ANALYSING THE PATHWAYS AND LINKAGES BETWEEN HEALTH FINANCING ARRANGEMENTS IN NIGERIA AND UNIVERSAL FINANCIAL PROTECTION

BY

FIDELIS SUSAN

Nigeria

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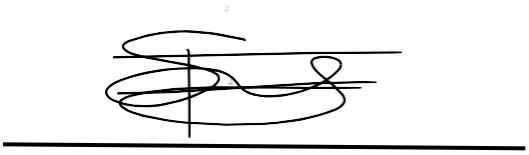
KIT (Royal Tropical Institute)
Vrije Universiteit Amsterdam

DECLARATION

I Fidelis Susan declare that the thesis "ANALYSING THE PATHWAYS AND LINKAGES BETWEEN HEALTH FINANCING ARRANGEMENTS IN NIGERIA AND UNIVERSAL FINANCIAL PROTECTION" is my research work. A thesis submitted in partial fulfilment of the requirement for the degree of Master of Science Public Health.

I carefully acknowledged and referenced in accordance with ethical research requirements other people's work has been used in this study (either from a printed source, internet, or any other source).



Signature

12 September 2022 – 1 September 2023
KIT (Royal Tropical Instititute)/Vrije Universiteit Amsterdam
Amsterdam, Netherlands.

DEDICATION

To the millions of Nigerians who struggle to access basic healthcare and those who lost their lives because they could not afford healthcare. I hope that this study gives you a voice that is supressed by the vicious cycle of poor health and poverty.

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to the God of Heaven, and the Holy Spirit for being my constant source of guidance and inspiration throughout this academic journey. Your divine wisdom and presence have illuminated my path, allowing me to overcome challenges and find strength in moments of doubt.

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I extend my sincere appreciation to my academic Advisor and thesis Advisors, for their invaluable schorlarly expertise, mentorship, and for constantly challenging me to think beyond my level of knowledge. Their unwavering dedication to excellence and constructive feedback have been very insightful in shaping the outcome of this thesis and my growth as a health systems researcher.

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Finally, to millions of Nigerians whose experiences struggling with the cost of healthcare from OOP expenditures have been the driving force behind my passion for this topic, your stories and challenges have motivated me to delve deeper into this research seeking ways to improve access to healthcare without financial hardship.

ACCRONYMS

FP	Financial Protection
AIDS	Acquired Immune Deficiency Syndrome
CBSHI	Community-Based Social Health Insurance
HFS	Health Financing System
NCDs	Non-Communicable Diseases
FFS	Fee-For-Service
FMOH	Federal Ministry of Health
SMOH	State Ministry of Information
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Expenditure on Health
UHC	Universal Health Coverage
DAH	Developmental Assistance for Health
HIV	Human Immunodeficiency Virus
HMOs	Health Maintenance Organizations
BHCPF	Basic HealthCare Provision Fund
LGA	Local Government Area
LGDH	Local Government Department of Health
OOP	Out Of Pocket
MDG	Millennium Development Goals
VAT	Value Added Tax
WHO	World Health Organization

TB	Tuberculosis
PHI	Private Health Insurance
CHE	Current Health expenditure
NHA	National Health Accounts
NPHCDA	National Primary HealthCare Development Agency
PHC	Primary Health Care
NHIS	National Health Insurance Scheme
PHI	Private Health Insurance

GLOSSARY OF TERMS

CATASTROPHIC HEALTH EXPENDITURE**:** defined as a situation where health payment exceeds a threshold level of household income that necessitates households to forgo the consumption of other items necessary for their wellbeing, is bound to occur (1).

OUT-OF-POCKET HEALTH EXPENDITURE: Out of pocket expenditure is any direct payment by individuals and households, to health practitioners and suppliers of pharmaceuticals for cost of the health good or service (2).

COST-SHARING: occurs when individuals pay a portion of their healthcare cost while the rest is either paid by the employer or subsidized by the government. They include co-insurance, co-payments, user fees, and deductibles (3).

FINANCING MECHANISMS: **Regressive financing** means the burden of healthcare costs falls disproportionately on the poor; **Proportionate financing** means implies that both the rich and the poor pay the same proportion of their income while **Progressive financing** means that the rich contribute a higher proportion of their income compared to the poor (4).

HEALTH EXPENDITURE: Health spending measures the final consumption of health care goods and services (current health expenditure) including personal health care (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments (5).

HEALTH FINANCING ARRANGEMENT: health financing tools or system that provide coverage against the cost of health care by mobilizing revenue, pooling and purchasing health care

services (6).

GROSS DOMESTIC PRODUCT (GDP): GDP is the standard measure of the value added through the production of goods and services in a country (5).

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ABSTRACT

Introduction: In low-and middle-income countries (LMICs) including Nigeria, healthcare costs often plunge millions into severe poverty due too out-of-pocket (OOP) expenses. Despite reforms such as the PHCDF and BHCPF, Nigeria's healthcare financing system (HFS) still heavily relies on OOP spending indicating the need to critically assess its capacity for providing financial protection (FP).

Methods: This is a case study employing literature review to scrutinize Nigeria's HFS and the overall governance structure, analysing the capacity of the HFS for performing certain functions (revenue generation, pooling, purchasing) optimally relative to UHC's intermediate objectives of equity in financing, cross-subsidization and allocative efficiency which must be collectively achieved for progress towards FP.

Findings: Public financing arrangements (government, DAH and NHIS) are relatively stable revenue generators but insufficient and inequitably allocated. Dominating the HFS is the private sources particularly OOP spending, mainly regressive and hindering FP. Hence, challenges along UHC's intermediate pathways emerge allocative inefficiencies due to poor co-ordination and weak legal and administrative frameworks, inequitable financing due to federal system of governance, poor political will and ineffective tax system, and poor cross-subsidization from multiple fragmented pools.

Considering the above challenges, recommendations emerge:

- Unify pools (government and DAH) and (NHIS programs)

- Expand effective tax collection fostering revenue growth!
- Advocacy for health investment to influence decision makers.

Conclusion: These challenges weaken the capacity of the Nigeria's HFS to achieve universal FP. However, implementing the recommendations can promote equity, cross-subsidization and efficiency accelerating progress towards FP and UHC in Nigeria.

Keywords: Health financing system, Universal health coverage, financial protection, Out-of-pocket expenditure, Health expenditure, Health financing arrangements.

Wordcount: 13028

INTRODUCTION

BACKGROUND

The Global Monitoring Report 2017 revealed that an estimated 800 million people spend more than 10% of their household budget on healthcare, 150 million suffer severe financial hardship and 100 million are being pushed into extreme poverty annually due to out-of-pocket healthcare expenses, majority of which comes from low- and middle-income countries (LMICs) (7).

In a quest to narrow the health and wealth inequity gap caused by this phenomenon, the pursuit of Universal Health Coverage (UHC) has gained momentum in recent years as a global policy goal engrained in the Sustainable Development Goals (SDG) 3.8. with the aim to ensure all people irrespective of their socio-economic position can access quality health services without suffering financial hardship as a result (8)(7).

Financial protection is one of the final goals of UHC at its very core, it ensures access to needed healthcare is not determined by the ability to pay, and that people are safeguarded against suffering financial hardship that leads to impoverishment when they do access needed. Despite several health reforms such as the National Health Act of 2014, and The Basic

HealthCare Provision Fund (BHCPF) targeted at UHC in Nigeria, OOP expenditure (direct payment at the point of care) is still the dominant mechanism by which health is financed and this is often an indication of a low level of financial protection in the country (9).
High OOP expenditure in Nigeria has been traced to ineffective health financing system (HFS) in the country ranging from low public funding, poor health insurance coverage, health pools, poor accountability mechanisms etc. (10)(11–14)(15,16). This confirms other evidence that says ‘’achieving financial protection (FP) is dependent upon a robust HFS that can perform effectively and efficiently’’ (17)(18).

The following chapters will delve into an in-depth analysis of Nigeria’s HFS breaking it down at its functional components: Revenue generation, pooling and purchasing. While the function of revenue generation mobilizes sufficient funding for financing the operation of the healthcare system, pooling creates prepayment mechanisms that facilitates risk-sharing by ensuring that the burden of healthcare costs is shared across population and purchasing function is concern with the management of pooled funds through equitable redistribution and efficiency in the use of resources. By analysing these functional components separately, it becomes possible to consider their interactions and dependencies which can easily be missed if the system is analysed as a whole.

This study aims to analyse the major sources of health revenue (financing arrangement) in Nigeria relative to its capacity to achieve UHC’s financial protection. It also seeks to identify the underlying challenges along the pathways of UHC intermediary objectives using a newly proposed framework.

STUDY AREA

Nigeria is a lower-middle income country located on the west coast of Africa, the country borders the Republic of Benin to its west, Chad, and Cameroun to its east and Niger Republic to its north. Nigeria is a federation of 36 States with a federal capital territory (FCT) Abuja.

The country is further sub-divided into 774 Local Government Areas (LGAs) which is organised into 6 geo-political zones: are North-East, North-Central, North-West, South-East, South-West and South-South as shown on figure 1. below. It has a booming population of over 200 million at is projected to double by 2050 at a growth rate of 2.4% .(11).

Almost 44% of this population is aged under 15 years making it one of the youngest countries yet to complete its demographic transition. Despite this large population, Nigeria still ranks very low on the World Bank's Human Capital Index-with a score of 0.36 out of 1 in 2020, meaning a child born in Nigeria will only be 36% as productive as when they grow up as they could be if they had full access to health and education.

Nigeria is classified as a lower-middle income country, it is the biggest oil exporter in Africa and has the largest natural gas reserves on the continent. In 2021, it recorded a GDP of about USD 450. However, Nigeria's per capita income of about ₦770 000 (US$2000) (19) is low indicating a highly inequitable distribution of income, wealth, and consequently, health. An estimated 63 % of Nigerians (133 million) live below international poverty line of less than 1.90USD/day, 72% of which live in the rural areas(20). In 2018, more than 20 million Nigerians were unemployed out of a workforce of about 111 million people (25–64 years) (21). With this poor economic landscape, It is no wonder that the total health spending of Nigeria is ranked among the lowest in the world at 3% of GDP in 2020 (22).

Amidst the ongoing demographic transition of an explosive young population and poor health infrastructure, Nigeria is also undergoing an epidemiological transition involving a rising incidence of non-communicable diseases (NCD) and Road traffic injuries, added to the existing of communicable diseases (CD). Due to this high burden of diseases, death and disability in the country, the life expectancy at birth is only about 55 years ranking the fifth lowest in the world(23).

Organisation of health service delivery in Nigeria, is complex. It is made up largely of public sector with a substantial private sector involvement encompassing a wide array of providers

including (private for-profit providers, non-governmental organizations, community-based organizations, religious, and traditional care providers). The health system operates in a decentralized system: the Federal Ministry of Health (FMOH), State Ministry of Health (SMOH) and the Local Government Health Department (LGHD) governed by the corresponding to the 3 tiers of government in the country (24).

The FMOH serves as the central body responsible for policy formulation, technical support, and general oversight to the lower level of governments. additionally, it provides tertiary care through teaching hospitals and federal medical centers. The SMOHs provide secondary care through the state hospitals and comprehensive health centers while LGHDs provide primary health care (PHC) services through the primary health centres organised at ward level (25).

There are more than 34,000 health facilities, 67% of which were owned by the three tiers of government (federal, state, and LGAs) whereas the private owned 33%.

The secondary and tertiary level health facilities are mostly found in urban areas, whereas rural areas are predominantly served by primary health care (PHC) facilities which represents over 80% of government facilities. (15).The healthcare financing in Nigeria relies on a mix of funding sources including government, health insurance schemes, donor funding, community-based health programs and out-of-pocket payments. Funding from public sources has been infamously low, leading to depreciation of government health facilities, quality of health services and high OPP spending overtime.

FIGURE 1 MAP OF NIGERIA SHOWING THE 6 GEOPOLITICAL ZONES. (46).

PROBLEM STATEMENT

Achieving the goals and objectives of UHC requires a robust HFS with FP being at the core of UHC. Failure of the HFS to perform its 3 core functions of revenue generation, pooling, and purchasing effectively and efficiently results to low FP which often manifest as poor access to healthcare due to financial barrier or impoverishment due to overwhelming Out-Of-Pocket expenses (26).

Nigeria's total health expenditure per capita in 2020 was 70 USD, of which 75% was privately financed out-of-pocket, 15% by the government and only 10% by external donors. This insufficient funding for health is further compounded by poor prepayment mechanisms in the country as only less than 5% of the entire Nigerian population are covered by any form of prepayment mechanism (17). This is further threatened by a set of inter-related transitions: epidemiological transition marked by a growing incidence of NCDs and injuries added to the existing high disease burden, demographic transition of explosive young population, and a declining development assistance for health (27).

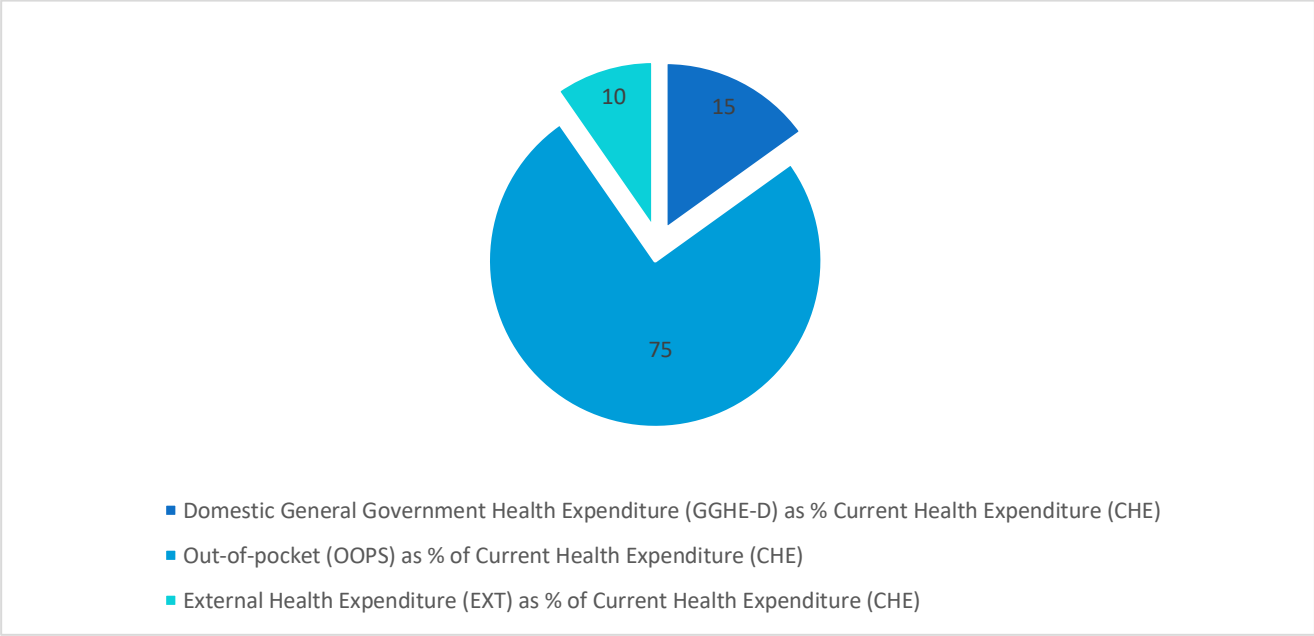


FIGURE 2. *CURRENT HEALTH EXPENDITURE IN NIGERIA, 2020* (22).

Ever since the Abuja declaration of 2001 to allocate 15% of its national budget on health, the total government's allocation to health has been hovering around 4-6% of total government spending (see figure 1.) reaching its lowest of a mere 3.03% as share of its GDP in 2019.

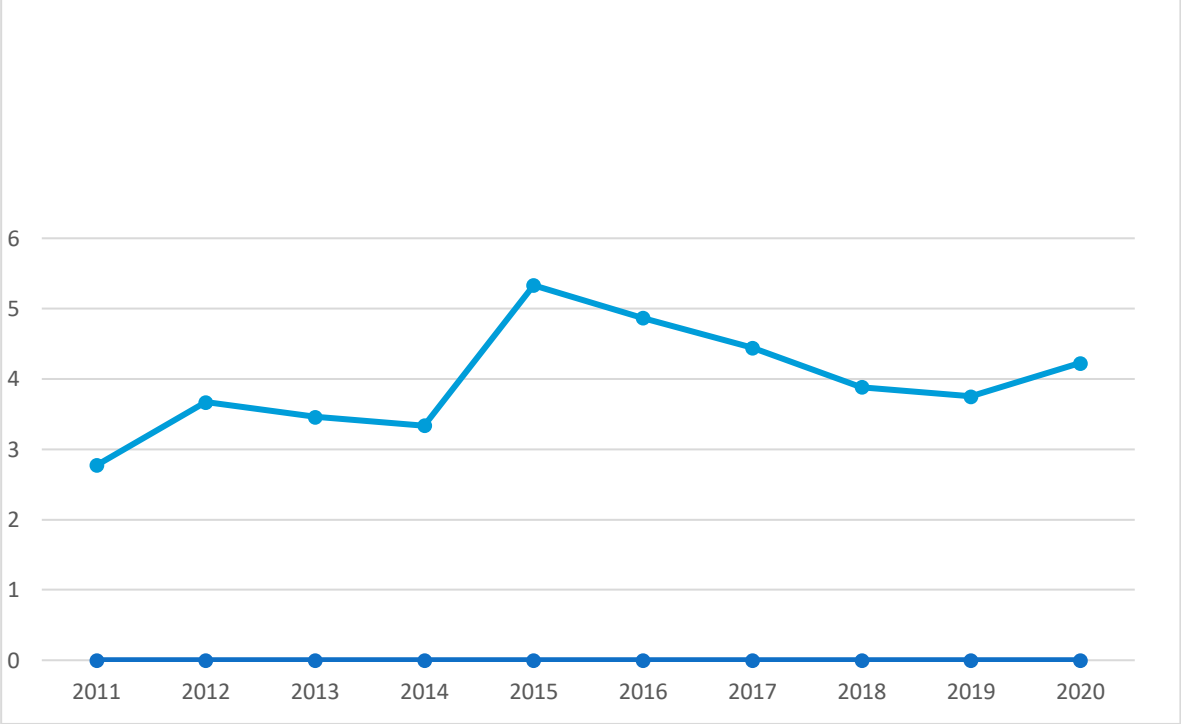


FIGURE 3. ***GENERAL GOVERNMENT SPENDING AS % OF GENERAL GOVERNMENT SPENDING*** (22).

In 2005, The National Health Insurance scheme (NHIS) was established as a prepayment scheme to complement low government spending for health. It is funded predominantly through government subsidies and compulsory contributions from government employees. However, the scheme only able to enrol <5% of the population often with narrow benefit package(28). The combination of low public funding on health, ineffective prepayment mechanisms ultimately lead to high level of OOP expenses in the country along with its devastating consequences highlighted below.

Out-Of-Pocket health expenditure in Nigeria is among the worst in the world estimated at about 80% of the current health expenditure in 2019 (9). OOP payments can lead to outrageous expenses that demands individuals to make trade offs between paying for the needed health services and meeting other basic living standards such as food, rent and education. This can ultimately lead to impoverishment as proven by a research that showed how OOP payments led to a 0.8% rise in poverty headcount translated at about 1.3 million Nigerians being pushed below the poverty line annually (29).

Additionally, with a poverty rate of over 50% of the population compounded by high double disease burden in Nigeria, over-reliance on OOP payment is further perpetuating the vicious cycle of poverty-poor health in the country. This is proven by research which shows how OOP health payments led to a 0.8% rise in poverty headcount translated at about 1.3 million Nigerians being pushed below the poverty line annually (29).

The OOP health expenditure also imposes double financial burden on people; first is from direct cost of care such as diagnostics, medicines, and transport fare especially for people living in the rural areas where the availability of health facilities and expertise is limited. Second is from indirect cost resulting from loss of income due to depreciating health status especially in informal employment where there is no guarantee for continuous payment in times of ill health.

OOP payments poises a huge obstacle to access and continuity of healthcare particularly for the vulnerable population who resort to unprofessional health providers such as traditional healers, street medicine vendors and other alternative healthcare options.

Consequently, these individuals often return to the healthcare facilities with severe medical complications and advanced stage of diseases with poor prognosis that contributes to poor health indices in the country and necessitates costlier treatment options.
This research aims to analyse the organizational structure of HFS in Nigeria relative to its capacity to achieving UHC's providing universal FP and to identify areas along intermediate pathways that limits the system's capacity to perform effectively.

JUSTIFICATION

In response to the World Health Report 2010, many countries including Nigeria have committed to reforming their HFS towards achieving UHC. However, evidence have shown that political will alone does not suffice. It is important to first conduct an analysis of the existing structure of the health financing system to identify the underlying cause of its underperformance to enable the development of a coherent and sustainable strategy within the system.

While a lot of studies have been conducted on FP in Nigeria, many have had a narrow focus on National Health Insurance Schemes (NHIS) without proper reference to the ability of the entire HFS to provide financial protection (1,15,30). Additionally, there are limited studies in Nigeria that explored the linkages between HFS and UHC's common goal of financial protection. A study by Uzochukwu et al (31) made a great attempt at relating the HFS in Nigeria and UHC's universal FP. However, the pathways within and across this connection was not clear.

A growing body of literatures in Nigeria have focused on measuring the extent to which OOP healthcare expenditure is catastrophic and impoverishing on households as indicators of FP (12,26,29,32). However, a few other studies have argued that the conventional indicators merely provide insights into the impact of OOP expenditure, implying a lack of FP rather than the totality of it which encompass parameters that is not measurable, they therefore proposed that FP should be assessed on a broader spectrum (17)(33). Although this study does not claim to measure FP in numerical or statistical sense, it aims to analyse the design of the health financing system in Nigeria, gauging its capacity towards attaining UHC's FP suggested by the aforementioned studies.

Therefore, this research aims to fill those gaps by conducting a comprehensive analysis of the organizational structure of theHFS; breaking it down at the functional components of the system: revenue generation, pooling and purchasing linking them to universal financial protection (UFP) through specific interactive pathways of UHC intermediate objectives. The bottlenecks along the pathways will also be identified to provide evidence-informed recommendations to stakeholders on how to address the challenges in the Nigerian HFS towards enhancing the level of UHC'S FP in the country.

GENERAL OBJECTIVE

The general objective of this thesis is to conduct a situational analysis of the HFS in Nigeria: how revenue is generated, pooled together and what type of services are designed for purchase, and identify the challenges on the pathways through which they interact towards achieving FP. Findings from this study will be used to propose evidenced-informed recommendations on how future health financing reforms can address the identified challenges to improve financial protection for all Nigerians.

SPECIFIC OBJECTIVES

- To describe how the major sources of revenue for health in Nigeria mobilize funds and analyse their implications on UHC's intermediary objective of equity in financing.
- To describe the mechanisms by which the collected revenue for health in Nigeria are pooled and analyse their implication on UHC's intermediary objective of cross-subsidization.
- To describe how pooled revenue are allocated based on the type of health services designed and analyse their implication on UHC's intermediary objective of equity in redistribution.
- To provide an overview of the flow of funds from revenue from the source to the providers and the structure of the governing bodies involved in managing the funds.
- To identify the challenges along the pathways of UHC's intermediary objectives towards FP.
- To propose evidence-informed recommendations based upon findings from the study.

METHODOLOGY

STUDY DESIGN

This research is a case-study using a literature review approach to explore the health financing system (HFS) in Nigeria and assess its pathway to UHC. Case-study allows the researcher to establish a baseline understanding of two complex inter-related phenomena (the health financing system and UHC), identify important knowledge gap and then narrow them down into a manageable concept (34,35). While literature review approach allows for extensive search for relevant studies, it presents a comprehensive overview of the existing evidence in the HFS in Nigeria. It also allows for exploration of diverse perspectives on this topic from different authors, institutions, and countries (36).

DATA COLLECTION METHODS

An intensive literature search was conducted systematically on google scholar and VU Library to extract literatures from peer-reviewed articles, data will be obtained from publications, guidelines, and reports through the official websites of the Nigerian government, international agencies including WHO, World Bank etc. Additionally, statistical data will be extracted from the global health expenditure database and IHME and converted into graphs to provide a graphical representation of the current trend in the health financing landscape in Nigeria. Other relevant information

SEARCH STRATEGY

Relevant keywords were used in combination with Boolean operators on the search engines of Google Scholar, and the VU online library databases to retrieve relevant peer reviewed articles published in English language from 2000 to 2023. The snowballing technique was used to obtain additional information from the reference lists of relevant sources. Information specific to Nigeria was accessed through the websites of relevant government agencies.

KEYWORDS

A set of relevant keywords displayed in the box below was identified by the researcher to guide literature search and enhance the identification of relevant publications. These keywords encompass various aspect of health financing, revenue generation, pooling, and the Nigerian context.

BOX1. KEYWORDS

Health financing, health financing system, health financing arrangement, health revenue, health expenditure, pooling, risk-pooling, pooling arrangement, pooling mechanism, strategic purchasing, healthcare cost, national health account, financial catastrophe, financial protection, catastrophic health expenditure, impoverishment, UHC, out-of-pocket expenditure, government, Nigeria, tax-based financing, NHIS, NPHCDA, FMOH, donor fund, corruption, fragmentation, HMOs.

INCLUSION CRITERIA

To ensure the selection of appropriate literature, mostly articles published in English language between 2000 to 2023 except grey literatures which could be from earlier years were searched from the databases and relevant websites. It also involves a careful screening of titles, abstracts, and full text.

EXCLUSION CRITERIA

After a careful screening of titles, abstract, and full text of literatures, articles with incomplete or insufficient data, sources not published in English language, data from non-credible sources was excluded from this study to ensure reliability of data.

Provider-payment mechanisms although an important aspect of the purchasing function ensuring efficiency in the use of resources at implementation level will also be excluded from

this study because it does not align directly with the general objective of this study, besides this research may not be able to cover that aspect adequately due to limited period.

ANALYSIS

Findings will be organised into sections and presented in a concise manner using tables and figures. All health expenditure data will be displayed using bar chats and line graph extracted form the Microsoft excel spreadsheet. Moreover, the mechanisms and structure of revenue generation and pooling arrangements will be examined using the proposed analytical frameworks allowing for a comprehensive analysis of the results and evidenced-informed recommendations for future reforms.

A PROPOSED FRAMEWORK

This research introduces a novel framework developed with a set of parameters that typically characterize the dimensions of the 3 health financing functions that is linked to financial protection (FP). These parameters are selected based on the understanding of the direct relationship between the way the HFS is organised and UHC's goal of universal FP as discussed in ''the health financing country diagnostic'' by McIntyre D. And Joseph Kutzin (4). The paper highlighted key issues to be considered when undertaking a situational analysis of the health financing system of a country relative to UHC.

The rationale for choosing to develop a novelty framework is inspired by the research of HSU et al 2018 (26) who conducted a methodological analysis, asserting that the conventional metrics of measuring financial protection; catastrophic health expenditure as exceeding a single threshold of household resources or not is inaccurate, does not fully measure the adverse effect of OOP health expenditure and cannot be used for cross-country comparison. They argued that the value of measuring FP is not only to assess the level of OOP health expenses on living standards but also to understand how and why a HFS is providing the level of FP. They developed catastrophic incidence curve (shown on figure.4) which showed that catastrophic heath expenditure can be measured progressively across a range of thresholds rather than categorizing a country as having FP or not.

Based on their findings, they recommended future studies to consider analysing the health financing arrangements using measures such as extent of prepayment mechanism, definition of benefit package, cost-sharing arrangements, provider incentives etc. and how they influence financial protection

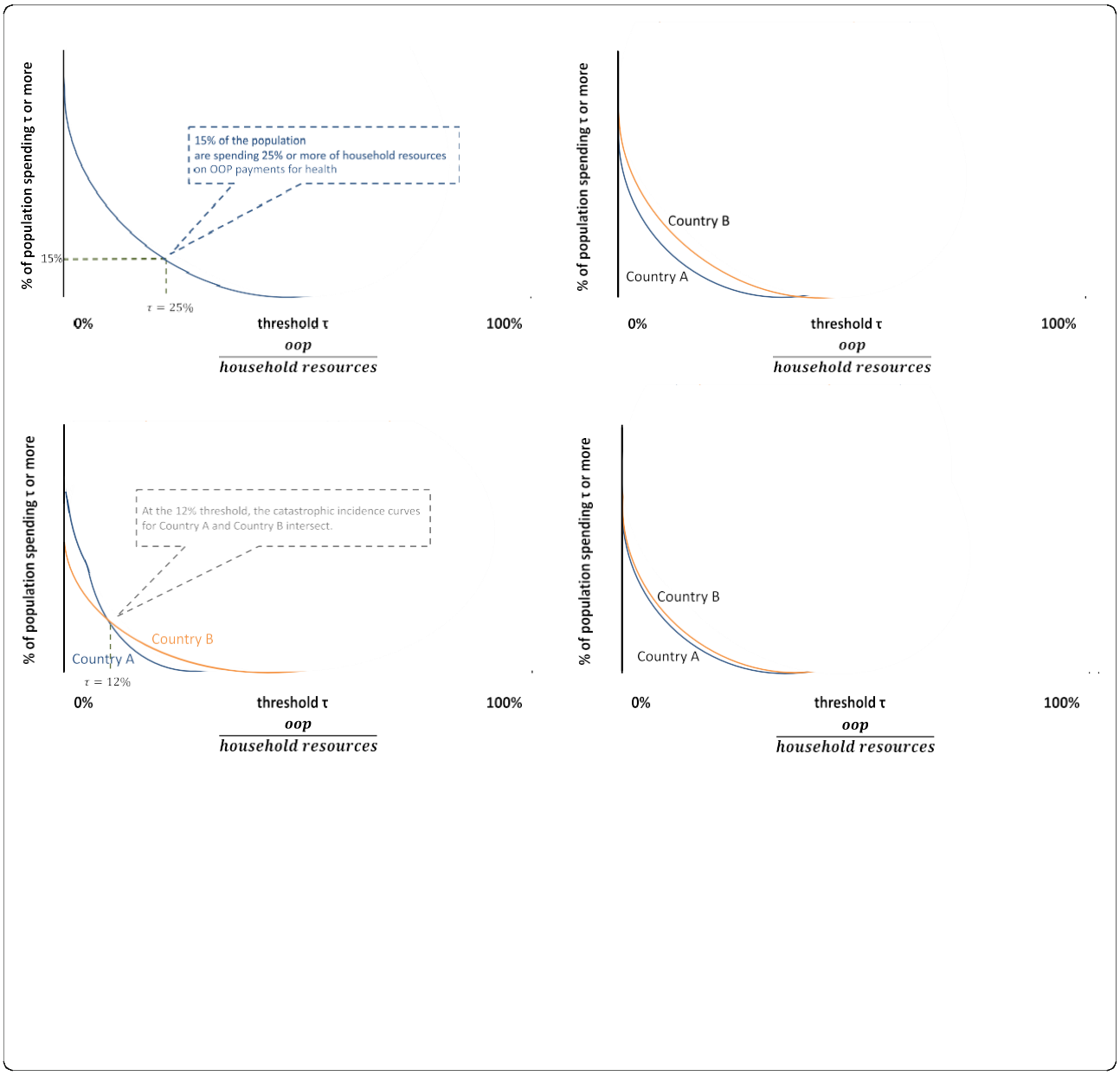


Figure 4*: the catastrophic incidence curve* (26).

The y-axis represents the proportion of the population whose OOP shares on health in household resources meet orexceed threshold τ, and the x-axis shows the range of catastrophic thresholds τ. Any point on the curve can thus be interpreted as the incidence rate of catastrophic health expenditures for a given threshold.

The findings of Justine HSU et al was also reflected in a similar study ''towards improved measurement of financial protection'' by Moreno-Serra et al which outlined the limitations of using catastrophic health expenditure and impoverishment as the standard metrics for measuring FP (33). They further argued that the consequence of inadequate FP goes well beyond that measured by these conventional metrics because they are measured solely based on OOP medical expenditures reported in surveys leaving out those who could not afford health spending and indirect cost of illness. The study recommended the urgent need for further research into other measures that captures financial barriers to healthcare access to better inform The findings of Justine HSU et al was also reflected in a similar study ''towards improved measurement of financial protection'' by Moreno-Serra et al which outlined the limitations of using catastrophic health expenditure and impoverishment as the standard metrics for measuring FP(33). heath policy.

The framework for this study was developed based on the recommendations of the above studies that FP should not only be measured by the extent to which people become impoverished by health expenditure but also by the effectiveness of the HFS in protecting people against the risk of impoverishment while facilitating their access to healthcare services.

Figure 5. presents a visual overview of the framework it outlines the 3 functions of the HFS and their plausible links to financial protection through UHC intermediary objectives.

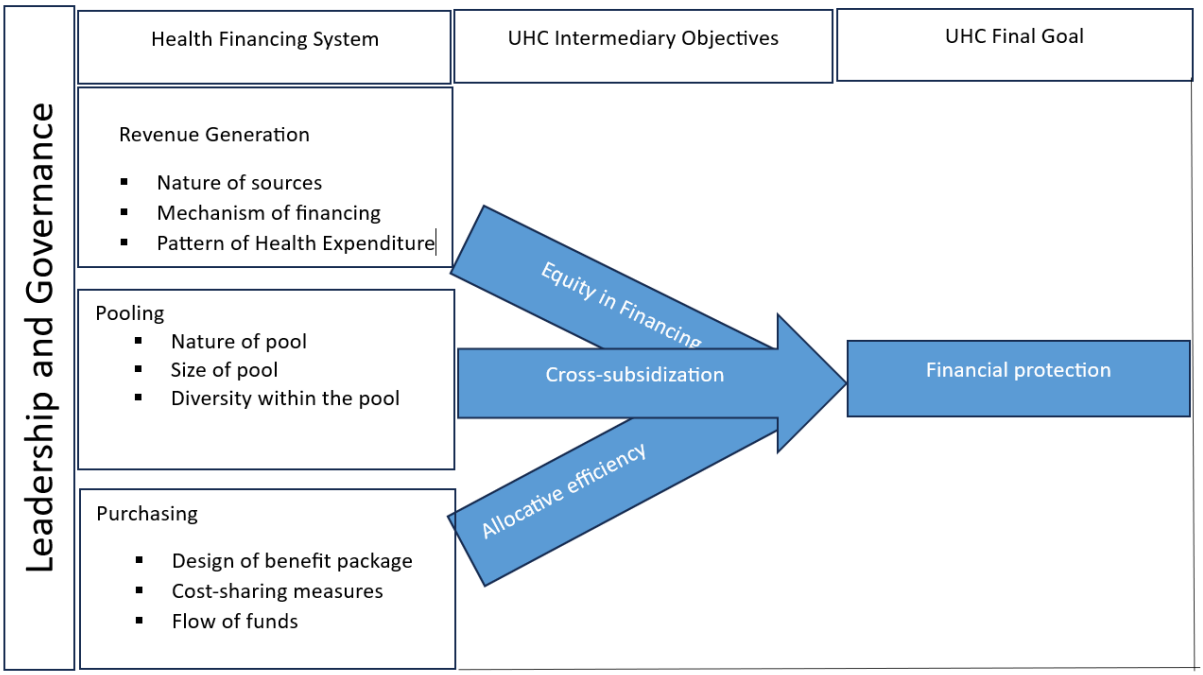


FIGURE 5. ***A THEMATIC FRAMEWORK LINKING HEALTH FINANCING FUNCTIONS TO UHC'S FINANCIAL PROTECTION THROUGH THE INTERMEDIATE OBJECTIVES.***

Source*: Susan (2023), adapted from McIntyre D. And Joseph Kutzin 2016* (4)

This framework will be used to critically analyse the organization of each financing arrangement (source of health revenue) in Nigeria sequentially from how revenue is generated (revenue generation) to how it is collated (pooling) to how health services are designed for purchase (purchasing) and its overall governance.

The themes in this framework constitute a set of key parameters serving as a signpost that are critical to checking how the HFS of a country is designed relative to UHC's goal of FP. Therefore, analysis will follow the pattern of the framework (see figure 6. above). Leadership and governance will be incorporated into every aspect of the framework where relevant as represented on the sketch.

Other out-listed parameters specific to revenue generation, pooling and purchasing will also be incorporated accordingly. The analysis will also incorporate UHC's intermediate objectives and how they interact towards FP when analysing the challenges of the health financing arrangements relative to FP.

The rationale for choosing each of the parameters listed in the framework will be explicitly explained and backed up by literatures as presented on the boxes below:

BOX 2. RATIONALE FOR THE PARAMETERS IN THE FRAMEWORK

GOVERNANCE AND LEADERSHIP

Governance and leadership will be considered more generally throughout the framework because it relates to the flow and management of funds from the point source to service provision.

Leadership and governance are related to the institutions, corporations, ministries, organizations, or individuals involved with the oversight of health financing; understanding the stakeholders (both individuals and organizations) involved in the HFS is critical to developing a health financing strategy. This include their decision-making power, position in public administration, and their mission: public or private, Profit or non-profit (6).

THE HEALTH FINANCING SYSTEM

REVENUE GENERATION

Different sources of revenue in Nigeria will be systematically analysed using critical parameters based on weather they are create an environment for UHC's intermediate objective of equity in financing.

Nature of revenue sources: this element examines whether the revenue sources are compulsory or voluntary; public or private and their funding flows. Compulsory sources refer to funding mechanisms that are mandated by law or regulation such as taxes or mandatory contributions. Voluntary sources on the other hand are contributions made at will. Understanding the nature of revenue sources provides insight into equity and sustainability of the funding streams(4), it also determines how effective the pooling will be for example if contributions are not compulsory, the rich and healthy will opt out and there will be insufficient funding to cover the needs of the poor and sick (8,9).

Mechanism of Financing: this parameter provides overview of the methods by which revenues are collected from different sources and then examines the level of Fairness at which contributions are made according to financial ability to pay, it will be categorized as being regressive, proportionate, or progressive which explains how the burden of healthcare costs is borne by different socio-economic groups weather it falls more on the poor, the poor and rich pay the same proportion of their income or the rich pay higher than the poor respectively (9)(4).

Pattern of Health Expenditure: Health financing for UHC is often assessed by whether countries spend enough on health relative to UHC's estimated minimum global standards (37) as specified in the World Health Report 2010 (8). The current trend in health government expenditure in Nigerian will be assessed using a set of relevant global health financing indicators (9) and compared against UHC required minimum standard (13). This is crucial for assessing weather the revenue generated for health is sufficient for the health need of the population or not.

POOLING

These are the dimensions of pooling: nature of the pool; size of pool and diversity within the pool. These parameters will be used to analyse the extent to which different pooling mechanism in Nigeria are designed in a way that allows UHC's intermediary objective of cross-subsidization.

Nature of pool: this dimension assesses whether a particular risk-pooling arrangement is unitary or fragmented (different fund for different territorially or population segment based on socio-economic or demographic criteria). Unitary pool implies a single pool where the health risk and financial resources of the entire population are combined for better redistribution of health risk; a fragmented pool on the other hand consists of multiple small pools serving specific segments of the population implying poor cross-subsidization(38).

Size of risk-pool: this dimension assesses the size of the pool based on the proportion of the population covered. Understanding this indicator helps provide insights into the scope and scale of risk-sharing within the pool(38).

Diversity within the pool: this aspect of pooling examines the extent of cross-subsidization within the pool in terms of socio-economic, demographic and disease groups. Understanding the level of diversity provides insight into risk-sharing and equity implications of a particular risk-pool(38).

PURCHASING

Analysing the dimension of benefit design and cost-sharing captures UHC's intermediary objective of equity in resource redistribution which has a direct effect on FP (9). These two dimensions determines equity in the use of health services relative to need. Therefore, it is considered a strong determinant of financial protection and a primary target for health reforms towards UHC(9).

Flow of funds: This parameter traces how funds flow through the system from the point at which they are collected through specific funding pools to the purchasing agencies. This answers the question of How does the revenue generated flow and what organizations (stakeholders) responsible for managing it from the source to the healthcare providers.

Benefit package design: there is a growing recognition of the way health benefit package is designed as a critical dimension of financial protection, it also determine equity in access relative to health need (39,40). The design of benefit package assesses the range of services contained in the benefit package- is it essential, comprehensive, or preventive or curative and are they addressing the health need of the population? Who are the target population entitled to the benefit package(9).

Cost sharing measures: this dimension assesses the financial conditions for accessing the cost-sharing mechanisms such as co-payments and user fees designed according to ability to pay i.e weather there is a waiver or exemptions for certain population groups who are unable to pay. Harrington et al suggested that cost-sharing mechanisms should be included in the measurement of financial protection because individuals who make some form of prepayment contributions such as taxes and health insurance premium could experience financial hardship when accessing healthcare (41). This could be due to a narrower health benefit package benefit package than originally designed which necessitates people revert to OOP payment to supplement for excluded services which can be significant especially in LMICs (17).

UHC'S INTERMEDIATE OBJECTIVES

UHC's intermediary objectives play a pivotal role in connecting the health financing functions with the broader goal of universal FP. Serving as steppingstones that the HFS must attain on its path towards the goal of FP. However, these objectives cannot achieve this individually, they must interact and work synergistically to realize this collective goal.

Equity in financing: this ensures that the burden of healthcare cost is distributed fairly across the population considering their ability to pay.

Cross-subsidization: this facilitates risk-sharing across a diverse population such that the rich subsidize for the poor, healthier for the sicker, and the younger for the older thus implying equity in resource redistribution. It is based on the principle of social solidarity fosters social cohesion and a sense of collective well-being in the society(4).

Allocative efficiency: progress towards UHC requires more than just the right amount of funding but also more value for the money (8). therefore, financial resources need to be efficiently allocated in such a way as to provide the optimal mix of goods and services to maximize health benefits to the entire population.

HC FINAL GOAL

Universal Financal Protection

This is one of the 3 final goals of UHC, the other 2 are quality and utilization of health service relative to need which are outside the scope of this research. It ensures that people can access needed healthcare without suffering financial hardship, which happens when healthcare expenses become so overwhelming to the extent that people are forced to sell their financial assets or forgo other basic living standards necessary well-being such as food, shelter or education (42,43). Conventionally, FP is measured as "catastrophic health expenditure" , and "impoverishing spending on health", which translates to the point at which OOP expenses exceeds total household income at a certain threshold usually 10-15%

and the extent to which it is reduced below the poverty line respectively (43) respectively. However, few studies have debated that these metrics does not capture the broad landscape of FP as mentioned under the section ''conceptual framework'' above.

RESULTS

Health revenue in Nigeria is primarily sourced from public sources including Government revenue, National and State Health Insurance Scheme, and External Donors, and the private sources including community-based health insurance, Private Health Insurance and Out-of-Pocket Expenditure. The following sections will provide a descriptive analysis of each of these sources following the pattern of the framework from how they are generated, to how they are pooled, to how services are designed for purchase.

PUBLIC FINANCING ARRANGEMENTS

I. GENERAL GOVERNMENT REVENUE

Health revenue from the government is domestically generated through taxes and non-tax sources paid by individuals and corporations as mandated by law. This is a prepaid form of funding because it is being collated and then spent on behalf of the public.

Taxes could be direct or indirect-Direct taxes are paid directly to government agency by households and companies on income, earnings, or profits. Examples include personal income tax, (including mandatory health insurance contributions) and corporate profit taxes. The corporate profit tax in Nigeria operates under the Corporate Income Tax Act (CITA) which exempt companies making an annual turnover of less than 25 million Naira from paying taxes and charges companies making between 25 to 100 million Naira 20% of their annual profits while companies with over 100 million Naira pays 30%. While the personal income tax is regulated under the Pay-As-You-Earn (PAYE) scheme which imposes a progressive tax rate from 7% on annual income of < NGN 300,000 to 24% on NGN 3,200,000 and exempt those earning minimum wage or less.

This shows that revenues from direct taxes in Nigeria is progressive and tends to be more stable and predictable, therefore it favors FP.

Indirect taxes are charged on what individuals, households or companies spends and are paid

to the government through a third-party for public spending. e.g a retailer or supplier. Indirect taxes are borne by the final consumer and therefore categorized as regressive. Common examples are value-added tax (VAT), sales taxes, excise taxes, import duties and the consumption of health damaging goods such as tobacco and alcohol. Excise tax rates in Nigeria vary from 5% to 35% levied only on import goods and VAT are charged at 7.5% rate.

Non-tax revenues are revenues generated from public enterprises that are state-owned such as oil revenues, fines and other mineral resources that are extracted from the country. Other source of revenue for the government is the on-budget external aid that is paid directly to the Nigerian federal account from foreign governments.

Other source of revenue for the government is the on-budget external aid that is paid directly to the Nigerian federal account from foreign governments for implementation at the LGAs level (44).

Table 1 provides an overview of the health financing indicators that reflects the Nigeria's health expenditure landscape.

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
CHE/GDP (%)	3	3	3	3	3	3	4	3	3	3
GGHE/GDP (%)	0	1	0	0	1	0	1	0	0	1
GGHE per capita	12	15	14	14	16	10	10	11	11	10
GGHE/CHE (%)	14	16	14	13	16	13	14	16	16	15
GGHE/GGE (%)	3	4	3	3	5	5	4	4	4	4
OOP/CHE (%)	75	73	71	72	72	75	77	76	71	75

TABLE 1*: SUMMARY TABLE OF HEALTH FINANCING KEY PERFORMANCE INDICATORS* (22).

Although, the amount allotted to health largely depends on the general fiscal context such as the macroeconomic factors and market forces (45). the total Government spending on relative to general fiscal capacity of Nigeria (GGHE/GDP) and its equivalent per capita in US$ from has been consistently low over the last decade despite a stable GDP as shown on table 1. Nigeria has not exceeded US$16 per capita spending on health (2015) and spending as a % of GDP has not exceeded 1% compared to the minimum global standards of US$ 86 per capita (2012) or at least 6% GDP spent on health to move towards UHC, (13).

Table 1. also shows that the general government expenditure on health relative to other competing public expenditures (GGHE/GGE) has been hovering around 3-5% since the last decade - far below the recommended 15% minimum standard for African countries at the Abuja declaration (4). The proportion of government spending on health relative to all other sources of health funding in Nigeria GGHE%THE) measures has been consistently below 20% since 2011 in contrast to the global recommended estimate of 80%. This is important to understand because below the level of 80%, the OOP payment mechanism begins to dominate revenue sources leading to financial hardship (13).

In addition to the low general government health expenditure described above, the level of health expenditure within the country is also inequitable. According to the latest national health account of Nigeria, 48.2% of all government health expenditure comes from all the 36 states, 43.2% from the federal government while 8.6% comes from all the 774 LGAs (46).

This shows that the federal level spends the highest share of health revenue although they are only responsible for tertiary level of care while, the states and LGAs who are being delegated the most health service delivery spends the least.

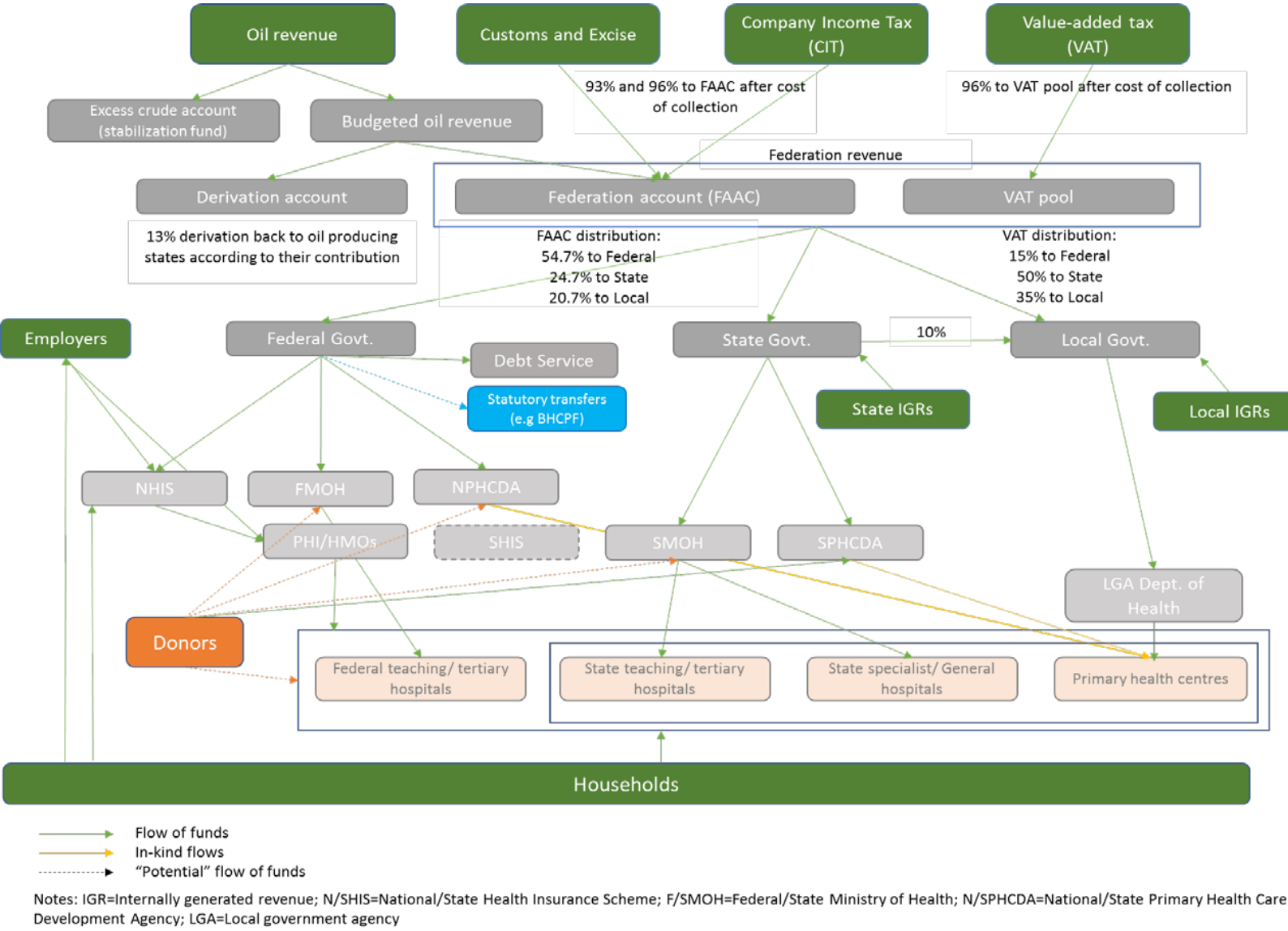
Figure 6. shows that all sources of revenues from the government are collated into two main accounts: the value-added tax (VAT) pool account and the Federation Account (FAAC) where national budgetary allocations are made. The national health budget are then disbursed

across the three levels of government; the federal, states and local government areas (LGAs) based on vertical revenue-sharing allocation formulas (37) which allows the federal government receive the highest, followed by the states while the LGAs receive the least. Moreover, these transfers are unconditional and does not mandate counterpart funding or minimum spending on health.

Implementation of health budget follows the federal system of governance in Nigeria which confers autonomy on the states to operate independently, govern the LGAs under their jurisdiction and be unaccountable to the federal government. Therefore, the subnational health expenditure varies across states (47).

The revenue allocated to all the 3 tiers of government are then disbursed to the accredited pooling agencies: ministries of health, primary health care development agencies and to the NHIS. The next section will give a general overview of each of these pooling agencies.

Figure 6*: Flow of Funds from Government Revenue* (37)*.*



Notes: IGR=Internally generated revenue; N/SHIS=National/State Health Insurance Scheme; F/SMOH=Federal/State Ministry of Health; N/SPHCDA=National/State Primary Health Care Development Agency; LGA=Local government agency

GOVERNMENT POOLING AGENCIES

1. FEDERAL AND STATES MINISTRIES OF HEALTH

Financing through the Ministry of Health typically follows the decentralized levels of government in Nigeria. The Federal Ministry of Health (FMOH) at the federal level, headed by the Minister of health is responsible for formulating national health policies and coordinating healthcare activities across the country. However, the FMOH also implements health programs and carries out purchasing functions directly or indirectly through its Departments, Agencies and Parastatals (DAPs) (48) including the food and drug agency, Nigerian Center for Disease Control (NCDC), National Agency for the Control of AIDS (NACA), Port health etc. it also oversees the activities NPHCDA and NHIS.

The FMOH receives direct allocations from the federal government through the annual national budget, it then disburses these funds to its Departments, Agencies and Parastatals (DAPs) as recurrent and capital expenditure for the maintenance of federal health facilities and the purchase of other national health programs (49).

Each of the 36 State Ministries of Health (SMOH) headed by the Minister of state for health also receives allocations from its state government for disbursement to DAPs and health facilities within their jurisdiction. They are also responsible for coordinating and overseeing the provision of primary health care services.

The Local Government Health Department (LGHD) headed by commissioners of health is responsible for health provision at the local government level, they receive their allocations from the state government for implementation of PHC services including health prevention and promotion activities through the primary health centres and clinics (37).

The FMOH is also responsible for designing all minimum health benefit package which differs by the disease or patient covered however, the cost-sharing mechanisms or limit is not specified leaving providers to charge user fees as they deem fit (48). This is a huge barrier to healthcare access as witnessed in a study where more than 70% decline in number of HIV drugs dispensed when user fees was introduced (50).

The federal and states ministries of health also receive on-budget funding from the World Bank, GAVI, BMGF, WHO, UNICEF and other development partners as loans and grants to support vaccination, HIV\AIDS, and other vertical health programs. They also receive donations from private individuals such as Dangote (Richest businessman in Nigeria). These funds do not always get to the local government (51).

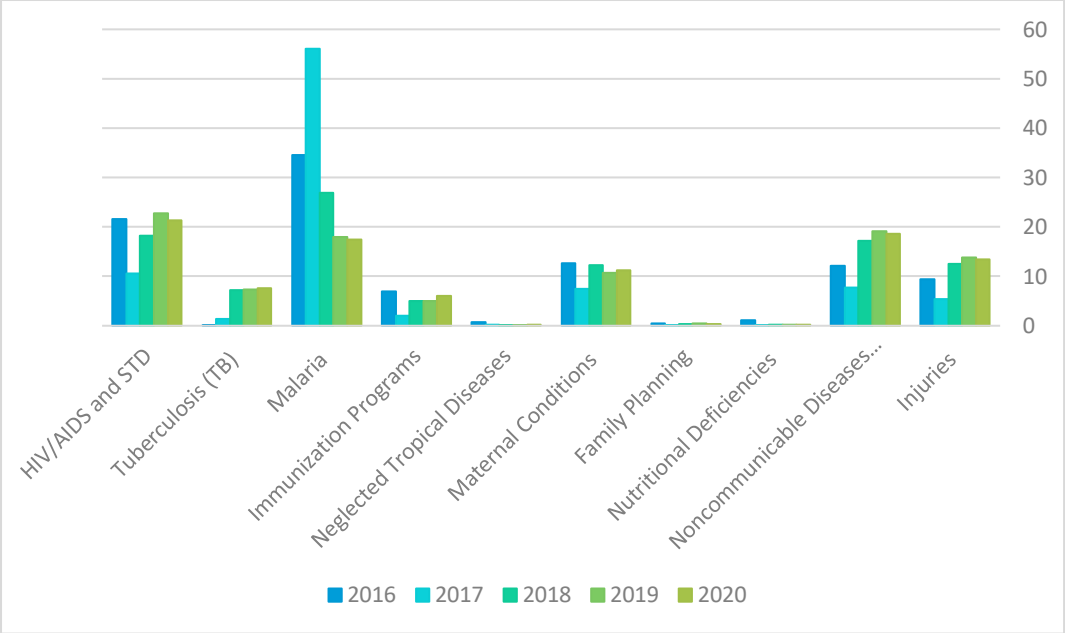


FIGURE 7. *GOVERNMENT SPENDING BY DISEASE AND HEALTH CONDITIONS* (22)**.**

Figure 7. shows that the benefit package for government programs are designed to cater more for curative than preventative healthcare services. The graph shows zero spending on epidemic preparedness, spending on family planning, neonatal and child services which are usually incorporated into maternal conditions is very low compared to high mortality rate caused by neonatal and child illnesses such as malnutrition, pneumonia and diarrhoeal diseases are quite high in the country.

2. THE NATIONAL PRIMARY HEALTHCARE DEVELOPMENT AGENCY (NPHCDA)

The National Primary Health Care Development Agency (NPHCDA) is responsible for overseeing PHC delivery in coordination with the Federal Ministry of Health. The NPHCDA and their state counterparts receives funding directly from their respective level of government through the natonal health budget into a dedicated pool set aside for PHC priority programs. The states PHCDA disburses the fund to the State Primary Health Care Boards (SPHCB), who then disburses to the Local Government Health Authorities (LGHAs). The NPHCDA sometimes implementPHC services themselves such as supplemental immunization(44).

The fund could also be financed directly from the ministry of finance for the implementation of government health initiatives such as the national primary healthcare development fund and the basic healthcare provision fund (52).

Although the local governments are officially responsible for PHC in Nigeria; all three tiers of government and various agencies participate in the management of the PHC fund, and the local government depends on the state for the fund to be disbursed for implementation. This often results in duplication, overlap, and confusion of roles and responsibilities (24).

The fund flows from the federation account to the NPHCDA at the federal level then through the 36-state primary health care boards for disbursement to each local government health authorities under their jurisdiction. At each of these levels, transfers are made separately to different health program entities such as family planning, immunization etc. (53).

The PHC fund flows as an unconditional transfer with no counterpart funding or any form of contribution required from the states before accessing the fund. This may lead to uncertainty in the flow of fund from the state to the LGA. Studies have reported that LGAs receive incomplete funds from which they manage to pay staff salaries, leaving little to no resources for operationalization of basic health services to the rural poor population (54).

II. NATIONAL HEALTH INSURANCE AGENCY (NHIA)

The NHIA is the institution that governs The National Health Insurance Scheme (NHIS) was

established in 2005 to complement low government funding for health with a vision to achieve UHC by 2015. The NHIS was initially designed to make enrolment mandatory only for all federal government employees and their dependents under the Formal Sector Social Health Insurance Program (FSSHIP), In a bid to expand service coverage to every Nigerian, the NHIS has developed various programs to cover other segments of the society, including the State Health Insurance Scheme (SHIS), Community-Based Social Health Insurance Program (CBSHIP) and Vulnerable Group Health Insurance Program among others with different sources of revenue flowing through them. Overall, NHIS covers only 4% of the population mostly from the Formal Sector Social Health Insurance Program since inception (FSSHIP) (27)(55).

Each program under the NHIS operates from separate pools which is further fragmented amongst health maintenance organizations (HMOs)-the firms responsible for the purchase of health services. These small, fragmented pools are usually limited in diversity because they cover population groups with similar socio-economic and educational status in the society, earning within similar salary scale and to an extent exposed to similar health risk. Even the dependents of these enrolees captured under the scheme are of similar age range.

Recently, the NHIS has been repealed into a compulsory scheme for all citizens including the informal sector (56). A new fund ''the vulnerable group fund'' has also been created in the act, adding to the already existing fragmentation in the system and overlapping with the existing BHCPF both of which aim to pay health insurance premium for the poor and the vulnerable population who cannot afford it.

1. FORMAL SECTOR SOCIAL HEALTH INSURANCE PROGRAM (FSSHIP)

The Formal Sector Social Health Insurance Programe (FSSHIP) is a program under the NHIS organised for employees in the formal sector. They include civil servant (public sector) of the federal, states and local governments; armed forces, police and other uniformed services, and students of Tertiary Institution Social Health Insurance Program (TSHIP). The NHIS premium is generated jointly from monthly salary of a government employee and government taxes. It is collected through payroll taxes charged at 15% of the basic monthly salary of a government

employee, however the government contributes 10% while the beneficiary pays the remaining 5%(37) (47). The contributory mechanism is not equitable considering that each enrolee contributes at a 5% of their basic salary irrespective of their level of income. This is inequitable because the government is heavily subsidising for its employees who are better-off financially to foot their health bill out of pocket compared to most Nigerians who are not on a payroll.

The insured person under the FSSHIP along with a spouse and four children under the age of 18 years old are entitled to the full benefit package which includes out-patient care, prescriptions and diagnostic tests as contained in the national essential drug lists, maternity care, preventive medical and dental care, specialist consultations, in-patient care (not more than 15 days per year), and emergency care for accident cases, eye examination (57). This shows that the benefit package under FSSHIP is designed to offer a comprehensive range of health services that is uniform and available to all beneficiaries for relatively lower premiums.

The FSSHIP enrolees are obligated to pay 10% of the total cost of drugs dispensed per prescription in accordance with the NHIS Drug Price List to the accredited pharmacy provider at the point of service (58). Charging every enrolee 10% of every prescribed medication without considering the salary scale is also a proportionate mechanism that is not inequitable.

Although NHIS is supposed to be an autonomous agency, it is deeply entangled with the government not only because it subsidizes premium for its workers but also because it becomes one of the gateways through which special government funds such as the Millennium Development Goals (MDGs) fund, National Primary Healthcare Development Fund (NPHDF) and recently the Basic HealthCare Provision Fund (BHCPF) is channelled.

These fund are usually financed from the consolidated revenue of the federal government separate from the national health budget (59) to provide waivers and exemption for the poor and vulnerable group.

2. STATE HEALTH INSURANCE SCHEME (SHIS)

Although NHIS was designed to be mandatory only for federal government employees, the states government were permitted and encouraged to adopt the scheme on a voluntary basis as the federal government recognises the constitutional autonomy of the state government

to make decisions that concerns their employees. However, only 3 out of the 36 states in Nigeria-Bauchi, Cros River and Enugu had adopted it as at 2010 despite sustained advocacy by the FMOH and the HMOs (55). This slow rate of adoption witnessed a new turn when the Basic Health Care Provision Fund (BHCPF) was established in the National Health Act of 2014 because the disbursement of this fund is based on the condition that the state governments adopt the state insurance scheme which also requires 25% counterpart funding. As a result, many states are adopting the scheme on a large scale, currently, 19 out of the 36 States of Nigeria have adopted the scheme (60) and are at different levels of implementation with each state separate pools for both the state formal employees and the vulnerable group under their jurisdiction (61).

Two states in southern Nigeria have proven that the state health insurance program has great potential for significantly expanding NHIS coverage in Nigeria with an effective administrative framework. These states are Delta and Anambra who have achieved significant coverage (over 1 million people) in their states especially in hard-to-reach areas using innovative models in addition to the BHCPF and premium contributions(62).

Delta State adopted a strategic public-private partnership with some pharmaceutical companies to produce generic drugs and subsidize 50% of the price including drugs for NCDs. Whereas Anambra state adopted the Mobile Technology Health to increase access and the ''Philanthropic Adoption Model'' which allows philanthropists to subscribe to the scheme on behalf of beneficiaries who ordinarily could not afford it(63).

The Basic Health Care Provision Fund (BHCPF) is an earmarked fund established in the national health act of 2014. It is a government initiative designed to expand UHC by extending basic health services to the poor and vulnerable people who cannot afford premium including physically challenged persons, prisons inmates, children under five, refugees, victims of human trafficking, and internally displaced persons.

The BHCPF is financed by at least 1% of the consolidated revenue fund of the federation which translate to a total of US$158.75 million per annum (64) in addition to contributions from internal or external donors (10). 50% of the BHCPF is to be implemented by the NHIS for the provision of basic minimum package of health services through the state health insurance scheme. However, to qualify for the fund, each state must adopt the state health insurance

scheme and must pay a counterpart funding of 25% to the ministry of finance which then disburses the full fund for implementation.

The BHCPF flows through 3 gateways: the NHIS responsible for the implementation of 50% of the fund for the provision of basic minimum package of health services; NPHCDA to implement 45% of the fund for the maintenance and operation of PHCs facilities, and the National Emergency Medical Treatment Committee (a parastatal of ministry of health) responsible for implementing 5% of the fund to support accident victims across selected highway belts around the country (52).

The flow of fund through the NHIS is depicted in Figure 6. Below, it shows that the health insurance scheme (at national or state level) collects premiums contributions from the government and their employees along with the BHCPF from the ministry of finance into the Health Insurance Fund (HIF). Funds from this account are allocated to the designated HMOs (15) who are private organisations responsible for the purchase of health services from both the public and private providers on behalf of the enrolees using fees for service and per diem methods.

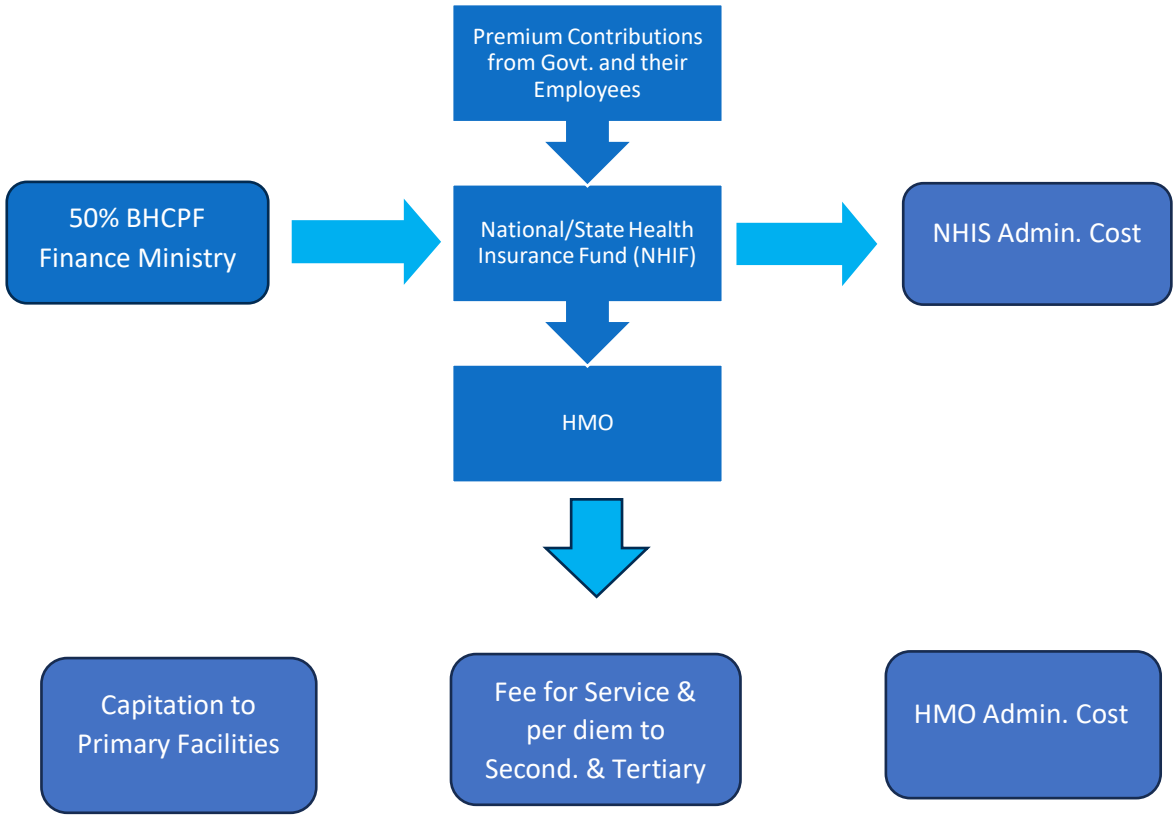


FIGURE 8 . *FLOW OF FUNDS THROUGH NHIS* (58)**.**

III. EXTERNAL DONOR FUNDING

External funding for health is the financial assistance given to developing countries in the form of Development Assistance for Health (DAH). DAH in Nigeria encompasses both public and private sources which are by implications compulsory or voluntary. Public sources are generated from the tax revenues of high-income countries to support health initiatives in developing countries either directly (bilaterally) by the government of those countries or channeled through multilateral development agencies.

Private sources are voluntary contributions made by individuals and non-governmental entities such as UN agencies through UNDP's national execution, not-for-profit organisations, and philanthropists. They provide additional funding towards health development initiatives particularly specific health issues such as Maternal and Child health or major disease control interventions such as HIV/AIDS, TB, malaria, and vaccination programmes (65). Major donor funds to Nigeria comes from a few big sources: the International Development Association (IDA), the Global Fund to fight AIDS, tuberculosis, and malaria (GF), the United States Agency for International Development (USAID), and the Global Vaccine Alliance (Gavi). many of these institutions have policies on transition or "graduation"(37).

DAH could be paid directly to the government as General Budget Support (GBS) (66) which is offered mostly as grants and loans that are usually concessional, therefore unpredictable, It is subject to debt servicing and could be considered regressive in the long run. Additionally, some external donors such as Global Fund and GAVI usually requires a counterpart funding from the Nigerian government for the implementation of health programs such as immunization (49). On-budget is preferable to off-budget because it aligns with national strategic health plans. Nevertheless, on-budget donor spending in Nigeria makes up only 0.1% of total health spending (46) whereas off-budget makes up more than 50% (14) which is usually directed towards diseases- specific programs independent of national health priorities. The year 2000 to 2010 has been described the "golden age of global health" when the growth rate of DAH grew to 11.4 percent a year on average. Since then, average growth has dropped to 1.2 percent despite the global pledge to devote 0.7% of their Gross National Income (GNI) of High-income countries (65) which is met only by a few Northern European countries (Norway, Sweden, Luxembourg, Netherlands, and Denmark) (66). This could be due to several reasons including demographic transition happening in many high-income countries as the working-age population is declines, they are faced with the challenge of having to consider alternatives sources of revenue other than income tax (8).

The current total DAH in Nigeria is about 10% of total health spending which is predicted to keep decreasing following the global trend of a declining DAH. Figure 7. shows a rising trend of DAH in Nigeria from 2012 to 2015, then it started to decline reaching its lowest in 2018

before experiencing a sharp rise in 2019 probably due to covid-19 and rapidly resuming to its declined state.

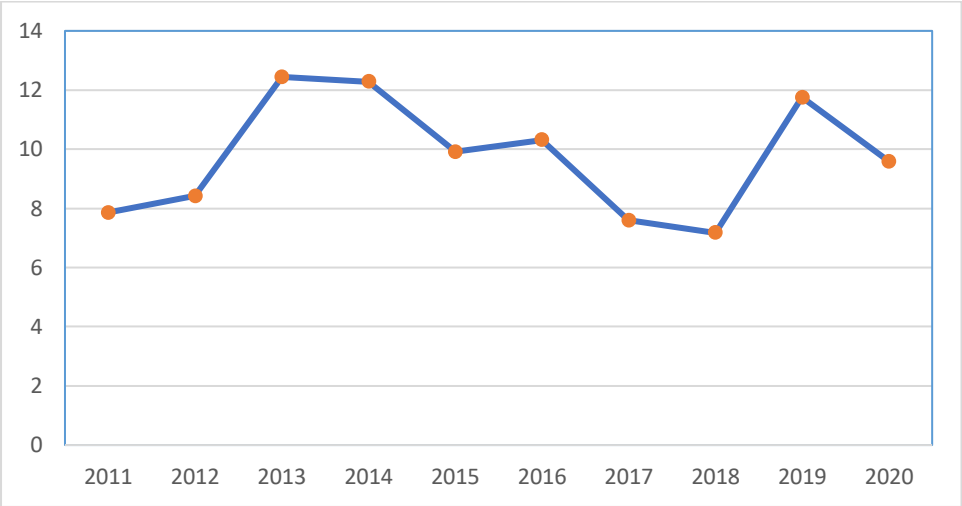


FIGURE 9 ***EXTERNAL HEALTH EXPENDITURE AS % OF CURRENT HEALTH EXPENDITURE*** (22)

Most DAH in Nigeria is delivered off-budget, each donor agencies pools its fund separately and channels it through the Ministry of budget and national planning in Nigeria(47) from there it goes directly into financing disease-specific programs which involves multiple implementing agencies operating from separate pools leading to poor co-ordination (67), and internal brain drain-whereby the human resources for health are diverted from the government facilities to donor projects (68). This is still happening despite the 2005 Paris Declaration on Aid Effectiveness highlighted the urgent need for aid to be more coordinated globally, and to be more aligned with the national priorities of the recipient countries through development of prepayment and pooling mechanisms (66) rather than the conventional project-based aid with separate pools. Thereby, creating opportunity for equitable resource redistribution (26).

DAH from major bilateral donors are channelled toward funding curative programs of a narrow group of diseases usually HIV/AIDS, TB, and malaria (65,66). While these programs have been significantly helpful in addressing specific health challenges, it does not directly benefit the entire population (47). Furthermore, they may not align with the country's overall health needs and priorities especially with the global epidemiological transition involving a rising incidence of Non-Communicable Diseases (NCDs), accounting for almost 60 percent of

the global burden of disease with 80 percent of deaths occurring in LMICs including Nigeria (69–71) yet the donor funding towards NCDs is almost invisible as shown on figure 8. below. However, service coverage for such disease-specific programs is usually very inclusive and does not incur any OOP expenses.

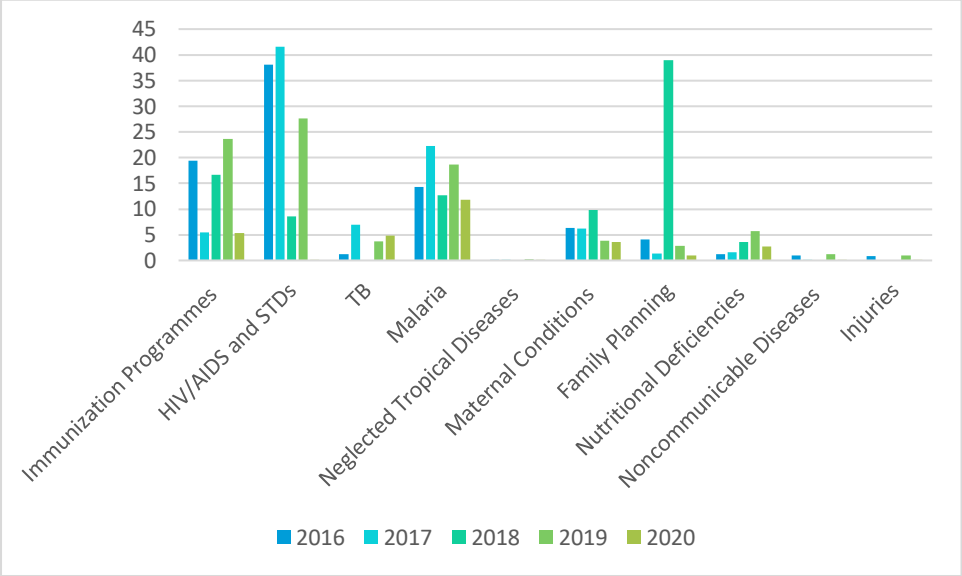


FIGURE 10. ***EXTERNAL SPENDING BY DISEASE CONDITIONS IN NIGERIA*** (22)**.**

Different donors use a variety of eligibility criteria for determining which countries receive DAH. Example of such criteria ranges from gross national income (GNI) per capita, population size, disease burden, aid performance, co-financing etc.(72). However, loosing eligibility for these criteria does not necessarily translate to equitable distribution of resources or reduction of disease burden in a recipient country (65).

PRIVATE FINANCING ARRAGEMENTS

Private sources of health financing in Nigeria include community -based financing, corporate health program, and households out of pocket expenditure.

I. COMMUNITY-BASED SOCIAL HEALTH INSURANCE PROGRAMMES (CBSHIP).

CBSHIP is a form of private health insurance program created under the informal social health insurance program (ISSHIP) of NHIS which only serve as regulators of the scheme. It is designed to reduce out-of-pocket payment for people who are unable to get employer-sponsored health insurance and do not qualify under the vulnerable group (73). The program can be started at least 1000 of any group of people including companies with less than 10 employees, artisans, religious groups, or rural dwellers etc. based on the concept of communal living and social solidarity,

CBSHIP is financed from the earnings of individuals, households, or contributions in kind; and additionally, the scheme may conduct special fund-raising events to solicit for donations from governmental, non-governmental and Civil Society Organizations to boost the financial base.

The CBSHIP operates on a membership-based model where membership fees and premium are paid at a flat rate irrespective of socio-economic status making it regressive and inequitable. The amount to be paid as premium is determined according to the design of healthcare benefit package. Inspite of this, the CBSHIP has a lower financial barrier to healthcare access than in OOP pocket payment because premium is paid in in advance and do not require payments at the point of care.

Participation in the CBSHIP is entirely voluntary, each participating community has a separate pool managed by the board of trustees (BoTs) elected by members of the scheme who collect premium from their members and purchase benefit services package from NHIS accredited health facilities, pay healthcare providers, and perform other administrative duties. However, depending on weather the scheme can afford it, the elected BoTs might require the service of a Technical Facilitator (usually accredited HMOs) to provide them with technical support.

The overall coverage by CBSHIP in Nigeria is not found in literatures, this might be due to poor documentation and accountability framework. However, the total voluntary health insurance in Nigeria has been at 1% of CHE since 2010 (22).

Studies has reported that the scheme has multiple fragmented pools with little capacity for redistribution of risk and very narrow diversity within the pool. Additionally it is highly prone to adverse selection whereby high-risk participants far outweigh low risk-participants of the scheme (74). This might be because the few rich and healthier individuals within the community are not willing to cross-subsidize for the poor and sick majority. If the healthier and richer segments of the community are willing to exclude themselves or do not join at a rate high enough to achieve sufficient cross-subsidization, then the aim is defeated.

There is no specified minimum package for the CBSHIP, it is set by the members of the scheme depending on the size of pool. In other words, the higher the premium, the more comprehensive the benefit package will be. The benefit package is designed based on the common disease and mortality profile of the community (75) including pre- & post-natal care of normal delivery, child welfare services (immunization), family planning and health education services.

Although many people are willing to participate in the scheme, enrolment rate was low at 15.5% in the non-successful community and 48.4% in the successful community ($p < 0.0001$) in Southwestern Nigeria (76) with high dropout rates (77). This could be due to non-affordability because the higher the premium, the smaller the number of people that will enrol in the scheme (73).

Despite these drawbacks in Nigeria, some states such as Lagos, Kwara and Anambra states were relatively successful with CBSHI by setting up a state health insurance fund, involving the support of all stakeholders and contracting the HMOs to provide technical support however the schemes result to gradual dropouts over the years leading to temporary suspension of the programs due to revenue deficits and accountability issues (78,79) .

II. PRIVATE HEALTH INSURANCE (PHI)

Private companies and organizations in Nigeria offer their employees health insurance through the Health Maintenance Organisation (HMO) which was established in the Act 35 of 1999 constitution under the NHIS to facilitate strategic purchasing of healthcare benefit package and to provide quality assurance in healthcare service delivery (15). Since then, the HMOs serve as third party purchasing agency for the NHIS by contracting and paying health

providers to deliver benefit package to NHIS enrolees. While NHIS licenses and regulates the activities of HMOs, HMOs process and pay capitation claims and fee-for-service bills, (25).

Over time, HMOs have emerged as a private for-profit firm selling private health insurance packages directly to private companies, organised groups, or individuals who either are not under any social insurance scheme or to NHIS enrolees who wants additional benefit package. So far, the HMOs has been successful in mobilizing revenue mostly from rich oil companies such Shell, Chevron,and financial institutions along with contributions from employees private corporations (companies with at least 10 employees) who are also allowed to join the FSSHIP but they often bypass the government for HMOs because HMOs provide a more comprehensive benefit package including curative and preventative care, better quality, and faster care than is being offered under NHIS. (80).

Currently, the PHI coverage in Nigeria is only about 0.8% of the population (approximately one million people). Each HMO operates small multiple pools through multiple administrative channels, with each pool serving separate segment of people based on the type of plan they subscribed to. Moreover, the health benefit package is intentionally designed to cover services according to the price of premium paid to increase their market shares and maximise profits. while important benefits such as maternal healthcare are restricted or excluded from employees of small companies and poor informal sector groups and less healthy groups are either denied or charged premiums according to their health risk (80). This is highly regressive and inequitable because the focus is more on the urban rich and corporate private sector while neglecting the poorer groups. HMOs have been charged with accountability issues and misconducts in the business operations with NHIS and private health facilities including fraud and delayed payment (48,81).

III. HOUSEHOLDS OUT-OF-POCKET EXPENDITURE

OOP Payment is a voluntary payment made directly to healthcare providers at the point of care without any prepayment mechanism or reimbursement by a third party, such as the government, a health insurance fund, or a private insurance company.

Out-of-pocket payments could be financed solely by individuals or households from personal

finances including income, earnings, savings, borrowing or charity, with no central pool and certainly no benefit package, funds are usually collected and managed by the head or a representative of the household in the event of a health need (47).

Because healthcare cost is charged at a flat rate irrespective of socio-economic status or the health need of an individual (17),it is considered the most regressive financing mechanism therefore, a huge source of health inequity in Nigeria and goes against the principle of equity in UHC.

In 2020, an estimated 77.5% of total health expenditure was financed from out-of-pocket (OOP) paid directly at the time of accessing healthcare without any form of prepayment arrangement or subsidy. OOP payment is the dominant source of health financing in Nigeria and has been at nothing short of 70%, since over a decade ago as shown on Table 1. Meanwhile, the recommended minimum standard towards UHC is when OOP payments fall to 15–20% of total health expenditures, at this level, the incidence of financial catastrophe and impoverishment becomes negligible (8).

Due to this over-reliance on OOP payment in Nigeria, many private healthcare providers take advantage of the situation by demanding that payment deposits be made before a patient is even given an audience.(32).

As a result, individuals decide where and when to purchase services according to their ability to pay causing many people to patronize alternate healthcare from unqualified providers who seem to offer their merchandize at a cheaper price. This practice is so widespread in Nigeria that even treatment for a major medical condition are commonly accessed from street medicine vendors or private clinics (82). While others will opt for self-medication or traditional medicine.

LINKING CHALLENGES THROUGH UHC'S INTERMEDIARY OBJECTIVES

EQUITY IN FINANCING

I. SUB-OPTIMAL AND INEQUITABLE ALLOCATION OF FUNDS DUE TO FEDERAL SYSTEM OF GOVERNANCE

The health system in Nigeria operates through a system of federalism which is characterized by decentralization and fiscal autonomy whereby the federal government lack the constitutional power to exercise authority over the states government or the LGAs in matters of health financing and policies, therefore they receive health fund from the federal government without being accountable in return (46). This weakens political commitment to health and makes it easy for fraudulent activities in the flow of health revenue.

The financing of public health depends on the flow of funds from the federation account to the States and from the states to the Local Governments using an allocation formula that keeps about half at the federal level, allocates a quarter to the 36 states, and the states allocates the other quarter to the LGAs (83,84). This makes the LGAs fiscally dependent on the states despite being officially responsible for PHCs being the bulk of health service delivery in the country (55). Yet, the states are constitutionally unaccountable to the federal government over budget implementation.

This system of governance has poor accountability measures that makes it prone to corruption which transcends into the HFS. This is why most of the UHC targeted reforms such as the NPHCDF and BHCPF designed with good intentions of benefitting the poor usually end up at the mercy of corruption. For example, there have been reported evidence of conflicting official data on the actual estimates of BHCPF in the national health budget of 2022. While some are also pointing to ₦54 billion, others show ₦56 billion (49).

II. INSUFFICIENT FUNDING DUE TO POOR POLITICAL COMMITMENT TO HEALTH

Public financing arrangements for health which is basically tax-based is considered the best option towards UHC (85–87). Nevertheless, the Nigerian government are yet to give health

the level of political commitment it deserves (16). This is being manifested in the frequent medical trips abroad made by the elites and the political class (88), it is also evidenced by the level of government spending on health which has been consistently low, far below the minimum standards since the last decade as presented on Table 1.

Additionally, the level of donor funding has been inconsistent and unpredictable, the global trend of declining donor funding to LMICs further threatens the sustainability of public revenue for health in Nigeria and many countries that are growing economically are expected to prepare for the withdrawal of DAH based on certain eligibility criteria used by different donors (37,65,66,72,89,90). the most common criteria being the economic growth of a country which does not necessarily reflect equitable distribution of the national resources and the benefits might be skewed towards a few rich proportions of the country leaving the poor majority disproportionately impacted by aid withdrawal. Donor funds in Nigeria, accounts for more than half of government spending on health. Therefore, it is a very crucial source of revenue for health, reducing or withdrawing this fund will have a serious impact on Nigeria's fiscal space for health.

CROSS-SUBSIDIZATION

I. MULTIPLE FRAGMENTED POOLS DUE TO THE FEDERAL SYSTEM OF GOVERNANCE

The governance of HFS in Nigeria follows according to the federal system of governance in the country whereby health revenue must pass through several hierarchical systems to get to the grassroots. This has created multiple fragmented pools with corresponding agencies to manage them resulting poor co-ordination of numerous health programs within government agencies and between the government and the private sector including the external donors.

Results from this study shows that each source of health revenue in Nigeria goes into separate pools which is further fragmented along institutional and programmatic lines. For example, health revenue from the government is divided among ministries of health, PHCDA and other government agencies,

The NHIS operates various programs including the formal sector social health insurance scheme, state health insurance scheme, community-based health insurance programs. Each program operates a separate pool with separate administrative agencies serving a certain

population group with a high probability of having similar socio-economic status and health risk. Additionally, each pool has a different health benefit package is usually designed based on the cost of premium paid into a pool rather than the health need of that population.

These small, fragmented pools defeat the aim of cross-subsidization because it weakens the capacity of the HFS to redistribute pooled revenue equitably across a wider population where the sick can subsidize the healthier and the richer ca subsidizes the poorer. A lack of sufficient cross-subsidization also means inequity as the richer and healthier population are segregated into separate pools from the poorer and sicker population.

This is a major cause of allocative inefficiency in the system because fragmented pools incur higher administrative costs than if they were merged into a single pool (38) due to the involvement of multiple agencies in its administration. (31,60).

II. LARGE INORMAL SECTOR AND INEFFECTIVE TAX SYSTEM

There are ongoing literary debates about which is a better financing mechanism for UHC - SHI premium contributions or tax-based revenue. Some have argued that premium contributions are more predictable and its direct link to health entitlements makes the population more willing to pay compared to general taxes which is subject to fluctuating political-economic cycle(37); others have argued that tax based revenue is more sustainable in the long term (91,92). Either way, both sides recognize the need for an effective tax system to achieve their aim of providing sufficient prepayment funding for health.

The major challenge in Nigeria is a how to enforce tax and premium contributions from a large informal sector and how to raise sufficient revenue to pay for the poor and vulnerable group who cannot afford health insurance premium (7). The Joint Tax Board in December 2016 listed the number of individual payers on the tax roll in Nigeria at approximately 14 million (14%) compared with 103 million potential labor workforces reported by the National Bureau of Statistics. The remaining 86% of the workforce are in the informal sector outside of government regulation (37).

Moreover, an estimated 75 percent of registered companies in Nigeria are not in the tax net, 65% of those in the tax net do not file returns or pay taxes. This translates to less than 9% of all companies operating in Nigeria paying taxes, even the government – the largest employer

– is not fully compliant in deducting and remitting taxes on salaries of their workers and only about 12% of registered entities remit VAT (37).

Studies have shown that it is difficult for countries with large informal sector to achieve FP through contributory insurance schemes particularly from unregistered self employed or unemployed individuals (87). This is true for Nigeria as well since enrolment NHIS is tied to payroll taxes and majority of the population are not on payroll. This makes it challenging to mobilize sufficient prepayment funds to provide FP for such large informal population.

ALLOCATIVE INEFFICIENCY

POOR COORDINATION DUE TO INEFFECTIVE LEGAL AND ADMINISTRATIVE FRAMEWORK

The multiple fragmented pools of health funds in Nigeria gives rise to multiple administrative systems to manage the pools. This has plagued the HFS with poor-coordination and accountability issues which can be traced to a weak legal framework. Many of the financing institutions are set up with minimal clarity on the structure and scope of governance, or purpose which makes it easier for conflict of interest, fraudulent practices, corruption, and mismanagement (93).

The Nigerian health financing system is crippled by the multiple administrative systems involved in the management of pooled funds whose role often overlap. For example, the LGAs is officially responsible for PHC in the country, all levels of government are implementing PHC services. In fact, the NPHCDA is set up at the national and state levels with none at the LGA. Similarly, the disbursement of the BHCPF among FMOH, NPHCDA, and NHIS and their states counterpart is inequitable because the local government is excluded despite being the jurisdiction having the most poor and vulnerable population for whom the fund was created.

Additionally, is a conflict of roles and interest between NHIS, HMOs and Providers that resulted to a messy blame game, NHIS have accused HMOs of colluding with private providers to defraud the system, providers accused HMOs of delaying and denying payment (94). NHIS has also been accused of corruption and nepotism especially contracting services of unqualified operators (95), the scheme has faced high level political interference that led to frequent changes of leadership structure (48).

Similarly, the management and leadership of the ministry of health has been charged with

fraud and corrupt practices including nepotism and misappropriation of funds in the sector's development (96). Furthermore, the CBSHIP has been operating without a clear administrative framework, its been left in the hands of community leaders to manage as they dim fit irrespective of their technical capacity to do so (97), this has discouraged many potential enrollees from enrolling in the scheme due to mistrust in its credibility (77).

The lack of coherence in the administration of healthcare services has plagued the HFS in Nigeria both within and across the health financing arrangements. This is problematic to FP because it incurs higher administrative costs which significantly reduces the amount of funds that should be directed towards addressing actual health issues leaving the population vulnerable to OOP expenditure and financial hardship.

DISCUSSION

The health financing arrangements in Nigeria was broadly categorized as public or private. This section provides a summary of the findings and what its supposed to achieve. The challenges will also be discussed along showing their interactions according to the pattern of

the framework.

REVENUE GEERATION AND EQUITY IN FINANCING

Government revenue is generated from general taxes which makes it relatively predictable overtime and provides the platform for prepayment health spending. However, it has been very low compared to a stable GDP of about USD 500 in Nigeria. This is consistent with the global report *''Global Spending on Health: a World in Transition, 2019''* (98) which emphasised that economic growth does not automatically translate to better health financing and that setting health priorities in the national budget allocation is purely a political choice by the government and its citizens .

One of the major reasons for low government funding is that the health system is intertwined with the federal system of governance which confers constitutional autonomy to the states over health financing under their jurisdiction including the LGAs. Making them unaccountable, self-reliant, and lacking the political will for health.

Furthermore, all 3 levels of government are receiving budgetary allocations because they are all responsible for health service delivery at different levels of care. Therefore, health revenue flows from the federal to the state's government and from the states to the LGAs making it easily subjected to fraud and corruption.

Additionally, the revenue is inequitably allocated using an allocation formula that is incommensurable to the level of responsibility. For example, the higher levels of government are allotted the highest health revenue for the implementation of curative healthcare and programs involving a narrow set of infectious diseases such as TB, and HIV/AIDS. While the LGAs are allotted the least revenue despite being responsible for the provision of PHC being the most basic and needed healthcare in the country. These findings is supported by Uzochukwu et al who expressed their frustration about the inequitable allocation of revenue across the 3 levels of government despite overall low government funding (31).

Another public financing arrangement is the DAH, while it contributes significantly to disease control in Nigeria, it only accounts for only about 10% of total spending on health and is declining globally. Therefore, not reliable option for Universal FP in the long run. This is also echoed in a global report by the WHO that donor aid accounts for only 0.2% of global health spending and has been shrinking in recent times therefore countries should prepare to

transition from over-reliance on it (98).

The private health insurance in Nigeria including the CBSHI has shown weak capacity to provide FP with a total coverage of less than 1% of the population. Leaving the system with no other option but an outrageous OOP health expenditure of over 75% of the population which is disproportionately inequitable and against the principles of FP.

POOLING AND CROSS-SUBSIDIZATION

Findings from this study also revealed that the HFS is structured after the federal system of governance in Nigeria which implies that government revenue is fragmented into multiple pools with numerous administrative agencies that are operating at different level of government independent of each for example the FMOH, NPHCDA and the NHIS along with their exact replica at the subnational levels are further sub-divided into several departments, agencies, and parastatals (DAPs) for the implementation of different health programs. Even within NHIS in a bid to expand coverage has created multiple programs with each operating from a separate pool and serving different segment of the population.

This multiple fragmented pool of funds across the HFS in Nigeria defeats the aim of cross-subsidization which is necessary for sharing of health risk across a large and diverse population which is also promotes equity and sustainability of the HFS. This is consistent with the findings by J.Kutzin et al which reinforces a direct implication of a politically decentralized system and sub-functions of HFS (pooling and purchasing) (42).

Interestingly, NHIS seems to be just another extension of government scheme and does not complement government funding as its being reinstated in literatures (1). This is so because NHIS financed by additional government revenue like the BHCPF aside the traditional government subsidies and payroll taxes of government employees. This seems to be a global trend as highlighted in a global report that the share of public spending flowing through social health insurance is increasing rapidly in LMICs (98).

While the report states that the implication of this trend on UHC is still unclear, arguably it has not made much progress in Nigeria. However, the ongoing widespread adoption of the state health insurance scheme gives a renewed hope for its expansion especially if proper

accountability and administrative framework is put in place.

It is surprising to note that literature search for this study yielded a lot of articles on NHIs while literatures on other health financing arrangement was scarcely available especially government schemes like the ministry of health and the NPHCDA. This could be because of a widespread misconception between policy tool and policy objective as highlighted in a publication by J. Kutzin who clarified that NHIS is only a policy tool (a means to an end) not the objective (the end in itself), he further explained that many well-meaning health reforms targeting UHC have often focused on establishing or refining insurance schemes, while the efficiency and equity of the broader system are either assumed or neglected entirely. Thereby, imposing unnecessary limits on the range of policy choices available to countries (45).

This misconception is reflecting in Nigeria where NHIS has been overemphasized as the mechanism for achieving FP considering that the scheme has become very political, even the executive secretaries and managers of the scheme are politically elected whose tenure has been very unstable over years (99)'

Besides, the regular allocation of special government funds such as the BHCPF through the scheme, diverts resources away from other important areas such as the PHC and overlooks the role of other pooling agencies like the FMOH and its DAPs who are receiving the largest share of health revenue from the government.

Private health insurance through the HMOs on the other hand is putting in the effort to get the private corporations to subscribe to PHI thereby generating additional revenue for health and expanding prepayment mechanisms in the country. However, it is still inequitable because it is profit-driven and excludes the poor therefore does not promote universal FP.

PURCHASING AND ALLOCATIVE EFFICIENCY

The multiple fragmented pools are being managed by numerous administrative agencies both within the government and in the private sector which is further exacerbated by the numerous external donor programs being implement across the country. These agencies are not unified in their operations and do not align with the national strategic health plan resulting in role confusion, conflict of interest and duplication of efforts-this is a major cause of inefficiency in

the system because poor co-ordination results in a diversion of funds into servicing administrative costs instead of actual health service delivery. It is no surprising that a study by Obi et al states ‘‘the dysfunctional structure of the Nigerian health system stands in the way of good management and proper co-ordination’’ (65).

Consequently, OOP expenses takes the centre stage in the Nigerian HFS because revenue is being used to purchase mostly curative health services of narrow set of diseases including HIV/AIDS, TB, Malaria and child vaccination in almost all the financing arrangements while treatment for other important disease burden such as childhood pneumonia, cancer, diabetes and hypertension, injuries and other NCDs are being ignored and left for OOP payment with high user fees.

CONCLUSION

The health financing system (HFS) in Nigeria is characterized by a dichotomy between public and private financing arrangements. Public sources include government tax revenue, NHIS and DAH while private sources include the private health insurance, CBSHI and the household OOP

expenditure.

The decentralization of the health system within the model of federal system of governance in Nigeria contributes to low government funding. This system follows multiple administrative systems with overlapping functions which breeds fragmentation, corruption, and unequal resource distribution that disproportionately affects the poor. This is further aggravated by the numerous poorly coordinated donor spending in the country.

Overall, majority of health funding from public sources is spent on disease-focused health programs which is incommensurate with priority disease burden of the population.

It is worth noting that both the private sources of financing and the NHIS have been too weak to complement government funding in Nigeria, they are regressive in financing and inequitable in their enrolment. Owing to their link with payroll taxes inspite of a large informal sector.

Generally, findings this study reveals that health revenue in Nigeria is inadequate, inequitably allocated and highly fragmented both within and across health financing arrangements leading to poor coordination, conflicting functional roles, and inefficiency. These challenges disrupt the pathways of UHC's intermediate objectives towards achieving universal FP and causes majority of the population resort to OOP spending which currently dominates the HFS in Nigeria.

Conclusively, this study effectively addressed all four research objectives. The findings provide a comprehensive understanding of the organizational structure of HFS in Nigeria; how revenue is generated, pooled, and purchased. It also identified challenges along UHC's intermediate objectives of equity in financing, cross-subsidization, and allocative efficiency and what they imply to the system's capacity to achieve financial protection.

This study also shows that progress towards financial protection and UHC can better be achieved when the nitty gritty of the HFS and the UHC's intermediate objectives are considered comprehensively into health financing reforms rather than when considered in solitude because all the identified challenges along the UHC intermediate objectives interact with each other and must be addressed collectively to make significant strides towards FP.

Finally, insights from this study contributes to the body of knowledge by providing a

framework of how financial protection can be assessed based on the organizational capacity of the HFS towards achieving it.

RECOMMENDATIONS

1. UNIFICATION OF FUNDING POOLS

Both government revenue and DAH constitute public funding which is considered the major route to reducing OOP expenditure and increasing financial protection. Yet, findings from this study reveals that government revenue are channelled through the FMOH and its multiple parastatals, NPHCDA and NHIS to other sub-levels of government. Within these agencies, funds are further sub-divided among programs and stakeholders. Similarly, majority of DAH operates separate pools running multiple overlapping programs outside of government regulation.

Findings from this study also shows that there exist different pools for each program under NHIS including the federal pool and states pools for formal government employees and the BHCPF for the vulnerable group.

Therefore, this study recommends unifying the pools in the following manner:

I. A JOINT FUNDING BASKET FOR BOTH DOMESTIC AND EXTERNAL FUNDS

In agreement to the 2005 Paris Declaration on Aid Effectiveness, this study recommends that all government revenue and all DAH coming into the country on-budget or off-budget should be channeled into a single pool under the management of FMOH just like in the case of Afghanistan where all domestic government resources and on-budget external assistance were merged into a single pool managed by the Ministry of Public Health at the national level (100). This will greatly enhance coordination and collaboration between different levels of government and external donors as well as accountability and efficiency.

I. A SINGLE NATONAL NHIS POOL OR SIX REGIONAL POOLS

It is recommended all pools under NHIS be merged into a single national pool serving all enrolees or at least the 36 states pools should be merged into 6 regional pools corresponding to the 6 geo-political zones in Nigeria. This will enable cross-subsidization across a wider population, expand coverage and promote equity as proven successful in Ghana and Rwanda when their multiple social health insurance schemes were merged into a single national scheme under a single pool.

2. *SCALE-UP EFFECTIVE TAX COLLECTION SYSTEM*

Revenues from tax collection has proven to be a sustainable source of general government revenue which has a significant influence on fiscal space for health both for level of funding and equity in contribution (9,101). In 2021, the general revenue to GDP ratio in Nigeria at 7.3 percent (102) despite the fact that the informal sector accounted for 65% of GDP in 2017. An efficient collection of corporate and business taxes, particularly on profits derived from natural resources like oil and solid minerals. fuel makes up about 90% of foreign exchange in Nigeria. Therefore, levying proper amount of taxes on oil companies would substantially increase revenue base equitably. Therefore, it is recommended that the Federal Inland Revenue Service (FIRS) develop more effective tax policies and administration as is being successfully implemented in Lagos state using the electronic system(7).

3. *ADVOCACY AND LOBBYING*

The World Health Report 2010 states that low income countries could raise an additional US$ 15 billion per year in health revenue by increasing health's share of total government expenditure (8). However, governments will not just decide prioritize health more than other

competing national priorities without some form of pressure or influence. Advocacy is a powerful tool through which influence is exerted to contest for better investment of resources into health. Study has shown that the FMOH have a very weak investment case for health along with poor involvement of civil society which has led to low financing (103).

Therefore, this study calls out to health policy makers, leaders, and administrators of the health sector in Nigeria to highly consider using the advocacy tool for more political commitment and investment in health.

LIMITATION OF THE STUDY

Nigeria is a diverse country with significant regional variations in terms of health infrastructure, economic development, and healthcare access. The framework may not have accounted for these regional disparities in health financing.

Furthermore, the citizens of Nigeria are the rights holders, and they have the power to decide about how their health should be financed yet, the framework failed to capture their role. The voice of the people seems muted even in literatures although there are powerful groups such as the community leaders, civil societies, and other NGOs.

The full financing landscape including operations, funding flows and challenges of the ministries of health and NPHCDA were not fully explored as intended because literature search returned very limited data about them, even their website was highly restricted. They were further contacted through their email on the website, but no response was received yet.

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ANNEXES

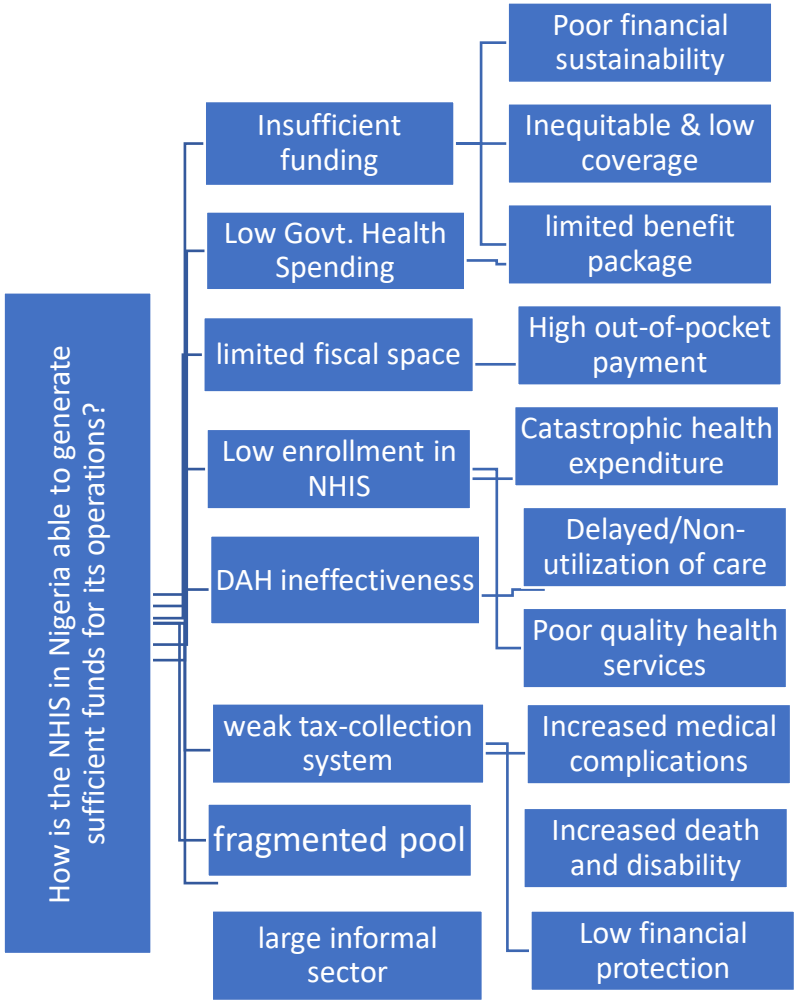

Figure1: Mind map

MESH TERMS

	PROBLEM/ISSUE TERMS	AND	FACTOR-RELATED TERMS	AND	GEOGRAPHICAL SCOPE TERMS
OR	Health insurance Insurance coverage Insurance scheme Government scheme Social health insurance Compulsory social insurance Cross-subsidization National insurance Health equity Health financing system Financing health insurance Donor aid Strategic purchasing NHIS FMOH NPHCDA Fragmentation		UHC Financial protection* Health Policy Health Reform Out-of-pocket payment Health budget Healthcare expenditure Catastrophic health expenditure Health spending Impoverishment Sustainable financing Health Funding Budget Pooling Revenue generation* Premium Risk pool		Africa Sub-Saharan Africa West Africa Nigeria LMIC Vulnerable population

	purchasing		Health resources Resource efficiency* Health account		