involved in corrupt practices are the frontline health workers, the patients, the Governmental body in charge of the health sector and sometimes, the pharmaceutical firms.

There is prevalence of corruption across the many echelons of the health sector – foundational/structural, policy making, project execution, service delivery and many others. The most recurring forms of corruption prevalent at the grassroots level include but not limited to: Absenteeism / Non appearance of Health workers at their duty post as at when due, informal payments demanded and received from patients, embezzling of the funds and pilfering of medical materials, favouritism, and exploitation of outcome data (Bruckner T., 2019)

A study conducted in South-east Asia found common denominators of corruption among most affected countries globally to be low levels of GDP, low literacy levels, weak democratic values (such as freedom of speech, human rights violation) and strong patriarchal practices (Naher et al 2020).

In 2008, five multimillion dollar health projects in India embarked upon by the World Bank were found to be plagued with corruption of varying types. The projects which were aimed at tackling Tuberculosis, HIV/AIDS and Malaria featured procurement corruption as bid-rigging and bribery, substandard testing kits which had the untoward effects of misdiagnosis and unchecked spread (Mackey and Liang 2012).

1.1 Corrupt Practices in the Health Sector of Developing countries

Corruption is more prevalent in low-income countries in contrast to their counterparts in developed countries simply because conditions in poor countries are more enabling to the growth of corruption.

The health sector was ranked first corruption wise in Moldova, Slovakia and Tajikistan, and second in Bangladesh, India and Sri Lanka, and with Morocco, Madagascar, Kyrgyz, and Kazakhstan being the top four countries in corruption surveys that interviewed public functionaries, business directors and the general populace in 23 countries (Lewis 2006). According to corruption studies conducted in Uganda and India, health employees were frequently found at home in Uganda even at times when they are supposed to be on duty, and there were some "ghost" personnel who never attended the health center but were on the payroll (McPake et al., 1999). In India, it was realized that there was no predictable pattern of patients

meeting the healthcare providers since there is a high rate of absenteeism (Banerjee et al. 2004). According to Chaudhury et al. (2004), late arrival and early departure were found to represent 2-23% of all absences in a four-country study (Bangladesh, India, Indonesia and Uganda) of medical practitioners based on surprise visits.

Focus groups in Ethiopia among health practitioners reported that absences are frequently associated to responsibilities at second jobs, lack of management and manager's unwillingness to confront these ailing health workers, resulting in high absenteeism and reduced performance, also undue hiring practices, nepotism and preferential treatment of well-to-do individuals (Lindelov et al., 2005). A study in Ghana also revealed that most corrupt health practitioners are physicians followed by pharmacists, with Government physicians paying more attention to their private patients; prescribing needless diagnostic tests and drugs, accepting perks from pharmaceutical firms, and prescribing costly drugs to patients (Buowari, 2017).

1.2 Forms of corruption present in the healthcare sector

There is quite a lot of corruption in the health care sector, since it is a prominent aspect of the economy, therefore, it is more susceptible to unethical practices (U4 2021). According to studies, most countries' corruption indices in the healthcare industry are the same.

The most common forms of corruption found from previous several studies are Non-appearance of health care workers at their duty post, Informal payment, Bribery, Procurement fraud, Fraud, employment of less qualified staffs, mismanagement of hospital supplies and thefts of drugs, weak regulatory procedures and embezzlement of funds meant for the health sector (Naher et al., 2020)

A large number of health care workers do not show up at their duty post as they have many other engagements which they rate higher due to the income they generate from these engagements.

One of the most widespread forms of corruption in the world is fraud; it is so prevalent it is visible in almost all public healthcare systems globally. Nepotism and exorbitant charges for

patients who are not well connected are some examples detected in Bolivia (Gatti, Gray-Molina and Klugman, 2004)

Medical research is also plagued with corruption. Medical journals may be paid bribes that publish papers and articles that are illegitimate or poorly conducted. This leads to false knowledge being spread throughout the medical community. Also, poor and uneducated people are exploited for clinical trials. It is unethical for participants to not be compensated if the trial leads to injury or death. This creates mistrust between health care providers and the public (Nadpara et al. 2015).

Non-appearance or Absenteeism is found to be the most recurring form of corruption among health workers in Argentinian Public hospitals (Schargrodsky, Mera & Weinschelbaum, 2001). Similarly, from studies conducted in Costa Rica, it can be deduced that a high percent of their frontline health workers were regularly absent from their duty post. (Savedoff, 2007). A large number of Health care workers do not show up at their duty post as they have many other engagements which they rate higher due to the income they generate from these engagements.

According to Ahmed & Ahmed (2012), a study performed in the rustic region of Karachi showed that people of this region were compelled to give bribes to access the basic healthcare facilities. Procurement is a widespread kind of corruption in Chile, when medical supplies are not assigned to qualified suppliers but rather to those who pay bribes to acquire the procurement contract, even if they are not competent enough. (Cohen & Montoya, 2001).

1.3 Impact of Corruption on the public Health care sector

Corruption hinders access to healthcare services and worsens all aspects that determine good health systems efficiency (Jain et al., 2014). It is a critical factor for de-motivation and burning out of human resources. It has been reported that the world spends more than US\$7 trillion on health services per year, and that at least 10-25% of the global spending is lost directly via corruption, meaning billions of dollars are lost annually because of corruption (Mackey, Vian, and Kohler, 2018). Corruption in the healthcare sector results in numerous adverse effects, including reduced life expectancy and increased mortality.

The billions lost to corruption globally surpass World Health Organization's estimations of the amount required yearly to fill the gap in ensuring UHC globally by 2030 (Jones and Jing, 2011). Almost 140,000 children were reported to have been killed yearly through corruption in the healthcare sector; this is fueled by the global rise in anti-microbial resistance, and hindered the fight against HIV/AIDs and other diseases (Transparency International, 2020). Except the most dangerous types of corruption are prevented, UHC is improbable to be achieved (Transparency International, 2020). The exhaust of resources from health budgets via fund misappropriation, little funding is available for the payment of salaries and execution of operations and maintenance, resulting to disenchanted staff and substandard quality of care (Hogan et al., 2018; Adegboyega & Abdulkareem, 2012).

For example, in Albania, a private doctor issues a medication that a patient does not require because he has made an agreement with the next-door pharmacist to claim a certain share of the price (Muller, 2017). This shows very clearly the impact corruption has on the health sector is very grave.

1.4 Anti-Corruption measures in the health care sector of developing countries

The effectiveness of any anti-corruption policies is firstly dependent on identifying the most devastating forms of corruption, then addressing the root causes separately in different countries looking at the entire governance and institutional framework (Shah, 2007). According to U4 2021, to effectively curb corruption, the causes must be identified. Why the drivers in the health sectors engage in corruption is a question to be answered before determining what approaches to use in tackling this menace. Who are the real partakers in these corrupt practices? Are they the health workers only or the masses who access these healthcare services are also involved? Of what magnitude are the benefits involved in this act? These are critical concerns that must be answered and effectively addressed.

The resultant effect of these corrupt practices has led to many poor people being denied proper healthcare. Anti-corruption initiatives in the healthcare industry are typically focused on preventing corrupt practices. Transparency, Accountability and actions against culpable drivers of corruption are some of the ways to eradicate this menace in the healthcare sector. The actors

involved in the health care sector should be held accountable for their actions and inactions and exhibit a high level of transparency to be able to mitigate the persistent spread of corrupt practices within the health care sector, these actors should be charged and prosecuted if found erring (Lambert-Mogiliansky, 2015). It is key to note that these approaches are intertwined, as accountability is barely achievable without a certain level of transparency and vice versa. These methods should not be used alone, but should be used together in curbing the illicit practices in the health sector (Piotrowski & Borry 2010;).

Strict adherence to these laws will pose accountability and create a case of justifying the actions of all drivers/actors in this sector where everyone is accountable from the topmost officials to the lowest cadre officers (Tormusa & Idom, 2016). There are several suggestions for reducing the rise of these unethical actions in the health-care industry, some of which are:

Increase and prompt payment of salaries of all staffs in the health care sector

Majority of health officials have complained that the paltry wages they are paid is a big problem, also these salaries are never paid promptly as a majority of these public health officials have been owed salaries for over 5 months. The remuneration and working perks must also be improved greatly to make double employment unattractive to health personnel who engage in it.

Though some of the top earning public health workers have been seen to partake in one form of corrupt practice or another, this shows that an increase in salary only cannot do much to curb the raging effect of corruption in that sector, timely payment and a reward system in the form of incentives will be needed as an additional complement (Tormusa & Idom, 2016).

Punishment for corrupt health workers

Health workers who are caught engaging in any corrupt practices should be punished accordingly so as to serve as deterrence to the others. Dismissal, charges and prosecutions are ways to punish these erring officials so that whosoever is still caught up with this menace will have a rethink and repent. In as much as we advocate for the punishment of bad actors in the health sector, good behavior should be rewarded with numerous incentives which will make it enticing to shun corruption (UNDP 2011).

Continuous education and re-orientation of health professionals

Health workers should be lectured on the adverse effect corruption has on their image and their entire profession. Also, they should be constantly reminded through a series of lectures, seminars, symposiums about the negative effect of their corrupt practices on the poor masses who are mostly denied the proper health care they deserve (Akokuwebe & Adekanmbi, 2017).

Introduction of e-government services

The payment of cash for drugs and other fees should be completely banned in the health sector with the proper introduction of e-payment services where all services become electronic, the issuance of receipts and invoices would also be done electronically so there's a certain level of transparency. With the introduction of electronic registers to mark health workers' attendance at work where they are made to clock in and out, the problem of absenteeism can be reduced (Onwujekwe et al, 2018). The Chilean government introduced the E-procurement system and this has so far proven to be effective in combating procurement related corruption in the health sector. Competition was fostered thereby causing a reduction in prices as many companies could partake in the electronic bidding which was made public (Cohen & Montoya, 2001).

Proper auditing of all the activities in the public health care sector

There will be a monumental decrease in the bribes and many more unaccounted fees if the accounts and entire activities in all departments are properly audited from time to time, Also, all procurement related fraudulent practices will be significantly reduced to the barest minimum. Improved regulations and quality assurance systems should be in place to audit management plans, prescriptions and ascertain that drugs prescribed are necessary and not just motivated by financial returns to the health worker. Each prescription must be justifiable and health insurance providers need not peg what drugs can or cannot be prescribed, as long as they are prescribed justifiably. Auditing of clinical diagnosis and treatment plans by an approved body and development of goal-standards of care will make it easy to identify those physicians or health workers going out of line with prescriptions and treatment plans. If the options undertaken have

to be justified, less irrelevant management modalities will be employed by the health workers. Health education of patients and the general population will also put them in a vantage position and arm them with necessary basic information that will not make them easy prey for manipulation.

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In Tanzania, health workers exploited the poor masses' readiness to pay for services that should be otherwise free by creating a scarcity, since there is a lack of proper account audit, these payments will result in surplus payments for the health workers (Mæstad & Mwisongo, 2007). This act would have only been discovered if the accounts were occasionally audited. The auditing should be carried out by an independent organization which cannot be influenced by the actors/drivers in the health sector.

An external audit conducted by The Inter-American Development Bank (IDB) on public hospitals in Columbia, made it visible that fraud was being perpetrated in the sector, this shows the extent to which proper auditing can curb corruption in this sector (Sayedoff, 2007).

Transparency

Since the cost and rates of health-care services are not disclosed, some corrupt officials tend to extort patients who are desperate to get medical attention. There is a call for transparency in the dealings of the actors in this sector. For example, test results especially for cases as sensitive as COVID which is a global pandemic should bear an official trackable ID, either in form of a barcode or customized detail. Stringent measures and repercussions for malpractice such as issuance of false results should also serve as a warning to anyone who intends to engage in such acts. The move by the Nigerian Medical Association to issue stamps for each medical report needs to be improved upon and medical reports to any establishment should bear trackable

details of the medical personnel issuing it. A national database should also be created and updated regularly so that the status of any medical personnel can be easily verified and quacks fished out.

Also, the actual budget released to the sector should be made public and the public should be enlightened about how this budget will be used. Most importantly, the decision making process, plans and actions should be made publicly available (Gaitonde et al., 2016).

Adequate orientation and enlightenment of the masses

Many times, the poor masses tend to see the health workers as being somewhat special, and this makes them do exactly as they are told without asking questions because they have complete trust in them (Hussmann, 2010). The patients should be enlightened about the cost of each service in the public health care facilities so they won't be made to pay for free services, as the saying goes 'KNOWLEDGE IS POWER'. The masses should be well informed that the health workers are not any special, they are only carrying out their duties and in fact being paid by their taxes. The masses should be involved to serve as whistleblowers that report bad and corrupt health officials. (Lewis & Pettersson, 2009) cited the example of Bolivia, where local health directorates consisting of officials at the local government and citizen representatives were appointed to supervise most health facilities. The masses should be given an avenue to report any perceived corrupt practices they find in any public health care facilities and their report should be duly investigated while erring officials are brought to book

Employment of more doctors

According to WHO, there are only 4 doctors and 16 nurses per 10,000 population in Nigeria. This will put a strain on these health practitioners as seen in contributing to increased wait times. Patients that want to access these health workers quickly tend to give some sort of bribe either in cash and kind. If more health workers are employed to treat the teeming number of patients, corruption will be curbed to a minimum rate. Recruitment and replacement of personnel must be an on-going process if the set target of 1:1000 from WHO is to be met or

improved upon. Verification of staff must be done regularly too to mitigate the existence of ‘ghost workers’

Private Sector Participation

The war to tackle illicit and corrupt practices does not exclude the private sector. The government alone cannot fight corruption. Even at the grassroots level, the private sector should collaborate with the government to provide some type of support to help combat corruption and similar behaviors in the public health sector. These partnerships often involve collaboration with international bodies. The private sector's involvement will increase accountability for any investment made in the health sector. These private sectors will also assist the government in covering areas where there is inadequate funding, for example, the construction of new health centers and the procurement of medical equipment etc (Widdus 2001).

Increase in the Budget allocated to the health sector

Improved fiscal allotment to the health sector will address various challenges, including procurement, recruitment, and continuing maintenance, with the subsequent consequence of improved service delivery.

The solutions proposed above can help to mitigate these corrupt practices even if they won't erode corruption entirely. But as it seems, the health workers are likely not to cooperate with the implementation of these solutions. Apparently, there is no single pathway to reform, the means and methods of reducing corruption should be determined based on the ‘best fit’ rather than the best practice. For these methods mentioned above to be achievable, there needs to be an enabling environment and willingness on the part of the actors involved (Heywood 2018). Disrupting a corrupt equilibrium is simpler by collaborating, coordinating and building trust in the health sector. (Fisman & Golden 2017; World Bank 2017).

CHAPTER TWO

2 CORRUPTION IN THE PUBLIC HEALTH SECTOR IN NIGERIA

Nigeria, a country of over Two hundred million people distributed among thirty six states (and a Federal Capital, Abuja) and seven hundred and seventy four local government areas is located in West Africa. It's neighboring countries are Republic of Niger, Republic of Benin, Chad, Togo, Cameroon and Ghana. Nigeria has over 600 ethnic groups with various languages but English is broadly spoken as lingua franca. Nigeria is Africa's most populous country and the world's seventh most populous country having over 144 million people with a growth rate of 3.2% and the young people of age 10-24 years constituting nearly 33% of the population with nearly 56% of the country population living below the poverty line (Buowari, 2017). It is commonly referred to as the 'Giant of Africa' due to its population and manpower.

Over the years, Nigeria has been tainted with corruption at all levels. Corruption in the Nigerian Public Sector can be grouped as financial and non-financial, it could be political (by politicians) or administrative (civil servants working in the public sector) (Zakari & Button, 2021). Corruption can be further grouped into two, petty and grand corruption (Andersson, 2013). It is quite important to distinguish how these two classes of corruption apply to Nigeria. It's vital to recognize that these two types of corruption exist in Nigeria's system, affecting everything from health to education, to housing etc.

Many Nigerians find it a daunting experience having to go through the numerous bureaucracy processes involved in getting anything from the public offices, ranging from obtaining a National ID card, International passports, registering a sim card etc thereby relying on intermediaries(touts) to speed up the processes. These touts are either direct employees of the bureaucracy or private individuals who have nurtured some sort of familiarity with those in those offices (Smith, 2007). The touts remit a percentage of their earnings to the officers involved in these acts of corruption. In the Nigerian context, there is a central opportunity for both the petty and grand type of corruption to thrive but the opportunity widens when public servants have enormous unrestricted powers. (Zakari & Button, 2021)

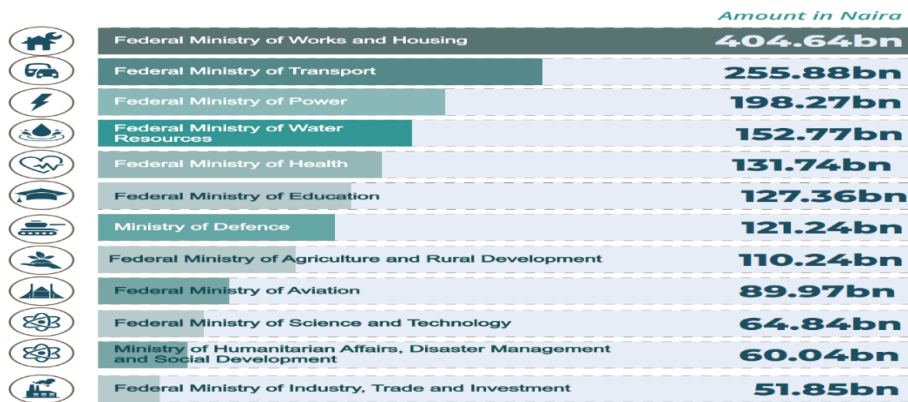
Recently, public analysts have focused their arguments on the increased rate of corrupt practices stemming from improper public finance planning and implementation, mostly in the

developing economies, not excluding Nigeria (Krokeyi & Eniekezimen, 2020). Corruption has drastically decreased economic growth and development absolutely in all sectors of Nigeria economy. The magnitude of corrupt practices in Nigeria has contributed to the epileptic state of national security, health sector, communications, transport sector, and the education sector (Krokeyi & Eniekezimen, 2020).

The key objective of healthcare development in Nigeria is to curb corrupt practices and to allow fair and impartial access to up to standard delivery of health care both in the rural and urban communities, facilitation of healthcare development in Nigeria by developing primary health care services via strategic approaches for combating corruption. Corruption undermines the healthcare objectives of health systems as it causes the millennium development goal not to be achieved.

With a Gross Domestic Product of about \$514M, Nigeria ranks 187 out of all 191 countries measured for their overall health systems (WHO 2020). This is disturbing for a country that ranks the highest GDP in Africa and ranks 26th GDP in the world even above some developed countries like Austria, Ireland, Norway (World Economic Outlook Database, 2021). African countries signed the "Abuja Declaration" in April 2001, vowing to devote at least 15% of their annual budget to health care. The budgetary allocation of this sector is insignificant as measured with other sectors because this budget covers the health workers' salaries, and the total costs incurred in the daily running of the health care sector, the rehabilitation of Public healthcare facilities, also covered in this fund is the cost allocated to COVID and the procurement of medical equipment, vaccines and drugs. As reported by the Premium Times newspaper, this paltry 15% allocation has not been followed to the letter, meaning that a figure far less than 15% is devoted to the Nigerian Health care sector. The highest percentage ever allocated to this sector in Nigeria is 7% in the 2021 budget, which is an upgrade from the 2019 allocation of 4% . This will explain the continued inability of the public hospitals to acquire necessary personnel and equipment.

FIG 1: The 2021 Nigerian budget per sector



Source: (BudgIT Research, Budget Office of the Federation)

WHO, World Health Organization has set a target of 1:1,000 doctors per 1,000 people, which means 1 doctor should be available to cater for the health needs of about 1000 of the country's population, with Nigeria lagging far behind at 0.4 per thousand. . Nigeria as a whole has a total of less than 100,000 doctors for a population spanning about 200 million people (WHO 2015) as compared to India, which is also a populous third world country but has achieved the WHO recommendation on Doctor-Population ratio (Kumar, Pal, (2018). Only around half of Nigeria's total number of doctors are actively practicing, and many more are fleeing the nation on a daily basis in the current wave of brain-drain, which is partly owing to the country's high measure of illicit practices in this sector. The few left behind are shared by public and private hospitals, with the undesired consequence of some of the doctors covering more than one hospital. Long waiting times, queues, rescheduled visits and patient diversion to other centres are just a few of the consequences of this dwindling ratio. The ratio does not just affect doctors but also noted to be existing among other health care professionals. Pharmacists, nurses, imaging scientists, laboratory scientists are also leaving in droves for countries with better remuneration.

2.1 Major Forms of Corruption in Nigeria's Health Sector

Different literature reviews have identified various types of corrupt practices for Nigeria and some other developing countries. Five of them have been prioritized for Nigeria. They

include informal payment/bribery, absenteeism; drug theft and supplies theft; inappropriate prescribing; as well as patient referrals from public to private clinics (Onwujekwe et al., 2018).

Theft of medicines and supplies

Medicines, medical supplies belonging to the public health facilities have reportedly been stolen by those in charge of safekeeping and distributing these resources. In the majority of the public health care centres, drugs that the government have made free to the masses are usually never available. It was reported that some health workers actually substituted genuine products with low quality ones after they have stolen and sold the genuine ones (Akinbajo, 2012)

These corrupt practices have contributed substantially to the shortage of drugs and medical supplies in government-owned hospitals (Onwujekwe et al., 2018). Drug theft could be carried out by health workers individually or in support of other staff members (Akokuwebe & Adekanmbi, 2017; Chimezie, 2015).

It is commonplace to get to the primary health care centres across the country and find items meant to be distributed freely to the local community locked up in a room waiting to be diverted for the personal use or sale by the officials in charge. Mosquito nets, free drugs, and so on are some of the commonly hoarded items which may be diverted or sold illegally by the health workers in charge.

Improper prescribing

Some health workers prescribe drugs which patients do not need to patients based on agreements they have with certain pharmaceutical companies who have promised them a certain percentage of total drugs they help them market and sell. Some of these health workers are shareholders in several of these pharmaceutical companies hence the need to sell the drugs to patients even if that particular drug or brand is not what is required to that treatment. Some of the rules also governing health insurance schemes do not allow physicians to prescribe branded medication to the patients, this is because the insurance company wants cheap services. Generic medications only which may not be as effective are prescribed and dispensed. When patients do

not improve clinically, they may be forced to seek alternatives by way of out-of-pocket payments to be able to access the branded medications which are usually more expensive.

Multi Level marketing outfits have also been courting the health sector and parading their products to the health workers who stand to gain some profit or prizes whenever sales are made. Most of these products are usually multivitamins produced only as supplements to boost immunity or aid wound healing. For the sake of the benefits attached some health workers use their advantaged positions to market these products to the patients seeking services in the hospitals. Promises of drastic resolution of diseases, and cure for incurable diseases are some of the enticing sentences used to lure the unsuspecting patients into purchasing expensive supplements as though they were directly therapeutic.

Non-existent regulation of pricing of medical supplies

A fundamental difficulty is the lack of control of medical supply pricing and investigations, which offers a route for corruption to grow. Where there is no strict monitoring, arbitrary prices are fixed and reviewed upwards without much choice on the part of the patient. There is no task force or committee that sees to the congruence of the fixed prices with the purchasing power of the people in the locality which the health facilities are meant to serve.

Absenteeism

Absenteeism, which includes lateness to work, absence from work and leaving the workplace before the normal closure time, has been reported by various studies (UNDP, 2011; Maduke, 2013; Mackey et al., 2016). Many health workers do not agree that absenteeism is a form of corruption, to them; they are just augmenting their meager salaries. A high percentage of public health care workers in Nigeria also work with one if not more private clinics hence they have to shuffle between these clinics. When they are short of time, they will rather not show up at the public health care facility because they assume since the private health care facility pays them more, they need to dedicate their time there. This is a major form of corruption, more serious than the health care workers seem to agree because apparently, they do not understand the consequences these actions have on the patients waiting to see them at the public facilities.

Health Insurance Schemes Fraud

According to the NHIS (Nigerian health Insurance Scheme), the health insurance schemes available in the country are grossly inadequate and most of the nation is underserved including the local government of focus. Only employees of the federal government have an established scheme that caters for health while the percentage of people living in local areas with such federal employment is low. Non-federal employees, on the other hand, can enroll in health-care plans through HMOs (health-care organizations) linked to any of the recognized hospitals. The operational guidelines of the scheme allow a beneficiary to register a spouse and 4 biological children under the age of 18 .Relatives or other dependents not captured in this bracket are sometimes disguised either by age-falsification or by impersonation at the point of receiving care or medications. This will put a toll on the services provided to the actual people insured under this scheme.

The national insurance scheme for health and the health maintenance organizations (HMOs) always try to evade remitting funds to the providing hospitals as at when due. Much complaints of unremitted funds for services already provided creates a latitude or feet-dragging in providing services to those who intend to access services with their health insurance. Due to the need to authenticate service provision on the scheme, the process is usually too cumbersome for patients who sometimes resort to paying out of pocket to avoid going back and forth for authentication.

Diversion of patients from the government owned health care facilities to privately owned health centres

Several Nigerian health practitioners engage in what is known as 'DOUBLE PRACTICE,' in which they operate in both government owned and privately owned health centres just to supplement their meager earnings. The majority of prominent public health authorities also own private healthcare facilities. Most patients are made to believe that their referrals to privately owned facilities are in their best interest especially when the patient has money to throw around

and would rather avoid the long queues and bureaucratic processes that go on in the Government owned health centers. Incessant industrial actions which are the product of corruption are sometimes associated with such referrals, leading to deprivation of affordable healthcare to particular sets of people (Maduke, 2013). When the public health care personels are on industrial action due to several different reasons, patients seeking care would have no choice than to accept this referral as the only means of them receiving the treatment they need. Many of the public health centres in rural areas do not have all the prescribed medications, investigations and consumables making it necessary for it to be sourced from outside the hospitals. Some of the hospital staff trade in these items on the grounds of the hospital or at an outside facility or store they own. They sometimes indirectly refer people there. These category of staff will also not implement necessary changes in the hospital for needed items to always be available as that will affect their own sales and returns.

Informal payments / Bribery

In Nigeria, there is a significant amount of bribery, which contributes to an increase in corruption in the health system. Health workers demand bribes before patients get treatment, even patients offer bribes to get faster and more efficient services. Results of previous review revealed the widespread use of bribes among service users and health workers, with the most widespread of corrupt practices being charged for hospital bed spaces in government-owned facilities (Turay, 2016; Saka et al., 2016; Chimezie, 2015). It was reported that physicians and nurses in Nigeria ask for bribes from patients before they are allowed to undergo assessment (Chimezie, 2015).

From late 2020 when COVID vaccines became available and lock-down procedures were beginning to be eased in many countries, an evidence of being negative for COVID-19 became part of the requirement for air travels. Some reports of fake results being given at a fee has been recorded within the Nigerian health care sector, with claims that the officials in charge make it possible to get a result without running the test at all, all you need to do is to offer them a bribe. Some also charge if you need it urgently to expedite travels (Olafusi E, 2021)

Graduates of Nigerian universities are mandated to undergo a 1-year service to the nation

through the National Youth Service Corps, a scheme created by a decree in 1973 to foster unity, reconcile and rebuild the country after its civil war. Recently, security threats and inter-tribal unrests have ravaged some parts of the country especially the north and the usual camps for the scheme have had to be relocated on many occasions. Individuals have also sought to be relocated close to their homes because of this security scare. One of the most approved criteria for a redeployment close to home is a medical report of illness. There have been reports of fake reports issued to intending corps members to support their need to relocate. Paramedical and other health staff, quacks and even physicians are suspected to be behind some of the unbelievable reports that make the rounds, after bribes have been given. This malpractice necessitated the National Medical Association to introduce the use of stamps in a bid to eradicate quackery and be able to trace anyone engaging in malpractice. (Dockilink 2018)

Another study conducted in Nigeria revealed that some rural area patients pay in-kind to the health workers via manual labour (Onah & Govender, 2014). This form of the informal mode of payments vividly raises a question concerning accountability. These informal payments are sometimes considered justified by healthcare practitioners, though any form of informal payments is tantamount to bribery.

Other types of corrupt practices endemic to Nigeria's health sector discovered in the literature review include ghost workers on the payroll; hiring of health staff that is not based on merit; leasing and using public health facilities for personal gains in which some public health facilities management rent out their meeting halls for events to make extra cash; favoritism and nepotism in which less qualified candidates are employed and the less performing health worker is promoted if they have a relationship with the bosses; and fraud (Owusu-Bempah et al 2013). Procuring medicines and other medical equipment is not exempted from corruption (UNDP, 2011; Amnesty International, 2011).

2.2 Impact of corruption on the Nigerian health sector

Corruption hinders access to healthcare services and worsens all aspects that determine good health systems efficiency (Jain et al. 2014). It is a critical factor for de-motivation and burning

out of human resources. It has been reported that the world spends more than US\$7 trillion on health services per year, and that at least 10-25% of the global spending is lost directly via corruption, meaning billions of dollars are lost annually because of corruption (Mackey, Vian, and Kohler, 2018). Corruption in the healthcare sector results in numerous adverse effects, including reduced life expectancy and increased mortality.

According to Ademola (2011), corrupt practices have hindered the development of Nigeria's health sector, encouraged illicit professional conduct and perverted leadership, and resulted in wrecked hospitals and dilapidated infrastructures. These corrupt practices have continued to widen the divide between the rich and the disadvantaged in society (Waziri, 2010). Among the adverse effects of corrupt practices in the Nigerian Health sector includes difficulty in accessing healthcare services, circulation of counterfeit drugs.

drugs by offering bribes to health administrators to obtain contracts to supply low-quality medicines and counterfeit medicines for personal gains (Garuba et al., 2009).

The bureaucracies attached to patient registration and authentication for each procedure or hospital visit need to be automated and collapsed to reduce queues and patient waiting time for people subscribed to the health insurance schemes either through the HMOs or the national scheme. Prompt and regular reimbursement of affiliated hospitals will also encourage hospitals to attend promptly to the health insurance scheme subscribers.

The health statistics and demographics of the population are poor and are a reflection of the whole country's deficiency as regards health data. Distribution of vaccines are dependent on these figures and can be misleading and unachievable if they are false. Field workers employed in dispensing vaccines at the grassroots usually are unable to find as many people on ground as documented in the registry or census data. They either have to resort to conjuring up non-existent names and emptying vaccine bottles as proof of dispensing their contents. Although the irregularities with census data is believed to be engineered for political reasons and electoral malpractices, this is one of the ways it can indirectly affect other sectors, especially health.

The study carried out by the National Demographic Health Survey (NDHS) in 2009 showed a failure in the healthcare delivery scale because of the diversion of funds earmarked to develop rural healthcare facilities for personal gain or pockets (Oluwabamide, 2013).

Various research works have assessed how corrupt practices affect societal development and growth. According to a study, health professionals embezzle funds allocated to health centers, forcing them to charge consumers for treatments that should otherwise be free, and that corruption has detrimental consequences on healthcare delivery in Bayelsa State, based on the perspective of non-practitioners. (Krokeyi and Tantua, 2020). Another study aimed at evaluating effects of corruption in the grass-root level in Ado-Odo Ota, Lagos concluded that cost of service, non-availability of drugs, staff development, lack of equipment and consumables among others were substantial correlated with corruption and epileptic delivery of health services at grassroots (Azuh, 2012).

Corruption in the health system has generated institutional mistrust and is a challenging adversary in the fight against the COVID-19 outbreak. Many countries of the world have different factions of people with different views, beliefs and theories about the pandemic and the emerging vaccines. The economic implications, travel restrictions, extortions and financial irregularities that have been experienced have been a good milieu for the eruption of the diverse conspiracies which have further worsened the management of the pandemic globally.

In all these examples cited above, it is very clear the impact corruption has on the health sector is grave.

2.3 Research Methodology

Considering the aim of the study; to investigate the impacts of corruption to the healthcare service delivery to the rural areas in Lagos State, taking Agege Local Government as a case study and also to find effective measures to curb or reduce these corrupt practices to the barest minimum; the research was appropriate for using quantitative data analysis to answer research questions. For the purpose of this research, an exploratory research design had been chosen, before the development of questionnaires, the study had searched the library community by doing field works in an attempt to have an overview of the impacts of corruption on the healthcare sector in Nigeria.

The population for this study is categorized into two, the healthcare workers which comprises doctors and nurses in three hospitals in Lagos Dopemu Primary Health Centre, Orile Agege General Hospital and Iloro Health Centre all in the Agege area of Lagos State and the patients who access this healthcare facility.

Agege is a suburb of Lagos state with a landmass of about 18km² and has an estimated population of 461,743 according to the National Population Commission's 2006 report. This population is made up of about 238,456 males and 223,287 females. It is bounded in the north by the Ifako/Ijaiye Local Government Area, the west by Alimosho Local Government and Ikeja local Government in the East and West. Though Agege Local Government is situated in Lagos State, a South Western State in Nigeria, it is a home to a mix of different ethnicities and tribes. Quite a large number of Hausas, from the Northern part of Nigeria reside in this local Government. It has a bubbling economic scene with different markets and shopping malls. According to the Nigeria health facility registry, there are 12 public health centres in this local government. In order to understand the impact corruption has on the health institutions in Nigeria, using Agege local government as a case study, this study administered 50 health workers and 120 patients in these three health facilities Dopemu Primary Health Centre, Orile Agege General Hospital and Iloro Health Centre).

The questionnaire is the main research instrument in this study, with the objective to elicit as much related information as possible from the respondents. It contains enough questions to be able to meet survey objectives but not so many as to be off-putting to respondents. The research questions are embedded into these questionnaires. The questions are long enough to elicit the information that is required but short enough to encourage an optimum response rate. (Petticrew and Roberts, 2006).

For the healthcare workers, this study is concentrated on doctors and nurses only. In these three hospitals, there are an estimated total of 60 health workers. The questionnaire was distributed to only those who are likely to fill it and fill it accurately to get results needed for this study. The total number of respondents in this category is 50. Approximately 1200 patients seek medical care in these three hospitals daily, the exact figure cannot be ascertained as there is no

proper record keeping of all patients visiting these health facilities. Some of the patients that seek health care in these facilities are never registered, but have access to doctors after informal payments and bribes have changed hands. Of all the about 1200 patients that visit these health facilities on a daily basis, only about 10% of them are educated, this leaves us with about 120 respondents. The questionnaire was administered to these 120 patients who are educated enough to understand the questions in it and answer these questions truthfully without bias. The study adopted quantitative data gathering techniques. This survey research method is adopted to address the research questions, using the questionnaire as the main instrument.

Electronic questionnaire was used as the instrument for the survey. This method was used based on the difference in location of the researcher and the respondents. The advantage of using electronic questionnaires is that they are an entirely standardized measuring instrument because the questions are always phrased exactly in the same way for all respondents and are very easy to fill. One of the advantages of self-completed electronic questionnaires is the cheapness and saving of the researcher's time (Richardson, 2005). A total of 170 questionnaires were administered. Another advantage of using electronic questionnaires is that the completed questionnaire can be returned instantly. There were two sets of questionnaires that were administered; there is a separate questionnaire for the healthcare workers and the patients. Each questionnaire is divided into different sections, and respondents are required to answer all the questions in every section.

The electronic questionnaire survey was conducted from 28th of April to 3rd of May 2021. To ensure that the study's purpose is met, a total of 170 questionnaires were sent out to two groups: 50 health care personnels and 120 patients. In all, a total of 123 questionnaires were filled, this is a very high and impressive response rate as it stands at about 71% for analysis. The electronic questionnaire shared electronically were two, a separate one for the health workers and the patients. The questionnaire for the patients was split into two sections. Demographics and the main perception of corruption, the demographics section included age, sex, educational qualification and the number of years they have been using the public healthcare facilities. The same was asked for the demographics section of the questionnaire administered to the health

workers, the only difference is, the question about their profession (doctor or nurse), length of service and how many health facilities they have worked.

The second section of the questionnaire administered to the patients contained questions on the types of corruption we have discussed in this study and asking how it has affected them. They were asked to specify the different corrupt practices that they perceive taking place in the public health care facilities. The 5-point Likert scale proposed by (Vagias and Wade, 2006) was used, where five choices are offered for every question in the range (1, 2, 3, 4 and 5) and interpretations (strongly disagree, disagree, neither agree or disagree, agree and strongly agree). The choices represent the level of agreement each and every participant has on the given questions. When you want to acquire an overall measurement of sentiment surrounding a specific topic, perspective, or experience, as well as precise data on elements that contribute to that sentiment, the likert scale is a very valuable question type.

Perceived corrupt practices such as Absenteeism, Informal payments, bribery, and diversion of patients to private hospitals were covered in this section. For the health workers, questions such as prompt and adequate payment of their salary, if they have extra income and if this income pays more than their salary, if they work in/own private health facilities, if they sometimes refer patients to these facilities, punctuality at work, if they have some kind of arrangements with pharmaceutical companies etc. Also, a section containing their opinion on the best anti-corruption measures to deploy to reduce the rate of corruption tainting the health sector was included. All the above questions were included in the questionnaire to understand the causative factor that makes these health workers involved in corrupt practices.

A pilot study was initially conducted by distributing the questionnaire to 5 health workers and 5 patients. Ten completed questionnaires were returned, five from health workers, five from the patients. All inputs were taken into consideration to enhance and upgrade the degree of dependability of the instrument. To ensure that the measures and variables developed as the instruments in the questionnaire were appropriate, it was tested for its reliability.

2.4 Results

This section of the study presents the result of data analysis and discusses the finding of the results. To be able to provide answers to these research questions simple percentages and tables were used alongside test of proportion, mean and chi-square.

Firstly, the demographic characteristics of respondents was presented followed by proffering answers to research questions and lastly, testing the research hypothesis.

The study elicited response from 46 health care workers and 97 patients. The bar charts below present the demographic characteristics of the respondents, Age, Gender and Educational Qualification. It can be inferred that the bulk of users of public health care facilities fall between ages 35-44 with the majority of them being female. More female health workers between the ages of 25-34 responded. Majority of respondents in both categories have a Bachelor's degree. The level of literacy among the patients should be leveraged upon to sanitize them to resist informal payments for otherwise free services and not be involved in bribery which gives room for corruption.

Figure 2: Age of respondents

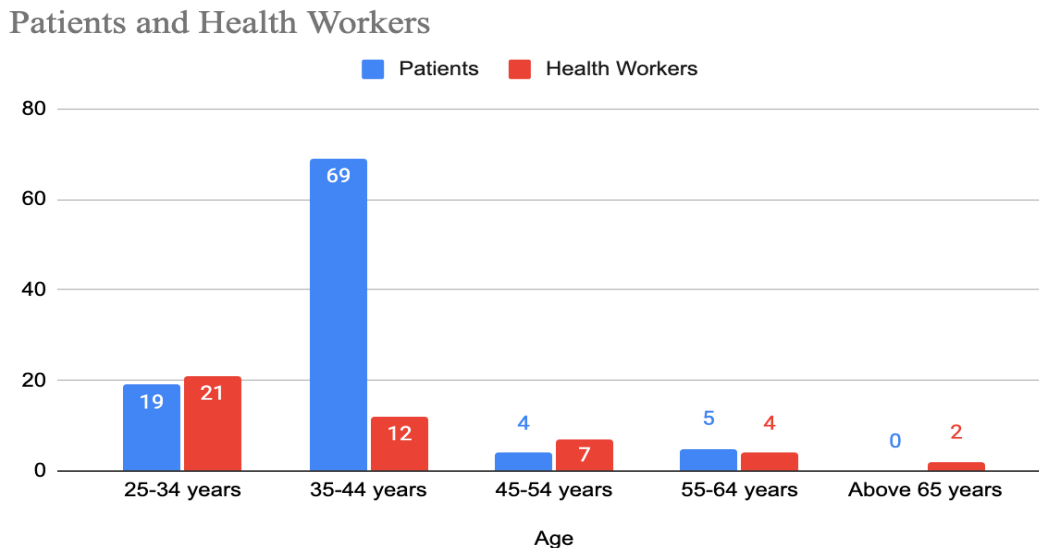


Figure 3: Gender of respondents

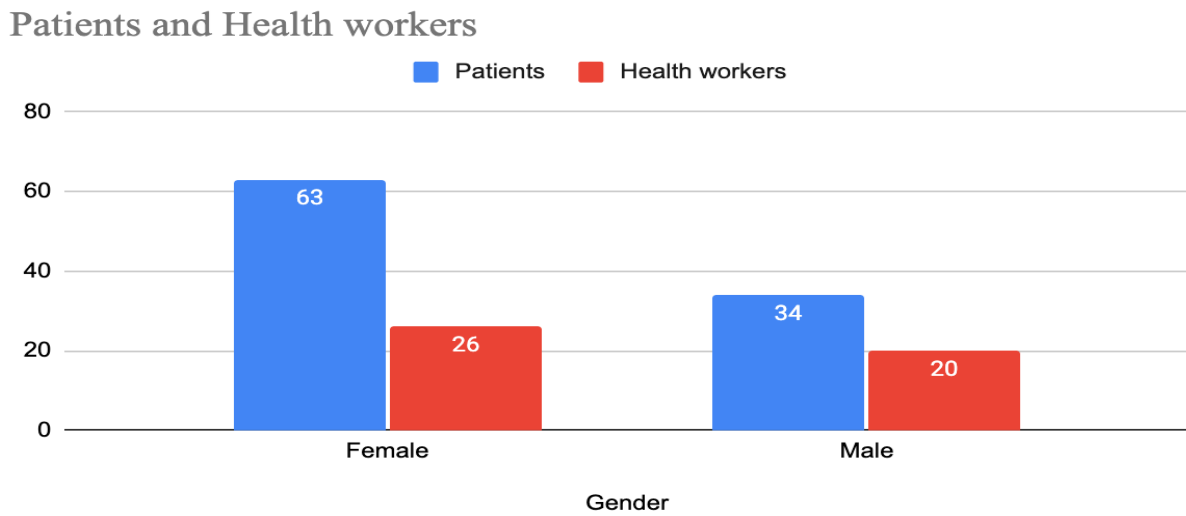
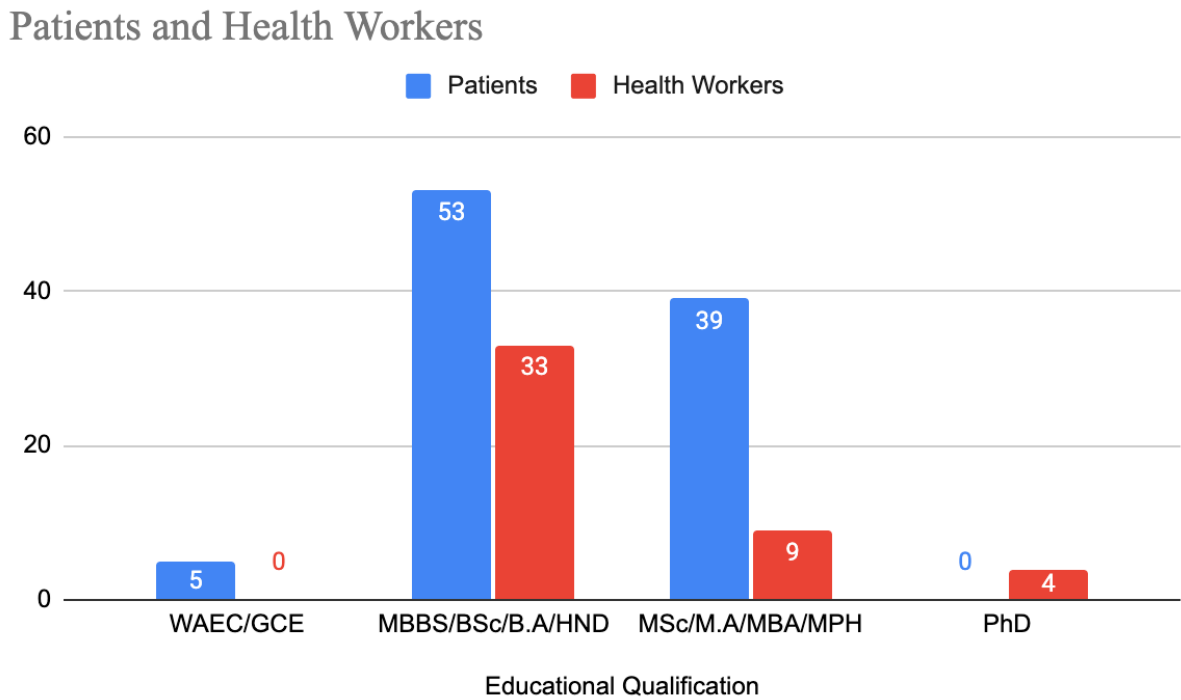


Figure 4: Educational Qualification



To proffer answers to the research questions, the following values were assigned to the Likert scale responses: Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, Strongly Agree=5.

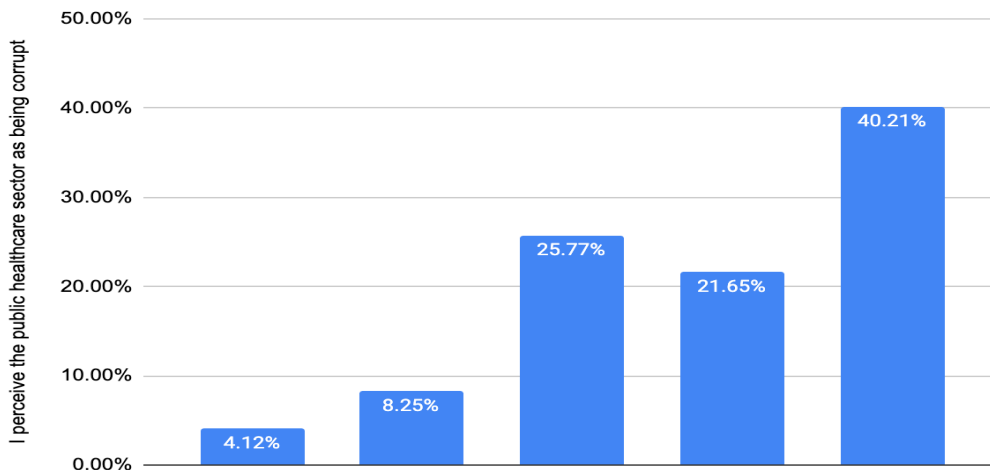
A mean value of above 3 indicates that respondents agree to such a question and a value below three indicates that respondents do not agree.

Research Questions

Question 1: Do patients in the Agege local government area of Lagos believe there is corruption in the health-care sector?

The response of patients who access these health facilities is shown in the chart below. To the question “I perceive the public health sector as being corrupt”, the mean value is 3.85 indicating that respondents agree that corruption exists in the Agege local government's health sector. This is due to their agreement to having made informal payment for services that should not be charged for and the non-availability of drugs for treatment of common ailments despite the Government announcement that these drugs are readily available in public health facilities. Also, a high percent of patient respondents agree they have at one time been diverted to private health facilities by the health workers in this local government.

Figure 5: Perception of patients to the corruptness of the public health care sector of Agege Local Government



Question 2: What types of corruption exists in the health sector in Agege Local government area?

The table 1 in Appendix 2 (please refer to page 53) provides the detailed response to these question in a tabular form. 27.8% of the patients agree that there exists informal payment for drugs and services in public health care facilities with a mean value of 3.4, Similarly 30.9% respondents also agree that they have been diverted to private health care facilities owned by Public health workers. Patients agree strongly that the wait time is long, this is a form of corruption that can be associated with absenteeism of health workers thereby putting a strain on the little fraction of them that show up to their duty post and long wait times for the patients. Majority of respondents disagree that drugs for treatment of common ailments like headaches, malaria etc are readily available in the public healthcare facilities.

Question 3: What is the perception of health workers on how to combat corruption in Agege local government area?

Appendix 4, Table 1 proffers answer to this research question, to get results for this research question, health workers were told to pick three anti-corruption methods they perceive can be effective enough to curb the illicit acts in the healthcare sector of Agege Local Government. The highest values on the set of response of health care workers are 28.26% which corresponds to increased and timely payment of health workers' salaries, punishment for corrupt health workers, continuous orientation and reorientation of health personnels and employment of more workers, 23.91% of the respondents request for openness and a level of accountability in the sector.

The table 1 in Appendix 4 also shows the possible causes of why some health workers might engage in corrupt practices as over 52% agree their salary is inadequate for their job, and not also paid regularly. There is also a dearth of enthusiasm among health personnel, as well as insufficient instruments and tools they require to perform their duties. Over 80% of the respondents in this category believe the government is not doing enough to fund the public health sector.

2.5. Research Hypothesis

To analyze the gathered data, simple percentages, charts and tables were used. Also, Chi-square (χ^2) test statistics was used as the statistical tool to test the hypothesis as this method is found to be the most suitable for the data type and is widely accepted. The Chi-square test of independence is a statistical hypothesis test that is used to see if two categorical or nominal variables are likely to be connected. The Chi-square, denoted as (χ^2), is a non-parametric test that can be employed when the significance of empirically acquired values (O_i) differs from what is expected (E_i). The formula for the chi-square (χ^2) test statistic is given below:

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Where;

χ^2 = chi square

O_i = is the observed value

E_i = is the expected value

r = is the sum of the number of rows in the contingency table

c = is the sum of number of columns in the contingency table

Table 1: Observed Frequency Table

Gender	SD	D	N	A	SA	Total
Female	4	6	15	14	24	63
Male	0	2	10	7	15	34
Total	4	8	25	21	39	97

Table 2: Expected Frequency Table

Gender	SD	D	N	A	SA	Total
Female	2.598	5.196	16.24	13.64	25.33	63.004
Male	1.40	2.80	8.76	7.36	13.67	33.99
Total	3.998	7.996	25	21	39	96.994

EXPECTED FREQUENCY= Row total X Column total

Sample Total

Using the Chi square test

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Table 3: Chi-squared test result calculation

Observed Frequency O _i	Expected Frequency E _i	O _i -E _i	(O _i -E _i) ²	$\frac{(O_i - E_i)^2}{E}$
4	2.598	1.40	1.97	0.76
6	5.196	0.80	0.65	0.13
15	16.24	-1.24	1.54	0.10
14	13.64	0.36	0.13	0.01
24	25.33	-1.33	1.77	0.07
0	1.40	-1.40	1.96	1.40
2	2.8	-0.80	0.64	0.23
10	8.76	1.24	1.54	0.18
7	7.36	-0.36	0.13	0.02
15	13.67	1.33	1.77	0.02

$$\chi^2 = 2.92$$

Level of Significance = 0.05

Degree of Freedom=(r-1)(c-1)

where

r = is the sum of the number of rows

c = is the sum of number of columns

(5-1)(2-1)

Degree of Freedom = 4

Critical value using the chi square table = 9.49

P value = 0.5568

Table 4: Chi square Test (Perception of corruption based on Gender)

Variable	Chi-Square value	P-Value
Gender	2.92	0.05568

To test the hypothesis, we would compare the P value and the level of significance ($>\alpha$).

If P value $\leq \alpha$, reject the null hypothesis

If P value $> \alpha$, fail to reject the null hypothesis.

According to the result, P value (0.05568) $> \alpha$ (0.05)

Therefore, I accept the null hypothesis.

Based on the statistical significance of the test of independence calculated when comparing Gender with their perception of corruption in the health care sector in Agege Local Government, I accept the null hypothesis that no substantial difference exists in the perception of corruption in the health care sector in Agege Local Government based on Gender.

As seen from the result of the test, it can be deduced that there exists a significant difference in the perception of health care users on the presence of corruption based on their gender

2.6 Discussion and Recommendation

The study used Agege local government to examine the extent of corruption in Nigeria's health-care system. To achieve the goals of the study, three research questions were asked, and one hypothesis was put forward. The study adopted descriptive statistics such as mean and percentage to answer the research question and inferential statistics (chi-square) to test the research hypothesis.

According to research question 1, Do patients perceive the presence of corruption in the health care sector in Agege local government Area of Lagos. Based on the result of the study, corruption visibly exists in the public health care sector in Agege local government. Informal payment and referral of patients to privately owned health institutions are two of the many forms of corruption uncovered in the health system. Half of the health worker respondents answered 'Yes' to working with a private health care facility and a fraction of these actually agree they divert patients to these facilities just as the patients' respondents confirmed. The high number of health workers seeking extra income by working in private health care can be linked to absenteeism of these health workers which takes a toll on the wait time of the patients as confirmed by respondents. Health workers strongly disagreed they do not have adequate medical equipment to carry out their duties, this will impede the standard of health care delivered to the patients accessing the health care facilities in Agege Local Government. Majority of the patients agreed that they have perceived the presence of corruption. When compared to the previous studies by (Krokeyi and Tantua, 2020), where patients in Bayelsa were charged for free services, there is a correlation between these findings. Many other previous studies also revealed as with this study the perception that corruption exists in the public health care sector in Agege Local Government. More female patients agree corruption is present in the health sector in this local government.

Patients were enticed to pay for what were intended to be free consultations, and drugs that should have been supplied to them for free were sold, according to earlier findings by Akokuwebe & Adekanbi (2017).

Notably, the health workers respondents highlighted the measures to combat corruption in Agege Local Government, among various ways to combat corruption as mentioned by health care personnels include, increased and timely payment of salaries , punishment for corrupt health workers, continuous orientation and reorientation of health workers, employment of more health workers, transparency and increased accountability. This is in tandem with the previous anti-corruption measures mentioned by Onwujekwe et al. (2018) in their investigation of health-care corruption.

When patients see long wait times, informal payments, diversion to private hospitals, health workers only seem to assume they are simply seeking extra income to augment the meagre salary they are being paid. These practices take a direct toll on the patients in this local government. While patients strongly believe the wait time is too long, health workers disagree they are ever absent from work and this is a disparity.

Petty corruption is the most evident type of corruption in the Agege local government's health sector, in which the actors simply see it as a means of subsistence. The health workers involved in these corrupt practices perceive it as a way to make up for the measly salaries they are being paid so they can live comfortably. Therefore, in order to eliminate this menace, the government from the grass-root to the federal level should embark on policies to increase the salary and ensure that the payment of health workers salaries is timely, punish corrupt health workers as this will serve as a deterrent to others, continuously embark on orientation and re-orientation of health workers, employ more qualified health workers who have accurate degrees and experience and also very passionate about the job. It is also recommended that the health sector should be made more transparent in all of its dealings and health workers be held accountable. Health workers disagreed that their salaries are adequate, this could lead to job dissatisfaction which makes these health workers seeks additional income which gives rise to absenteeism and long wait queue patients experience, these health workers seek extra income in private hospitals and majority of the patient responded agreed that they have been diverted to these private facilities by public health practitioners. Health workers also hinted that they do not

have adequate medical equipment to perform their duties; this could be a resultant effect of thefts of medical supplies and drugs.

Recommendations

Good governance is critical in order to prevent corruption in the healthcare sector to the barest minimum. The health of the population will suffer if the health sector is poorly administered, with apparent manifestations of corruption and no commensurate penalty for the offenders of these corrupt acts.. And a population's health is its wealth.

Accountability is a major virtue that can aid in the decrease of corruption in the healthcare industry, all accounts in this sector should be audited probably so the exact budget for health is used for its purpose and fraud is curbed, embezzlement should be eliminated by ensuring all procurement is duly carried out. Drugs and other medical supplies should be securely guarded against thefts. The personnel in charge of these drugs and supplies should be held accountable and be made to give periodic reports about the disbursement of these supplies. This will cause a reduction to the way and manner in which these supplies are stolen or diverted to use for personal gains instead of being administered to the patients who use the public health care facilities. Nigerian doctors and nurses argue they are amongst the least paid in the world, yet, these meager salaries are not paid timely thereby causing a series of strike actions of health practitioners resulting in the breakdown of the health sector. It is recommended that there should be a substantial increase of salaries for all the health workers across board. The health profession should be made lucrative with plenty of incentives to motivate the health workers to perform their duties diligently. As we are recommending and canvassing for the increase in salaries and incentive, it is also recommended these salaries be paid as at when due because the non-payment of salaries has resulted in several industrial actions which cause a total breakdown of the public health sector. With several perks, health workers might not need to seek additional income which leads to absenteeism and diversion of patients to these private health facilities they work.

All payments in this sector need to be via electronic means to discourage unofficial payments and bribe taking. Patients should be informed about which services are free and which must be paid for. The services that should be paid for should have fixed prices which are made

public and the patients should be encouraged to refuse to pay for free services and report officials that ask for payment for them. Also, all procurement should be done by public bidding where it is open to any qualified supplier, this serves to reduce procurement fraud in this sector. Additionally, health workers should be made to 'clock in' whenever they resume and clock out when they leave, any health worker who is absent without permission should be punished. This would serve as a deterrent to other health workers to always be punctual at work, Also, there should be proper record keeping as there is no adequate record to register the exact number of patients each doctor attends to on a daily basis to enable the Government make sufficient plans. The state government in conjunction with the local government should develop an insurance scheme that will factor-in the employment status of the locals and their purchasing power to achieve equity for the local population as pertaining to health.

Patients should be sensitized to always request for receipts for any payment made for services or drugs in public health facilities in Agege local Government. Employment of more health workers is also recommended as there are only about 6 health workers to over 150 patients in Agege local government. This will put a strain on these health workers and they will not be at their best. A suggestion box should be placed in all visible spots in the public health care facilities so patients can make suggestions or report erring health workers. This suggestion box should be opened on a regular basis and the patient's feedback should be acted upon. The Lagos state health ministry should have a body that inspects and checks the activities of the public health facilities in Agege Local Government. This will put some sort of organization and health workers will be scared to engage in any corrupt act if they know they can be caught.

After the above recommendations have been implemented and we still have erring health workers who have refused to desist from engaging in any of these corrupt practices listed above, such persons should be used as a scapegoat to pass a message across to all other health workers who might want to engage in these hideous acts. Jail terms, forfeiture of embezzled funds and other disciplinary measures should be taken against any bad eggs in the public health sector as a means of sensitizing the sector. In as much as bad practices are punished, good character should be adequately rewarded to enjoin other health workers to tow that path.

Health workers should be banned from taking any form of gifts either in cash or kind from the patients, since this can lead to preferential treatment of those patients at the detriment of those who do not offer them gifts. Also recommended is a proper stock taking of all medical supplies procured, so that there will be no theft or mismanagement of these supplies.

Most importantly, it is recommended that the Government increases the funding of the health sector as this sector is poorly funded, the health budget should be increased so there can be procurement of more medical instruments. The total budget allocated to these public health facilities should be released and released promptly as it has been discovered that only a fraction of the health budget is disbursed. When eventually the budget is disbursed, the government should supervise the spending so they are sure this money is used for its main purpose and not embezzled or misappropriated. Health workers should be held accountable for their actions and inactions to reduce their participation in corrupt practices identified in the public health care sector of Agege local government. Finally, according to Nigeria Primary Health sector Policies, there have been no evident implementations at the grassroot levels of the many reforms advocated by the Nigerian Federal Government in addressing a variety of difficulties in the health care system. The Federal Government should ensure thorough implementation of the numerous health reforms being proposed by the State and Local Government areas so that the poor masses can enjoy quality health care services.

The government cannot single-handedly fight corruption, there should be active private sector involvement. The government should make campaigns urging private firms in this local area to donate drugs, ambulances, medical supplies to the public health sector. Companies located within this local Government should be charged to be involved in the battle to help fight corruption in the health sector.

For this study, the exact figure of patients accessing the three health centres studied (Dopemu Primary Health Centre, Orile Agege General Hospital and Iloro Health Centre) were not gotten, this is due to lack of registry in these health centers, it is recommended that other scholars take this studies further by focusing on the other nine health care facilities in this local government as corruption is a very important menace to be solved as it is critical to nation building.

2.6.1 Limitations of the study

Due to the Covid 19 pandemic where patients going to the hospital have been regulated, it was a lot difficult gathering 120 respondents in the 3 health care facilities in Agege Local Government as patients were coming in trickles and not allowed to loiter around as they normally would do when there was no pandemic. Also, there are 12 public health care facilities in this local government, the study was carried out in only a quarter of these facilities. Health worker respondents did not submit their responses on the spot as most patient respondents did and the researcher had to constantly remind them to submit. Also, the majority of the patient respondents that could have taken part of this survey could not due to lack of internet access to the electronic questionnaire.

Also, a major limitation was finding a ‘spokesperson’ that was on ground visiting these three health care centers and explaining the aim and goal of the study and why the researcher is requesting their response to the electronic questionnaire. Luckily, a major percentage of respondents accepted to fill the questionnaire without resistance and submitted right on the spot. Only a couple others who cited lack of internet services pleaded to fill when they eventually connect to a wireless network provider system.

CONCLUSION

According to the findings of this study, corruption, in all of its forms, is a major cause of inadequate care in public health facilities in Agege Local Government. The impact can be felt in the rampant informal payments and diversion of patients to private hospitals. Poor patients who cannot afford to pay these fees will most likely be deprived of quality care. Also, for absenteeism of health practitioners which is a cause of the long wait times experienced in these public facilities. Based on responses gathered from the medical professionals, corruption is widespread in the public health care sector in this local government. Preventive strategies should be put in place and not wait for these corrupt practices to occur before action is taken. Upright health workers should be motivated with incentives and showered with public praise while erring and corrupt health workers should be publicly punished.

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APPENDICES

Appendix 1. Questionnaire Questions for Patients

Demographics

- Age
- Gender
- Educational Qualification
- Number of years you have been accessing Public healthcare
 - Less than 1 year
 - Above 1 year but less than 2 years
 - 3-5years
 - Above 5 years

SECTION 2

In this section, please assess your perception of the the impact of corruption on the the public healthcare sector

Please tick the appropriate response as related to you

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly Agree

- I use the Public healthcare facilities regularly
- Informal payment for drugs and services is rampant in Public healthcare facilities
- I am made to pay for consultation and other services that are supposed to be otherwise free
- I have been deprived medical care due to high out-of-pocket cost
- I have had to offer some bribe to get access to some services in the public healthcare facilities
- I would choose the private healthcare facility over public healthcare ones
- At some point, I have been diverted to Private healthcare facilities owned by Public healthcare facilities personnel
- The wait time in public healthcare facilities is long
- Drugs for the treatment of common ailments like headaches, malaria are readily available in the public healthcare facilities
- I perceive the public healthcare sector as being corrupt

Appendix 2. Response for Patients

Table1: Distribution of Response of Patients

Question	SD (%)	D (%)	Neutral (%)	A (%)	SA (%)	Mean	N (%)
I use the Public healthcare facilities regularly	21.65	21.65	26.8	19.59	10.31	2.75	100
Informal payment for drugs and services is rampant in Public healthcare facilities	12	14	21	23	27	3.4	100
I am made to pay for consultation and other services that are supposed to be otherwise free	25.77	16.49	15.46	18.56	23.71	2.97	100

I have been deprived medical care due to high out-of-pocket cost	20.83	18.75	27.08	14.58	18.75	2.91	100
I have had to offer some bribe to get access to some services in the public healthcare facilities	22.68	23.71	17.53	17.53	18.56	2.85	100
I would choose the private healthcare facility over public healthcare ones	5.15	6.19	11.34	21.65	55.67	4.16	100
At some point, I have been diverted to Private healthcare facilities owned by Public healthcare facilities personnel	11.34	19.59	22.68	15.46	30.93	3.35	100
The wait time in public healthcare facilities is long	2.06	3.09	10.31	12.37	72.16	4.49	100
Drugs for the treatment of common ailments like headaches, malaria are readily available in the public healthcare facilities	13.4	8.25	28.87	24.74	24.74	3.39	100
I perceive the public healthcare sector as being corrupt	4.12	8.25	25.77	21.65	40.21	3.85	100

SD- Strongly disagree, D- Disagree, A-Agree, SA- Strongly agree

Appendix 3. Questionnaire Questions for health workers

Demographics

- Age
- Gender
- Educational Qualification
- Occupation
- Number of years in active service

1-5 years

6-10 years

11-20 years

21-30 years

31years and above

SECTION 2

In this section, please assess your perception of the the impact of corruption on the the public healthcare sector

Please tick the appropriate response as related to you

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly Agree

- My salary is adequate for my job
- I am motivated by the salary and incentives I earn as a public health care giver
- My salary is paid promptly as at when due
- I have all the instruments, tools and equipment to effectively perform my duties
- I am punctual and rarely miss work except when granted permission to be absent
- I have other sources of income in addition to the salary I earn at the public healthcare facility
- I earn more from my other sources of income than my salary pays
- I am always at my duty post attending to patients
- I sometimes take drugs or medical supplies from the public healthcare facilities for my personal use
- I collect gifts, either in cash or kind from patients if offered
- I give preferential treatments to patients who give me gifts
- There are certain pharmaceutical companies I give preference to because of personal gains; therefore, I always prescribe their products even when they are not the best to treat that condition
- In my opinion, the Government is doing enough to fund the public healthcare sector.

SECTION 3

In this section, please answer YES or NO to the questions

- I am employed in or own a private healthcare facility
- If your answer above is YES, do you divert patients to the private healthcare facilities you own or employed with?

SECTION 4

Please pick at least 3 from the list below

In your opinion, which of the following anti-corruption method will be most useful to combat corruption in the health care sector?

- Increased and timely payment of health workers' salaries
- Punishment for corrupt health workers
- Continuous orientation and reorientation of health workers
- Employment of more health workers
- Transparency and accountability in the health sector

Appendix 4. Response of health workers

Table 1: Distribution of Response of Health Workers

Questions	SD (%)	D (%)	Neutral (%)	A (%)	SA (%)	Mean	N (%)
My salary is adequate for my job	52.17	30.43	15.22	-	2.17	1.69	100
I am motivated by the salary and incentives I earn as a public health care giver	36.96	34.78	19.57	4.35	4.35	2.04	100
My salary is paid promptly as at when due	26.06	15.22	23.91	21.74	13.04	2.8	100
I have all the instruments, tools, and equipment to effectively perform my duties	58.7	32.61	8.7	-	-	1.5	100

I am punctual and rarely miss work except when granted permission to be absent	2.17	2.17	15.22	28.26	52.17	4.26	100
I have other sources of income in addition to the salary I earn at the public healthcare facility	21.74	13.04	13.04	26.06	26.09	3.21	100
I earn more from my other sources of income than my salary pays	43.48	8.7	19.57	10.87	17.39	2.5	100
I am always at my duty post attending to patients	-	-	10.87	32.61	56.52	4.45	100
I sometimes take drugs or medical supplies from the public healthcare facilities for my personal use	67.39	13.04	15.22	4.35	-	1.56	100
I collect gifts, either in cash or kind from patients if offered	30.43	15.22	23.91	23.91	6.52	2.6	100
I give preferential treatments to patients who give me gifts	73.91	4.35	8.7	13.04	-	1.6	100
There are certain pharmaceutical companies I give preference to because of personal gains; therefore, I always prescribe their products even when they are not the best to treat that condition	67.39	15.22	13.04	4.35	-	1.54	100
In my opinion, the Government is doing enough to fund the public healthcare sector.	80.43	19.57	-	-	-	1.19	100

SD- Strongly disagree, D- Disagree, A-Agree, SA- Strongly agree

Appendix 5. Anti-corruption measures

Table 1: Methods to combat Corruption in Agege Local government

Methods to Combat Corruption	Frequency	%
Continuous orientation and reorientation of health workers, Employment of more health workers	1	2.17
Continuous orientation and reorientation of health workers, Transparency and accountability in the health sector	1	2.17
Employment of more health workers, Transparency and accountability in the health sector	1	2.17
Increased and timely payment of health workers salaries	3	6.52

Increased and timely payment of health workers salaries, Continuous orientation and reorientation of health workers, Employment of more health workers, Transparency and accountability in the health sector	1	2.17
Increased and timely payment of health workers salaries, Continuous orientation and reorientation of health workers, Transparency and accountability in the health sector	2	4.35
Increased and timely payment of health workers salaries, Employment of more health workers, Transparency and accountability in the health sector	6	13.04
Increased and timely payment of health workers salaries, Punishment for corrupt health workers, Continuous orientation and reorientation of health workers	1	2.17
Increased and timely payment of health workers salaries, Punishment for corrupt health workers, Continuous orientation and reorientation of health workers, Employment of more health workers, Transparency and accountability in the health sector	13	28.26
Increased and timely payment of health workers salaries, Punishment for corrupt health workers, Employment of more health workers	1	2.17
Increased and timely payment of health workers salaries, Punishment for corrupt health workers, Employment of more health workers, Transparency and accountability in the health sector	2	4.35
Increased and timely payment of health workers salaries, Punishment for corrupt health workers, Transparency and accountability in the health sector	2	4.35
Punishment for corrupt health workers	1	2.17
Transparency and accountability in the health sector	11	23.91
Total	46	100.00

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